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SPACE FLIGHT HANDBOOKS

Volume 3

Planetary Flight Handbook

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Lockheed Missiles and Space Co.,
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SPACE FLIGHT HANDBOOKS.

Volume 3:

Planetary Flight Handbook

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For Vol. 1 See NASA SP-33
For Vol. 2 See NASA SP-34

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This volume is part of a series of Space Flight Handbooks. The complete series consists of the following:

Volume 1 Orbital Flight Handbook, NASA SP-33

- Part 1
- Part 2
- Part 3

Volume 2 Lunar Flight Handbook, NASA SP-34

- Part 1
- Part 2
- Part 3

Volume 3 Planetary Flight Handbook, NASA SP-35

- Part 1
- Part 2
- Part 3

EXPLANATORY SUPPLEMENT TO PARTS 2 AND 3

Parts 2 and 3 present tabulations of trajectory data for scheduling flights to and from Venus and Mars during the period 1960-2000. Part 2 contains information for outbound flights to these planets; Part 3 contains information for trajectories returning from the planets to Earth. Each Part contains data for single-plane transfers, as well as for broken-plane transfers which employ a midcourse plane-change to eliminate the high speed "ridges." The mathematical analyses employed for all calculations are described in Part 1 of this handbook.

To facilitate the construction of round-trip trajectories, the date at the target planet is held fixed while the trip duration is varied in 10-day increments from zero days to the length of that planet's synodic period with Earth. Dates of arrival *at* the target planet are presented in the extreme right-hand column of Part 2, and dates of departure *from* the target planet are presented in the extreme left-hand column of Part 3. Thus, by holding Part 2 directly to the left of Part 3, the analyst may easily and rapidly scan all trip possibilities which involve any desired stopover time at the target planet.

Within approximately ± 200 days of each conjunction or opposition, data are presented in 10-day increments at the target planet. Only those trips are listed for which the hyperbolic excess speeds at either or both ends of the trajectory do not exceed 0.6 EMOS.

For the remaining mission regions, the requirements are so smoothly varying that a 50-day interval in dates at the target planet may be employed; the 10-day interval in trip times is, however, preserved here. In these regions, only those trips are listed for which either or both speeds do not exceed 0.3 EMOS.*

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*This subject is discussed at greater length in Part I.

For each departure-arrival date pair, all trajectories are listed which connect the given planets on those dates. This tabulation accounts for all possible multiple-circuit arcs but does not include retrograde heliocentric flights.

The machine program used to generate the tables contains an internal ephemeris routine which treats all planetary orbits as eccentric, mutually inclined ellipses which are fixed in space. The planetary orbital parameters adopted for the program have been extracted chiefly from the Explanatory Supplement to the British Ephemeris and are presented in Tables 2 and 3, Part 1 of this handbook; they are not purported to be the most accurate or up-to-date values obtainable for these constants; however, they are entirely in keeping with the fixed-ellipse model adopted for the calculations, and also with the limited-accuracy requirements for preliminary design data.

The information is arranged in convenient columnar groupings. As mentioned above, dates are presented at either the extreme left or the extreme right of each page. The remaining data are divided roughly into three sections, comprising (reading from left to right) six columns of parameters pertinent to the departure operation, six columns pertinent to the heliocentric phase, and six columns pertinent to the arrival operation. The departure and arrival groupings are each further subdivided into listings of heliocentric and planet-centered data. Hyperbolic excess speeds, which are generally of foremost preliminary concern, are placed as far toward the side margins as is possible, to facilitate rapid scanning.

The use of these data for trips to Mars during 1980-2000, and for trips to Venus during 1964-1970, 1986-2000, is discussed in Part 1.

The data were calculated on the IBM 7094 computer, and listed on the IBM 1401 printer. Master sheets were photographically reduced by 50 percent for the present printing.

Conventions and Symbols for Single-Plane Transfers

Column	Symbol	Explanation
1	SPEED	Magnitude (speed) of hyperbolic excess departure velocity vector, normalized to Earth's mean orbital speed.
2	R A	Right ascension of hyperbolic excess departure velocity vector (hyperbola asymptote); measured in degrees along the local planetary equator eastward from the "vernal equinox," i.e., where the Sun's path rises above the departure planet's equator. For Venus, since the orientation of the planetary North Pole is unknown, the equator has been assumed coplanar with the orbit, and the "vernal equinox" of Venus is taken in the direction of its orbital perihelion.
3	DECL	Declination of hyperbolic excess departure velocity vector, measured in degrees positively northward and negatively southward from the planet's equator.
4	I 1	Inclination of transfer orbit to departure planet's orbit, in degrees; zero is forward, -90° is perpendicular southward, +90° is perpendicular northward, and ±180° is backward.
5	V 1	Heliocentric speed of departure, normalized to Earth's mean orbital speed.
6	PSI 1	Heliocentric angle of departure, in degrees; measured counterclockwise from the outward heliocentric radius vector to the departure velocity vector in the transfer plane. (See Fig. A.)
7	ECCEN	Eccentricity of heliocentric transfer orbit.
8	SMA	Semimajor axis of the transfer conic, in AU .
9	THET 1	True anomaly of departure point, measured in the transfer orbit in degrees, reduced to $0 \leq \theta_1 \leq 360°$. (See Fig. A.)
10	THET 2	True anomaly of arrival point measured in the transfer orbit, in degrees; THET 2 minus THET 1 equals the heliocentric transfer angle L. (See Fig. A.)
11	PERIH	Perihelion distance of the transfer conic, in AU . This value is listed only if the vehicle traverses the perihelion during the transfer.

12	APHEL	Aphelion distance of the transfer conic, in AU . This value is listed only if the vehicle traverses the aphelion during the transfer.
13	I 2	Inclination of transfer orbit to arrival planet's orbit, in degrees; if approach is directly from the rear (i.e., the arrival vector points in the same direction as the planet's motion), then I 2 = 0° , etc.
14	V 2	Heliocentric arrival speed, normalized to Earth's mean orbital speed.
15	PSI 2	Heliocentric angle of arrival, in degrees, measured clockwise from the inward heliocentric radius vector to the arrival velocity vector in the transfer plane. (See Fig. A.) Note that this angle is measured opposite in sense to PSI 1 .
16	R A	Analogous to departure velocity case; note, however, that this is the right ascension of the position at which the arrival velocity vector would emerge again from the planet's celestial sphere. This convention for reckoning asymptote directions is useful when calculating flyby round trips. When the trajectory is unperturbed by the target planet, the approach and departure asymptotes have exactly the same right ascensions and declinations. By noting the discrepancies between the two asymptotes in other cases, the analyst may obtain a rough but rapid estimate of the bend angle without performing trigonometric calculations.
17	DECLIN	Declination of the position at which the arrival velocity vector would emerge again from the planet's celestial sphere.
18	SPEED	Magnitude (speed) of hyperbolic excess arrival velocity vector, normalized to Earth's mean orbital speed.

The following two listings appear on the right-hand side of the page for transfers from Earth to the target planet, and on the left-hand side, in this same order, for transfers from the target planet to Earth.

19	DEPART	Julian date of departure, reckoned from JD 240-0000.
20	ARRIVE	Julian date of arrival, reckoned from JD 240-0000.

The following conventions and symbols apply to the listings of broken-plane transfers (using midcourse plane changes):

4	I 1	Inclination of the first transfer plane to the departure planet's plane of motion. Conventions are analogous to the single-plane transfers.
6	PSI 1	Heliocentric departure angle, measured in the first transfer plane. Conventions analogous to the single-plane transfers.
7	MID-V	Heliocentric speed (in EMOS) immediately before application of the plane change.
8	KICK-V	Incremental velocity required for the plane-change maneuver, in EMOS. Positive quantity signifies an impulse applied northward; a negative quantity signifies a southward-directed impulse application.
9	DATE	Date of application of the plane-change maneuver, reckoned from JD 240-0000
12	I 2	Inclination of the second transfer plane to the arrival planet's plane of motion. Conventions analogous to the single-plane transfers.
14	PSI 2	Heliocentric arrival angle, measured in the second transfer plane. Conventions analogous to the single-plane transfers.

All other quantities are exactly equivalent in sense to the single-plane transfer cases.

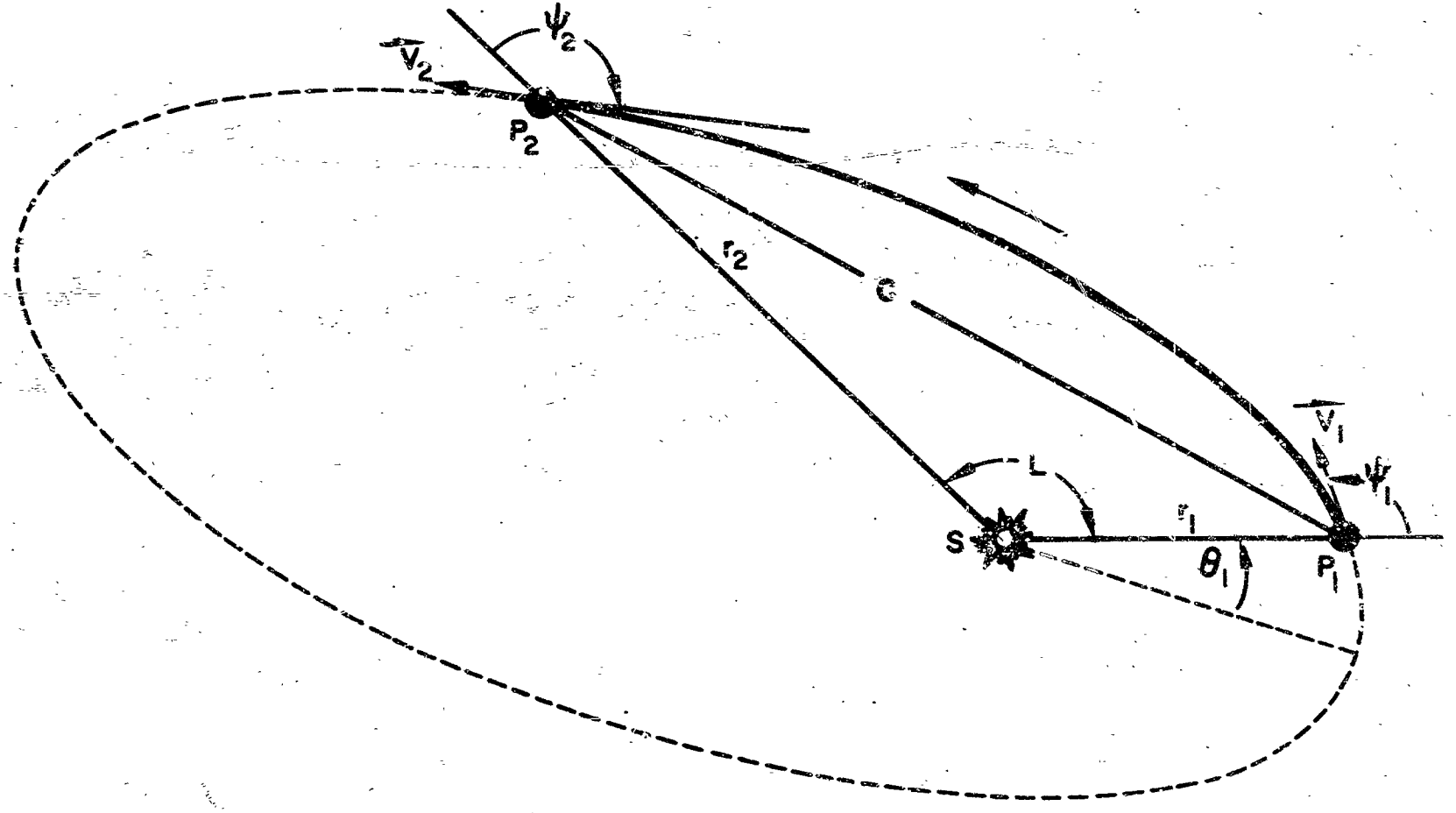

Fig. A Relationships in the Transfer Plane

SINGLE - PLANE TRANSFERS

VENUS TO EARTH

1970 - 1986

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 800	4- 860	0.591	264.2	9.2	3.65	1.565	108.1	0.798	3.196	318.9	438.4	0.646	---	-0.60	1.298	126.0	12.3	4.3	0.746
4- 800	4- 870	0.470	266.8	11.4	3.78	1.457	105.7	0.587	1.580	316.9	446.8	0.453	---	-0.68	1.171	119.4	17.6	6.2	0.592
4- 800	4- 880	0.384	268.5	14.1	3.96	1.387	103.4	0.450	1.201	315.5	454.8	0.661	---	-0.80	1.085	115.0	23.0	7.8	0.475
4- 800	4- 890	0.321	269.7	17.6	4.23	1.340	101.5	0.357	1.040	314.7	463.9	0.669	---	-1.03	1.026	110.8	28.4	8.9	0.382
4- 800	4- 900	0.278	270.5	22.5	4.74	1.308	99.9	0.293	0.956	314.4	473.6	0.676	---	-1.48	0.987	106.9	33.7	8.7	0.309
4- 800	4- 910	0.258	271.5	31.8	6.14	1.286	98.6	0.248	0.908	314.1	483.8	0.682	---	-2.84	0.960	103.5	39.3	4.3	0.253
4- 800	4- 930	0.179	269.4	1.8	7.26	1.262	96.9	0.196	0.866	315.3	504.9	0.691	---	3.13	0.932	97.7	33.0	31.8	0.169
4- 800	4- 940	0.172	269.5	138.9	7.90	1.256	96.5	0.184	0.849	315.5	515.3	0.693	---	1.55	0.924	95.2	33.8	2	0.133
4- 800	4- 950	0.169	269.8	108.3	2.44	1.253	96.3	0.176	0.842	315.4	525.4	0.694	---	1.05	0.920	93.1	29.2	21.2	0.112
4- 800	4- 960	0.170	270.5	23.4	2.73	1.251	96.3	0.173	0.839	314.7	534.8	0.694	---	0.81	0.918	91.1	21.9	17.1	0.102
4- 800	4- 970	0.175	271.6	21.2	2.92	1.250	96.5	0.175	0.838	313.3	543.6	0.692	0.984	0.68	0.916	89.2	14.6	12.9	0.102
4- 800	4- 980	0.184	273.2	21.1	3.06	1.251	96.9	0.180	0.838	311.1	551.6	0.688	0.989	0.60	0.915	87.5	9.8	9.6	0.112
4- 800	4- 990	0.197	275.2	20.4	3.17	1.252	97.6	0.189	0.840	308.2	558.9	0.682	0.999	0.56	0.915	85.7	8.2	7.8	0.128
4- 800	4-1000	0.214	277.6	19.3	3.27	1.255	98.5	0.201	0.843	304.7	565.4	0.673	1.012	0.53	0.915	84.0	9.3	7.6	0.149
4- 800	4-1010	0.237	280.2	17.8	3.36	1.255	99.6	0.218	0.846	300.4	571.2	0.661	1.030	0.52	0.915	82.7	12.5	8.3	0.174
4- 800	4-1020	0.267	283.2	16.1	3.45	1.257	101.1	0.241	0.850	295.4	576.3	0.645	1.054	0.53	0.915	80.0	17.2	9.9	0.204
4- 800	4-1030	0.307	286.4	14.3	3.55	1.259	103.1	0.270	0.854	289.7	580.5	0.623	1.084	0.56	0.915	77.6	23.1	11.9	0.241
4- 800	4-1040	0.359	289.9	12.5	3.67	1.261	105.7	0.309	0.858	283.1	583.9	0.593	1.123	0.61	0.915	74.6	30.0	14.2	0.286
4- 800	4-1050	0.430	293.8	10.6	3.80	1.264	109.2	0.361	0.863	275.4	586.0	0.551	1.175	0.69	0.916	70.9	37.9	16.8	0.344
4- 800	4-1060	0.530	298.4	8.7	3.99	1.267	114.0	0.434	0.868	266.2	586.6	0.491	1.245	0.82	0.916	65.8	47.2	19.3	0.423
4- 800	4-1060	0.929	328.4	2.9	3.99	1.035	138.8	0.767	0.594	210.2	890.6	0.138	1.049	0.82	0.554	117.3	145.7	14.5	0.557
4- 800	4-1070	0.677	304.0	6.9	4.27	1.270	121.2	0.539	0.874	254.4	584.6	0.403	1.345	1.05	0.918	58.5	58.2	21.8	0.538
4- 800	4-1080	0.885	329.3	3.3	4.27	1.310	136.6	0.748	0.576	209.6	899.7	0.145	1.007	1.05	0.500	90.8	129.3	19.6	0.495
4- 800	4-1090	0.974	331.3	3.0	4.78	1.004	142.0	0.805	0.572	206.1	906.0	0.111	1.032	1.52	0.482	67.2	119.4	21.9	0.582
4- 800	4-1150	0.714	107.0	3.5	2.36	1.274	56.1	0.577	0.882	109.1	496.9	0.374	1.390	-1.12	0.913	124.2	249.3	-23.6	0.561
4- 800	4-1140	0.556	113.7	5.5	2.67	1.277	64.0	0.469	0.888	95.4	492.7	0.472	1.305	-0.96	0.917	116.8	262.4	-24.9	0.446
4- 800	4-1130	0.447	119.6	7.7	2.85	1.280	69.5	0.393	0.895	83.7	490.6	0.543	1.246	-0.72	0.922	111.8	274.5	-25.0	0.369
4- 800	4-1120	0.366	125.5	10.2	3.01	1.283	73.6	0.339	0.901	73.0	489.4	0.596	1.206	-0.63	0.927	108.4	285.9	-24.4	0.317
4- 800	4-1170	0.303	131.8	13.0	3.12	1.286	76.9	0.299	0.907	62.5	488.4	0.636	1.178	-0.57	0.932	106.9	297.1	-23.0	0.281
4- 800	4-1180	0.253	139.2	16.4	3.22	1.289	79.7	0.270	0.913	51.8	487.4	0.667	1.160	-0.54	0.938	104.4	308.0	-20.8	0.257
4- 800	4-1190	0.776	99.0	4.0	3.31	1.202	51.6	0.622	0.762	124.9	570.1	0.288	1.235	-0.53	0.816	56.0	187.0	-3.7	0.545
4- 800	4-1190	0.212	148.6	20.4	3.31	1.292	82.2	0.249	0.929	40.7	485.9	0.691	1.149	-0.53	0.945	103.3	318.8	-18.1	0.241
4- 800	4-1200	0.691	102.4	5.0	3.40	1.213	56.2	0.560	0.778	118.1	572.9	0.343	1.214	-0.53	0.836	60.2	194.3	-7.0	0.482
4- 800	4-1200	0.180	161.5	25.2	3.40	1.296	84.6	0.236	0.928	28.9	483.8	0.708	1.147	-0.53	0.952	122.8	329.5	-14.6	0.234
4- 800	4-1210	0.611	106.0	6.1	3.49	1.224	60.4	0.500	0.795	110.9	575.5	0.398	1.192	-0.54	0.855	64.0	202.1	-10.3	0.425
4- 800	4-1210	0.159	179.6	29.9	3.49	1.299	87.0	0.231	0.936	16.4	481.0	0.720	1.152	-0.54	0.960	108.7	340.1	-10.7	0.233
4- 800	4-1220	0.536	109.7	7.5	3.59	1.234	64.3	0.443	0.810	103.4	577.7	0.451	1.170	-0.56	0.872	67.3	210.2	-13.6	0.373
4- 800	4-1220	0.154	203.3	32.4	3.59	1.304	89.4	0.233	0.946	3.3	477.6	0.725	1.166	-0.58	0.968	103.0	350.6	-6.5	0.241
4- 800	4-1230	0.467	113.5	9.2	3.71	1.243	67.9	0.392	0.825	95.5	579.7	0.502	1.149	-0.63	0.888	70.3	218.8	-16.9	0.327
4- 800	4-1230	0.166	227.7	30.7	3.71	1.308	92.0	0.244	0.957	350.0	634.2	0.725	1.190	-0.63	0.977	103.9	1.0	-2.1	0.257
4- 800	4-1240	0.405	117.6	11.3	3.86	1.251	71.1	0.347	0.838	87.3	581.4	0.547	1.130	-0.73	0.902	72.7	227.9	-20.1	0.289
4- 800	4-1240	0.196	248.2	26.5	3.86	1.314	94.7	0.264	0.970	337.1	831.1	0.714	1.226	-0.73	0.987	105.2	11.3	2.2	0.281
4- 800	4-1250	0.352	122.0	14.1	4.08	1.257	74.0	0.310	0.850	78.9	582.9	0.587	1.114	-0.89	0.914	74.7	237.5	-23.2	0.257
4- 800	4-1250	0.246	260.9	22.2	4.08	1.320	97.8	0.294	0.985	324.9	828.9	0.696	1.274	-0.89	0.998	107.1	21.3	6.0	0.313
4- 800	4-1260	0.307	126.6	18.0	4.43	1.265	76.5	0.279	0.861	70.3	584.3	0.621	1.101	-1.20	0.925	76.3	247.4	-26.5	0.233
4- 800	4-1260	0.306	270.7	19.2	4.43	1.326	101.0	0.331	1.001	313.6	827.8	0.670	1.332	-1.20	1.009	109.3	31.2	9.2	0.353
4- 800	4-1270	0.274	131.6	24.2	5.19	1.268	78.7	0.254	0.870	61.6	585.7	0.648	1.091	-1.91	0.934	77.5	257.6	-31.1	0.216
4- 800	4-1270	0.377	278.0	18.0	5.19	1.333	104.5	0.375	1.019	303.7	827.7	0.637	1.401	-1.91	1.020	111.9	41.1	11.2	0.401
4- 800	4-1280	0.280	135.4	41.2	8.43	1.272	80.7	0.236	0.877	52.9	587.0	0.671	1.084	-5.13	0.941	78.4	269.3	-45.7	0.218
4- 800	4-1280	0.471	284.8	23.4	8.46	1.340	108.1	0.423	1.039	294.6	828.7	0.600	1.478	-5.13	1.031	114.9	51.6	8.0	0.460
4- 800	4-1290	0.200	145.4	-23.5	-3.62	1.275	82.4	0.221	0.884	44.0	588.4	0.689	1.079	6.99	0.948	79.0	278.4	7.1	0.225
4- 800	4-1290	0.521	288.0	-8.7	-3.62	1.347	111.9	0.474	1.060	286.2	830.5	0.557	1.562	6.99	1.042	118.0	55.0	32.3	0.521
4- 800	4-1300	0.576	129.5	3.0	1.32	1.422	66.5	0.505	1.360	46.6	261.0	---	2.155	2.10	1.139	97.5	267.0	-20.1	0.609
4- 800	4-1300	0.162	154.6	10.4	1.32	1.278	84.1	0.211	0.890	35.3	589.7	0.702	1.077	2.10	0.953	78.5	287.3	-12.0	0.190
4- 800	4-1300	0.598	291.9	2.7	1.32	1.354	115.8	0.526	1.081	278.5	833.0	0.513	1.650	2.10	1.052	121.4	67.7	25.2	0.567
4- 800	4-1310	0.528	133.7	5.6	2.21	1.424	69.1	0.567	1.373	60.0	264.6	---	2.152	1.25	1.142	59.2	276.0	-21.2	0.584
4- 800	4-1310	0.146	165.0	19.7	2.21	1.280	85.6	0.204	0.895	26.5	591.1	0.711	1.077	1.25	0.957	79.7	296.9	-14.6	0.185
4- 800	4-1320	0.481	138.6	7.3	2.60	1.427	71.2	0.551	1.385	53.2	268.0	---	2.149	0.92	1.146	60.7	285.1	-21.1	0.561
4- 800	4-1320	0.135	178.0	25.5	2.60	1.283	87.1	0.200	0.900	17.7	592.5	0.720	1.079	0.92	0.960	79.8	306.3	-14.4	0.186
4- 800	4-1330	0.436	144.2	9.0	2.83	1.429	74.2	0.536	1.397	46.2	271.2	---	2.146	0.74	1.148	62.1	294.3	-20.2	0.543
4- 800	4-1330	0.130	193.4	29.2	2.83	1.285	88.5	0.199	0.904	8.8	593.8	0.724	1.083	0.74	0.965	79.7	315.5	-13.0	0.189
4- 800	4-1340	0.393	150.9	10.6	2.99	1.431	76.8	0.524	1.408	38.9	274.1	---	2.145	0.64	1.150	63.3	303.4	-18.6	0.523
4- 800	4-1340	0.131	210.4	30.8	2.99	1.286	90.0	0.200	0.908	359.8	955.0	0.726	1.089	0.64	0.964	79.5	324.4	-10.9	0.194
4- 800	4-1350	0.354	159.1	12.5	3.11	1.432	79.5	0.513	1.418	31.3	276.6	---	2.145	0.58	1.151	64.3	312.4	-16.5	0.503
4- 800	4-1350	0.140	226.9	30.0	3.11	1.288	91.6	0.205	0.911	350.8	956.1	0.724	1.098	0.58	0.965	79.1	333.1	-8.2	0.203
4- 800	4-1360	0.319	169.3	14.5	3.22	1.434	82.3	0.505	1.427	23.2	278.7	---	2.148	0.54	1.151	65.1	321.4	-13.9	0.497
4- 800	4-1360	0.156	241.3	27.6	3.22	1.290	93.2	0.214	0.914	341.7	957.1	0.719	1.110	0.54	0.966	78.9	341.8	-5.2	0.214
4- 800	4-1370	0.292	182.3	16.4	3.31	1.435	85.1	0.500	1.436	14.6	280.2	---	2.153	0.53	1.151	65.7	330.3	-10.9	0.489
4- 800	4-1370	0.180	253.2	24.4	3.31	1.291	95.0	0.226	0.918	332.4	958.0	0.710	1.125	0.53	0.965	77.7	350.1	-1.9	0.229
4- 800	4-1380	0.277	198.3	17.9	3.41	1.437	88.2	0.448	1.444	5.3	280.9	---	2.163	0.53	1.151	65.9	339.3	-7.5	0.486
4- 800	4-1380	0.211	262.9	21.2	3.41	1.293	97.0	0.243	0.921	323.0	958.7	0.697	1.144	0.53	0.965	76.6	358.7	1.6	0.248
4- 800	4-1380	0.117	308.6	7.0	3.41	1.174	114.9	0.421	0.726	245.2	1240.8	0.420	1.032	0.53	0.800	103.0	110.6	23.6	0.282
4- 800	4-1390	0.284	216.6	18.2	3.50	1.438	91.6	0.501	1.451	355.2	640.8	0.725	2.178	0.54	1.150	65.8	348.3	-3.7	0.489
4- 800	4-1390	0.251	271.0	18.1	3.50	1.294	99.3	0.266	0.924	313.5	959.1	0.678	1.169	0.54	0.964	75.2	7.4	5.2	0.272
4- 800	4-1390	0.478	308.2	7.9	3.50	1.170	112.9	0.390	0.720	246.1	1251.7	0.440	1.001	0.54	0.789	95.2	98.2	25.1	0.227
4- 800	4-1400	0.308	235.4	17.0	3.60	1.439	95.4	0.509	1.458	343.9	639.4	0.716	2.201	0.58	1.149	65.1	358.1	0.5	0.501
4- 800	4-1400	0.303	278.0	15.3	3.60	1.295	102.0	0.297	0.926	303.5	959.1	0.651	1.202	0.58	0.963	73.2	16.3	4.9	0.305
4- 800	4-1400	0.478	308.4	8.2	3.60	1.168	112.9	0.389	0.718	245.7	1261.3	0.439	0.997	0.58	0.783	89.2	85.4	25.4	0.222
4- 810	4- 870	0.511	275.0	9.3	3.19	1.530	105.0	0.725	2.432	324.1	437.6	0.669	---	0.45	1.262	121.5	21.1	9.6	0.680
4- 810	4- 880	0.403	277.4	10.8	3.10	1.435	102.8	0.532	1.441	322.6	445.9	0.675	---	0.50	1.147	117.1	26.2	11.8	0.538

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 810	4- 890	0.325	278.8	12.4	2.98	1.372	100.9	0.407	1.148	321.5	454.9	0.681	---	0.57	1.069	112.8	41.2	14.0	0.430
4- 810	4- 900	0.267	279.5	13.9	2.81	1.330	99.2	0.323	1.015	321.2	464.6	0.688	---	0.69	1.017	108.8	44.9	16.3	0.345
4- 810	4- 910	0.224	279.5	14.8	2.54	1.301	97.8	0.265	0.944	321.5	475.0	0.694	---	0.93	0.982	105.2	48.0	18.9	0.277
4- 810	4- 920	0.191	279.0	13.2	1.96	1.282	96.7	0.226	0.902	322.1	485.7	0.698	---	1.47	0.959	101.9	52.5	22.8	0.223
4- 810	4- 930	0.165	278.2	-3.1	-0.40	1.270	95.9	0.199	0.877	323.0	496.7	0.702	---	3.79	0.944	99.1	59.5	35.6	0.188
4- 810	4- 940	0.249	283.3	55.3	9.40	1.262	95.4	0.182	0.861	323.6	507.6	0.705	---	-6.04	0.934	96.6	64.1	-15.6	0.175
4- 810	4- 950	0.177	279.0	30.1	5.02	1.257	95.1	0.171	0.852	324.0	518.1	0.706	---	-1.70	0.928	94.3	46.6	3.8	0.120
4- 810	4- 960	0.165	278.8	34.4	4.29	1.254	94.9	0.166	0.847	323.8	528.1	0.707	---	-1.01	0.924	92.3	39.3	5.7	0.102
4- 810	4- 970	0.163	279.6	32.1	3.97	1.253	95.0	0.165	0.845	322.8	537.3	0.706	---	-0.73	0.922	90.3	30.8	5.0	0.096
4- 810	4- 980	0.165	281.1	30.0	3.79	1.252	95.3	0.167	0.845	321.0	545.7	0.704	0.986	-0.59	0.920	88.9	23.5	3.9	0.099
4- 810	4- 990	0.171	283.1	27.7	3.66	1.253	95.8	0.173	0.846	318.5	553.3	0.700	0.992	-0.51	0.919	87.3	19.9	3.4	0.110
4- 810	4-1000	0.181	285.7	25.3	3.56	1.254	96.4	0.181	0.848	315.3	560.2	0.694	1.002	-0.46	0.919	85.7	17.8	3.9	0.125
4- 810	4-1010	0.196	288.5	22.7	3.48	1.256	97.3	0.193	0.851	311.4	566.4	0.687	1.015	-0.43	0.919	84.1	19.2	5.2	0.145
4- 810	4-1020	0.216	291.6	20.0	3.41	1.258	98.4	0.208	0.854	306.9	571.9	0.677	1.032	-0.42	0.919	82.4	22.6	7.0	0.168
4- 810	4-1030	0.242	294.9	17.3	3.33	1.260	99.8	0.228	0.858	301.7	576.7	0.663	1.054	-0.42	0.918	80.5	27.4	9.2	0.194
4- 810	4-1040	0.276	298.4	14.7	3.26	1.262	101.6	0.253	0.862	296.0	580.8	0.644	1.081	-0.43	0.918	78.4	33.3	11.6	0.225
4- 810	4-1050	0.321	302.1	12.3	3.18	1.265	103.8	0.286	0.867	289.5	584.2	0.619	1.115	-0.46	0.919	75.9	40.2	14.0	0.263
4- 810	4-1060	0.380	306.0	9.9	3.08	1.267	106.8	0.330	0.872	282.1	586.7	0.584	1.159	-0.50	0.919	72.8	48.1	16.4	0.312
4- 810	4-1070	0.460	310.3	7.7	2.97	1.270	110.7	0.389	0.877	273.6	587.9	0.536	1.218	-0.58	0.920	68.7	57.0	18.6	0.375
4- 810	4-1080	0.574	315.4	5.6	2.80	1.273	116.3	0.471	0.883	263.3	587.3	0.467	1.299	-0.70	0.921	63.0	67.3	20.5	0.464
4- 810	4-1080	0.863	343.7	2.3	2.80	1.026	155.3	0.730	0.588	211.6	895.6	0.159	1.018	-0.70	0.530	101.7	150.5	11.2	0.481
4- 810	4-1090	0.744	321.8	3.6	2.53	1.276	124.7	0.589	0.889	250.1	583.7	0.365	1.413	-0.93	0.923	54.7	79.5	21.9	0.594
4- 810	4-1090	0.890	345.0	2.0	2.53	1.014	137.1	0.752	0.580	209.7	903.3	0.144	1.017	-0.93	0.504	80.1	137.8	15.3	0.502
4- 810	4-1150	0.454	126.0	6.9	4.06	1.280	59.4	0.534	0.897	102.7	493.7	0.418	1.377	0.80	0.924	121.5	272.5	-22.3	0.524
4- 810	4-1160	0.513	132.6	8.9	3.85	1.283	66.5	0.538	0.904	89.3	489.8	0.508	1.306	0.64	0.929	115.1	285.3	-21.4	0.425
4- 810	4-1170	0.413	138.9	11.0	3.72	1.286	71.5	0.371	0.910	77.4	487.5	0.573	1.248	0.54	0.935	110.8	296.9	-19.8	0.358
4- 810	4-1180	0.337	145.4	13.5	3.61	1.289	75.4	0.322	0.916	66.2	485.9	0.621	1.212	0.48	0.940	107.9	307.9	-17.5	0.313
4- 810	4-1190	0.278	152.7	16.2	3.53	1.292	78.6	0.288	0.923	55.0	484.3	0.657	1.188	0.48	0.946	105.8	318.4	-14.6	0.282
4- 810	4-1200	0.231	161.8	19.5	3.45	1.295	81.3	0.263	0.930	43.6	482.6	0.685	1.174	0.42	0.953	104.5	328.7	-11.7	0.262
4- 810	4-1210	0.765	115.9	4.2	3.38	1.207	52.5	0.611	0.772	123.2	571.9	0.300	1.244	0.41	0.833	56.1	204.4	-9.6	0.541
4- 810	4-1210	0.193	173.9	23.2	3.38	1.298	83.9	0.247	0.937	31.7	480.4	0.705	1.169	0.41	0.960	103.7	338.9	-7.2	0.251
4- 810	4-1220	0.680	119.3	5.7	3.31	1.218	56.8	0.551	0.788	116.3	574.8	0.354	1.223	0.42	0.852	60.2	212.1	-12.3	0.483
4- 810	4-1220	0.166	190.6	26.8	3.31	1.302	86.3	0.239	0.945	19.3	477.8	0.719	1.171	0.42	0.968	103.4	349.0	-3.0	0.247
4- 810	4-1230	0.602	122.8	6.8	3.23	1.228	61.0	0.493	0.804	109.2	577.5	0.408	1.201	0.44	0.870	63.8	220.3	-14.8	0.428
4- 810	4-1230	0.153	212.5	28.7	3.23	1.305	88.7	0.239	0.954	6.5	474.9	0.726	1.182	0.44	0.976	103.6	359.2	1.4	0.251
4- 810	4-1240	0.528	126.5	6.7	3.15	1.238	64.8	0.438	0.819	101.7	579.9	0.460	1.179	0.47	0.886	67.0	228.9	-17.1	0.379
4- 810	4-1240	0.159	236.5	27.0	3.15	1.310	91.3	0.247	0.964	353.6	831.8	0.726	1.203	0.47	0.984	104.2	9.3	5.9	0.263
4- 810	4-1250	0.461	130.4	7.7	3.04	1.246	68.2	0.389	0.833	94.0	582.1	0.509	1.158	0.53	0.901	69.8	238.1	-18.8	0.336
4- 810	4-1250	0.185	256.9	22.4	3.04	1.315	93.9	0.264	0.976	341.0	829.2	0.718	1.234	0.53	0.994	105.3	19.5	10.2	0.282
4- 810	4-1260	0.400	134.5	8.7	2.91	1.253	71.4	0.347	0.846	85.9	584.0	0.553	1.140	0.62	0.914	72.2	247.6	-20.0	0.299
4- 810	4-1260	0.223	271.8	17.3	2.91	1.320	96.8	0.289	0.990	329.1	827.2	0.703	1.276	0.62	1.003	106.8	29.6	14.2	0.309
4- 810	4-1270	0.345	139.0	9.5	2.70	1.260	74.1	0.310	0.858	77.6	585.8	0.592	1.124	0.79	0.925	76.2	257.5	-20.3	0.269
4- 810	4-1270	0.276	282.4	12.9	2.70	1.326	99.9	0.322	1.005	318.0	826.2	0.681	1.328	0.79	1.013	108.8	39.7	17.8	0.343
4- 810	4-1280	0.297	143.9	9.7	2.33	1.265	76.6	0.280	0.868	69.0	587.3	0.625	1.111	1.12	0.935	75.7	267.5	-19.3	0.245
4- 810	4-1280	0.338	290.2	9.0	2.33	1.332	103.2	0.362	1.022	307.9	826.1	0.652	1.391	1.12	1.023	111.1	49.7	21.2	0.385
4- 810	4-1290	0.253	149.5	6.7	1.35	1.269	78.8	0.256	0.876	60.3	588.7	0.652	1.101	2.06	0.943	76.9	277.3	-15.0	0.229
4- 810	4-1290	0.406	296.3	4.3	1.35	1.338	106.6	0.406	1.040	298.6	827.0	0.617	1.463	2.06	1.033	113.8	59.4	25.1	0.433
4- 810	4-1300	0.345	147.9	-53.4	-12.74	1.273	80.8	0.238	0.884	51.6	590.1	0.674	1.094	16.12	0.949	77.9	288.0	26.3	0.346
4- 810	4-1300	0.551	305.0	-30.4	-12.74	1.345	110.2	0.455	1.050	290.2	828.7	0.578	1.541	16.12	1.043	116.8	59.2	48.9	0.555
4- 810	4-1310	0.225	161.5	36.4	6.06	1.277	82.6	0.223	0.891	42.6	591.3	0.692	1.090	-2.72	0.954	78.5	300.6	-33.0	0.209
4- 810	4-1310	0.574	306.4	13.1	6.06	1.552	114.0	0.505	1.080	282.3	831.1	0.535	1.626	-2.72	1.053	119.9	80.3	18.5	0.540
4- 810	4-1320	0.567	146.8	10.7	4.58	1.423	67.5	0.580	1.374	63.9	262.8	---	2.171	-1.28	1.143	58.2	288.3	-24.4	0.605
4- 810	4-1320	0.187	171.3	33.0	4.58	1.279	84.3	0.213	0.896	33.6	592.5	0.705	1.088	-1.28	0.958	79.0	308.9	-24.9	0.199
4- 810	4-1320	0.648	309.9	8.5	4.58	1.358	117.8	0.556	1.102	275.0	833.9	0.490	1.714	-1.28	1.061	123.2	89.7	21.5	0.596
4- 810	4-1330	0.517	151.4	10.7	4.11	1.425	70.1	0.563	1.387	57.2	266.3	---	2.167	-0.85	1.146	59.8	297.3	-22.5	0.560
4- 810	4-1330	0.164	182.8	34.0	4.11	1.282	85.9	0.207	0.902	24.5	593.7	0.715	1.088	-0.85	0.961	79.3	317.8	-20.5	0.196
4- 810	4-1340	0.469	156.6	11.3	3.87	1.428	72.7	0.547	1.399	90.3	269.6	---	2.165	-0.65	1.148	61.2	306.3	-20.5	0.558
4- 810	4-1340	0.149	196.8	35.6	3.87	1.284	87.4	0.203	0.906	15.4	594.8	0.722	1.090	-0.65	0.964	79.4	326.6	-18.8	0.197
4- 810	4-1350	0.423	162.7	12.2	3.72	1.430	75.3	0.533	1.410	43.1	272.6	---	2.163	-0.54	1.149	62.5	315.1	-18.1	0.539
4- 810	4-1350	0.141	213.3	36.2	3.72	1.286	88.9	0.203	0.911	0.3	595.8	0.726	1.095	-0.54	0.965	79.3	335.2	-13.1	0.200
4- 810	4-1360	0.381	170.0	13.4	3.61	1.431	77.9	0.521	1.421	35.7	275.3	---	2.162	-0.48	1.150	63.6	323.7	-15.4	0.522
4- 810	4-1360	0.142	230.7	34.9	3.61	1.288	90.5	0.205	0.914	357.1	956.7	0.727	1.102	-0.48	0.966	79.0	343.7	-9.3	0.205
4- 810	4-1370	0.342	179.0	14.7	3.52	1.433	80.7	0.512	1.431	27.8	277.5	---	2.163	-0.44	1.150	64.6	332.3	-12.4	0.508
4- 810	4-1370	0.150	247.0	31.8	3.52	1.290	92.1	0.211	0.918	347.8	957.5	0.724	1.112	-0.44	0.966	78.6	352.1	-5.6	0.214
4- 810	4-1380	0.309	190.3	16.1	3.44	1.435	83.5	0.505	1.440	19.5	279.3	---	2.167	-0.42	1.150	65.3	340.9	-9.0	0.497
4- 810	4-1380	0.167	260.9	27.6	3.44	1.291	93.8	0.221	0.921	338.5	958.3	0.718	1.125	-0.42	0.965	78.0	0.4	-1.7	0.225
4- 810	4-1390	0.286	204.5	17.1	3.37	1.436	86.4	0.501	1.448	10.7	280.4	---	2.174	-0.41	1.149	65.7	349.5	-5.5	0.491
4- 810	4-1390	0.192	272.2	23.2	3.37	1.293	95.7	0.235	0.925	329.2	958.9	0.707	1.142	-0.41	0.964	77.1	8.8	2.0	0.241
4- 810	4-1390	0.582	325.2	6.0	3.37	1.183	118.2	0.472	0.739	243.7	1233.4	0.590	1.088	-0.41	0.812	110.1	132.5	16.8	0.359
4- 810	4-1390	0.701	327.4	4.8	3.37	1.195	124.0	0.561	0.755	239.1	1228.8	0.531	1.178	-0.41	0.828	119.2	139.3	15.1	0.480
4- 810	4-1400	0.277	221.5	17.4	3.30	1.437	89.6	0.501	1.456	1.1	280.6	---	2.185	-0.42	1.149	65.8	358.3	-1.7	0.490
4- 810	4-1400	0.225	281.4	19.1	3.30	1.294	97.9	0.254	0.928	319.7	959.3	0.694	1.164	-0.42	0.963	75.9	17.4	5.8	0.261
4- 810	4-1400	0.486	323.7	7.5	3.30	1.175	113.4	0.397	0.727	246.6	1246.3	0.438	1.016	-0.42	0.794	98.7	120.3	19.1	0.242
4- 810	4-1410	0.288	240.1	16.2	3.22	1.438	93.2	0.506	1.463	350.6	640.2	0.723	2.203	-0.44	1.148	65.4	7.6	2.3	0.496
4- 810	4-1410	0.269	289.1	15.4	3.22	1.295	100.3	0.280	0.931	309.9	959.5	0.673	1.192	-0.44	0.962	74.3	26.3	9.4	0.287
4- 810	4-1410	0.468	323.6	7.5	3.22	1.171	112.6	0.384	0.725	246.8	1256.4	0.446	1.001	-0.44	0.786	92.3	107.9	20.8	0.215
4- 820	4- 870	0.568	281.3	8.2	2.95	1.626	103.5	0.928	9.474	331.8	429.5	0.686	---	1.33	1.378	123.3	25.1	12.5	0.787
4- 820	4- 880	0.431	284.5	9.3	2.71	1.495	101.7	0.645	1.944	330.0	437.6	0.689	---	1.38	1.223	119.0	29.8	14.7	0.612
4- 820	4- 890	0.335	286.4	10.2	2.44	1.411	99.9	0.473	1.516	328.9	446.4	0.694	---	1.49	1.120	114.6	34.6	17.1	0.483
4- 820	4- 900	0.266	287.2	10.7	2.11	1.355	98.2	0.361	1.095	328.6	456.2	0.699	---	1.66	1.052	110.5	39.2	19.8	0.384

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 820	4- 910	0.215	287.0	10.3	1.68	1.318	96.8	0.287	0.989	329.0	466.6	0.704	---	1.96	1.006	106.7	43.5	23.0	0.307
4- 820	4- 920	0.178	286.1	7.5	1.04	1.294	95.6	0.238	0.930	330.0	477.7	0.709	---	2.47	0.976	103.3	46.2	27.3	0.247
4- 820	4- 930	0.152	284.8	-1.0	-0.12	1.278	94.8	0.204	0.895	331.3	489.3	0.712	---	3.50	0.956	100.3	46.6	34.6	0.202
4- 820	4- 940	0.150	284.0	-27.1	-3.09	1.267	94.1	0.182	0.874	332.6	500.6	0.715	---	6.36	0.945	97.7	38.5	50.5	0.188
4- 820	4- 960	0.278	293.3	68.5	11.92	1.257	93.6	0.161	0.855	333.3	521.9	0.717	---	-8.89	0.929	93.4	59.0	-32.9	0.183
4- 820	4- 970	0.189	286.5	54.0	7.03	1.255	93.6	0.158	0.851	332.9	531.6	0.717	---	-4.12	0.926	91.6	49.0	-18.3	0.116
4- 820	4- 980	0.167	286.8	46.1	5.52	1.254	93.8	0.158	0.850	331.6	540.4	0.716	0.985	-2.73	0.924	89.9	39.2	-11.6	0.102
4- 820	4- 990	0.161	288.7	40.2	4.76	1.255	94.1	0.161	0.851	329.4	548.3	0.713	0.988	-2.10	0.923	88.4	31.7	-7.4	0.104
4- 820	4-1000	0.162	291.4	35.2	4.27	1.256	94.6	0.167	0.853	326.4	555.5	0.710	0.995	-1.74	0.923	87.0	27.8	-3.9	0.113
4- 820	4-1010	0.168	294.8	30.5	3.92	1.257	95.3	0.175	0.855	322.7	561.9	0.705	1.006	-1.54	0.922	85.5	27.1	-0.8	0.127
4- 820	4-1020	0.180	298.4	26.2	3.63	1.259	96.2	0.186	0.859	318.5	567.6	0.699	1.019	-1.41	0.922	84.1	28.9	2.2	0.144
4- 820	4-1030	0.196	302.2	22.1	3.38	1.261	97.3	0.200	0.863	313.7	572.8	0.690	1.035	-1.34	0.922	82.6	32.5	5.2	0.164
4- 820	4-1040	0.219	306.0	18.3	3.15	1.263	98.6	0.218	0.867	308.3	577.4	0.678	1.055	-1.32	0.922	80.9	37.4	8.0	0.187
4- 820	4-1050	0.248	309.9	14.8	2.92	1.265	100.2	0.240	0.871	302.5	581.4	0.662	1.080	-1.33	0.922	79.3	43.4	10.7	0.214
4- 820	4-1060	0.286	313.9	11.7	2.68	1.268	102.2	0.268	0.876	296.0	584.7	0.641	1.110	-1.39	0.922	76.9	50.3	13.2	0.247
4- 820	4-1070	0.336	317.9	8.9	2.41	1.270	104.7	0.304	0.881	288.9	587.3	0.613	1.149	-1.50	0.922	74.3	58.1	15.5	0.287
4- 820	4-1080	0.402	322.3	6.3	2.09	1.273	108.0	0.353	0.886	280.8	589.0	0.573	1.198	-1.68	0.923	70.9	66.8	17.4	0.338
4- 820	4-1090	0.493	327.1	4.0	1.67	1.276	112.5	0.418	0.891	271.5	589.2	0.518	1.264	-1.96	0.925	66.4	76.6	18.8	0.408
4- 820	4-1090	0.877	358.4	1.4	1.67	1.047	136.0	0.733	0.605	212.9	390.7	0.162	1.048	-1.96	0.569	113.1	171.3	1.6	0.512
4- 820	4-1100	0.624	332.7	2.9	1.07	1.279	118.9	0.511	0.897	260.0	587.4	0.439	1.356	-2.45	0.927	60.1	87.7	19.6	0.507
4- 820	4-1100	0.881	359.2	0.9	1.07	1.027	134.2	0.717	0.590	212.3	399.7	0.167	1.014	-2.45	0.528	90.8	157.0	6.6	0.460
4- 820	4-1110	0.915	0.8	0.0	0.03	1.021	138.6	0.767	0.586	209.4	406.3	0.137	1.035	-3.37	0.514	70.4	147.6	9.8	0.534
4- 820	4-1170	0.597	145.0	9.7	5.06	1.286	62.6	0.495	0.913	96.0	480.3	0.461	1.364	2.34	0.936	119.0	294.7	-17.6	0.495
4- 820	4-1180	0.471	151.8	11.6	4.50	1.289	68.9	0.410	0.920	82.7	486.6	0.583	1.296	1.90	0.942	113.5	306.6	-15.0	0.407
4- 820	4-1190	0.379	158.6	13.5	4.10	1.292	73.5	0.350	0.926	70.6	484.1	0.602	1.250	1.64	0.948	109.8	317.5	-11.9	0.350
4- 820	4-1200	0.309	165.9	15.7	3.80	1.295	77.2	0.308	0.932	58.8	482.0	0.645	1.219	1.48	0.955	107.4	327.9	-8.4	0.311
4- 820	4-1210	0.253	174.7	18.2	3.53	1.298	80.3	0.279	0.939	47.0	479.9	0.677	1.200	1.38	0.961	105.7	337.9	-4.4	0.285
4- 820	4-1220	0.832	129.5	3.6	3.30	1.202	48.8	0.660	0.766	127.9	570.5	0.261	1.272	1.33	0.830	52.2	214.7	-12.3	0.599
4- 820	4-1220	0.209	186.0	20.8	3.30	1.301	83.0	0.259	0.946	35.0	477.6	0.701	1.191	1.33	0.968	104.6	347.8	-0.2	0.269
4- 820	4-1230	0.748	132.8	4.0	3.07	1.213	53.4	0.600	0.783	121.2	573.7	0.513	1.252	1.32	0.850	56.4	222.5	-14.5	0.540
4- 820	4-1230	0.176	201.3	23.3	3.07	1.304	85.6	0.249	0.953	22.6	475.1	0.716	1.191	1.32	0.975	104.1	357.8	4.2	0.262
4- 820	4-1240	0.667	136.2	4.4	2.84	1.223	57.6	0.541	0.799	114.4	576.7	0.367	1.230	1.35	0.868	60.3	230.7	-16.4	0.483
4- 820	4-1240	0.156	221.5	24.5	2.84	1.308	88.0	0.246	0.962	10.0	472.3	0.725	1.199	1.35	0.985	104.1	7.8	8.7	0.262
4- 820	4-1250	0.590	139.8	4.8	2.59	1.235	61.6	0.484	0.814	107.2	579.6	0.420	1.208	1.43	0.885	63.8	239.4	-17.8	0.431
4- 820	4-1250	0.154	244.8	22.6	2.59	1.311	90.5	0.251	0.972	357.3	829.6	0.727	1.216	1.43	0.991	104.5	17.9	13.1	0.269
4- 820	4-1260	0.518	143.5	5.0	2.29	1.242	65.3	0.432	0.829	99.8	582.1	0.471	1.186	1.56	0.900	66.9	248.4	-18.6	0.384
4- 820	4-1260	0.171	266.0	17.9	2.29	1.316	93.1	0.265	0.982	345.0	827.3	0.722	1.243	1.56	1.000	105.5	28.3	17.3	0.284
4- 820	4-1270	0.452	147.4	5.0	1.93	1.250	68.7	0.385	0.842	92.1	584.4	0.518	1.166	1.78	0.913	69.6	257.8	-18.5	0.343
4- 820	4-1270	0.205	282.2	12.4	1.93	1.521	95.9	0.286	0.995	333.2	825.5	0.710	1.280	1.78	1.008	106.6	38.7	21.1	0.306
4- 820	4-1280	0.392	151.6	4.3	1.41	1.257	71.7	0.344	0.854	84.0	586.5	0.561	1.148	2.16	0.925	71.9	267.4	-17.3	0.309
4- 820	4-1280	0.252	293.9	7.4	1.41	1.526	90.8	0.315	1.009	322.2	824.6	0.691	1.327	2.16	1.017	108.5	49.5	24.6	0.356
4- 820	4-1290	0.338	156.2	2.1	0.59	1.262	74.5	0.309	0.865	75.7	588.3	0.598	1.133	2.86	0.935	73.8	276.9	-14.1	0.282
4- 820	4-1290	0.310	302.5	2.5	0.59	1.332	101.9	0.351	1.024	312.1	824.6	0.665	1.384	2.86	1.026	110.4	59.7	28.1	0.374
4- 820	4-1300	0.292	161.1	-4.7	-1.11	1.268	76.9	0.280	0.875	67.2	589.9	0.630	1.120	4.43	0.943	75.4	285.9	-7.1	0.265
4- 820	4-1300	0.376	309.3	-3.8	-1.11	1.338	105.2	0.392	1.042	302.8	825.4	0.634	1.450	4.43	1.035	112.9	69.9	32.4	0.420
4- 820	4-1310	0.294	164.5	-32.9	-7.36	1.272	79.1	0.257	0.884	58.5	591.3	0.657	1.111	10.57	0.950	76.6	293.8	13.7	0.297
4- 820	4-1310	0.473	316.0	-20.2	-7.36	1.344	108.7	0.437	1.060	294.2	827.0	0.597	1.523	10.57	1.044	115.6	78.0	43.5	0.494
4- 820	4-1320	0.586	137.2	70.6	26.11	1.276	81.2	0.238	0.891	49.1	592.5	0.679	1.103	-23.01	0.955	77.6	357.6	-63.6	0.448
4- 820	4-1330	0.260	177.3	47.5	8.69	1.279	82.9	0.225	0.898	40.3	593.6	0.696	1.100	-5.71	0.959	78.2	326.0	-38.5	0.235
4- 820	4-1330	0.628	324.7	17.0	8.69	1.357	116.0	0.534	1.100	278.7	832.1	0.512	1.688	-5.71	1.061	121.8	100.5	14.1	0.575
4- 820	4-1340	0.556	164.2	14.8	6.16	1.424	68.5	0.575	1.389	61.0	264.5	---	2.186	-3.51	1.145	58.8	310.1	-23.9	0.603
4- 820	4-1340	0.205	188.8	41.9	6.16	1.282	84.6	0.215	0.904	31.1	594.6	0.709	1.098	-3.51	0.962	78.7	331.2	-27.4	0.216
4- 820	4-1350	0.504	169.2	13.8	5.11	1.427	71.2	0.558	1.401	54.2	267.9	---	2.183	-2.38	1.147	60.3	318.4	-20.4	0.578
4- 820	4-1350	0.176	201.5	40.5	5.11	1.284	86.3	0.209	0.909	21.9	595.6	0.718	1.099	-2.38	0.964	78.9	338.6	-20.6	0.210
4- 820	4-1360	0.455	174.8	13.7	4.50	1.429	73.8	0.543	1.413	47.2	271.0	---	2.180	-1.91	1.148	61.7	326.7	-17.1	0.556
4- 820	4-1360	0.157	216.7	39.9	4.50	1.286	87.3	0.207	0.913	12.6	596.4	0.725	1.102	-1.91	0.965	79.0	346.5	-15.2	0.208
4- 820	4-1370	0.409	181.4	14.0	4.09	1.431	76.4	0.530	1.424	39.9	273.7	---	2.179	-1.63	1.149	62.9	334.9	-13.7	0.537
4- 820	4-1370	0.148	233.9	38.4	4.09	1.288	89.4	0.207	0.918	3.3	597.2	0.727	1.108	-1.63	0.965	78.9	354.5	-10.4	0.211
4- 820	4-1380	0.367	189.4	14.6	3.77	1.432	79.1	0.520	1.434	32.3	276.2	---	2.179	-1.47	1.149	63.9	343.1	-10.3	0.521
4- 820	4-1380	0.148	251.4	35.0	3.77	1.290	91.0	0.211	0.921	354.0	957.9	0.727	1.116	-1.47	0.965	78.6	2.6	-5.9	0.216
4- 820	4-1390	0.330	199.3	15.3	3.51	1.434	81.8	0.511	1.444	24.3	278.2	---	2.182	-1.37	1.148	64.7	351.3	-6.8	0.507
4- 820	4-1390	0.157	267.2	30.2	3.51	1.292	92.7	0.219	0.925	344.7	958.6	0.723	1.127	-1.37	0.965	78.1	10.7	-1.7	0.224
4- 820	4-1400	0.299	211.7	15.8	3.27	1.436	84.7	0.505	1.453	15.8	279.6	---	2.187	-1.33	1.148	65.3	359.6	-3.2	0.498
4- 820	4-1400	0.175	280.3	24.8	3.27	1.293	94.5	0.230	0.928	335.3	959.1	0.715	1.142	-1.33	0.964	77.4	19.0	2.3	0.236
4- 820	4-1410	0.280	227.0	15.8	3.04	1.437	87.8	0.503	1.461	6.7	280 4	---	2.196	-1.32	1.147	65.6	8.2	0.5	0.493
4- 820	4-1410	0.202	290.9	19.7	3.04	1.295	96.5	0.246	0.932	325.8	959.6	0.703	1.161	-1.32	0.963	76.4	27.5	6.1	0.252
4- 820	4-1410	0.508	339.4	6.4	3.04	1.178	114.6	0.416	0.735	246.7	1240.4	0.429	1.041	-1.32	0.800	102.9	140.5	11.5	0.274
4- 820	4-1410	0.819	345.5	3.4	3.04	1.208	130.0	0.644	0.775	234.3	1228.0	0.276	1.275	-1.32	0.843	126.9	160.2	6.7	0.589
4- 820	4-1420	0.278	244.7	14.7	2.81	1.438	91.1	0.305	1.468	356.9	640.4	0.727	2.210	-1.36	1.146	65.5	17.1	4.2	0.494
4- 820	4-1420	0.239	299.6	15.2	2.81	1.296	98.8	0.267	0.935	316.3	959.8	0.685	1.185	-1.36	0.962	75.1	36.4	9.6	0.274
4- 830	4-1420	0.467	338.9	6.5	2.81	1.174	112.6	0.385	0.729	247.7	1251.3	0.449	1.010	-1.36	0.790	93.4	129.2	13.6	0.220
4- 830	4- 880	0.471	289.3	8.5	2.58	1.572	99.8	0.806	3.633	338.0	429.8	0.709	---	2.12	1.317	120.6	35.8	17.2	0.700
4- 830	4- 890	0.351	291.8	9.1	2.21	1.458	98.3	0.561	1.610	336.8	438.6	0.707	---	2.17	1.180	116.3	38.2	19.5	0.542
4- 830	4- 900	0.268	292.7	9.3	1.80	1.385	96.8	0.411	1.206	336.5	448.3	0.711	---	2.28	1.091	112.1	42.7	22.1	0.426
4- 830	4- 910	0.210	292.2	8.5	1.33	1.337	95.4	0.315	1.043	337.2	459.0	0.714	---	2.50	1.032	108.1	46.8	25.1	0.337
4- 830	4- 920	0.168	290.5	5.8	0.74	1.306	94.3	0.252	0.960	338.5	470.5	0.718	---	2.85	0.993	104.6	50.1	29.0	0.269
4- 830	4- 930	0.139	288.1	-0.7	-0.07	1.286	93.4	0.211	0.914	340.4	482.4	0.721	---	3.45	0.968	101.4	51.8	34.5	0.217
4- 830	4- 940	0.124	285.5	-14.2	-1.38	1.273	92.7	0.185	0.887	342.3	494.5	0.723	---	4.55	0.951	98.6	49.8	43.4	0.183
4- 830	4- 950	0.138	283.9	-39.9	-4.03	1.264	92.3	0.168	0.870	343.9	506.2	0.724	---	7.01	0.941	96.2	38.4	57.7	0.177
4- 830	4- 960	1.300	293.8	-75.9	-13.36	1.259	92.0	0.158	0.861	345.0	517.4	0.725	---	16.15	0.934	94.1	352.6	70.7	0.294

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 830	4- 880	0.268	294.5	72.8	11.75	1.255	92.3	0.153	0.855	342.9	536.1	0.724	---	-9.34	0.928	90.7	57.5	-38.4	0.181
4- 830	4- 990	0.191	291.1	60.3	7.60	1.256	92.5	0.154	0.855	341.0	544.3	0.723	0.987	-5.38	0.926	89.2	47.0	-27.1	0.128
4- 830	4-1000	0.166	293.5	51.0	5.88	1.257	92.9	0.158	0.856	338.3	551.6	0.721	0.992	-3.86	0.925	87.8	39.6	-18.1	0.118
4- 830	4-1010	0.157	297.4	43.1	4.90	1.258	93.5	0.164	0.859	334.8	558.1	0.718	1.000	-3.09	0.925	86.5	36.1	-11.1	0.123
4- 830	4-1020	0.157	301.9	36.1	4.23	1.260	94.2	0.172	0.863	330.6	564.0	0.714	1.011	-2.64	0.925	85.3	35.9	-5.5	0.133
4- 830	4-1030	0.164	306.7	29.7	3.72	1.262	95.1	0.182	0.869	326.0	569.3	0.709	1.024	-2.37	0.924	84.0	38.0	-0.9	0.147
4- 830	4-1040	0.177	311.4	24.0	3.29	1.264	96.1	0.194	0.877	320.8	574.1	0.701	1.040	-2.22	0.924	82.6	41.9	3.1	0.164
4- 830	4-1050	0.196	316.1	19.0	2.91	1.267	97.3	0.210	0.885	315.3	578.3	0.692	1.059	-2.14	0.924	81.1	47.0	6.5	0.184
4- 830	4-1060	0.221	320.7	14.6	2.54	1.269	98.8	0.229	0.880	309.2	582.1	0.678	1.081	-2.12	0.925	79.5	53.1	9.5	0.207
4- 830	4-1070	0.254	325.1	10.8	2.18	1.271	100.6	0.253	0.885	302.8	585.4	0.661	1.108	-2.17	0.925	77.6	60.1	12.0	0.234
4- 830	4-1080	0.297	329.5	7.5	1.78	1.274	102.8	0.284	0.889	295.7	588.0	0.637	1.142	-2.20	0.926	75.4	67.9	14.1	0.267
4- 830	4-1090	0.353	334.0	4.6	1.33	1.276	105.6	0.324	0.895	288.0	589.9	0.605	1.184	-2.50	0.927	72.6	76.5	15.7	0.310
4- 830	4-1100	0.428	338.8	2.2	0.77	1.279	109.3	0.377	0.900	279.3	590.8	0.561	1.239	-2.84	0.929	69.0	85.8	16.6	0.365
4- 830	4-1110	0.531	344.0	0.0	0.02	1.282	114.4	0.450	0.906	269.0	590.2	0.498	1.313	-3.38	0.931	64.1	96.2	16.9	0.442
4- 830	4-1110	0.820	13.6	0.0	0.02	1.042	133.0	0.699	0.602	214.3	895.5	0.181	1.022	-3.38	0.556	100.3	176.5	-3.0	0.450
4- 830	4-1120	0.682	350.3	-1.8	-1.13	1.285	121.7	0.553	0.912	256.4	587.1	0.408	1.416	-4.33	0.934	57.0	107.9	16.3	0.555
4- 830	4-1120	0.841	14.7	-1.0	-1.13	1.032	134.3	0.717	0.594	212.7	903.4	0.168	1.021	-4.33	0.535	81.5	164.6	1.2	0.466
4- 830	4-1130	0.956	16.9	-2.2	-3.24	1.030	140.9	0.790	0.593	208.6	908.7	0.125	1.061	-6.26	0.530	61.4	158.8	3.5	0.584
4- 830	4-1180	0.707	156.7	10.2	6.62	1.289	57.5	0.565	0.921	104.2	492.4	0.400	1.442	4.50	0.945	124.0	302.8	-1.0	0.581
4- 830	4-1190	0.543	164.3	11.7	5.39	1.292	65.6	0.458	0.928	89.0	486.7	0.503	1.353	3.47	0.950	116.8	315.3	-10.4	0.467
4- 830	4-1200	0.429	171.4	13.3	4.60	1.295	71.3	0.384	0.935	75.7	483.0	0.574	1.293	2.86	0.956	112.1	326.4	-6.6	0.392
4- 830	4-1210	0.344	178.9	14.8	4.02	1.298	75.6	0.332	0.941	63.1	480.2	0.629	1.254	2.53	0.963	109.0	336.7	-2.5	0.343
4- 830	4-1220	0.279	187.4	16.5	3.56	1.301	79.0	0.297	0.948	50.9	477.7	0.667	1.229	2.31	0.969	106.9	346.7	1.8	0.309
4- 830	4-1230	0.227	198.0	18.2	3.15	1.304	82.0	0.273	0.955	38.6	475.1	0.694	1.215	2.18	0.976	105.6	356.6	6.3	0.288
4- 830	4-1240	0.815	146.5	3.2	2.78	1.209	49.9	0.646	0.777	125.8	572.3	0.275	1.279	2.12	0.848	52.7	233.2	-16.7	0.596
4- 830	4-1240	0.188	212.0	19.6	2.78	1.307	64.7	0.259	0.962	26.1	472.7	0.713	1.211	2.12	0.983	104.9	6.6	10.3	0.276
4- 830	4-1250	0.732	149.8	3.3	2.41	1.219	54.3	0.587	0.793	119.1	575.6	0.328	1.259	2.13	0.866	56.8	241.5	-17.9	0.538
4- 830	4-1250	0.161	230.5	19.9	2.41	1.310	87.3	0.256	0.970	13.6	470.1	0.724	1.216	2.13	0.990	104.6	16.7	15.2	0.272
4- 830	4-1260	0.652	153.3	3.3	2.02	1.229	58.5	0.529	0.809	112.2	578.7	0.381	1.237	2.21	0.883	60.6	250.2	-18.6	0.484
4- 830	4-1260	0.152	252.7	17.8	2.02	1.314	89.8	0.256	0.979	1.2	467.6	0.728	1.230	2.21	0.998	104.8	27.1	19.5	0.276
4- 830	4-1270	0.577	156.8	3.0	1.59	1.238	62.4	0.475	0.824	105.1	581 6	0.433	1.215	2.37	0.899	64.0	259.1	-18.6	0.434
4- 830	4-1270	0.162	274.5	13.0	1.59	1.318	92.3	0.267	0.989	349.0	825.5	0.725	1.253	2.37	1.005	105.5	37.8	23.3	0.287
4- 830	4-1280	0.506	160.6	2.4	1.07	1.246	66.0	0.424	0.838	97.6	584.2	0.682	1.193	2.64	0.912	67.0	268.2	-17.7	0.389
4- 830	4-1280	0.190	292.0	7.5	1.07	1.322	95.0	0.285	1.000	337.4	824.0	0.716	1.285	2.64	1.013	106.5	48.8	26.8	0.305
4- 830	4-1290	0.442	164.5	1.1	0.40	1.254	69.3	0.379	0.851	89.8	586.6	0.529	1.173	3.09	0.924	69.6	277.4	-15.6	0.351
4- 830	4-1290	0.233	305.0	2.2	0.40	1.327	97.7	0.310	1.013	326.4	823.2	0.699	1.327	3.09	1.021	108.0	59.9	29.9	0.331
4- 830	4-1300	0.384	168.7	-1.9	-0.60	1.260	72.2	0.340	0.863	81.8	588.6	0.570	1.156	3.88	0.934	71.8	286.4	-11.7	0.320
4- 830	4-1300	0.287	314.6	-2.7	-0.60	1.332	100.7	0.341	1.028	316.3	823.2	0.677	1.378	3.88	1.029	109.8	71.0	32.8	0.364
4- 830	4-1310	0.336	173.1	-8.6	-2.36	1.266	74.9	0.306	0.874	73.4	590.4	0.606	1.141	5.44	0.943	73.7	294.9	-4.6	0.299
4- 830	4-1310	0.352	322.1	-8.7	-2.36	1.337	103.9	0.379	1.044	306.9	823.9	0.648	1.439	5.44	1.037	112.0	82.0	36.2	0.407
4- 830	4-1320	0.319	176.7	-26.8	-6.67	1.271	77.3	0.279	0.883	64.9	592.0	0.657	1.129	9.56	0.950	75.1	302.1	10.2	0.308
4- 830	4-1320	0.439	329.0	-19.9	-6.67	1.343	107.2	0.421	1.061	298.3	825.4	0.615	1.507	9.56	1.045	114.5	92.4	43.1	0.468
4- 830	4-1340	0.434	174.5	64.3	18.03	1.278	81.6	0.238	0.899	46.4	594.4	0.685	1.113	-15.52	0.959	77.3	357.1	-52.4	0.350
4- 830	4-1340	0.679	343.3	34.3	18.03	1.356	114.3	0.514	1.099	282.4	830.3	0.534	1.665	-15.52	1.059	120.4	106.7	-1.7	0.600
4- 830	4-1350	0.266	195.1	50.1	9.22	1.282	83.4	0.226	0.905	37.4	595.4	0.700	1.110	-6.90	0.962	77.9	347.3	-34.6	0.251
4- 830	4-1360	0.542	181.9	16.6	6.64	1.426	69.7	0.569	1.403	58.0	266.0	---	2.202	-4.52	1.146	59.4	330.7	-19.9	0.600
4- 830	4-1360	0.210	207.5	44.8	6.64	1.284	85.1	0.218	0.911	28.2	596.2	0.713	1.109	-4.52	0.963	78.4	351.5	-24.3	0.230
4- 830	4-1370	0.488	187.3	15.1	5.36	1.428	72.3	0.554	1.415	51.1	269.2	---	2.199	-3.44	1.147	60.8	338.3	-15.6	0.575
4- 830	4-1370	0.178	221.2	42.3	5.36	1.287	86.7	0.213	0.916	18.9	596.9	0.721	1.111	-3.44	0.964	78.6	358.0	-17.0	0.222
4- 830	4-1380	0.439	193.3	14.5	4.55	1.430	74.9	0.540	1.427	43.9	272.1	---	2.197	-2.85	1.147	62.1	346.0	-11.7	0.553
4- 830	4-1380	0.159	237.2	40.2	4.55	1.289	88.4	0.211	0.921	9.5	597.6	0.726	1.115	-2.85	0.965	78.6	5.3	-11.2	0.219
4- 830	4-1390	0.394	200.5	14.2	3.97	1.432	77.6	0.528	1.438	36.5	274.7	---	2.196	-2.50	1.147	63.2	353.8	-7.9	0.535
4- 830	4-1390	0.149	254.8	36.8	3.97	1.291	90.0	0.213	0.925	0.1	598.2	0.728	1.121	-2.50	0.964	78.5	13.0	-6.1	0.221
4- 830	4-1400	0.352	209.2	14.2	3.51	1.434	80.3	0.518	1.447	28.8	276.8	---	2.198	-2.29	1.147	64.1	1.7	-4.2	0.519
4- 830	4-1400	0.150	271.9	31.8	3.51	1.292	91.6	0.218	0.929	350.8	958.8	0.726	1.131	-2.29	0.964	78.1	20.9	-1.5	0.226
4- 830	4-1410	0.317	220.0	14.1	3.10	1.435	83.0	0.511	1.457	20.7	278.6	---	2.201	-2.17	1.146	64.8	9.8	-0.6	0.507
4- 830	4-1410	0.161	286.9	25.7	3.10	1.294	93.4	0.226	0.932	341.4	959.3	0.721	1.143	-2.17	0.963	77.6	29.0	2.6	0.235
4- 830	4-1420	0.290	233.4	13.7	2.73	1.437	86.0	0.507	1.465	12.0	279.8	---	2.208	-2.12	1.145	65.3	18.1	2.9	0.498
4- 830	4-1420	0.182	299.3	19.8	2.73	1.295	95.3	0.239	0.936	332.1	959.8	0.712	1.160	-2.12	0.962	78.8	37.5	6.3	0.247
4- 830	4-1420	0.577	356.1	5.0	2.73	1.188	118.1	0.471	0.749	244.91	232.7	0.396	1.102	-2.12	0.812	110.4	160.9	3.2	0.358
4- 830	4-1420	0.676	358.1	4.1	2.73	1.198	123.0	0.546	0.762	241.01	228.7	0.346	1.178	-2.12	0.826	118.0	166.6	2.1	0.458
4- 830	4-1430	0.276	249.5	12.4	2.37	1.438	89.1	0.506	1.473	2.7	280.2	---	2.219	-2.14	1.145	65.4	26.8	6.3	0.495
4- 830	4-1430	0.212	309.3	14.5	2.37	1.297	97.4	0.257	0.939	322.6	960.1	0.698	1.180	-2.14	0.961	79.7	46.3	9.5	0.264
4- 830	4-1430	0.475	354.4	5.4	2.37	1.178	113.1	0.393	0.736	248.31	245.9	0.447	1.025	-2.14	0.794	98.8	148.9	5.1	0.237
4- 840	4- 880	0.536	291.2	8.3	2.66	1.675	96.7	1.042	17.094	347.0	422.9	0.719	---	2.85	1.438	122.2	38.0	19.5	0.812
4- 840	4- 890	0.378	294.2	8.7	2.17	1.517	95.9	0.680	2.244	345.5	431.5	0.719	---	2.77	1.253	117.9	42.0	21.4	0.612
4- 840	4- 900	0.276	295.1	8.7	1.68	1.420	94.7	0.473	1.369	345.3	441.2	0.721	---	2.78	1.135	113.6	46.1	23.8	0.472
4- 840	4- 910	0.208	293.9	7.7	1.18	1.358	93.6	0.348	1.110	346.2	452.2	0.723	---	2.87	1.060	109.4	50.1	26.5	0.368
4- 840	4- 920	0.161	290.9	5.1	0.62	1.319	92.5	0.270	0.993	348.1	464.3	0.725	---	3.08	1.010	105.7	53.5	29.9	0.290
4- 840	4- 930	0.131	286.6	-0.5	-0.05	1.293	91.7	0.220	0.932	350.7	477.0	0.727	---	3.43	0.979	102.3	55.7	34.4	0.231
4- 840	4- 940	0.113	281.8	-10.5	-0.93	1.277	91.0	0.189	0.897	353.4	489.8	0.728	---	4.01	0.958	99.4	55.4	40.8	0.188
4- 840	4- 950	0.111	277.8	-26.3	-2.22	1.267	90.6	0.170	0.877	355.7	502.3	0.728	---	5.02	0.945	96.8	50.5	49.9	0.163
4- 840	4- 960	0.133	275.2	-47.5	-4.46	1.261	90.4	0.158	0.865	357.2	513.9	0.728	---	7.00	0.937	94.7	35.4	61.7	0.163
4- 840	4- 970	0.227	275.2	-71.5	-9.85	1.258	90.3	0.152	0.859	357.7	524.4	0.728	---	12.13	0.932	92.7	0.1	70.7	0.226
4- 840	4- 990	0.481	18.6	87.5	22.48	1.257	90.9	0.151	0.857	353.2	541.1	0.728	0.986	-20.68	0.928	89.8	64.3	-46.6	0.359
4- 840	4-1000	0.244	290.8	72.7	10.69	1.258	91.2	0.153	0.859	351.0	548.7	0.727	0.990	-9.14	0.927	88.4	54.5	-37.7	0.180
4- 840	4-1010	0.182	294.2	60.8	7.26	1.259	91.7	0.157	0.861	347.7	555.3	0.726	0.997	-5.96	0.927	87.2	48.9	-26.4	0.144
4- 840	4-1020	0.158	300.0	50.7	5.56	1.261	92.3	0.163	0.865	343.6	561.2	0.724	1.006	-4.53	0.926	86.0	43.6	-16.9	0.138
4- 840	4-1030	0.149	306.4	41.5	4.50	1.263	93.0	0.170	0.869	338.9	566.5	0.721	1.017	-3.74	0.926	84.9	44.0	-9.4	0.143
4- 840	4-1040	0.151	312.8	33.1	3.74	1.266	93.9	0.179	0.874	333.8	571.3	0.717	1.030	-3.28	0.926	83.7	46.5	-3.5	0.153

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 840	4-1050	0.159	319.0	25.7	3.13	1.268	94.9	0.190	0.878	328.4	575.7	0.711	1.046	-2.99	0.927	82.5	50.7	1.2	0.167
4- 840	4-1060	0.174	324.9	19.2	2.61	1.270	96.1	0.204	0.883	322.5	579.6	0.705	1.063	-2.83	0.927	81.2	56.1	5.1	0.183
4- 840	4-1070	0.196	330.4	15.8	2.13	1.273	97.5	0.221	0.888	316.4	583.2	0.692	1.084	-2.77	0.927	79.8	62.4	8.2	0.202
4- 840	4-1080	0.225	335.6	9.3	1.66	1.275	99.1	0.242	0.893	309.8	586.3	0.677	1.109	-2.78	0.928	78.2	69.5	10.7	0.225
4- 840	4-1090	0.262	340.6	5.6	1.17	1.278	101.1	0.268	0.898	302.8	588.9	0.658	1.138	-2.88	0.929	76.2	77.5	12.6	0.253
4- 840	4-1100	0.310	345.4	2.6	0.64	1.280	103.6	0.301	0.903	295.2	591.0	0.632	1.175	-3.07	0.931	73.9	85.8	13.8	0.287
4- 840	4-1110	0.373	350.3	0.0	0.01	1.283	106.7	0.344	0.909	286.9	592.2	0.596	1.221	-3.39	0.933	71.0	94.9	14.3	0.332
4- 840	4-1120	0.457	355.5	-2.0	-0.78	1.285	110.7	0.402	0.914	277.5	592.3	0.547	1.282	-3.90	0.935	67.1	104.7	14.1	0.393
4- 840	4-1120	0.827	28.6	-0.7	-0.78	1.060	133.2	0.697	0.617	215.9	890.7	0.187	1.047	-3.90	0.589	109.8	196.7	-12.0	0.475
4- 840	4-1130	0.575	1.3	-3.8	-1.89	1.288	116.4	0.483	0.920	266.3	590.7	0.476	1.364	-4.75	0.938	61.7	115.4	13.1	0.479
4- 840	4-1130	0.797	29.0	-1.8	-1.89	1.044	131.7	0.683	0.604	215.3	899.7	0.191	1.017	-4.75	0.558	90.7	183.0	-8.0	0.430
4- 840	4-1140	0.858	30.4	-3.1	-3.67	1.039	135.2	0.725	0.600	212.9	906.7	0.165	1.035	-6.28	0.548	73.2	173.6	-4.5	0.491
4- 840	4-1190	0.959	143.8	5.6	8.82	0.988	38.5	0.803	0.565	154.5	896.5	0.111	1.018	7.38	0.457	103.9	254.6	-16.9	0.566
4- 840	4-1200	0.636	176.2	11.6	6.46	1.296	61.3	0.518	0.937	96.5	488.2	0.452	1.422	5.27	0.957	120.9	323.1	-6.1	0.541
4- 840	4-1210	0.491	184.0	12.7	5.12	1.299	68.4	0.425	0.944	81.6	482.9	0.543	1.344	4.19	0.964	114.9	334.6	-1.6	0.443
4- 840	4-1220	0.387	191.6	13.7	4.21	1.301	73.6	0.361	0.950	68.1	479.2	0.607	1.293	3.55	0.970	110.9	345.2	2.9	0.379
4- 840	4-1230	0.310	199.9	14.6	3.51	1.304	77.5	0.317	0.956	55.2	476.1	0.653	1.260	3.16	0.977	108.3	355.4	7.6	0.336
4- 840	4-1240	0.249	209.9	15.4	2.94	1.307	80.8	0.288	0.963	42.6	473.4	0.685	1.241	2.93	0.984	106.7	5.5	12.1	0.308
4- 840	4-1250	0.203	222.7	15.8	2.43	1.310	83.7	0.271	0.970	30.0	470.7	0.707	1.233	2.80	0.990	105.6	15.7	16.6	0.292
4- 840	4-1260	0.796	163.5	2.3	1.94	1.216	51.1	0.631	0.788	123.5	574.2	0.291	1.285	2.76	0.865	53.4	252.6	-19.2	0.592
4- 840	4-1260	0.170	239.5	15.1	1.94	1.313	86.4	0.262	0.978	17.5	468.2	0.721	1.234	2.76	0.997	105.2	26.1	20.9	0.284
4- 840	4-1270	0.714	166.9	2.0	1.45	1.226	55.4	0.573	0.804	116.8	577.6	0.343	1.264	2.81	0.882	57.4	261.2	-19.3	0.536
4- 840	4-1270	0.153	260.4	12.5	1.45	1.316	88.9	0.262	0.986	5.1	465.9	0.728	1.245	2.81	1.004	105.2	37.0	24.8	0.283
4- 840	4-1280	0.636	170.3	1.5	0.92	1.235	59.5	0.517	0.819	109.9	580.7	0.396	1.242	2.96	0.897	61.0	270.0	-18.6	0.484
4- 840	4-1280	0.156	282.3	7.8	0.92	1.320	91.5	0.270	0.995	353.1	823.9	0.727	1.264	2.96	1.011	105.6	48.2	28.2	0.291
4- 840	4-1290	0.562	173.9	0.6	0.32	1.244	63.3	0.464	0.834	102.6	583.6	0.447	1.220	3.22	0.911	64.3	278.9	-17.1	0.436
4- 840	4-1290	0.179	301.2	2.3	0.32	1.324	94.0	0.284	1.004	341.6	822.5	0.720	1.292	3.22	1.018	106.5	59.8	31.1	0.305
4- 840	4-1300	0.494	177.7	-1.0	-0.44	1.252	66.8	0.415	0.847	95.1	586.2	0.495	1.199	3.66	0.923	67.2	287.7	-14.4	0.395
4- 840	4-1300	0.217	315.6	-2.7	-0.44	1.328	96.7	0.306	1.018	330.8	821.8	0.703	1.329	3.66	1.024	107.7	71.5	33.5	0.326
4- 840	4-1310	0.433	181.6	-4.0	-1.47	1.258	69.9	0.372	0.860	87.3	588.5	0.540	1.180	4.41	0.943	69.7	296.2	-10.2	0.358
4- 840	4-1310	0.267	328.3	-7.2	-1.47	1.333	99.6	0.334	1.031	320.6	821.8	0.687	1.375	4.41	1.031	109.3	83.3	35.5	0.395
4- 840	4-1320	0.381	185.7	-9.9	-3.10	1.265	72.8	0.334	0.872	79.1	590.5	0.580	1.163	5.77	0.942	71.8	304.2	-3.6	0.332
4- 840	4-1320	0.329	334.7	-12.4	-3.10	1.338	102.6	0.368	1.046	311.2	822.6	0.661	1.430	5.77	1.038	111.3	95.0	37.7	0.393
4- 840	4-1330	0.351	189.3	-22.6	-6.31	1.270	75.4	0.303	0.882	70.8	592.2	0.615	1.149	8.73	0.949	73.6	311.0	7.9	0.326
4- 840	4-1330	0.408	341.8	-20.4	-6.31	1.343	105.7	0.406	1.062	302.5	824.0	0.631	1.493	8.73	1.045	113.6	106.4	41.7	0.446
4- 840	4-1340	0.449	185.1	-52.6	-16.64	1.274	77.7	0.278	0.891	62.3	593.7	0.644	1.139	18.81	0.954	75.0	316.7	31.7	0.416
4- 840	4-1340	0.573	352.6	-39.6	-16.64	1.349	109.0	0.448	1.080	294.5	825.9	0.597	1.563	18.81	1.052	116.1	116.2	54.6	0.564
4- 840	4-1350	0.371	198.7	59.6	14.60	1.282	82.0	0.239	0.906	43.3	595.8	0.690	1.123	-12.92	0.961	77.1	7.7	-41.5	0.323
4- 840	4-1370	0.585	194.6	20.0	8.70	1.426	68.2	0.582	1.405	61.6	264.0	---	2.221	-7.27	1.144	58.4	343.7	-19.4	0.627
4- 840	4-1370	0.256	214.3	49.1	8.70	1.285	83.8	0.228	0.913	34.2	596.6	0.705	1.121	-7.27	0.962	77.7	5.1	-27.7	0.260
4- 840	4-1380	0.523	199.9	16.5	6.34	1.429	70.8	0.565	1.417	54.9	267.3	---	2.218	-5.16	1.145	59.9	349.8	-13.8	0.596
4- 840	4-1380	0.204	227.1	44.0	6.34	1.287	85.6	0.220	0.918	25.0	597.3	0.716	1.121	-5.16	0.963	78.1	9.6	-18.5	0.240
4- 840	4-1390	0.470	205.6	14.8	5.01	1.431	73.4	0.550	1.429	47.9	270.3	---	2.216	-4.10	1.145	61.2	356.9	-9.2	0.571
4- 840	4-1390	0.173	241.5	40.6	5.01	1.290	87.2	0.216	0.923	15.6	598.0	0.724	1.123	-4.10	0.964	78.3	15.9	-11.6	0.231
4- 840	4-1400	0.421	212.1	13.7	4.11	1.433	76.0	0.537	1.441	40.7	273.0	---	2.214	-3.49	1.145	62.4	4.3	-5.2	0.550
4- 840	4-1400	0.154	258.0	37.0	4.11	1.292	88.9	0.216	0.928	6.3	598.5	0.728	1.128	-3.49	0.963	78.3	23.1	-6.0	0.228
4- 840	4-1410	0.377	219.8	12.9	3.43	1.434	78.7	0.526	1.451	33.2	275.3	---	2.215	-3.13	1.145	63.5	11.9	-1.4	0.532
4- 840	4-1410	0.146	275.5	32.0	3.43	1.294	90.6	0.219	0.932	356.9	959.1	0.728	1.136	-3.13	0.963	78.1	30.8	-1.2	0.230
4- 840	4-1420	0.337	229.1	12.2	2.87	1.436	81.4	0.518	1.461	25.4	277.3	---	2.217	-2.91	1.145	64.3	19.8	2.1	0.517
4- 840	4-1420	0.150	292.1	25.7	2.87	1.295	92.3	0.225	0.936	347.6	959.6	0.725	1.147	-2.91	0.962	77.6	38.9	2.9	0.235
4- 840	4-1430	0.304	240.8	11.2	2.38	1.437	84.2	0.512	1.470	17.1	278.8	---	2.222	-2.79	1.144	64.9	28.0	5.4	0.506
4- 840	4-1430	0.164	306.2	19.1	2.38	1.297	94.1	0.235	0.939	338.3	960.1	0.719	1.160	-2.79	0.962	77.0	47.3	6.5	0.244
4- 840	4-1440	0.281	255.1	9.8	1.90	1.439	87.2	0.509	1.478	8.3	279.7	---	2.230	-2.76	1.143	65.2	36.6	8.4	0.498
4- 840	4-1440	0.189	317.9	13.2	1.90	1.298	96.0	0.249	0.943	329.0	960.5	0.708	1.178	-2.76	0.961	76.1	56.1	9.4	0.257
4- 840	4-1440	0.497	10.1	4.1	1.90	1.185	114.3	0.412	0.744	248.5	1239.9	0.438	1.051	-2.76	0.800	103.0	167.8	-3.4	0.272
4- 840	4-1440	0.795	16.2	2.3	1.90	1.215	128.9	0.421	0.784	236.1	1227.5	0.289	1.278	-2.76	0.841	125.9	187.2	-6.7	0.572
4- 850	4- 890	0.431	293.4	8.5	2.30	1.593	92.2	0.647	4.754	355.3	425.4	0.727	---	3.40	1.343	119.7	45.7	23.1	0.702
4- 850	4- 900	0.297	293.7	8.4	1.70	1.460	91.7	0.553	1.626	355.2	435.3	0.727	---	3.24	1.185	115.1	49.3	25.1	0.524
4- 850	4- 910	0.215	291.2	7.3	1.13	1.380	91.0	0.388	1.188	356.6	446.8	0.728	---	3.20	1.087	110.7	53.0	27.5	0.401
4- 850	4- 920	0.163	286.2	4.6	0.56	1.331	90.2	0.289	1.025	359.3	459.6	0.728	---	3.25	1.026	106.7	56.1	30.4	0.311
4- 850	4- 930	0.132	279.4	-0.5	-0.05	1.300	89.5	0.230	0.945	2.8	113.3	---	---	3.41	0.986	103.1	58.3	34.1	0.244
4- 850	4- 940	0.116	272.6	-8.2	-0.75	1.280	88.9	0.194	0.903	6.5	127.1	---	---	3.71	0.962	100.0	58.4	39.1	0.195
4- 850	4- 950	0.111	267.0	-18.8	-1.61	1.268	88.6	0.173	0.879	9.6	140.3	---	---	4.22	0.946	97.3	55.2	45.7	0.161
4- 850	4- 960	0.116	263.4	-31.9	-2.80	1.262	88.4	0.161	0.865	11.5	152.4	---	---	5.07	0.937	95.0	46.1	54.0	0.144
4- 850	4- 970	0.138	261.8	-47.6	-4.65	1.258	88.4	0.155	0.859	12.1	163.1	---	---	6.61	0.932	93.0	28.5	62.3	0.148
4- 850	4- 980	0.198	260.5	-65.3	-8.25	1.257	88.5	0.152	0.856	11.5	172.6	---	---	9.92	0.929	91.3	2.7	68.1	0.189
4- 850	4- 990	0.418	224.4	-85.1	-19.36	1.257	88.7	0.152	0.856	10.1	181.1	---	0.986	20.74	0.927	89.8	340.2	71.5	0.360
4- 850	4-1010	0.354	277.2	83.2	16.27	1.260	89.8	0.155	0.862	3.3	192.5	---	0.995	-15.39	0.927	87.6	62.7	-43.3	0.277
4- 850	4-1020	0.214	289.8	68.7	9.11	1.262	90.4	0.159	0.866	357.4	559.3	0.728	1.003	-8.58	0.927	86.4	54.1	-32.2	0.181
4- 850	4-1030	0.166	298.6	56.9	6.30	1.264	91.0	0.164	0.870	352.7	564.6	0.727	1.013	-6.07	0.927	85.4	50.9	-21.1	0.158
4- 850	4-1040	0.145	307.5	46.0	4.74	1.267	91.8	0.171	0.875	347.6	569.3	0.726	1.025	-4.81	0.928	84.4	51.5	-12.2	0.155
4- 850	4-1050	0.139	316.2	35.8	3.69	1.269	92.7	0.179	0.880	342.1	573.6	0.723	1.038	-4.08	0.928	83.4	54.4	-5.4	0.161
4- 850	4-1060	0.143	324.4	26.7	2.90	1.272	93.7	0.189	0.885	336.3	577.6	0.718	1.053	-3.64	0.929	82.3	58.9	-0.1	0.171
4- 850	4-1070	0.154	332.0	18.8	2.24	1.275	94.9	0.201	0.891	330.2	581.2	0.712	1.069	-3.38	0.929	81.2	64.6	4.0	0.184
4- 850	4-1080	0.173	338.9	12.3	1.67	1.277	96.2	0.215	0.896	323.8	584.5	0.703	1.089	-3.24	0.930	79.9	71.2	7.2	0.199
4- 850	4-1090	0.198	345.1	7.2	1.13	1.280	97.7	0.233	0.901	317.1	587.5	0.691	1.111	-3.20	0.931	78.5	78.4	9.5	0.218
4- 850	4-1100	0.231	350.9	3.2	0.58	1.282	99.5	0.255	0.906	310.1	590.0	0.675	1.137	-3.24	0.933	76.9	86.3	11.1	0.241
4- 850	4-1110	0.273	356.3	0.1	0.01	1.285	101.7	0.282	0.912	302.6	592.1	0.654	1.169	-3.39	0.935	74.9	94.7	12.0	0.270
4- 850	4-1120	0.326	1.6	-2.4	-0.63	1.287	104.3	0.318	0.917	294.6	593.6	0.625	1.209	-3.66	0.937	72.5	103.6	12.1	0.307
4- 850	4-1130	0.396	6.9	-4.4	-1.41	1.290	107.7	0.365	0.922	285.7	594.2	0.586	1.259	-4.09	0.940	69.4	113.0	11.5	0.355

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 850	4-1130	0.908	43.6	-1.1	-1.41	1.094	137.3	0.740	0.645	215.9	884.5	0.188	1.122	-4.09	0.646	124.6	220.4	-16.6	0.583
4- 850	4-1140	0.491	12.5	-5.9	-2.42	1.292	112.3	0.428	0.928	275.5	593.5	0.530	1.326	-4.78	0.943	65.2	123.1	10.0	0.422
4- 850	4-1140	0.776	43.5	-2.5	-2.42	1.059	130.4	0.664	0.615	217.4	895.4	0.207	1.023	-4.78	0.584	98.9	202.9	-16.6	0.421
4- 850	4-1150	0.628	18.8	-7.1	-3.89	1.295	118.7	0.518	0.934	263.2	590.8	0.450	1.418	-5.97	0.947	59.2	134.0	7.6	0.520
4- 850	4-1150	0.793	44.5	-5.9	-5.89	1.050	131.4	0.678	0.608	216.0	903.6	0.196	1.020	-5.97	0.569	82.6	190.7	-13.1	0.452
4- 850	4-1160	0.891	46.4	-5.2	-6.43	1.048	136.8	0.742	0.606	212.5	909.6	0.157	1.056	-8.22	0.566	65.3	184.2	-10.5	0.535
4- 850	4-1210	0.897	161.7	5.9	7.83	1.003	42.5	0.759	0.574	151.3	896.9	0.138	1.010	7.41	0.498	99.6	273.1	-16.4	0.521
4- 850	4-1220	0.568	196.1	11.8	5.66	1.302	64.8	0.476	0.952	88.6	483.9	0.499	1.405	5.53	0.972	118.2	342.4	2.7	0.505
4- 850	4-1230	0.440	204.0	12.2	4.33	1.305	71.1	0.396	0.958	73.8	479.0	0.579	1.338	4.51	0.978	113.2	353.6	7.8	0.421
4- 850	4-1240	0.346	212.5	12.5	3.39	1.308	75.8	0.342	0.965	60.2	475.2	0.635	1.295	3.90	0.985	109.9	4.2	12.6	0.366
4- 850	4-1250	0.276	221.8	12.4	2.64	1.311	79.5	0.307	0.971	47.1	472.0	0.674	1.269	3.53	0.991	107.8	14.6	17.2	0.330
4- 850	4-1260	0.222	233.5	11.9	2.01	1.313	82.6	0.284	0.978	34.3	469.2	0.700	1.256	3.31	0.997	106.5	25.3	21.6	0.308
4- 850	4-1270	0.182	248.7	10.4	1.48	1.316	85.4	0.272	0.985	21.7	466.6	0.715	1.254	3.21	1.003	105.8	36.3	25.5	0.295
4- 850	4-1280	0.776	180.6	1.1	0.87	1.223	52.3	0.615	0.799	121.1	576.1	0.307	1.291	3.21	0.880	54.2	272.5	-19.5	0.508
4- 850	4-1280	0.159	268.0	7.2	0.87	1.319	88.0	0.269	0.993	9.3	464.3	0.726	1.261	3.21	1.010	105.6	47.7	29.0	0.291
4- 850	4-1290	0.696	184.0	0.4	0.28	1.233	56.5	0.558	0.815	114.3	570.4	0.360	1.269	3.31	0.895	58.0	281.1	-18.3	0.535
4- 850	4-1290	0.155	289.5	2.4	0.28	1.323	90.6	0.274	1.002	357.4	822.5	0.728	1.276	3.31	1.016	105.9	59.5	31.8	0.294
4- 850	4-1300	0.620	187.5	-0.6	-0.36	1.242	60.5	0.504	0.829	107.3	582.5	0.412	1.247	3.53	0.909	61.6	289.7	-16.3	0.482
4- 850	4-1300	0.171	309.5	-2.8	-0.36	1.326	93.1	0.285	1.012	346.0	821.2	0.723	1.300	3.53	1.022	106.5	71.7	33.9	0.304
4- 850	4-1310	0.548	191.0	-2.3	-1.13	1.250	64.2	0.453	0.844	100.0	585.4	0.462	1.226	3.92	0.921	64.7	298.1	-13.3	0.456
4- 850	4-1310	0.204	325.5	-7.3	-1.13	1.330	95.7	0.303	1.023	335.2	820.6	0.712	1.333	3.92	1.028	107.5	83.9	35.4	0.322
4- 850	4-1320	0.484	194.8	-5.1	-2.12	1.257	67.6	0.406	0.857	92.4	587.9	0.509	1.205	4.57	0.931	67.5	306.2	-9.0	0.396
4- 850	4-1320	0.250	337.5	-11.3	-2.12	1.335	98.4	0.328	1.035	325.1	820.6	0.696	1.374	4.57	1.033	108.9	96.1	36.3	0.347
4- 850	4-1330	0.427	198.6	-10.0	-3.55	1.264	70.7	0.365	0.869	84.4	590.2	0.552	1.187	5.68	0.940	69.9	313.9	-2.9	0.364
4- 850	4-1330	0.307	346.8	-15.4	-3.55	1.339	101.3	0.356	1.049	315.6	821.3	0.675	1.424	5.68	1.039	110.7	108.1	37.2	0.380
4- 850	4-1340	0.387	202.2	-19.2	-6.00	1.269	73.5	0.329	0.881	76.2	592.1	0.591	1.171	7.83	0.947	72.0	320.6	6.4	0.346
4- 850	4-1340	0.379	354.4	-21.1	-6.00	1.344	104.3	0.393	1.064	306.8	822.7	0.646	1.482	7.83	1.045	112.8	119.8	39.0	0.424
4- 850	4-1350	0.401	203.4	-38.5	-11.63	1.274	76.0	0.300	0.891	67.8	593.7	0.623	1.158	13.17	0.952	74.6	325.7	23.0	0.368
4- 850	4-1350	0.488	2.5	-32.2	-11.63	1.350	107.4	0.432	1.081	298.7	824.5	0.614	1.547	13.17	1.051	115.1	131.5	44.9	0.496
4- 850	4-1370	0.623	183.3	69.9	27.52	1.283	80.7	0.253	0.907	48.8	596.0	0.678	1.137	-26.56	0.959	76.3	35.6	-45.0	0.513
4- 850	4-1380	0.329	220.9	54.5	11.83	1.286	82.6	0.240	0.914	40.1	596.9	0.695	1.134	-11.15	0.961	77.0	19.8	-31.1	0.307
4- 850	4-1390	0.560	212.7	18.2	7.54	1.429	69.3	0.577	1.419	56.6	265.3	---	2.238	-7.14	1.143	58.9	1.2	-11.8	0.620
4- 850	4-1390	0.236	234.2	45.5	7.54	1.289	84.4	0.230	0.920	31.0	597.6	0.709	1.132	-7.14	0.962	77.5	21.0	-19.7	0.264
4- 850	4-1400	0.502	218.1	15.0	5.87	1.431	71.9	0.561	1.432	51.8	268.3	---	2.235	-5.38	1.143	60.3	7.6	-6.6	0.591
4- 850	4-1400	0.190	247.2	40.1	5.87	1.291	86.1	0.224	0.926	21.7	598.2	0.719	1.133	-5.38	0.962	77.8	26.3	-11.7	0.246
4- 850	4-1410	0.450	224.0	13.0	4.20	1.433	74.5	0.547	1.443	44.8	271.1	---	2.233	-4.42	1.143	61.6	14.7	-2.3	0.566
4- 850	4-1410	0.162	262.0	35.7	4.20	1.293	87.8	0.221	0.931	12.4	598.8	0.725	1.137	-4.4	0.962	77.9	32.9	-5.6	0.233
4- 850	4-1420	0.403	230.9	11.5	3.29	1.435	77.1	0.535	1.454	37.5	273.7	---	2.233	-3.85	1.143	62.7	22.1	1.5	0.546
4- 850	4-1420	0.146	278.7	30.6	3.29	1.295	89.4	0.222	0.935	3.1	599.3	0.728	1.143	-3.85	0.962	77.9	40.4	-0.7	0.235
4- 850	4-1430	0.360	239.1	10.1	2.57	1.437	79.8	0.526	1.464	30.0	275.9	---	2.234	-3.50	1.143	63.6	29.8	4.9	0.528
4- 850	4-1430	0.142	295.9	28.2	2.57	1.297	91.1	0.226	0.939	353.9	959.8	0.727	1.151	-3.50	0.962	77.6	48.4	3.4	0.237
4- 850	4-1440	0.323	249.2	8.7	1.96	1.438	82.5	0.518	1.474	22.0	277.7	---	2.238	-3.30	1.143	64.5	37.9	7.9	0.514
4- 850	4-1440	0.150	311.7	17.3	1.96	1.299	92.9	0.233	0.943	344.7	960.4	0.723	1.163	-3.30	0.961	77.1	56.8	6.8	0.242
4- 850	4-1450	0.294	261.6	6.9	1.41	1.440	85.4	0.514	1.483	13.7	279.0	---	2.244	-3.21	1.142	64.8	46.4	10.6	0.504
4- 850	4-1450	0.168	325.1	10.9	1.41	1.300	94.7	0.244	0.947	335.6	960.8	0.715	1.178	-3.21	0.961	78.4	65.6	9.4	0.251
4- 850	4-1450	0.574	27.0	2.6	1.41	1.196	118.2	0.473	0.760	246.3	231.6	0.400	1.120	-3.21	0.814	111.1	188.8	-11.1	0.365
4- 850	4-1450	0.643	28.4	2.2	1.41	1.203	121.5	0.528	0.769	243.5	1228.8	0.366	1.172	-3.21	0.824	116.2	192.9	-11.4	0.434
4- 860	4- 890	0.544	290.0	8.3	2.66	1.702	86.6	1.106	-6.851	6.6	60.9	---	---	4.17	1.470	122.1	49.0	24.6	0.836
4- 860	4- 900	0.349	289.1	8.1	1.86	1.509	87.4	0.657	2.119	6.6	71.0	---	---	3.76	1.244	117.1	51.9	26.1	0.593
4- 860	4- 910	0.244	284.9	6.8	1.18	1.403	87.4	0.434	1.280	8.8	83.1	---	---	3.52	1.115	112.3	54.9	28.1	0.439
4- 860	4- 920	0.185	277.8	4.0	0.56	1.340	87.0	0.311	1.050	12.6	97.1	---	---	3.40	1.037	107.8	57.6	30.5	0.333
4- 860	4- 930	0.154	269.7	-0.4	-0.04	1.303	86.6	0.242	0.951	17.5	112.1	---	---	3.40	0.989	103.8	59.2	33.5	0.256
4- 860	4- 940	0.140	262.6	-6.1	-0.66	1.280	86.3	0.202	0.900	22.4	127.2	---	---	3.50	0.960	100.4	59.1	37.5	0.201
4- 860	4- 950	0.134	257.5	-12.8	-1.35	1.267	86.1	0.180	0.874	26.2	141.1	---	---	3.73	0.943	97.5	55.9	42.4	0.162
4- 860	4- 960	0.135	254.7	-20.5	-2.15	1.259	86.0	0.168	0.860	28.4	153.5	---	---	4.14	0.935	95.1	48.4	48.2	0.138
4- 860	4- 970	0.140	253.7	-29.9	-3.19	1.256	86.1	0.162	0.853	28.9	164.1	---	---	4.81	0.928	93.0	35.9	53.8	0.129
4- 860	4- 980	0.155	254.1	-41.3	-4.69	1.255	86.3	0.159	0.851	27.8	173.2	---	---	5.77	0.925	91.3	20.7	58.3	0.136
4- 860	4- 990	0.191	254.6	-55.5	-7.21	1.255	86.6	0.158	0.852	25.6	181.1	---	0.986	8.17	0.924	89.8	5.5	62.5	0.165
4- 860	4-1000	0.294	248.9	-72.3	-12.90	1.257	87.0	0.158	0.855	22.6	188.0	---	0.990	13.55	0.924	88.5	350.6	68.2	0.247
4- 860	4-1020	0.638	147.6	82.2	30.10	1.262	88.4	0.160	0.864	11.3	198.1	---	1.002	-30.05	0.926	86.6	72.9	-43.1	0.512
4- 860	4-1030	0.273	279.8	74.5	11.99	1.264	89.0	0.164	0.869	7.3	203.5	---	1.012	-12.23	0.926	85.6	61.8	-38.3	0.237
4- 860	4-1040	0.182	294.3	60.8	7.21	1.267	89.7	0.168	0.875	2.1	208.1	---	1.022	-7.76	0.927	84.7	57.7	-24.0	0.185
4- 860	4-1050	0.146	305.7	48.5	4.94	1.270	90.5	0.174	0.881	356.5	572.3	0.727	1.034	-5.80	0.928	83.8	58.4	-13.9	0.170
4- 860	4-1060	0.132	316.7	37.0	3.56	1.273	91.4	0.181	0.886	350.6	576.1	0.726	1.047	-4.75	0.929	82.9	61.7	-6.3	0.170
4- 860	4-1070	0.130	327.2	26.3	2.58	1.276	92.5	0.189	0.892	344.5	579.7	0.723	1.061	-4.12	0.930	81.9	66.6	-0.7	0.176
4- 860	4-1080	0.137	336.8	17.2	1.82	1.279	93.6	0.199	0.898	338.1	583.0	0.719	1.077	-3.74	0.931	80.9	72.7	3.5	0.186
4- 860	4-1090	0.152	345.5	9.8	1.17	1.282	94.9	0.212	0.904	331.6	586.1	0.712	1.095	-3.51	0.933	79.9	79.5	6.6	0.198
4- 860	4-1100	0.174	353.3	4.2	0.58	1.284	96.3	0.227	0.909	324.8	588.9	0.703	1.115	-3.40	0.935	78.6	87.0	8.7	0.214
4- 860	4-1110	0.203	0.2	0.1	0.01	1.287	98.0	0.245	0.915	317.7	591.4	0.690	1.139	-3.35	0.937	77.2	95.0	9.9	0.233
4- 860	4-1120	0.240	6.5	-3.0	-0.57	1.289	99.9	0.268	0.920	310.2	593.5	0.673	1.167	-3.48	0.939	75.6	103.4	10.4	0.256
4- 860	4-1130	0.287	12.4	-5.3	-1.19	1.292	102.2	0.298	0.925	302.3	595.1	0.650	1.201	-3.67	0.942	74.6	112.2	10.1	0.286
4- 860	4-1140	0.346	18.0	-6.9	-1.91	1.294	105.1	0.336	0.931	293.8	596.0	0.618	1.243	-4.01	0.945	73.1	121.3	9.0	0.325
4- 860	4-1150	0.424	23.7	-8.1	-2.80	1.297	108.9	0.386	0.936	284.2	596.0	0.574	1.298	-4.54	0.949	71.8	130.8	7.2	0.378
4- 860	4-1150	0.776	58.2	-3.0	-2.80	1.075	130.3	0.658	0.628	219.1	890.9	0.215	1.041	-4.54	0.615	106.6	224.2	-23.2	0.489
4- 860	4-1160	0.530	29.7	-9.0	-4.00	1.299	114.0	0.457	0.942	273.1	594.4	0.512	1.372	-5.42	0.956	69.2	141.0	4.5	0.453
4- 860	4-1160	0.752	58.9	-4.4	-4.00	1.063	129.1	0.645	0.617	218.5	899.8	0.219	1.016	-5.42	0.591	90.4	210.2	-20.8	0.400
4- 860	4-1170	0.685	36.7	-9.5	-5.85	1.302	121.3	0.556	0.948	259.7	590.4	0.421	1.476	-6.95	0.958	56.4	152.2	0.9	0.565
4- 860	4-1170	0.804	60.2	-5.7	-5.85	1.058	131.8	0.681	0.613	216.4	907.2	0.196	1.031	-6.95	0.585	75.2	199.9	-17.8	0.453
4- 860	4-1180	0.942	62.9	-6.8	-9.27	1.058	139.3	0.768	0.613	211.6	911.9	0.142	1.084	-10.08	0.587	57.6	196.8	-16.3	0.591
4- 860	4-1230	0.867	207.7	10.7	6.27	1.307	60.1	0.540	0.960	97.0	486.4	0.441	1.478	6.92	0.979	122.6	349.9	6.0	0.582

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 860	4-1230	0.842	179.5	5.4	6.27	1.017	45.9	0.718	0.583	148.4	897.8	0.164	1.002	6.92	0.534	95.6	290.4	-14.4	0.482
4- 860	4-1240	0.505	216.2	10.6	4.39	1.309	68.0	0.439	0.967	80.5	479.7	0.542	1.391	5.36	0.986	116.0	1.9	16.8	0.472
4- 860	4-1250	0.391	224.6	10.2	3.17	1.312	73.6	0.372	0.973	65.8	474.9	0.611	1.335	4.48	0.992	111.8	13.1	16.9	0.401
4- 860	4-1260	0.308	233.7	9.5	2.26	1.315	77.8	0.328	0.979	52.1	471.2	0.658	1.301	3.95	0.998	109.1	24.2	21.4	0.354
4- 860	4-1270	0.245	244.5	8.1	1.52	1.317	81.3	0.300	0.986	38.9	468.0	0.690	1.282	3.53	1.004	107.5	35.5	25.5	0.325
4- 860	4-1280	0.199	258.2	5.8	0.88	1.320	84.3	0.284	0.993	26.2	465.4	0.711	1.275	3.45	1.009	106.5	47.1	29.0	0.307
4- 860	4-1290	0.169	275.7	2.1	0.27	1.323	87.0	0.277	1.001	15.8	463.1	0.725	1.278	3.39	1.015	106.1	59.2	31.8	0.298
4- 860	4-1300	0.756	197.7	-0.4	-0.33	1.231	53.6	0.599	0.810	118.5	578.0	0.325	1.296	3.43	0.893	55.1	292.3	-17.5	0.582
4- 860	4-1300	0.158	296.5	-2.8	-0.33	1.326	89.6	0.279	1.009	1.9	461.4	0.727	1.290	3.43	1.020	106.1	71.6	33.8	0.298
4- 860	4-1310	0.678	201.1	-1.5	-0.98	1.240	57.7	0.543	0.825	111.7	581.2	0.377	1.274	3.59	0.907	58.8	300.6	-15.1	0.528
4- 860	4-1310	0.167	317.1	-7.8	-0.98	1.329	92.1	0.287	1.018	350.6	820.1	0.725	1.310	3.59	1.025	106.6	84.2	35.0	0.304
4- 860	4-1320	0.604	204.6	-3.1	-1.71	1.248	61.6	0.490	0.840	104.5	584.3	0.428	1.252	3.90	0.918	62.2	308.7	-11.9	0.479
4- 860	4-1320	0.194	334.6	-11.8	-1.71	1.333	96.7	0.302	1.028	339.8	819.6	0.717	1.339	3.90	1.030	107.4	96.7	35.5	0.318
4- 860	4-1330	0.535	208.1	-5.6	-2.61	1.256	65.2	0.441	0.854	97.1	587.0	0.477	1.231	4.42	0.929	65.2	316.5	-7.6	0.435
4- 860	4-1330	0.235	348.1	-14.9	-2.61	1.337	97.3	0.323	1.039	329.7	819.6	0.703	1.375	4.42	1.035	108.6	108.9	35.3	0.338
4- 860	4-1340	0.475	211.8	-9.5	-3.82	1.263	68.4	0.397	0.867	89.4	589.5	0.525	1.211	5.28	0.937	67.9	323.9	-2.1	0.397
4- 860	4-1340	0.287	358.4	-17.9	-3.82	1.341	100.0	0.350	1.052	320.2	820.2	0.684	1.420	5.28	1.040	110.2	120.7	34.9	0.367
4- 860	4-1350	0.426	215.4	-16.3	-5.69	1.269	71.4	0.358	0.879	81.4	591.6	0.565	1.193	6.82	0.944	70.2	330.6	5.7	0.370
4- 860	4-1350	0.351	6.7	-21.7	-5.69	1.346	102.9	0.382	1.066	311.3	821.5	0.659	1.473	6.82	1.045	112.0	132.1	35.0	0.404
4- 860	4-1360	0.406	218.1	-29.0	-9.23	1.275	74.2	0.324	0.890	73.1	593.3	0.601	1.178	10.04	0.950	72.1	336.1	17.8	0.363
4- 860	4-1360	0.436	14.2	-28.5	-9.23	1.351	105.9	0.418	1.082	303.0	823.2	0.630	1.533	10.04	1.050	114.2	143.4	37.2	0.457
4- 860	4-1370	0.511	212.4	-53.8	-19.34	1.280	76.5	0.298	0.899	64.8	594.8	0.632	1.167	19.85	0.954	73.6	339.7	40.2	0.445
4- 860	4-1370	0.611	26.1	-44.0	-19.34	1.356	109.0	0.456	1.099	295.4	825.4	0.597	1.600	19.85	1.054	116.6	154.9	47.9	0.575
4- 860	4-1400	0.439	223.4	62.1	17.74	1.287	81.2	0.256	0.915	45.8	596.9	0.683	1.148	-17.82	0.959	76.1	37.0	-34.9	0.395
4- 860	4-1400	0.277	242.2	47.7	9.18	1.290	83.1	0.242	0.922	36.9	597.7	0.699	1.145	-9.57	0.960	76.8	32.5	-21.0	0.294
4- 860	4-1410	0.535	230.9	15.2	5.97	1.432	70.3	0.573	1.434	55.7	266.3	---	2.255	-6.66	1.141	59.3	18.2	-3.9	0.611
4- 860	4-1410	0.212	254.3	39.2	5.97	1.293	84.8	0.233	0.928	27.8	598.4	0.712	1.145	-6.66	0.961	77.2	36.2	-11.5	0.264
4- 860	4-1420	0.480	236.4	12.1	4.22	1.434	72.9	0.558	1.446	48.8	269.2	---	2.253	-5.23	1.141	60.6	24.9	0.8	0.583
4- 860	4-1420	0.174	267.3	33.2	4.22	1.295	86.6	0.228	0.934	18.6	599.0	0.721	1.147	-5.23	0.961	77.5	42.4	-4.6	0.248
4- 860	4-1430	0.431	242.6	9.9	3.06	1.436	75.5	0.545	1.457	41.8	271.9	---	2.252	-4.41	1.141	61.8	32.2	4.6	0.560
4- 860	4-1430	0.150	282.3	27.5	3.06	1.297	88.3	0.227	0.938	9.5	599.6	0.726	1.151	-4.41	0.961	77.6	49.7	0.3	0.241
4- 860	4-1440	0.386	249.8	8.1	2.20	1.435	78.1	0.535	1.468	34.5	274.3	---	2.252	-3.92	1.141	62.9	39.9	7.8	0.540
4- 86	4-1440	0.139	298.9	21.1	2.20	1.299	89.0	0.228	0.943	0.3	600.1	0.728	1.158	-3.92	0.961	77.4	57.6	4.2	0.240
4- 860	4-1450	0.346	258.5	6.2	1.50	1.440	80.8	0.526	1.478	26.8	276.3	---	2.255	-3.62	1.141	63.7	47.9	10.5	0.523
4- 860	4-1450	0.139	315.7	14.1	1.50	1.301	91.7	0.233	0.947	351.2	960.7	0.728	1.167	-3.62	0.961	77 1	66.0	7.3	0.242
4- 860	4-1460	0.311	269.2	4.1	0.88	1.441	83.6	0.520	1.487	18.9	277.9	---	2.259	-3.45	1.141	64.4	56.4	12.7	0.510
4- 860	4-1460	0.152	330.8	7.6	0.88	1.303	93.4	0.242	0.950	342.2	961.3	0.721	1.180	-3.45	0.961	76.5	74.9	9.5	0.248
4- 870	4- 900	0.466	283.6	7.5	2.24	1.516	80.9	0.811	3.743	20.5	68.9	---	---	4.44	1.324	120.4	53.3	26.6	0.701
4- 870	4- 910	0.314	277.8	6.0	1.33	1.425	82.2	0.491	1.388	23.8	82.3	---	---	3.89	1.142	114.5	55.5	28.1	0.492
4- 870	4- 920	0.241	270.2	3.3	0.60	1.345	82.7	0.337	1.060	29.4	98.0	---	---	3.57	1.042	109.3	57.3	30.0	0.361
4- 870	4- 930	0.206	262.7	-0.3	-0.04	1.300	82.8	0.258	0.941	36.0	114.8	---	---	3.39	0.984	104.7	58.0	32.4	0.271
4- 870	4- 940	0.189	257.0	-4.3	-0.64	1.274	82.9	0.217	0.886	42.0	130.9	---	---	3.32	0.951	100.8	56.9	35.4	0.209
4- 870	4- 950	0.182	253.5	-8.9	-1.24	1.260	82.9	0.196	0.858	46.1	145.1	---	---	3.36	0.932	97.6	53.0	38.8	0.165
4- 870	4- 960	0.178	252.0	-13.2	-1.87	1.253	83.1	0.184	0.845	47.9	157.2	---	---	3.52	0.922	94.9	45.6	42.3	0.138
4- 870	4- 970	0.176	251.9	-18.5	-2.58	1.250	83.3	0.178	0.840	47.7	167.2	---	---	3.81	0.918	92.7	35.5	45.2	0.125
4- 870	4- 980	0.177	252.9	-25.0	-3.45	1.250	83.6	0.174	0.840	46.0	175.6	---	---	4.31	0.916	90.9	25.2	47.3	0.123
4- 870	4- 990	0.182	254.6	-33.4	-4.62	1.251	84.1	0.171	0.842	45.1	182.8	---	0.986	5.13	0.917	89.4	16.8	49.7	0.131
4- 870	4-1000	0.200	256.5	-44.3	-6.41	1.256	84.6	0.170	0.847	39.3	189.0	---	0.991	6.60	0.918	88.2	10.4	53.7	0.151
4- 870	4-1010	0.248	256.8	-58.6	-9.73	1.257	85.1	0.170	0.852	34.9	194.6	---	0.997	9.61	0.920	87.1	4.1	60.8	0.195
4- 870	4-1020	0.419	237.7	-75.9	-18.87	1.260	85.7	0.170	0.859	30.3	199.8	---	1.005	18.46	0.922	86.1	354.9	71.5	0.330
4- 870	4-1040	8.391	257.6	79.6	37.71	1.267	87.5	0.172	0.872	17.1	207.5	---	1.022	-18.70	0.925	84.6	71.4	-39.3	0.338
4- 870	4-1050	0.210	290.1	62.7	8.47	1.271	88.3	0.175	0.879	11.6	211.6	---	1.033	-9.75	0.927	83.8	64.6	-26.2	0.215
4- 8 0	4-1060	0.155	303.1	48.3	5.13	1.274	89.1	0.180	0.885	5.6	215.3	---	1.045	-6.71	0.929	83.1	65.0	-14.6	0.186
4- 870	4-1070	0.129	315.3	35.5	3.35	1.277	90.1	0.185	0.892	359.3	578.7	0.727	1.057	-5.24	0.930	82.3	68.6	-6.2	0.180
4- 870	4-1080	0.121	327.5	23.8	2.18	1.280	91.1	0.192	0.898	352.9	582.0	0.726	1.071	-4.40	0.932	81.5	74.0	-0.3	0.182
4- 870	4-1090	0.124	339.2	13.8	1.32	1.283	92.3	0.200	0.905	346.3	585.0	0.723	1.086	-3.89	0.934	80.8	80.4	3.8	0.189
4- 870	4-1100	0.135	350.0	5.9	0.62	1.286	93.5	0.211	0.911	339.6	587.9	0.719	1.102	-3.57	0.936	79.7	87.6	6.6	0.198
4- 870	4-1110	0.154	359.7	0.1	0.01	1.289	94.9	0.223	0.917	332.7	590.5	0.712	1.121	-3.40	0.938	78.6	95.3	8.4	0.211
4- 870	4-1120	0.180	8.2	-4.0	-0.55	1.292	96.4	0.239	0.922	325.5	592.9	0.702	1.142	-3.32	0.940	77.5	103.5	9.2	0.226
4- 870	4-1130	0.212	15.7	-6.7	-1.11	1.294	98.2	0.258	0.928	318.1	595.0	0.689	1.167	-3.34	0.943	76.1	111.9	9.2	0.245
4- 870	4-1140	0.252	22.9	-8.6	-1.68	1.297	100.3	0.282	0.933	310.3	596.7	0.670	1.197	-3.46	0.946	74.4	120.6	8.4	0.270
4- 870	4-1150	0.303	28.7	-9.8	-2.32	1.299	102.9	0.313	0.939	301.9	597.8	0.645	1.233	-3.69	0.950	72.4	129.5	7.0	0.301
4- 870	4-1160	0.368	34.7	-10.5	-3.07	1.301	106.0	0.354	0.944	292.7	598.2	0.610	1.278	-4.08	0.954	69.7	138.7	4.8	0.343
4- 870	4-1160	0.869	73.2	-3.1	-3.07	1.097	131.8	0.673	0.646	220.2	885.7	0.211	1.081	-4.08	0.649	115.6	247.0	-26.6	0.495
4- 870	4-1170	0.455	40.8	-10.9	-4.03	1.304	110.2	0.409	0.950	282.4	597.4	0.561	1.339	-4.70	0.959	66.1	148.4	1.9	0.402
4- 870	4-1170	0.730	73.5	-4.7	-4.03	1.076	127.8	0.625	0.627	220.7	895.7	0.235	1.019	-4.70	0.614	97.2	231.9	-26.4	0.391
4- 870	4-1180	0.576	47.3	-11.0	-5.38	1.306	115.9	0.487	0.956	270.4	594.9	0.490	1.422	-5.73	0.964	61.0	158.8	-1.8	0.487
4- 870	4-1180	0.746	74.4	-6.0	-5.38	1.069	128.5	0.637	0.621	219.4	904.0	0.226	1.017	-5.73	0.605	83.1	218.8	-24.3	0.400
4- 870	4-1190	0.831	76.1	-7.1	-7.57	1.067	133.0	0.694	0.619	219.5	910.6	0.169	1.049	-7.62	0.604	68.2	211.2	-22.0	0.488
4- 870	4-1240	0.873	196.1	5.8	6.99	1.035	44.6	0.729	0.595	147.7	891.1	0.161	1.029	8.38	0.571	111.9	317.1	-7.8	0.537
4- 870	4-1250	0.587	228.0	8.8	4.36	1.314	64.1	0.493	0.978	88.3	481.6	0.494	1.455	6.06	0.993	119.5	10.1	15.1	0.534
4- 870	4-1250	0.904	192.2	2.8	4.36	0.998	38.4	0.802	0.569	154.0	907.2	0.113	1.026	6.06	0.505	63.6	281.4	-18.4	0.595
4- 870	4-1250	0.796	197.0	4.2	4.36	1.030	48.7	0.682	0.591	145.9	899.2	0.188	0.994	6.06	0.565	91.6	306.1	-11.5	0.449
4- 870	4-1260	0.447	236.6	7.9	2.83	1.316	70.9	0.409	0.981	72.3	475.5	0.580	1.382	4.85	0.999	114.1	22.4	20.2	0.441
4- 870	4-1270	0.347	245.5	6.6	1.78	1.319	75.9	0.354	0.987	57.8	471.0	0.638	1.337	4.15	1.004	110.7	34.3	24.6	0.382
4- 870	4-1280	0.274	255.6	4.6	0.96	1.321	79.8	0.319	0.994	44.1	467.4	0.677	1.310	3.72	1.010	108.6	46.3	28.2	0.343
4- 870	4-1290	0.220	268.0	1.7	0.28	1.324	83.0	0.298	1.001	31.1	464.5	0.703	1.298	3.46	1.015	107.3	58.7	31.1	0.319
4- 870	4-1300	0.184	283.7	-2.4	-0.33	1.327	85.9	0.287	1.008	18.6	462.2	0.718	1.297	3.34	1.020	106.6	71.3	33.1	0.306
4- 870	4-1310	0.165	302.9	-7.5	-0.92	1.329	88.5	0.285	1.015	6.7	460.4	0.726	1.305	3.33	1.024	106.5	84.1	34.2	0.301
4- 870	4-1320	0.736	214.9	-2.1	-1.53	1.239	54.9	0.583	0.821	115.8	579.7	0.343	1.300	3.42	0.904	56.0	317.5	-13.4	0.575

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 870	4-1320	0.166	323.8	-12.3	-1.53	1.333	91.0	0.291	1.024	355.4	819.3	0.726	1.322	3.42	1.028	106.8	96.8	34.4	0.304
4- 870	4-1330	0.659	218.3	-3.6	-2.19	1.248	58.9	0.528	0.836	108.8	582.9	0.394	1.278	3.64	0.915	59.6	319.3	-10.0	0.522
4- 870	4-1330	0.186	342.7	-15.9	-2.19	1.336	93.6	0.303	1.033	344.6	818.7	0.721	1.346	3.64	1.032	107.4	109.2	33.8	0.314
4- 870	4-1340	0.588	221.7	-5.6	-2.97	1.256	62.7	0.477	0.851	101.6	585.8	0.445	1.257	4.02	0.925	62.9	326.9	-5.9	0.474
4- 870	4-1340	0.221	357.9	-18.1	-2.97	1.340	96.1	0.320	1.044	334.4	818.7	0.709	1.378	4.02	1.036	108.4	121.2	32.7	0.331
4- 870	4-1350	0.523	225.2	-8.8	-3.96	1.263	66.1	0.430	0.864	94.1	588.4	0.493	1.236	4.65	0.934	65.8	334.1	-0.8	0.431
4- 870	4-1350	0.268	9.5	-20.0	-3.96	1.344	98.8	0.344	1.056	324.9	819.3	0.693	1.418	4.65	1.040	109.8	132.5	31.2	0.354
4- 870	4-1360	0.468	228.8	-13.7	-5.36	1.270	69.3	0.388	0.877	86.3	590.7	0.537	1.217	5.72	0.941	68.3	341.0	5.7	0.396
4- 870	4-1360	0.325	18.5	-22.3	-5.36	1.348	101.5	0.372	1.069	315.9	820.4	0.671	1.466	5.72	1.044	111.4	143.3	29.9	0.386
4- 870	4-1370	0.429	232.0	-22.3	-7.69	1.275	72.2	0.351	0.888	78.2	592.7	0.576	1.200	7.73	0.947	70.5	347.0	14.8	0.373
4- 870	4-1370	0.396	26.2	-26.3	-7.69	1.353	104.4	0.405	1.083	307.5	822.0	0.645	1.522	7.73	1.048	113.4	153.9	29.7	0.427
4- 870	4-1380	0.437	233.2	-38.3	-12.68	1.281	74.8	0.320	0.899	70.0	594.3	0.611	1.187	12.42	0.951	72.2	351.3	29.9	0.382
4- 870	4-1380	0.501	34.2	-34.6	-12.68	1.357	107.5	0.441	1.099	299.7	824.1	0.614	1.584	12.42	1.052	115.6	164.8	33.2	0.492
4- 870	4-1410	0.336	250.0	51.5	11.87	1.292	81.7	0.256	0.924	42.8	597.7	0.687	1.160	-13.00	0.958	75.9	44.6	-23.1	0.339
4- 870	4-1420	0.570	243.9	15.6	6.58	1.434	68.7	0.586	1.435	59.5	264.1	---	2.276	-8.00	1.139	58.2	28.8	-1.3	0.633
4- 870	4-1420	0.238	262.7	38.3	6.58	1.295	83.5	0.245	0.930	33.9	598.5	0.702	1.158	-8.00	0.959	76.5	45.9	-11.3	0.282
4- 870	4-1430	0.511	249.0	11.2	4.17	1.436	71.3	0.570	1.448	52.8	267.1	---	2.274	-5.90	1.139	59.6	35.1	3.8	0.601
4- 870	4-1430	0.189	274.1	29.9	4.17	1.298	85.3	0.237	0.936	24.9	599.2	0.714	1.158	-5.90	0.959	76.9	51.5	-3.7	0.260
4- 870	4-1440	0.460	254.6	8.3	2.74	1.438	73.9	0.557	1.460	46.0	270.0	---	2.272	-4.78	1.140	60.9	42.3	7.6	0.575
4- 870	4-1440	0.159	287.1	23.0	2.74	1.300	87.0	0.233	0.941	15.8	599.8	0.721	1.161	-4.78	0.960	77.1	58.6	1.6	0.249
4- 870	4-1450	0.414	261.0	5.9	1.74	1.440	76.5	0.545	1.471	38.9	272.5	---	2.272	-4.13	1.140	62.0	50.0	10.6	0.553
4- 870	4-1450	0.141	302.2	16.3	1.74	1.302	88.7	0.233	0.946	6.8	600.5	0.726	1.166	-4.13	0.960	77.1	66.6	5.4	0.243
4- 870	4-1460	0.371	268.6	3.7	0.97	1.441	79.1	0.535	1.481	31.6	274.8	---	2.273	-3.72	1.140	63.0	58.1	12.9	0.534
4- 870	4-1460	0.135	318.7	9.4	0.97	1.304	90.4	0.235	0.950	357.9	961.1	0.727	1.173	-3.72	0.961	76.9	75.1	8.2	0.242
4- 870	4-1470	0.334	277.8	1.4	0.32	1.443	81.8	0.527	1.491	23.9	276.7	---	2.276	-3.48	1.141	65.8	66.5	14.7	0.518
4- 870	4-1470	0.144	335.0	3.0	0.32	1.305	92.1	0.241	0.954	348.9	961.8	0.724	1.184	-3.48	0.961	76.5	84.0	10.0	0.245
4- 880	4- 910	0.457	273.2	5.1	1.67	1.453	74.6	0.577	1.549	42.9	05.6	---	---	4.43	1.174	118.9	53.9	27.4	0.584
4- 880	4- 920	0.344	266.3	2.6	0.70	1.343	76.7	0.378	1.048	50.9	103.6	---	---	3.77	1.036	112.0	54.6	28.7	0.406
4- 880	4- 930	0.300	260.3	-0.2	-0.05	1.288	77.8	0.290	0.910	59.1	122.0	---	---	3.37	0.965	106.2	54.2	30.3	0.296
4- 880	4- 940	0.267	256.4	-3.1	-0.67	1.259	78.4	0.249	0.854	65.5	138.3	---	---	3.14	0.928	101.5	51.9	32.1	0.224
4- 880	4- 950	0.253	254.5	-6.0	-1.23	1.245	78.9	0.228	0.829	68.5	151.7	---	---	3.02	0.910	97.7	47.1	33.9	0.176
4- 880	4- 960	0.243	254.1	-8.9	-1.77	1.239	79.4	0.216	0.819	69.2	162.6	---	---	3.00	0.902	94.6	39.9	35.2	0.147
4- 880	4- 970	0.234	254.7	-12.1	-2.31	1.238	79.9	0.207	0.817	67.9	171.4	---	---	3.09	0.900	92.2	31.8	35.8	0.132
4- 880	4- 980	0.227	256.1	-15.8	-2.91	1.240	80.4	0.201	0.820	65.2	178.9	---	---	3.28	0.901	90.3	24.8	36.1	0.127
4- 880	4- 990	0.221	258.0	-20.4	-3.60	1.243	81.0	0.196	0.825	61.4	185.2	---	0.987	3.61	0.903	88.7	20.2	36.8	0.129
4- 880	4-1000	0.218	260.4	-26.2	-4.48	1.247	81.7	0.192	0.832	56.9	190.8	---	0.992	4.17	0.907	87.5	18.0	38.9	0.137
4- 880	4-1010	0.221	263.1	-34.0	-5.72	1.252	82.4	0.189	0.840	51.8	195.7	---	0.999	5.10	0.911	86.4	17.4	43.1	0.150
4- 880	4-1020	0.238	265.4	-44.8	-7.73	1.256	83.2	0.187	0.849	46.4	200.3	---	1.007	6.83	0.914	85.5	17.1	50.1	0.172
4- 880	4-1030	0.300	264.4	-59.9	-11.96	1.261	83.9	0.185	0.857	40.7	204.5	---	1.016	10.79	0.918	84.7	14.6	61.5	0.225
4- 880	4-1040	0.605	218.1	-76.8	-27.86	1.265	84.7	0.186	0.865	35.4	208.6	---	1.026	26.43	0.921	83.9	11.5	78.9	0.460
4- 880	4-1060	0.259	287.7	64.7	10.61	1.274	86.8	0.186	0.882	20.9	214.9	---	1.045	-12.56	0.926	82.9	72.1	-28.7	0.259
4- 880	4-1070	0.165	302.5	45.9	5.32	1.278	87.7	0.188	0.889	14.7	218.2	---	1.057	-7.53	0.920	82.2	71.5	-14.5	0.202
4- 880	4-1080	0.131	314.3	30.8	3.07	1.281	88.7	0.192	0.897	8.1	221.3	---	1.069	-5.49	0.931	81.6	75.4	-5.1	0.189
4- 880	4-1090	0.119	326.7	18.3	1.66	1.285	89.8	0.197	0.904	1.5	224.3	---	1.082	-4.42	0.933	80.9	81.3	1.0	0.188
4- 880	4-1100	0.117	339.5	8.0	0.73	1.288	90.9	0.204	0.911	354.7	587.1	0.725	1.096	-3.79	0.936	80.2	88.1	5.0	0.192
4- 880	4-1110	0.125	352.2	0.1	0.01	1.291	92.1	0.212	0.917	347.8	589.8	0.723	1.112	-3.40	0.938	79.4	95.7	7.4	0.199
4- 880	4-1120	0.139	3.9	-5.4	-0.58	1.294	93.5	0.222	0.923	340.8	592.3	0.718	1.129	-3.16	0.941	78.5	103.7	8.7	0.209
4- 880	4-1130	0.160	14.4	-9.0	-1.11	1.296	94.9	0.235	0.930	333.6	594.6	0.711	1.148	-3.04	0.944	77.5	111.9	9.0	0.221
4- 880	4-1140	0.188	23.5	-11.2	-1.62	1.299	96.6	0.251	0.935	326.1	596.6	0.701	1.170	-3.00	0.948	76.3	120.4	8.5	0.237
4- 880	4-1150	0.223	31.5	-12.3	-2.12	1.302	98.5	0.270	0.941	318.3	598.4	0.687	1.196	-3.05	0.951	75.0	129.1	7.3	0.257
4- 880	4-1160	0.266	38.7	-12.9	-2.66	1.304	100.8	0.296	0.947	310.1	599.7	0.667	1.227	-3.18	0.956	73.3	137.9	5.4	0.282
4- 880	4-1170	0.321	45.3	-13.0	-3.26	1.306	103.5	0.329	0.952	301.2	600.3	0.639	1.265	-3.43	0.960	71.2	146.9	2.8	0.316
4- 880	4-1180	0.393	51.7	-12.9	-3.99	1.309	107.0	0.373	0.958	291.4	600.1	0.600	1.315	-3.84	0.965	68.3	156.2	-0.3	0.363
4- 880	4-1180	0.725	88.3	-4.8	-3.99	1.091	127.3	0.616	0.638	222.5	891.2	0.245	1.031	-3.84	0.639	103.5	254.7	-28.7	0.403
4- 880	4-1190	0.489	58.1	-12.4	-4.96	1.311	111.6	0.434	0.963	280.3	598.6	0.545	1.382	-4.51	0.970	64.4	166.0	-4.1	0.428
4- 880	4-1190	0.707	88.9	-6.1	-4.96	1.081	126.4	0.605	0.629	221.9	900.2	0.248	1.010	-4.51	0.625	89.6	240.4	-28.5	0.370
4- 880	4-1200	0.627	65.2	-11.8	-6.39	1.313	118.2	0.522	0.969	266.9	594.9	0.463	1.476	-5.66	0.976	58.6	176.9	-8.5	0.527
4- 880	4-1200	0.753	90.9	-7.1	-6.39	1.077	128.7	0.638	0.626	220.1	908.0	0.227	1.025	-5.56	0.622	76.4	229.1	-26.7	0.416
4- 880	4-1210	0.875	92.4	-7.7	-8.89	1.076	135.2	0.718	0.626	215.8	913.4	0.176	1.075	-7.89	0.625	61.1	224.8	-25.3	0.541
4- 880	4-1260	0.804	214.2	4.1	4.22	1.049	48.5	0.679	0.604	144.3	891.7	0.194	1.014	6.54	0.600	106.7	333.6	-2.5	0.480
4- 880	4-1270	0.517	248.4	5.5	2.35	1.321	67.5	0.455	0.989	79.7	477.1	0.539	1.438	4.95	1.005	117.1	31.8	22.5	0.491
4- 880	4-1270	0.912	210.2	1.7	2.35	1.015	41.8	0.765	0.580	150.9	908.3	0.136	1.023	4.95	0.544	65.7	300.5	-16.0	0.560
4- 880	4-1270	0.762	214.3	2.5	2.35	1.041	50.7	0.655	0.598	143.9	901.3	0.206	0.990	4.95	0.591	87.6	320.1	-8.3	0.425
4- 880	4-1280	0.396	257.3	3.7	1.37	1.324	73.5	0.385	0.995	64.1	471.6	0.612	1.378	4.08	1.010	112.7	44.7	26.6	0.414
4- 880	4-1290	0.310	266.8	1.3	0.32	1.326	77.9	0.341	1.001	49.9	467.4	0.660	1.343	3.56	1.015	109.9	57.6	29.7	0.365
4- 880	4-1300	0.248	278.0	-1.9	-0.36	1.328	81.5	0.314	1.008	36.5	464.2	0.692	1.324	3.24	1.020	108.2	70.6	31.8	0.333
4- 880	4-1310	0.203	292.1	-6.1	-0.94	1.331	84.6	0.299	1.015	23.8	461.7	0.711	1.318	3.07	1.024	107.3	83.6	32.9	0.315
4- 880	4-1320	0.177	309.6	-11.2	-1.48	1.334	87.3	0.293	1.022	11.8	459.8	0.722	1.322	3.00	1.027	106.9	96.5	33.0	0.306
4- 880	4-1330	0.170	329.9	-16.1	-2.02	1.336	89.9	0.296	1.030	0.4	458.6	0.726	1.335	3.03	1.031	107.0	109.1	32.2	0.305
4- 880	4-1340	0.716	232.1	-3.7	-2.59	1.247	56.2	0.567	0.833	112.9	581.3	0.361	1.304	3.10	0.912	56.9	330.0	-7.7	0.565
4- 880	4-1340	0.182	349.8	-19.3	-2.59	1.339	92.4	0.304	1.039	349.6	818.0	0.723	1.355	3.16	1.034	107.5	121.1	30.7	0.311
4- 880	4-1350	0.642	235.5	-5.5	-3.22	1.256	60.1	0.514	0.847	105.9	579.4	0.412	1.283	3.41	0.922	60.4	337.3	-3.7	0.513
4- 880	4-1350	0.210	6.6	-21.0	-3.22	1.343	94.9	0.319	1.049	339.4	818.9	0.714	1.383	3.41	1.037	106.3	132.5	28.6	0.324
4- 880	4-1360	0.573	238.9	-7.9	-3.99	1.263	63.7	0.465	0.861	98.6	587.2	0.461	1.262	3.84	0.930	63.5	344.6	0.9	0.466
4- 880	4-1360	0.250	19.7	-21.8	-3.99	1.346	97.5	0.339	1.060	329.8	816.5	0.701	1.419	3.84	1.040	109.4	143.3	26.2	0.343
4- 880	4-1370	0.512	242.4	-11.5	-5.01	1.270	67.1	0.420	0.875	91.0	589.6	0.507	1.242	4.55	0.937	66.3	351.5	6.4	0.425
4- 880	4-1370	0.300	29.8	-22.7	-5.01	1.350	100.2	0.364	1.072	320.8	819.5	0.682	1.462	4.55	1.043	110.9	153.5	23.9	0.369
4- 880	4-1380	0.462	245.8	-17.2	-6.53	1.276	70.1	0.380	0.887	83.1	591.8	0.550	1.224	5.78	0.943	68.7	358.1	13.4	0.392
4- 880	4-1380	0.361	38.0	-24.6	-6.53	1.355	103.0	0.393	1.086	312.5	821.0	0.659	1.512	5.78	1.047	112.7	163.4	22.2	0.403
4- 880	4-1390	0.433	248.7	-27.2	-9.27	1.282	72.9	0.346	0.898	75.0	593.6	0.587	1.208	8.25	0.947	70.7	3.8	23.6	0.374

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 880	4-1390	0.438	45.2	-28.8	-9.27	1.359	105.9	0.427	1.100	304.3	822.9	0.631	1.570	8.25	1.050	114.7	173.3	22.3	0.449
4- 880	4-1400	0.482	247.1	-46.6	-16.32	1.287	75.5	0.318	0.908	66.8	595.2	0.620	1.196	15.03	0.951	72.3	7.3	42.2	0.406
4- 880	4-1400	0.570	54.5	-39.5	-16.32	1.364	108.9	0.463	1.117	296.7	825.1	0.599	1.634	15.03	1.054	117.0	183.9	28.3	0.531
4- 880	4-1420	0.453	253.7	59.3	17.80	1.294	80.2	0.272	0.925	48.5	597.5	0.673	1.176	-19.61	0.956	75.0	59.1	-27.4	0.427
4- 880	4-1430	0.269	272.0	38.2	7.44	1.297	82.1	0.259	0.932	40.0	598.4	0.691	1.173	-9.51	0.957	75.7	55.5	-11.3	0.306
4- 880	4-1440	0.543	262.0	10.1	4.04	1.438	69.7	0.583	1.450	56.9	265.0	---	2.295	-6.38	1.138	58.5	45.3	6.7	0.619
4- 880	4-1440	0.207	282.3	26.1	4.04	1.300	83.9	0.249	0.938	31.2	599.3	0.705	1.171	-6.38	0.958	76.2	60.3	-2.2	0.272
4- 880	4-1450	0.491	267.1	6.4	2.29	1.440	72.2	0.568	1.462	50.2	267.9	---	2.293	-4.91	1.138	59.9	52.4	10.5	0.590
4- 880	4-1450	0.172	299.4	17.6	2.29	1.308	85.7	0.242	0.944	22.3	600.0	0.715	1.172	-4.91	0.959	76.6	67.4	3.4	0.250
4- 880	4-1460	0.443	272.8	3.7	1.13	1.442	74.8	0.556	1.474	43.3	270.6	---	2.292	-4.08	1.139	61.1	60.2	13.3	0.566
4- 880	4-1460	0.149	306.4	10.4	1.18	1.305	87.4	0.239	0.949	13.4	600.8	0.722	1.175	-4.08	0.960	76.7	75.5	7.1	0.247
4- 880	4-1470	0.399	279.4	1.3	0.37	1.443	77.4	0.544	1.484	36.2	273.1	---	2.293	-3.58	1.139	62.2	68.4	15.2	0.545
4- 880	4-1470	0.137	321.6	3.5	0.37	1.307	89.1	0.239	0.953	4.6	601.5	0.725	1.181	-3.58	0.961	76.6	84.2	9.5	0.244
4- 880	4-1480	.399	287.4	-1.1	-0.28	1.445	80.0	0.535	1.494	28.9	275.3	---	2.294	-3.27	1.140	63.1	76.9	16.5	0.527
4- 880	4-1480	0.137	338.0	-2.7	-0.28	1.308	90.8	0.242	0.957	355.8	962.3	0.725	1.189	-3.27	0.962	76.4	93.1	10.8	0.244
4- 890	4- 920	0.521	265.5	2.2	0.93	1.333	67.5	0.466	1.017	77.6	114.4	---	---	4.09	1.022	117.7	49.6	25.9	0.502
4- 890	4- 930	0.426	261.3	-0.2	-0.06	1.262	70.6	0.361	0.855	85.8	132.7	---	---	3.35	0.928	109.4	48.1	26.6	0.349
4- 890	4- 940	0.379	259.0	-2.4	-0.77	1.231	72.5	0.315	0.802	90.4	147.5	---	---	2.92	0.887	103.0	44.9	27.2	0.259
4- 890	4- 950	0.350	258.3	-4.4	-1.32	1.219	73.7	0.289	0.783	91.7	158.9	---	---	2.65	0.870	98.1	39.8	27.4	0.203
4- 890	4- 960	0.330	258.8	-6.4	-1.81	1.216	74.8	0.272	0.780	90.6	168.1	---	---	2.51	0.867	94.4	33.5	27.0	0.171
4- 890	4- 970	0.313	260.1	-8.5	-2.25	1.218	75.7	0.258	0.783	88.0	175.6	---	---	2.45	0.869	91.5	27.6	26.3	0.154
4- 890	4- 980	0.298	261.8	-10.8	-2.69	1.223	76.5	0.246	0.790	84.2	181.9	---	0.985	2.47	0.875	89.4	23.3	25.7	0.147
4- 890	4- 990	0.284	264.0	-13.4	-3.14	1.229	77.4	0.236	0.800	79.6	187.5	---	0.989	2.57	0.882	87.7	21.2	25.8	0.146
4- 890	4-1000	0.271	266.5	-16.5	-3.65	1.236	78.3	0.228	0.810	74.4	192.4	---	0.995	2.77	0.889	86.4	21.2	27.0	0.149
4- 890	4-1010	0.260	269.3	-20.4	-4.27	1.243	79.2	0.220	0.822	68.8	196.9	---	1.002	3.11	0.896	85.4	22.8	29.3	0.154
4- 890	4-1020	0.252	272.2	-25.6	-5.08	1.249	80.1	0.214	0.833	63.0	201.0	---	1.011	3.66	0.902	84.5	25.5	33.0	0.161
4- 890	4-1030	0.251	275.3	-32.7	-6.27	1.256	81.1	0.209	0.844	56.8	204.8	---	1.020	4.62	0.907	83.8	28.8	38.8	0.171
4- 890	4-1040	0.265	277.7	-43.3	-8.38	1.261	82.0	0.205	0.854	50.6	208.4	---	1.030	6.51	0.912	83.2	31.7	47.8	0.191
4- 890	4-1050	0.340	275.5	-60.0	-13.57	1.267	83.0	0	0.865	44.3	211.9	---	1.040	11.47	0.917	82.6	32.4	63.4	0.249
4- 890	4-1070	0.370	282.2	70.1	15.88	1.277	85.2		0.884	30.0	217.8	---	1.059	-18.39	0.924	81.8	82.0	-33.1	0.347
4- 890	4-1080	0.184	305.1	42.3	5.56	1.281	86.1	0.200	0.893	23.6	220.9	---	1.071	-8.28	0.928	81.2	78.1	-14.1	0.220
4- 890	4-1090	0.141	315.8	23.4	2.49	1.285	87.2	0.202	0.901	16.9	223.7	---	1.083	-5.43	0.931	80.7	82.3	-2.8	0.198
4- 890	4-1100	0.125	326.9	10.1	0.97	1.289	88.3	0.205	0.909	10.1	226.5	---	1.095	-4.13	0.934	80.2	88.6	3.5	0.194
4- 890	4-1110	0.120	339.3	0.2	0.02	1.292	89.4	0.210	0.916	3.2	229.2	---	1.108	-3.40	0.938	79.6	96.0	7.1	0.196
4- 890	4-1120	0.122	352.6	-7.1	-0.67	1.296	90.7	0.216	0.923	356.2	591.7	0.724	1.122	-2.97	0.941	78.9	103.9	9.0	0.201
4- 890	4-1130	0.132	5.9	-12.0	-1.21	1.299	92.0	0.224	0.930	349.1	594.1	0.722	1.138	-2.70	0.944	78.2	112.2	9.7	0.209
4- 890	4-1140	0.147	18.4	-14.9	-1.68	1.301	93.4	0.234	0.938	341.8	596.4	0.717	1.155	-2.54	0.948	77.4	120.6	9.4	0.218
4- 890	4-1150	0.170	29.5	-16.3	-2.16	1.304	95.0	0.246	0.942	334.3	598.4	0.710	1.175	-2.46	0.952	76.4	129.1	8.4	0.231
4- 890	4-1160	0.199	39.3	-16.6	-2.51	1.307	96.8	0.263	0.948	326.6	600.2	0.699	1.197	-2.45	0.957	75.3	137.7	6.6	0.247
4- 890	4-1170	0.235	47.7	-16.3	-2.93	1.309	98.8	0.283	0.954	318.4	601.6	0.684	1.224	-2.51	0.961	73.9	146.4	4.3	0.268
4- 890	4-1180	0.282	55.3	-15.6	-3.38	1.311	101.3	0.310	0.960	309.7	602.5	0.662	1.257	-2.65	0.966	72.2	155.3	1.4	0.295
4- 890	4-1190	0.341	62.2	-14.7	-3.91	1.314	104.3	0.345	0.965	300.2	602.6	0.632	1.298	-2.90	0.971	70.0	164.4	-2.0	0.332
4- 890	4-1190	0.739	103.2	-4.6	-3.91	1.108	127.8	0.619	0.652	224.1	886.5	0.248	1.056	-2.90	0.668	110.0	277.1	-27.5	0.437
4- 890	4-1200	0.420	68.9	-13.7	-4.56	1.316	108.1	0.394	0.971	269.7	601.8	0.589	1.353	-3.30	0.977	66.9	174.0	-5.8	0.308
4- 890	4-1200	0.684	103.6	-6.0	-4.56	1.093	125.0	0.584	0.638	224.1	896.2	0.266	1.011	-3.30	0.646	95.3	263.5	-29.2	0.359
4- 890	4-1210	0.529	75.8	-12.6	-5.46	1.318	113.4	0.462	0.977	277.5	599.3	0.525	1.428	-3.96	0.982	62.5	184.3	-10.1	0.459
4- 890	4-1210	0.699	104.3	-6.9	-5.46	1.087	125.7	0.596	0.633	223.0	904.7	0.256	1.011	-3.96	0.640	83.7	249.9	-29.1	0.368
4- 890	4-1220	0.689	83.4	-11.3	-6.87	1.321	121.1	0.563	0.983	262.6	594.1	0.430	1.536	-5.13	0.988	55.8	196.2	-14.8	0.575
4- 890	4-1220	0.775	105.8	-7.4	-6.87	1.086	129.7	0.649	0.632	220.3	911.8	0.222	1.042	-5.13	0.641	70.0	241.4	-27.9	0.449
4- 890	4-1270	0.878	229.7	3.3	3.90	1.062	44.6	0.723	0.612	145.6	887.1	0.169	1.055	6.71	0.623	118.8	353.1	4.0	0.387
4- 890	4-1280	0.608	259.8	3.2	1.65	1.326	68.1	0.513	0.996	88.5	480.0	0.485	1.507	4.69	1.011	120.9	41.2	23.7	0.555
4- 890	4-1280	0.748	231.9	1.8	1.65	1.061	51.7	0.636	0.612	141.4	892.9	0.223	1.001	4.69	0.625	102.1	349.1	2.6	0.430
4- 890	4-1290	0.458	268.9	1.1	0.41	1.328	70.5	0.424	1.003	71.4	473.0	0.577	1.428	3.69	1.016	115.1	55.3	27.3	0.454
4- 890	4-1290	0.847	228.4	0.4	0.41	1.035	45.8	0.715	0.591	147.2	908.8	0.168	1.014	3.69	0.582	69.6	320.5	-11.3	0.510
4- 890	4-1290	0.749	231.1	0.4	0.41	1.051	51.5	0.642	0.603	142.6	904.2	0.216	0.990	3.69	0.610	82.5	332.1	-5.8	0.419
4- 890	4-1300	0.355	278.0	-1.5	-0.42	1.331	75.7	0.368	1.009	56.3	468.0	0.637	1.380	3.12	1.020	111.6	69.0	29.7	0.390
4- 890	4-1310	0.282	288.4	-4.9	-1.04	1.333	79.8	0.333	1.015	42.4	464.3	0.677	1.354	2.78	1.024	109.4	82.5	31.0	0.350
4- 890	4-1320	0.229	300.9	-9.1	-1.56	1.335	83.1	0.313	1.022	29.5	461.5	0.702	1.342	2.57	1.027	108.1	95.6	31.1	0.325
4- 890	4-1330	0.195	316.7	-14.0	-2.02	1.338	86.0	0.303	1.029	17.3	459.5	0.717	1.341	2.47	1.030	107.5	108.4	30.2	0.312
4- 890	4-1340	0.179	335.7	-18.8	-2.46	1.340	88.7	0.302	1.036	5.8	458.2	0.723	1.349	2.45	1.033	107.3	120.6	28.5	0.307
4- 890	4-1350	0.181	355.9	-22.0	-2.90	1.343	91.2	0.307	1.045	354.9	817.5	0.724	1.366	2.51	1.035	107.6	132.1	26.2	0.309
4- 890	4-1360	0.697	249.3	-5.1	-3.38	1.256	57.4	0.551	0.844	110.0	582.7	0.379	1.309	2.65	0.917	57.8	347.9	-1.2	0.554
4- 890	4-1360	0.201	14.3	-23.2	-3.38	1.346	93.7	0.319	1.054	344.7	817.4	0.718	1.390	2.65	1.038	108.2	143.0	23.3	0.318
4- 890	4-1370	0.625	252.7	-7.0	-3.93	1.264	61.2	0.500	0.858	102.9	585.7	0.429	1.288	2.91	0.926	61.2	355.1	3.0	0.503
4- 890	4-1370	0.233	29.1	-23.2	-3.93	1.350	96.2	0.335	1.064	355.0	817.8	0.707	1.421	2.91	1.040	109.2	153.2	20.3	0.334
4- 890	4-1380	0.559	256.1	-9.5	-4.62	1.271	64.7	0.453	0.872	95.5	588.3	0.477	1.267	3.34	0.933	64.1	2.2	7.6	0.457
4- 890	4-1380	0.277	40.5	-22.9	-4.62	1.353	98.8	0.357	1.075	325.9	818.7	0.691	1.460	3.34	1.043	110.5	162.9	17.2	0.356
4- 890	4-1390	0.500	259.6	-13.3	-5.58	1.277	68.0	0.411	0.885	87.9	590.7	0.521	1.248	4.05	0.939	66.7	9.3	13.1	0.418
4- 890	4-1390	0.329	49.4	-23.2	-5.58	1.357	101.5	0.384	1.088	317.2	820.0	0.671	1.505	4.05	1.045	112.0	172.3	14.5	0.384
4- 890	4-1400	0.454	263.0	-19.3	-7.10	1.283	70.9	0.374	0.896	80.0	592.7	0.561	1.231	5.34	0.944	69.0	16.0	20.1	0.386
4- 890	4-1400	0.391	56.8	-24.6	-7.10	1.362	104.3	0.414	1.102	309.0	821.7	0.646	1.559	5.34	1.048	113.9	181.5	12.7	0.420
4- 890	4-1410	0.432	265.6	-30.2	-10.15	1.288	73.6	0.342	0.907	71.9	594.4	0.597	1.217	8.17	0.948	70.9	21.9	30.9	0.369
4- 890	4-1410	0.472	63.6	-29.1	-10.15	1.366	107.3	0.448	1.118	301.3	823.8	0.617	1.619	8.17	1.051	116.0	191.0	13.4	0.468
4- 890	4-1420	0.540	259.5	-53.7	-20.32	1.293	76.0	0.316	0.917	63.8	595.9	0.627	1.206	18.13	0.951	72.4	25.9	54.5	0.437
4- 890	4-1420	0.647	75.2	-43.6	-20.32	1.371	110.3	0.485	1.134	294.1	826.2	0.584	1.684	18.13	1.055	118.3	201.1	23.9	0.575
4- 890	4-1440	0.313	281.7	40.0	9.01	1.300	80.6	0.275	0.933	46.0	598.3	0.677	1.189	-11.62	0.955	76.1	65.4	-12.5	0.337
4- 890	4-1450	0.577	275.1	8.8	3.78	1.440	68.0	0.597	1.451	60.9	262.7	---	2.318	-6.60	1.136	57.4	55.5	9.5	0.636
4- 890	4-1450	0.229	291.8	21.9	3.78	1.303	82.5	0.262	0.940	37.5	599.3	0.693	1.186	-6.60	0.957	75.4	69.0	-0.2	0.284
4- 890	4-1460	0.527	279.8	4.3	1.67	1.442	70.5	0.581	1.464	54.4	265.8	---	2.315	-4.70	1.137	58.8	62.7	13.4	0.605
4- 890	4-1460	0.189	301.2	11.5	1.67	1.305	84.3	0.253	0.946	28.8	600.2	0.708	1.185	-4.70	0.958	75.9	76.2	5.9	0.263

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 890	4-1470	0.475	284.9	1.4	0.47	1.444	73.1	0.567	1.476	47.7	268.7	---	2.314	-3.74	1.138	60.1	70.6	15.8	0.579
4- 890	4-1470	0.163	312.1	3.8	0.47	1.308	86.0	0.248	0.951	20.1	601.1	0.716	1.187	-3.74	0.959	76.2	84.5	9.4	0.252
4- 890	4-1480	0.430	290.8	-1.1	-0.33	1.445	75.7	0.555	1.487	40.8	271.3	---	2.313	-3.17	1.139	61.3	78.9	17.3	0.556
4- 890	4-1480	0.147	325.3	-3.0	-0.33	1.310	87.7	0.245	0.956	11.5	602.0	0.721	1.190	-3.17	0.961	76.2	93.3	11.3	0.246
4- 890	4-1490	0.388	297.8	-3.4	-0.94	1.447	78.2	0.545	1.498	33.7	273.8	---	2.314	-2.83	1.140	62.3	87.5	18.1	0.537
4- 890	4-1490	0.140	340.6	-8.8	-0.94	1.312	89.4	0.246	0.960	2.8	602.6	0.724	1.197	-2.83	0.963	76.1	102.4	12.0	0.244
4- 900	4- 930	0.638	263.9	-0.1	-0.09	1.221	59.6	0.510	0.783	112.9	143.8	---	---	3.32	0.868	117.1	41.8	21.8	0.473
4- 900	4- 940	0.538	263.1	-1.9	-0.98	1.184	64.0	0.438	0.732	114.4	155.5	---	---	2.80	0.817	106.8	38.5	21.4	0.338
4- 900	4- 950	0.482	263.5	-3.5	-1.57	1.175	66.8	0.398	0.722	113.4	164.6	---	---	2.19	0.805	99.6	34.0	20.7	0.263
4- 900	4- 960	0.443	264.9	-5.0	-2.01	1.179	68.8	0.362	0.726	110.6	172.0	---	---	1.94	0.810	94.5	29.2	19.6	0.220
4- 900	4- 970	0.414	266.8	-6.4	-2.37	1.187	70.4	0.337	0.736	106.7	178.3	---	---	1.80	0.821	90.8	25.2	18.5	0.197
4- 900	4- 980	0.389	269.0	-7.9	-2.69	1.197	71.7	0.315	0.750	102.1	183.9	---	0.986	1.72	0.835	88.2	22.8	17.9	0.186
4- 900	4- 990	0.366	271.5	-9.5	-2.99	1.208	73.0	0.297	0.764	96.9	188.8	---	0.991	1.70	0.848	86.3	22.2	17.9	0.181
4- 900	4-1000	0.346	274.1	-11.3	-3.30	1.218	74.2	0.280	0.780	91.3	193.3	---	0.998	1.74	0.861	84.9	23.4	18.8	0.180
4- 900	4-1010	0.326	276.9	-13.3	-3.63	1.228	75.4	0.267	0.795	85.3	197.4	---	1.007	1.84	0.873	83.9	26.0	20.3	0.180
4- 900	4-1020	0.308	279.9	-15.8	-4.00	1.238	76.6	0.254	0.810	79.2	201.2	---	1.016	2.01	0.883	83.1	29.7	22.6	0.181
4- 900	4-1030	0.291	283.0	-19.0	-4.47	1.246	77.7	0.244	0.824	72.8	204.8	---	1.025	2.29	0.892	82.5	34.3	25.6	0.183
4- 900	4-1040	0.278	286.2	-23.2	-5.11	1.254	78.8	0.236	0.838	66.3	208.3	---	1.035	2.77	0.900	82.0	39.5	29.5	0.186
4- 900	4-1050	0.270	289.5	-29.3	-6.12	1.261	80.0	0.229	0.851	59.7	211.5	---	1.045	3.61	0.906	81.6	45.1	35.0	0.191
4- 900	4-1060	0.277	292.4	-39.3	-8.06	1.268	81.1	0.223	0.863	53.7	214.6	---	1.055	5.39	0.912	81.2	50.7	44.1	0.203
4- 900	4-1070	0.359	289.8	-58.4	-14.04	1.274	82.1	0.219	0.874	46.4	217.6	---	1.066	11.23	0.918	80.8	56.2	63.6	0.261
4- 900	4-1090	0.210	310.8	39.4	5.98	1.288	84.5	0.214	0.895	32.3	223.2	---	1.086	-9.08	0.927	80.1	84.9	-13.7	0.239
4- 900	4-1100	0.157	320.2	13.7	1.65	1.289	85.6	0.214	0.904	25.5	225.9	---	1.098	-4.89	0.931	79.8	89.4	1.1	0.206
4- 900	4-1110	0.140	329.5	0.2	0.53	1.293	86.7	0.215	0.913	18.6	228.6	---	1.109	-3.41	0.935	79.3	96.5	7.4	0.200
4- 900	4-1120	0.133	340.3	-8.5	-0.87	1.297	87.9	0.218	0.921	11.7	231.2	---	1.122	-2.68	0.939	78.9	104.4	10.4	0.201
4- 900	4-1130	0.130	352.8	-14.7	-1.46	1.300	89.2	0.222	0.929	4.6	233.6	---	1.135	-2.26	0.944	78.4	112.7	11.4	0.205
4- 900	4-1140	0.133	6.4	-18.9	-1.89	1.303	90.5	0.228	0.936	357.4	596.0	0.723	1.149	-2.00	0.948	77.8	121.1	11.3	0.210
4- 900	4-1150	0.142	20.3	-21.1	-2.25	1.306	91.9	0.235	0.943	350.1	598.2	0.721	1.164	-1.84	0.952	77.1	129.6	10.4	0.218
4- 900	4-1160	0.158	33.5	-21.8	-2.56	1.309	93.4	0.245	0.949	342.6	600.3	0.716	1.182	-1.74	0.957	76.4	138.2	8.7	0.228
4- 900	4-1170	0.180	45.2	-21.2	-2.85	1.311	95.1	0.258	0.955	334.9	602.1	0.709	1.202	-1.71	0.962	75.5	146.7	6.4	0.241
4- 900	4-1180	0.210	55.4	-19.9	-3.14	1.314	97.0	0.274	0.961	326.8	603.6	0.697	1.225	-1.72	0.967	74.4	155.3	3.6	0.258
4- 900	4-1190	0.248	64.3	-18.3	-3.44	1.316	99.2	0.296	0.967	318.2	604.6	0.681	1.253	-1.78	0.972	73.0	164.1	0.4	0.280
4- 900	4-1200	0.297	72.1	-16.6	-3.77	1.319	101.8	0.324	0.973	309.0	605.1	0.657	1.288	-1.90	0.978	71.2	173.0	-3.2	0.310
4- 900	4-1200	0.799	118.7	-4.1	-3.77	1.133	130.4	0.654	0.675	224.6	880.7	0.233	1.116	-1.90	0.708	119.5	298.8	-23.1	0.523
4- 900	4-1210	0.362	79.3	-14.8	-4.17	1.321	105.1	0.363	0.978	298.9	604.7	0.623	1.333	-2.10	0.983	68.8	182.4	-7.0	0.351
4- 900	4-1210	0.674	118.4	-5.7	-4.17	1.106	124.3	0.572	0.648	226.1	891.9	0.278	1.019	-2.10	0.668	100.5	285.8	-26.4	0.355
4- 900	4-1220	0.450	86.4	-13.1	-4.67	1.323	109.5	0.417	0.984	287.4	603.0	0.574	1.394	-2.43	0.989	65.4	192.5	-11.2	0.409
4- 900	4-1220	0.662	118.9	-6.5	-4.67	1.099	123.7	0.565	0.641	225.5	901.0	0.279	1.003	-2.43	0.659	88.7	272.9	-28.2	0.340
4- 900	4-1230	0.574	93.7	-11.3	-5.41	1.325	115.5	0.495	0.990	273.9	599.3	0.500	1.479	-3.00	0.995	60.3	203.8	-15.5	0.497
4- 900	4-1230	0.704	119.9	-6.8	-5.41	1.095	125.9	0.596	0.638	223.7	909.1	0.258	1.018	-3.00	0.658	77.1	260.7	-28.2	0.384
4- 900	4-1240	0.814	122.0	-6.7	-6.64	1.095	131.7	0.673	0.638	219.8	915.0	0.208	1.067	-4.07	0.662	63.5	255.9	-27.7	0.499
4- 900	4-1290	0.800	248.0	0.6	0.63	1.075	49.1	0.667	0.620	141.7	887.3	0.207	1.034	3.95	0.646	112.8	10.4	9.6	0.495
4- 900	4-1300	0.537	280.2	-1.3	-0.56	1.332	66.7	0.474	1.010	79.8	475.5	0.532	1.488	2.92	1.021	118.2	65.7	26.8	0.505
4- 900	4-1300	0.706	249.4	-0.7	-0.56	1.073	54.2	0.601	0.619	138.9	894.6	0.247	0.991	2.92	0.645	98.0	5.7	6.8	0.391
4- 900	4-1310	0.411	289.3	-4.0	-1.28	1.335	73.0	0.402	1.016	63.5	469.4	0.608	1.424	2.37	1.024	113.6	80.1	28.4	0.423
4- 900	4-1320	0.323	299.0	-7.3	-1.79	1.337	77.7	0.357	1.023	49.0	465.0	0.658	1.387	2.05	1.028	110.8	93.9	28.7	0.371
4- 900	4-1330	0.260	310.3	-11.2	-2.19	1.340	81.4	0.330	1.029	35.6	461.9	0.689	1.368	1.86	1.030	109.1	107.0	27.9	0.339
4- 900	4-1340	0.217	324.3	-15.7	-2.52	1.342	84.5	0.315	1.036	23.2	459.6	0.709	1.362	1.75	1.033	108.2	119.4	26.2	0.320
4- 900	4-1350	0.192	341.6	-20.3	-2.83	1.345	87.3	0.310	1.043	11.5	458.1	0.719	1.366	1.71	1.035	107.8	131.2	23.7	0.311
4- 900	4-1360	0.189	1.4	-23.6	-3.14	1.347	89.9	0.312	1.051	0.5	457.2	0.723	1.378	1.72	1.036	107.9	142.2	20.7	0.309
4- 900	4-1370	0.752	263.3	-4.7	-3.45	1.256	54.7	0.589	0.840	114.1	580.9	0.345	1.335	1.78	0.912	55.2	358.4	1.7	0.595
4- 900	4-1370	0.194	20.9	-24.7	-3.45	1.350	92.4	0.320	1.059	350.2	817.0	0.720	1.398	1.79	1.038	108.3	352.5	17.3	0.315
4- 900	4-1380	0.677	266.6	-6.1	-3.80	1.264	58.6	0.537	0.855	107.2	584.0	0.396	1.314	1.91	0.921	58.7	5.6	5.5	0.541
4- 900	4-1380	0.219	37.4	-24.1	-3.80	1.353	94.9	0.333	1.069	340.4	817.2	0.712	1.425	1.91	1.040	109.0	362.3	18.7	0.327
4- 900	4-1390	0.608	269.9	-7.8	-4.21	1.271	62.3	0.489	0.869	100.0	586.8	0.445	1.294	2.13	0.928	61.9	13.0	9.4	0.492
4- 900	4-1390	0.255	50.4	-22.8	-4.21	1.357	97.4	0.352	1.079	331.2	818.0	0.700	1.459	2.13	1.042	110.1	171.7	10.1	0.346
4- 900	4-1400	0.548	273.4	-10.2	-4.75	1.278	65.7	0.444	0.882	92.6	589.3	0.491	1.274	2.49	0.934	64.7	20.4	13.7	0.447
4- 900	4-1400	0.299	60.4	-21.7	-4.75	1.360	100.0	0.375	1.091	322.4	819.1	0.682	1.501	2.49	1.044	111.5	180.7	6.8	0.370
4- 900	4-1410	0.487	276.9	-13.7	-5.52	1.284	69.8	0.404	0.895	84.9	591.5	0.533	1.256	3.10	0.939	67.1	27.9	18.5	0.408
4- 900	4-1410	0.352	68.3	-21.3	-5.52	1.364	102.7	0.403	1.104	314.1	820.7	0.660	1.549	3.10	1.046	113.2	189.6	4.0	0.400
4- 900	4-1420	0.441	280.4	-19.3	-6.86	1.290	71.6	0.369	0.906	77.1	593.5	0.572	1.240	4.27	0.944	69.2	35.3	24.7	0.377
4- 900	4-1420	0.415	74.9	-22.3	-6.86	1.369	105.6	0.434	1.119	306.1	822.6	0.633	1.605	4.27	1.049	115.1	198.4	2.3	0.437
4- 900	4-1430	0.422	283.1	-30.4	-9.87	1.294	74.2	0.339	0.916	69.0	595.2	0.605	1.227	7.14	0.947	70.9	42.3	35.2	0.360
4- 900	4-1430	0.495	81.3	-26.8	-9.87	1.373	108.6	0.469	1.135	298.6	824.8	0.603	1.667	7.14	1.053	117.2	207.7	3.5	0.495
4- 900	4-1440	0.634	267.7	-60.4	-25.91	1.299	76.5	0.315	0.925	61.0	596.7	0.634	1.217	23.03	0.950	72.3	52.5	66.8	0.493
4- 900	4-1450	0.404	269.2	48.8	13.76	1.302	78.9	0.293	0.934	52.1	598.0	0.660	1.208	-16.78	0.953	73.6	77.3	-18.2	0.403
4- 900	4-1460	0.252	302.3	17.0	3.27	1.305	80.9	0.278	0.941	43.8	599.2	0.679	1.203	-6.44	0.959	74.4	77.6	2.5	0.296
4- 900	4-1470	0.557	292.8	1.8	0.73	1.444	68.8	0.595	1.466	58.6	263.6	---	2.338	-4.04	1.136	57.6	73.2	16.2	0.621
4- 900	4-1470	0.211	310.2	4.5	0.73	1.308	82.8	0.267	0.947	35.3	600.3	0.695	1.200	-4.04	0.957	75.1	85.1	9.4	0.271
4- 900	4-1480	0.509	297.5	-1.2	-0.45	1.446	71.3	0.580	1.478	52.1	266.6	---	2.336	-3.01	1.137	59.0	81.3	18.2	0.593
4- 900	4-1480	0.184	319.4	-3.2	-0.45	1.311	84.6	0.258	0.953	26.8	601.3	0.707	1.200	-3.01	0.959	75.5	93.7	12.5	0.258
4- 900	4-1490	0.463	302.7	-3.5	-1.17	1.448	73.9	0.567	1.490	45.4	269.4	---	2.334	-2.45	1.139	60.3	89.8	19.2	0.569
4- 900	4-1490	0.164	330.4	-9.4	-1.17	1.313	86.3	0.253	0.958	18.3	602.4	0.715	1.201	-2.45	0.962	75.7	102.8	15.7	0.250
4- 900	4-1500	0.420	308.8	-5.6	-1.68	1.449	76.4	0.556	1.500	38.5	272.1	---	2.334	-2.12	1.140	61.4	98.4	19.3	0.548
4- 900	4-1500	0.152	343.8	-14.7	-1.68	1.315	88.0	0.252	0.963	9.8	603.4	0.721	1.206	-2.12	0.964	75.8	112.0	13.7	0.245
4- 910	4- 940	0.783	267.4	-1.7	-1.52	1.118	50.6	0.639	0.657	136.2	161.2	---	---	1.95	0.714	117.5	35.2	16.6	0.509
4- 910	4- 950	0.665	269.1	-3.0	-2.12	1.110	56.8	0.555	0.650	132.8	167.9	---	---	1.43	0.703	104.2	31.8	15.6	0.378
4- 910	4- 960	0.593	271.3	-4.1	-2.48	1.122	60.7	0.496	0.661	128.6	173.9	---	---	1.16	0.722	95.9	28.2	14.5	0.308
4- 910	4- 970	0.543	273.9	-5.1	-2.73	1.139	63.5	0.450	0.679	123.7	179.3	---	---	1.00	0.748	90.6	25.4	13.5	0.269
4- 910	4- 980	0.503	276.7	-6.1	-2.92	1.158	65.7	0.413	0.698	118.5	184.2	---	0.987	0.91	0.774	87.1	24.0	13.1	0.247

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 910	4- 990	0.469	279.6	-7.2	-3.08	1.175	67.6	0.381	0.719	112.9	188.7	---	0.993	0.85	0.798	84.7	24.2	13.2	0.235
4- 910	4-1000	0.433	282.5	-8.3	-3.23	1.192	69.3	0.354	0.740	107.0	192.9	---	1.002	0.83	0.820	83.1	25.9	13.9	0.221
4- 910	4-1010	0.410	285.4	-9.4	-3.38	1.207	70.9	0.331	0.760	100.8	196.9	---	1.012	0.83	0.839	82.0	26.9	15.2	0.222
4- 910	4-1020	0.384	288.4	-10.7	-3.53	1.220	72.4	0.311	0.779	94.5	200.6	---	1.022	0.86	0.855	81.2	32.9	16.8	0.218
4- 910	4-1030	0.360	291.5	-12.2	-3.70	1.232	73.8	0.294	0.797	88.1	204.1	---	1.032	0.92	0.869	80.7	37.8	18.7	0.215
4- 910	4-1040	0.337	294.7	-14.0	-3.89	1.243	75.1	0.279	0.815	81.5	207.4	---	1.042	1.02	0.881	80.3	43.4	20.9	0.213
4- 910	4-1050	0.315	297.9	-16.2	-4.14	1.252	76.5	0.267	0.831	74.9	210.7	---	1.052	1.18	0.891	80.0	49.6	23.4	0.211
4- 910	4-1060	0.296	301.4	-19.1	-4.50	1.261	77.7	0.256	0.846	68.2	213.7	---	1.063	1.46	0.900	79.7	56.4	26.2	0.209
4- 910	4-1070	0.280	305.0	-23.3	-5.09	1.268	79.0	0.248	0.860	61.4	216.7	---	1.073	1.98	0.907	79.5	65.5	29.8	0.209
4- 910	4-1080	0.273	308.6	-30.7	-6.37	1.275	80.2	0.241	0.873	54.6	219.6	---	1.083	3.19	0.914	79.3	71.1	34.1	0.212
4- 910	4-1090	0.337	308.1	-52.0	-12.08	1.281	81.4	0.235	0.885	47.8	222.4	---	1.093	8.82	0.920	79.1	81.1	56.8	0.251
4- 910	4-1100	0.255	318.0	41.3	7.58	1.287	82.7	0.231	0.896	40.7	225.1	---	1.103	-10.90	0.926	78.9	92.6	-15.9	0.271
4- 910	4-1110	0.180	327.2	0.3	0.05	1.292	83.9	0.229	0.906	33.9	227.8	---	1.113	-3.44	0.931	78.7	97.1	8.3	0.211
4- 910	4-1120	0.166	334.7	-10.9	-1.39	1.296	85.1	0.228	0.916	27.0	230.4	---	1.125	-2.07	0.936	78.4	105.2	13.5	0.208
4- 910	4-1130	0.156	343.6	-17.1	-2.02	1.300	86.3	0.229	0.925	20.0	232.9	---	1.136	-1.52	0.941	78.1	113.6	14.9	0.208
4- 910	4-1140	0.148	354.4	-21.5	-2.39	1.304	87.6	0.230	0.933	12.9	235.4	---	1.148	-1.22	0.946	77.7	122.2	14.7	0.211
4- 910	4-1150	0.144	6.9	-24.7	-2.65	1.307	88.9	0.234	0.941	5.7	237.8	---	1.161	-1.05	0.951	77.3	130.7	13.5	0.215
4- 910	4-1160	0.146	21.0	-26.6	-2.85	1.311	90.3	0.239	0.948	358.4	600.0	0.722	1.175	-0.94	0.957	76.8	139.2	11.7	0.220
4- 910	4-1170	0.153	35.4	-26.8	-3.01	1.313	91.8	0.246	0.955	350.9	602.1	0.720	1.191	-0.87	0.962	76.4	147.6	9.3	0.228
4- 910	4-1180	0.167	49.2	-25.7	-3.16	1.316	93.4	0.256	0.962	343.2	603.9	0.715	1.208	-0.84	0.967	75.9	156.1	6.4	0.238
4- 910	4-1190	0.189	61.4	-23.5	-3.30	1.319	95.2	0.269	0.968	335.2	605.5	0.707	1.228	-0.83	0.973	74.6	164.6	3.2	0.251
4- 910	4-1200	0.219	72.0	-21.0	-3.44	1.321	97.2	0.286	0.974	326.7	606.7	0.695	1.253	-0.84	0.978	73.5	173.2	-0.3	0.269
4- 910	4-1210	0.260	81.2	-18.3	-3.59	1.323	99.6	0.309	0.980	317.6	607.4	0.677	1.282	-0.88	0.984	72.1	182.1	-4.0	0.294
4- 910	4-1220	0.313	89.3	-15.7	-3.76	1.326	102.5	0.339	0.985	307.8	607.4	0.651	1.320	-0.95	0.990	70.2	191.4	-7.8	0.326
4- 910	4-1220	0.677	133.4	-5.1	-3.76	1.121	124.3	0.569	0.660	227.9	887.4	0.285	1.035	-0.95	0.692	105.6	305.9	-21.0	0.308
4- 910	4-1230	0.385	96.8	-13.3	-3.97	1.328	106.2	0.382	0.991	296.9	606.3	0.612	1.369	-1.07	0.995	67.6	201.3	-11.8	0.373
4- 910	4-1230	0.637	133.7	-5.8	-3.97	1.110	122.3	0.543	0.649	227.7	897.1	0.297	1.001	-1.07	0.678	93.5	294.0	-23.8	0.329
4- 910	4-1240	0.484	104.1	-10.9	-4.25	1.330	111.1	0.443	0.997	284.4	603.7	0.555	1.438	-1.26	1.001	63.7	212.2	-15.8	0.440
4- 910	4-1240	0.653	134.4	-6.0	-4.25	1.105	123.2	0.556	0.645	226.5	905.8	0.286	1.003	-1.26	0.675	82.9	281.2	-25.5	0.341
4- 910	4-1250	0.630	112.0	-8.7	-4.68	1.332	118.2	0.534	1.003	269.3	598.5	0.467	1.538	-1.61	1.007	57.7	224.8	-19.6	0.545
4- 910	4-1250	0.723	135.7	-5.7	-4.68	1.104	126.9	0.608	0.644	224.0	913.2	0.253	1.035	1.61	0.677	71.3	272.9	-25.9	0.417
4- 910	4-1260	0.875	138.6	-4.9	-5.46	1.105	135.0	0.712	0.644	218.2	917.3	0.185	1.103	-2.32	0.682	56.5	272.3	-25.7	0.571
4- 910	4-1300	0.902	262.7	-0.8	-0.98	1.085	43.6	0.731	0.627	144.5	884.2	0.168	1.086	2.46	0.661	123.9	27.7	13.8	0.600
4- 910	4-1310	0.639	291.2	-3.4	-1.85	1.337	61.9	0.537	1.017	89.6	479.4	0.471	1.563	1.66	1.025	122.4	25.3	25.3	0.573
4- 910	4-1310	0.740	265.8	-2.2	-1.85	1.086	52.6	0.619	0.628	138.5	888.3	0.239	1.017	1.66	0.664	107.8	27.2	13.8	0.436
4- 910	4-1320	0.481	300.4	-6.0	-2.31	1.340	69.7	0.444	1.023	71.7	471.7	0.569	1.477	1.28	1.028	116.2	90.5	26.0	0.465
4- 910	4-1320	0.678	266.5	-3.1	-2.31	1.083	55.9	0.575	0.626	136.9	896.9	0.266	0.985	1.28	0.660	94.2	17.5	10.0	0.363
4- 910	4-1330	0.374	309.7	-9.1	-2.60	1.342	75.2	0.386	1.030	56.2	466.4	0.632	1.427	1.07	1.031	112.6	104.5	25.4	0.398
4- 910	4-1340	0.298	320.1	-12.6	-2.62	1.344	79.4	0.351	1.036	42.3	462.7	0.673	1.399	0.95	1.033	110.3	117.4	23.7	0.357
4- 910	4-1350	0.245	332.6	-16.6	-3.00	1.346	82.8	0.330	1.042	29.5	460.0	0.698	1.386	0.88	1.034	109.0	129.5	21.2	0.331
4- 910	4-1360	0.210	348.0	-20.7	-3.16	1.349	85.8	0.320	1.049	17.6	458.3	0.713	1.385	0.84	1.036	108.4	140.8	18.1	0.317
4- 910	4-1370	0.192	6.6	-23.9	-3.30	1.351	88.4	0.318	1.057	6.5	457.2	0.720	1.393	0.83	1.037	108.2	151.4	14.5	0.312
4- 910	4-1380	0.191	26.4	-25.2	-3.45	1.354	91.0	0.323	1.065	356.0	816.8	0.721	1.408	0.84	1.038	108.4	161.4	10.7	0.315
4- 910	4-1390	0.731	280.6	-5.2	-3.61	1.264	55.9	0.575	0.852	111.3	502.1	0.362	1.347	0.88	0.915	56.1	16.3	6.2	0.501
4- 910	4-1390	0.207	44.5	-24.3	-3.61	1.357	93.5	0.333	1.074	346.1	816.9	0.716	1.431	0.88	1.039	109.0	170.9	6.8	0.324
4- 910	4-1400	0.659	283.9	-6.3	-3.78	1.272	59.7	0.525	0.866	104.4	585.1	0.412	1.321	0.96	0.923	59.4	23.8	11.5	0.329
4- 910	4-1400	0.235	59.3	-22.3	-3.78	1.360	96.0	0.348	1.084	336.7	817.4	0.706	1.461	0.96	1.041	109.9	180.1	3.0	0.339
4- 910	4-1410	0.590	287.3	-7.8	-4.00	1.279	63.2	0.478	0.880	97.2	587.8	0.459	1.301	1.09	0.929	62.4	31.5	14.8	0.481
4- 910	4-1410	0.273	70.7	-20.2	-4.00	1.563	98.5	0.368	1.095	327.8	818.4	0.692	1.498	1.09	1.043	111.1	189.0	-0.7	0.359
4- 910	4-1420	0.528	290.8	-9.6	-4.29	1.285	66.5	0.436	0.893	89.8	590.2	0.503	1.262	1.30	0.935	65.1	39.5	18.1	0.437
4- 910	4-1420	0.319	79.5	-18.4	-4.29	1.367	101.2	0.393	1.107	319.3	819.7	0.672	1.542	1.30	1.045	112.5	197.8	-4.0	0.386
4- 910	4-1430	0.472	294.4	-12.2	-4.73	1.291	69.5	0.399	0.904	82.2	592.4	0.544	1.265	1.66	0.940	67.4	47.7	21.5	0.399
4- 910	4-1430	0.372	86.6	-17.2	-4.73	1.371	103.9	0.421	1.121	311.2	821.4	0.649	1.593	1.66	1.047	114.3	206.4	-6.9	0.418
4- 910	4-1440	0.423	298.2	-16.4	-5.55	1.296	72.2	0.366	0.915	74.4	594.3	0.580	1.250	2.40	0.944	69.3	56.1	25.7	0.367
4- 910	4-1440	0.432	92.6	-17.2	-5.55	1.375	106.8	0.454	1.136	303.5	823.4	0.621	1.651	2.40	1.050	116.3	215.2	-8.8	0.455
4- 910	4-1450	0.394	301.6	-25.5	-7.78	1.300	74.7	0.338	0.925	66.4	596.0	0.612	1.238	4.57	0.948	70.9	64.6	33.5	0.344
4- 910	4-1450	0.505	98.1	-20.4	-7.78	1.380	109.9	0.489	1.152	296.1	825.7	0.589	1.715	4.57	1.054	118.5	224.3	-8.0	0.499
4- 910	4-1470	0.277	313.7	9.3	2.00	1.308	79.2	0.297	0.942	50.0	598.9	0.563	1.229	-5.36	0.954	73.3	86.3	7.2	0.305
4- 910	4-1470	0.613	105.0	4.1	2.00	1.389	116.3	0.565	1.188	282.2	831.1	0.516	1.859	-5.36	1.063	123.5	237.0	-28.2	0.598
4- 910	4-1480	0.593	306.1	-1.8	-0.81	1.446	67.0	0.609	1.467	62.9	261.3	---	2.361	-2.61	1.135	56.4	84.0	19.4	0.736
4- 910	4-1480	0.240	320.3	-4.4	-0.81	1.311	81.2	0.282	0.949	41.8	600.2	0.681	1.217	-2.61	0.957	74.1	94.5	14.7	0.279
4- 910	4-1490	0.545	310.2	-4.3	-1.74	1.448	69.6	0.494	1.480	56.5	264.5	---	2.358	-1.76	1.137	57.9	92.4	20.6	0.608
4- 910	4-1490	0.212	327.9	-10.8	-1.74	1.313	83.0	0.271	0.955	33.5	601.5	0.696	1.214	-1.76	0.960	74.7	103.6	16.7	0.265
4- 910	4-1500	0.498	315.0	-6.1	-2.22	1.450	72.1	0.580	1.492	50.6	267.5	---	2.357	-1.36	1.139	59.3	101.0	20.8	0.583
4- 910	4-1500	0.189	337.1	-15.6	-2.22	1.316	84.8	0.264	0.961	25.2	602.7	0.707	1.214	-1.36	0.962	75.1	112.9	16.8	0.254
4- 910	4-1510	0.454	320.4	-7.8	-2.52	1.451	74.6	0.567	1.503	43.3	270.3	---	2.355	-1.13	1.141	60.5	109.6	20.2	0.560
4- 910	4-1510	0.171	348.5	-19.8	-2.52	1.318	86.5	0.259	0.966	16.9	603.9	0.715	1.216	-1.13	0.965	75.3	122.2	15.8	0.249
4- 920	4- 950	0.944	274.2	-2.6	-3.74	1.029	40.4	0.777	0.582	151.0	170.1	---	---	-0.37	0.562	119.7	33.2	13.0	0.598
4- 920	4- 960	0.799	277.5	-3.5	-3.61	1.043	48.9	0.678	0.592	145.0	174.3	---	---	-0.25	0.598	101.7	30.5	12.1	0.457
4- 920	4- 970	0.710	281.0	-4.3	-3.54	1.072	54.1	0.602	0.614	139.5	178.7	---	---	-0.19	0.636	91.9	28.4	11.3	0.381
4- 920	4- 980	0.645	284.4	-5.1	-3.50	1.101	57.9	0.543	0.640	133.5	183.1	---	0.987	-0.16	0.683	86.3	27.3	10.9	0.337
4- 920	4- 990	0.594	287.3	-5.7	-3.46	1.129	60.8	0.493	0.666	127.6	187.3	---	0.994	-0.14	0.725	83.0	27.7	11.0	0.310
4- 920	4-1000	0.551	291.1	-6.4	-3.44	1.153	63.2	0.452	0.692	121.5	191.4	---	1.004	-0.13	0.760	80.9	29.4	11.7	0.293
4- 920	4-1010	0.513	294.3	-7.1	-3.43	1.175	65.4	0.417	0.717	115.3	195.2	---	1.015	-0.12	0.790	79.6	32.3	12.7	0.280
4- 920	4-1020	0.478	297.5	-7.8	-3.39	1.194	67.3	0.386	0.741	108.9	198.9	---	1.027	-0.12	0.815	78.8	36.3	14.0	0.270
4- 920	4-1030	0.446	300.6	-8.4	-3.37	1.211	69.1	0.360	0.763	102.5	202.4	---	1.038	-0.12	0.836	78.4	41.1	15.5	0.262
4- 920	4-1040	0.415	303.8	-9.4	-3.35	1.225	70.8	0.338	0.784	96.0	205.8	---	1.049	-0.13	0.853	78.1	46.7	17.1	0.255
4- 920	4-1050	0.387	307.0	-10.2	-3.32	1.238	72.4	0.318	0.804	89.4	209.0	---	1.060	-0.14	0.860	77.9	52.8	18.6	0.248
4- 920	4-1060	0.359	310.2	-11.1	-3.29	1.249	73.9	0.302	0.823	82.7	212.2	---	1.071	-0.16	0.881	77.8	59.5	19.9	0.243
4- 920	4-1070	0.333	313.6	-12.0	-3.25	1.259	75.4	0.287	0.840	76.0	215.2	---	1.081	-0.19	0.892	77.8	66.7	21.0	0.237

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 920	4-1080	0.308	317.3	-12.9	-3.19	1.268	77.8	0.276	0.856	69.2	218.2	---	1.091	-0.24	0.902	77.7	74.3	21.8	0.235
4- 920	4-1090	0.284	321.2	-13.7	-3.08	1.276	78.2	0.266	0.870	62.4	221.0	---	1.101	-0.33	0.910	77.7	82.2	22.0	0.229
4- 920	4-1100	0.261	325.5	-13.7	-2.81	1.283	77.5	0.258	0.885	55.8	223.8	---	1.111	-0.59	0.918	77.6	90.2	21.1	0.225
4- 920	4-1110	0.232	330.6	-1.6	-0.28	1.289	80.8	0.251	0.896	48.8	226.6	---	1.121	-3.11	0.925	77.6	98.1	10.8	0.228
4- 920	4-1120	0.230	335.1	-24.9	-4.34	1.294	82.1	0.247	0.908	41.9	229.2	---	1.131	0.95	0.931	77.4	107.6	26.4	0.221
4- 920	4-1130	0.208	341.6	-24.2	-3.79	1.299	83.4	0.243	0.918	35.0	231.9	---	1.142	0.42	0.937	77.3	115.9	23.1	0.219
4- 920	4-1140	0.190	349.2	-25.6	-3.64	1.303	84.6	0.242	0.928	28.1	234.5	---	1.152	0.27	0.943	77.1	124.3	20.9	0.219
4- 920	4-1150	0.176	358.2	-27.4	-3.56	1.307	86.0	0.241	0.937	21.0	236.9	---	1.163	0.21	0.949	76.9	132.7	14.6	0.220
4- 920	4-1160	0.165	9.3	-29.2	-3.51	1.311	87.3	0.242	0.946	13.9	239.4	---	1.175	0.17	0.955	76.6	141.0	16.0	0.222
4- 920	4-1170	0.158	21.9	-30.4	-3.48	1.314	88.7	0.245	0.953	6.6	241.7	---	1.188	0.15	0.961	76.3	149.3	13.1	0.226
4- 920	4-1180	0.154	36.3	-30.5	-3.45	1.318	90.2	0.250	0.961	359.2	603.8	0.720	1.201	0.13	0.967	75.8	157.6	10.0	0.231
4- 920	4-1190	0.147	51.2	-29.3	-3.43	1.320	91.7	0.257	0.968	351.8	605.7	0.719	1.217	0.13	0.973	75.3	165.8	6.6	0.239
4- 920	4-1200	0.139	65.4	-26.7	-3.40	1.323	93.5	0.267	0.974	343.5	607.4	0.714	1.234	0.12	0.979	74.6	174.2	3.0	0.250
4- 920	4-1210	0.130	78.1	-23.4	-3.38	1.325	95.4	0.280	0.981	335.1	608.8	0.706	1.255	0.12	0.984	73.8	182.7	-0.7	0.264
4- 920	4-1220	0.123	89.0	-19.8	-3.36	1.328	97.6	0.298	0.986	326.2	609.7	0.692	1.280	0.12	0.990	72.7	191.5	-4.5	0.283
4- 920	4-1230	0.272	98.4	-33.5	-3.34	1.330	100.2	0.322	0.992	316.6	609.9	0.672	1.312	0.13	0.996	71.2	200.7	-8.3	0.310
4- 920	4-1240	0.690	148.6	-7.4	-3.34	1.137	125.2	0.579	0.676	229.2	882.5	0.284	1.064	0.13	0.718	111.2	323.9	-14.1	0.431
4- 920	4-1240	0.331	106.8	-13.1	-3.31	1.332	103.4	0.358	0.998	306.1	609.3	0.643	1.353	0.15	1.002	69.2	210.5	-12.0	0.347
4- 920	4-1240	0.624	148.7	-5.1	-3.31	1.121	121.5	0.525	0.658	229.7	892.9	0.310	1.006	0.15	0.697	97.9	313.6	-17.1	0.332
4- 920	4-1250	0.412	114.5	-10.2	-3.28	1.334	107.5	0.404	1.004	294.3	607.4	0.598	1.409	0.17	1.008	66.2	221.2	-15.6	0.400
4- 920	4-1250	0.618	149.1	-5.1	-3.28	1.115	121.2	0.426	0.652	229.0	902.1	0.309	0.995	0.17	0.691	87.7	301.3	-20.0	0.315
4- 920	4-1260	0.527	122.3	-7.5	-3.23	1.330	113.2	0.474	1.009	280.5	603.6	0.531	1.488	0.20	1.015	61.7	233.3	-18.8	0.480
4- 920	4-1260	0.658	150.0	-5.0	-3.23	1.112	123.4	0.657	0.650	227.3	910.5	0.288	1.012	0.20	0.691	77.5	290.9	-21.7	0.360
4- 920	4-1270	0.761	151.8	-3.6	-3.15	1.112	128.8	0.632	0.650	223.5	916.5	0.239	1.060	0.27	0.695	65.3	286.7	-22.2	0.470
4- 920	4-1320	0.818	281.1	-3.7	-3.67	1.096	48.5	0.679	0.635	140.1	884.0	0.210	1.061	-0.30	0.678	117.4	46.9	17.2	0.519
4- 920	4-1330	0.570	311.4	-7.7	-3.57	1.344	69.5	0.497	1.030	81.0	479.1	0.518	1.542	-0.22	1.031	119.7	99.8	22.8	0.522
4- 920	4-1330	0.696	283.2	-4.6	-3.57	1.096	59.1	0.562	0.635	135.8	889.9	0.265	1.005	-0.22	0.678	103.5	43.6	16.3	0.390
4- 920	4-1340	0.437	320.6	-10.4	-3.52	1.340	72.2	0.422	1.037	64.3	468.5	0.599	1.474	-0.17	1.033	114.8	114.0	21.2	0.435
4- 920	4-1340	0.915	276.3	-2.7	-3.52	1.054	42.5	0.750	0.600	147.9	912.2	0.150	1.051	-0.17	0.605	59.4	0.3	-0.0	0.587
4- 920	4-1340	0.667	283.4	-4.9	-3.52	1.092	56.9	0.559	0.631	135.3	899.6	0.278	0.984	-0.17	0.669	90.5	30.6	12.1	0.347
4- 920	4-1350	0.345	330.8	-13.4	-3.48	1.343	77.0	0.376	1.043	49.6	464.0	0.651	1.435	-0.15	1.035	111.9	126.9	18.7	0.381
4- 920	4-1360	0.279	341.5	-16.7	-3.45	1.350	80.8	0.348	1.049	36.4	460.9	0.684	1.414	-0.13	1.036	110.1	138.7	15.6	0.347
4- 920	4-1370	0.233	355.2	-20.2	-3.43	1.353	84.0	0.333	1.056	24.1	458.8	0.705	1.407	-0.13	1.037	109.7	149.6	12.0	0.328
4- 920	4-1380	0.204	12.0	-23.1	-3.40	1.355	86.9	0.326	1.063	12.8	457.4	0.716	1.410	-0.12	1.037	108.7	160.0	8.0	0.317
4- 920	4-1390	0.193	31.3	-24.5	-3.38	1.357	89.5	0.327	1.071	2.1	456.8	0.720	1.421	-0.12	1.038	108.7	169.8	4.0	0.317
4- 920	4-1400	0.198	50.5	-23.8	-3.36	1.360	92.0	0.334	1.079	352.0	816.6	0.719	1.440	-0.13	1.039	109.0	179.2	-0.1	0.323
4- 920	4-1410	0.711	297.9	-5.0	-3.33	1.272	57.0	0.562	0.863	108.7	583.2	0.378	1.348	-0.13	0.917	56.9	34.7	13.7	0.567
4- 920	4-1410	0.217	67.1	-21.3	-3.34	1.363	94.5	0.336	1.089	342.4	316.9	0.712	1.466	-0.13	1.040	109.7	188.4	-4.0	0.335
4- 920	4-1420	0.640	301.2	-5.8	-3.31	1.279	60.6	0.514	0.877	101.7	586.1	0.426	1.328	-0.15	0.924	60.1	42.7	16.1	0.516
4- 920	4-1420	0.249	80.1	-18.3	-3.31	1.366	97.0	0.363	1.099	333.3	817.7	0.700	1.498	-0.15	1.041	110.7	197.4	-7.8	0.353
4- 920	4-1430	0.574	304.6	-6.6	-3.27	1.286	64.0	0.470	0.890	94.6	588.7	0.472	1.309	-0.17	0.930	62.9	50.9	18.3	0.470
4- 920	4-1430	0.289	90.3	-15.5	-3.27	1.370	99.6	0.385	1.111	324.7	818.8	0.684	1.538	-0.17	1.045	112.0	206.2	-11.3	0.376
4- 920	4-1440	0.512	308.2	-7.5	-3.23	1.292	67.2	0.430	0.903	87.2	591.0	0.514	1.291	-0.21	0.936	65.4	59.4	20.1	0.429
4- 920	4-1440	0.336	98.2	-13.0	-3.23	1.374	102.3	0.410	1.124	316.4	820.3	0.663	1.585	-0.21	1.046	113.5	215.0	-14.5	0.404
4- 920	4-1450	0.455	312.0	-8.5	-3.15	1.297	70.0	0.395	0.914	79.7	593.2	0.553	1.275	-0.27	0.941	67.5	68.2	21.3	0.392
4- 920	4-1450	0.389	104.7	-10.8	-3.15	1.378	105.1	0.440	1.138	308.6	821.1	0.637	1.638	-0.27	1.049	115.3	223.8	-17.3	0.438
4- 920	4-1460	0.404	316.1	-9.3	-2.99	1.302	72.7	0.365	0.924	72.0	595.1	0.587	1.261	-0.42	0.945	69.3	77.3	21.9	0.360
4- 920	4-1460	0.447	110.0	-8.8	-2.99	1.382	108.0	0.472	1.153	301.0	824.1	0.608	1.698	-0.42	1.058	117.4	232.6	-19.9	0.476
4- 920	4-1470	0.355	320.6	-8.7	-2.44	1.306	75.1	0.339	0.934	64.2	596.9	0.618	1.250	-0.96	0.949	70.8	86.5	20.8	0.333
4- 920	4-1470	0.508	114.6	-6.2	-2.44	1.386	111.1	0.508	1.170	293.8	826.5	0.576	1.768	-0.96	1.057	119.6	241.3	-22.6	0.519
4- 920	4-1480	0.338	324.3	-25.0	-6.41	1.310	77.4	0.317	0.942	56.2	598.5	0.643	1.241	3.02	0.953	72.0	96.4	32.1	0.314
4- 920	4-1480	0.588	119.3	-13.9	-6.41	1.391	114.3	0.545	1.187	286.8	829.1	0.540	1.835	3.02	1.062	122.1	251.0	-17.5	0.567
4- 920	4-1490	0.284	330.7	-18.4	-3.97	1.313	79.4	0.300	0.950	48.2	600.1	0.665	1.235	0.59	0.957	73.0	105.4	24.6	0.292
4- 920	4-1500	0.585	323.2	-8.5	-3.70	1.450	67.7	0.608	1.481	60.9	262.1	---	2.381	0.33	1.137	56.7	104.0	23.3	0.625
4- 920	4-1500	0.250	337.3	-19.7	-3.70	1.316	81.4	0.286	0.956	40.2	601.5	0.683	1.230	0.33	0.960	73.7	114.7	22.6	0.277
4- 920	4-1510	0.536	327.5	-9.2	-3.59	1.452	70.2	0.593	1.494	54.5	265.4	---	2.379	0.24	1.139	58.2	112.5	22.2	0.599
4- 920	4-1510	0.221	345.2	-21.8	-3.59	1.318	83.2	0.276	0.962	32.1	603.0	0.697	1.228	0.24	0.964	74.3	124.0	20.6	0.265
4- 920	4-1520	0.490	332.4	-10.1	-3.53	1.453	72.8	0.579	1.505	48.0	268.4	---	2.377	0.19	1.142	59.5	121.0	20.7	0.575
4- 920	4-1520	0.197	354.7	-24.3	-3.53	1.320	85.0	0.269	0.968	23.9	604.4	0.707	1.228	0.19	0.967	74.6	133.1	18.3	0.257
4- 930	4- 970	0.938	287.5	-3.8	-5.69	0.984	40.2	0.789	0.552	154.2	177.5	---	---	-2.68	0.470	99.2	33.6	11.1	0.598
4- 930	4- 980	0.829	291.8	-4.4	-4.83	1.025	47.1	0.704	0.579	147.6	181.1	---	0.985	-1.92	0.549	87.4	32.6	10.7	0.469
4- 930	4- 990	0.750	295.8	-4.8	-4.34	1.065	51.9	0.674	0.607	141.3	184.9	---	0.993	-1.54	0.618	81.6	32.7	10.8	0.416
4- 930	4-1000	0.688	299.7	-5.3	-4.00	1.101	55.6	0.575	0.637	135.1	188.8	---	1.004	-1.32	0.674	78.5	34.9	11.2	0.381
4- 930	4-1010	0.636	303.3	-5.7	-3.75	1.131	58.6	0.525	0.667	128.8	192.6	---	1.017	-1.18	0.720	76.8	36.5	12.1	0.356
4- 930	4-1020	0.590	306.8	-6.1	-3.53	1.158	61.2	0.482	0.695	122.4	196.2	---	1.030	-1.11	0.758	75.9	40.3	13.1	0.338
4- 930	4-1030	0.549	310.1	-6.4	-3.34	1.181	63.6	0.445	0.722	116.0	1 .8	---	1.043	-1.07	0.789	75.5	44.8	14.4	0.322
4- 930	4-1040	0.510	313.3	-6.8	-3.16	1.201	65.7	0.413	0.747	109.6	203.3	---	1.056	-1.06	0.815	75.3	50.1	15.6	0.309
4- 930	4-1050	0.474	316.5	-7.1	-2.97	1.218	67.7	0.385	0.771	103.1	206.6	---	1.068	-1.09	0.837	75.3	56.0	16.7	0.298
4- 930	4-1060	0.441	319.7	-7.3	-2.77	1.233	69.5	0.361	0.793	96.5	209.6	---	1.079	-1.16	0.855	75.4	62.5	17.7	0.288
4- 930	4-1070	0.409	322.9	-7.3	-2.53	1.246	71.2	0.340	0.814	89.9	213.0	---	1.090	-1.27	0.870	75.5	69.4	18.2	0.278
4- 930	4-1080	0.378	326.2	-7.1	-2.24	1.257	72.9	0.322	0.833	84.3	216.0	---	1.101	-1.45	0.884	75.6	76.7	18.3	0.270
4- 930	4-1090	0.349	329.7	-6.5	-1.85	1.267	74.4	0.307	0.851	78.6	219.0	---	1.111	-1.74	0.895	75.8	84.3	17.6	0.263
4- 930	4-1100	0.320	333.3	-4.7	-1.23	1.275	75.9	0.294	0.867	69.9	221.9	---	1.121	-2.20	0.905	75.9	92.0	15.7	0.257
4- 930	4-1110	0.293	337.2	-0.1	-0.03	1.283	77.4	0.263	0.882	63.2	224.8	---	1.131	-3.36	0.915	76.0	99.6	11.3	0.255
4- 930	4-1120	0.279	341.0	16.4	3.57	1.290	78.8	0.274	0.895	56.5	227.6	---	1.141	-6.88	0.923	76.1	106.8	-1.2	0.268
4- 930	4-1140	0.296	347.9	-43.4	-9.08	1.301	81.6	0.357	0.920	42.7	233.0	---	1.159	5.95	0.938	76.1	132.7	40.2	0.255
4- 930	4-1150	0.241	356.1	-35.3	-6.17	1.306	82.9	0.357	0.930	35.8	235.6	---	1.169	3.13	0.945	76.1	147.4	29.0	0.239
4- 930	4-1160	0.213	4.1	-33.0	-5.11	1.310	84.3	0.354	0.940	28.9	238.2	---	1.179	2.17	0.952	76.0	144.6	23.1	0.235
4- 930	4-1170	0.193	13.4	-32.6	-4.54	1.314	85.6	0.353	0.949	21.8	240.7	---	1.190	1.69	0.959	75.8	152.2	18.6	0.234
4- 930	4-1180	0.177	24.4	-32.7	-4.16	1.318	87.1	0.354	0.958	14.6	243.1	---	1.201	1.42	0.965	75.6	160.0	14.5	0.236

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 930	4-1190	0.167	37.5	-32.4	-3.88	1.321	88.5	0.256	0.966	7.2	245.3	---	1.213	1.25	0.972	75.4	167.8	10.6	0.239
4- 930	4-1200	0.163	52.3	-31.3	-3.66	1.324	90.1	0.261	0.973	359.6	607.4	0.719	1.227	1.15	0.978	75.0	175.8	6.6	0.244
4- 930	4-1210	0.166	67.7	-28.7	-3.46	1.327	91.8	0.268	0.980	351.7	609.2	0.718	1.243	1.09	0.984	74.5	184.0	2.7	0.252
4- 930	4-1220	0.179	82.3	-25.0	-3.27	1.329	93.6	0.278	0.987	343.4	610.7	0.713	1.261	1.06	0.991	73.9	192.4	-1.1	0.263
4- 930	4-1230	0.202	95.3	-20.7	-3.09	1.332	95.6	0.291	0.993	334.6	611.8	0.704	1.282	1.07	0.997	73.1	201 1	-4.9	0.278
4- 930	4-1240	0.237	106.4	-16.4	-2.90	1.334	98.0	0.310	0.999	325.3	612.3	0.689	1.309	1.11	1.002	71.9	210.3	-8.6	0.299
4- 930	4-1250	0.285	116.1	-12.4	-2.68	1.336	100.9	0.337	1.005	315.7	612.0	0.666	1.343	1.19	1.008	70.3	220.0	-12.0	0.329
4- 930	4-1260	0.621	163.7	-4.2	-2.68	1.132	121.2	0.522	0.668	231.6	888.5	0.319	1.016	1.19	0.717	102.0	331.2	-9.2	0.347
4- 930	4-1260	0.352	124.6	-9.0	-2.43	1.338	104.4	0.374	1.010	303.8	610.7	0.632	1.388	1.33	1.014	68.1	230.6	-15.1	0.371
4- 930	4-1260	0.594	164.0	-4.0	-2.43	1.124	119.9	0.504	0.660	231.2	898.1	0.327	0.992	1.55	0.708	91.9	320.1	-12.3	0.304
4- 930	4-1270	0.445	132.7	-5.9	-2.09	1.340	109.2	0.429	1.016	290.9	607.8	0.580	1.452	1.56	1.019	64.6	242.2	-17.6	0.433
4- 930	4-1270	0.612	164.6	-3.3	-2.09	1.121	120.8	0.519	0.656	230.0	907.0	0.316	0.997	1.56	0.706	82.6	308.9	-15.2	0.321
4- 930	4-1280	0.583	141.0	-3.3	-1.59	1.342	115.9	0.5	1.012	275.5	602.6	0.499	1.545	1.95	1.024	59.3	255.4	-19.5	0.530
4- 930	4-1280	0.679	165.9	-2.2	-1.59	1.120	124.4	0.5	0.655	227.5	914.6	0.281	1.029	1.95	0.707	72.2	302.0	-16.8	0.397
4- 930	4-1290	0.822	168.6	-0.7	-0.70	1.121	131.9	0.672	0.656	222.0	919.1	0.215	1.097	2.74	0.711	58.9	301.5	-17.1	0.543
4- 930	4-1340	0.755	209.0	-6.0	-5.21	1.106	52.2	0.620	0.643	136.6	884.7	0.244	1.041	-2.25	0.690	112.2	65.3	18.3	0.456
4- 930	4-1350	0.545	331.4	-11.2	-4.57	1.350	69.5	0.467	1.044	73.3	471.6	0.556	1.531	-1.71	1.035	117.7	122.5	16.8	0.483
4- 930	4-1350	0.665	300.4	-6.4	-4.57	1.106	56.9	0.555	0.642	133.6	891.8	0.286	0.998	-1.71	0.687	99.9	59.3	17.1	0.356
4- 930	4-1360	0.401	340.7	-13.6	-4.17	1.352	74.2	0.407	1.050	57.7	466.1	0.623	1.477	-1.42	1.036	113.8	135.4	13.5	0.413
4- 930	4-1360	0.655	294.6	-3.8	-4.17	1.071	46.1	0.705	0.612	144.2	912.6	0.181	1.044	-1.42	0.627	63.8	19.4	6.6	0.535
4- 930	4-1360	0.659	300.0	-5.8	-4.17	1.099	57.1	0.554	0.636	134.3	902.7	0.284	0.989	-1.42	0.674	86.1	42.9	13.6	0.344
4- 930	4-1370	0.320	351.0	-16.3	-3.87	1.354	78.6	0.370	1.056	43.7	462.2	0.665	1.447	-1.24	1.037	111.4	147.0	9.8	0.369
4- 930	4-1380	0.262	5.2	-19.0	-3.64	1.356	82.1	0.348	1.063	31.1	459.6	0.693	1.432	-1.14	1.037	110.0	157.9	5.8	0.343
4- 930	4-1390	0.222	18.2	-21.4	-3.44	1.358	85.1	0.337	1.069	19.4	457.9	0.709	1.430	-1.08	1.038	109.3	168.1	1.6	0.329
4- 930	4-1400	0.199	36.1	-22.8	-3.25	1.361	87.9	0.334	1.077	8.5	456.9	0.717	1.436	-1.06	1.038	109.0	177.9	-2.6	0.323
4- 930	4-1410	0.193	55.5	-22.2	-3.07	1.363	90.5	0.337	1.085	358.2	816.5	0.719	1.451	-1.07	1.039	109.2	187.4	-6.7	0.326
4- 930	4-1420	0.204	73.6	-19.6	-2.88	1.366	93.0	0.346	1.094	348.4	816.6	0.716	1.472	-1.12	1.039	109.7	196.8	-10.7	0.335
4- 930	4-1430	0.692	315.2	-4.2	-2.66	1.279	58.0	0.551	0.874	106.3	584.2	0.392	1.356	-1.20	0.919	57.5	53.9	17.6	0.554
4- 930	4-1430	0.228	88.6	-16.1	-2.66	1.369	95.5	0.359	1.104	339.1	817.1	0.707	1.500	-1.20	1.041	110.5	206.0	-14.4	0.349
4- 930	4-1440	0.623	318.5	-4.4	-2.40	1.286	61.5	0.506	0.088	99.3	587.0	0.439	1.336	-1.34	0.926	60.5	62.2	18.8	0.506
4- 930	4-1440	0.263	100.3	-12.5	-2.40	1.372	98.0	0.378	1.115	330.3	818.0	0.693	1.536	-1.34	1.042	111.5	215.2	-17.7	0.370
4- 930	4-1450	0.558	322.0	-4.3	-2.07	1.292	64.7	0.464	0.900	92.2	589.6	0.483	1.310	-1.57	0.932	63.2	70.8	19.4	0.462
4- 930	4-1450	0.305	109.4	-9.2	-2.07	1.376	100.7	0.401	1.127	321.8	819.2	0.675	1.578	-1.57	1.045	112.9	224.3	-20.8	0.396
4- 930	4-1460	0.498	325.6	-3.8	-1.59	1.298	67.7	0.426	0.912	85.0	591.9	0.523	1.301	-1.95	0.938	65.5	79.6	19.2	0.423
4- 930	4-1460	0.355	116.7	-6.0	-1.59	1.380	103.4	0.427	1.140	313.8	820.7	0.653	1.627	-1.95	1.048	114.5	233.5	-23.7	0.427
4- 930	4-1470	0.442	329.4	-2.2	-0.78	1.303	70.7	0.393	0.923	77.5	594.1	0.560	1.286	-2.67	0.943	67.5	88.5	17.5	0.389
4- 930	4-1470	0.410	122.6	-2.5	-0.78	1.384	106.2	0.457	1.155	306.0	822.6	0.626	1.683	-2.67	1.052	116.4	242.6	-28.6	0.463
4- 930	4-1480	0.392	333.5	3.4	1.07	1.307	73.1	0.365	0.933	70.0	596.1	0.593	1.273	-4.42	0.948	69.2	97.2	12.4	0.364
4- 930	4-1480	0.470	127.7	3.0	1.07	1.388	109.2	0.491	1.170	298.7	824.8	0.596	1.745	-4.42	1.056	118.5	251.4	-30.6	0.506
4- 930	4-1490	0.414	334.4	34.3	10.60	1.311	75.4	0.341	0.942	62.4	598.0	0.621	1.263	-13.87	0.952	70.6	106.7	-10.1	0.402
4- 930	4-1490	0.581	134.4	24.1	10.60	1.392	112.3	0.526	1.187	291.6	827.2	0.563	1.812	-13.87	1.061	120.8	256.7	-44.7	0.590
4- 930	4-1500	0.437	335.3	-48.0	-14.66	1.314	77.6	0.320	0.950	54.4	599.8	0.647	1.254	-11.48	0.956	71.8	127.7	49.9	0.302
4- 930	4-1510	0.309	346.7	-31.9	-7.24	1.317	79.6	0.303	0.957	46.7	601.5	0.667	1.248	-4.16	0.961	72.7	128.7	31.9	0.300
4- 930	4-1520	0.279	340.2	-13.1	-5.57	1.453	68.4	0.607	1.495	59.0	263.3	---	2.402	2.58	1.140	57.0	124.7	23.7	0.618
4- 930	4-1520	0.263	354.1	-28.8	-5.57	1.320	81.6	0.291	0.964	38.8	603.1	0.684	1.244	2.58	0.965	73.4	136.5	25.5	0.281
4- 930	4-1530	0.529	344.8	-12.6	-4.81	1.455	70.9	0.592	1.507	52.6	266.5	---	2.400	1.90	1.143	58.5	132.8	20.9	0.591
4- 930	4-1530	0.230	2.4	-28.6	-4.81	1.322	83.4	0.281	0.970	30.8	604.7	0.697	1.242	1.90	0.969	73.9	144.8	21.0	0.269
4- 940	4- 990	0.949	303.3	-4.3	-6.50	0.983	39.5	0.795	0.551	154.6	182.1	---	0.989	-4.16	0.466	82.0	39.3	11.8	0.565
4- 940	4-1000	0.856	307.8	-4.6	-5.30	1.031	45.5	0.720	0.581	148.0	185.6	---	1.000	-3.15	0.551	76.1	40.1	12.1	0.500
4- 940	4-1010	0.784	312.0	-4.8	-4.55	1.073	50.1	0.655	0.613	141.6	189.2	---	1.015	-2.60	0.623	73.5	42.1	12.7	0.456
4- 940	4-1020	0.723	315.9	-5.0	-4.02	1.109	53.8	0.598	0.644	135.2	192.8	---	1.030	-2.27	0.680	72.3	45.2	13.5	0.424
4- 940	4-1030	0.669	319.5	-5.1	-3.59	1.140	56.9	0.549	0.675	128.8	196.4	---	1.045	-2.08	0.726	71.8	49.3	14.5	0.398
4- 940	4-1040	0.621	323.0	-5.2	-3.23	1.167	59.6	0.506	0.704	122.4	199.9	---	1.060	-1.97	0.763	71.8	54.2	15.5	0.377
4- 940	4-1050	0.578	326.3	-5.3	-2.89	1.190	62.1	0.468	0.731	116.0	203.4	---	1.075	-1.92	0.794	72.0	59.7	16.4	0.359
4- 940	4-1060	0.537	329.5	-5.2	-2.56	1.209	64.4	0.435	0.757	109.6	206.7	---	1.087	-1.93	0.819	72.2	65.9	17.1	0.344
4- 940	4-1070	0.498	332.7	-5.0	-2.22	1.226	66.4	0.406	0.782	103.1	210.0	---	1.099	-2.01	0.841	72.6	72.5	17.5	0.329
4- 940	4-1080	0.462	335.9	-4.6	-1.84	1.241	68.4	0.381	0.804	96.6	213.2	---	1.111	-2.15	0.859	73.0	79.5	17.5	0.317
4- 940	4-1090	0.428	339.1	-3.8	-1.39	1.253	70.2	0.360	0.825	90.1	216.3	---	1.122	-2.38	0.875	73.3	86.7	16.9	0.305
4- 940	4-1100	0.395	342.4	-2.5	-0.83	1.264	71.9	0.341	0.844	83.5	219.3	---	1.132	-2.75	0.888	73.7	94.2	15.4	0.296
4- 940	4-1110	0.365	345.8	-0.1	-0.02	1.274	73.6	0.324	0.862	76.9	222.3	---	1.142	-3.38	0.900	74.0	101.6	12.8	0.288
4- 940	4-1120	0.337	349.3	4.8	1.30	1.282	75.2	0.311	0.879	70.3	225.2	---	1.152	-4.53	0.911	74.2	108.8	8.1	0.284
4- 940	4-1130	0.321	352.6	16.2	4.09	1.290	76.7	0.299	0.894	63.7	228.1	---	1.161	-7.15	0.921	74.5	115.5	-1.3	0.291
4- 940	4-1140	0.427	348.6	50.2	15.00	1.296	78.1	0.290	0.908	57.3	231.0	---	1.170	-17.90	0.930	74.6	122.4	-25.9	0.392
4- 940	4-1150	0.704	320.0	-69.3	-30.93	1.302	79.8	0.279	0.920	49.7	233.7	---	1.177	28.19	0.939	74.9	188.2	59.0	0.525
4- 940	4-1160	0.331	2.2	-47.9	-10.97	1.308	81.1	0.274	0.932	45.2	236.5	---	1.187	8.39	0.947	74.9	156.1	40.0	0.286
4- 940	4-1170	0.264	11.3	-39.3	-7.38	1.312	82.5	0.269	0.943	36.4	239.2	---	1.196	4.96	0.955	75.0	158.3	28.4	0.260
4- 940	4-1180	0.228	19.7	-35.7	-5.83	1.316	83.9	0.266	0.953	29.5	241.8	---	1.206	3.59	0.962	75.0	164.1	21.2	0.253
4- 940	4-1190	0.203	29.2	-34.0	-4.99	1.320	85.4	0.264	0.962	22.3	244.3	---	1.216	2.87	0.969	74.9	171.0	15.7	0.250
4- 940	4-1200	0.184	40.6	-32.9	-4.32	1.324	86.9	0.265	0.970	15.0	246.7	---	1.227	2.45	0.976	74.8	178.3	10.8	0.250
4- 940	4-1210	0.171	54.0	-31.5	-3.85	1.327	88.4	0.267	0.978	7.5	248.8	---	1.239	2.19	0.983	74.6	185.9	6.4	0.252
4- 940	4-1220	0.165	69.2	-29.1	-3.46	1.330	90.1	0.271	0.986	359.7	610.8	0.719	1.253	2.03	0.990	74.3	193.9	2	0.257
4- 940	4-1230	0.168	85.0	-25.4	-3.11	1.332	91.8	0.278	0.993	351.5	612.4	0.717	1.268	1.94	0.996	73.9	202.1	-4.7	0.265
4- 940	4-1240	0.182	100.0	-20.7	-2.77	1.335	93.8	0.288	0.999	342.9	613.7	0.712	1.287	1.92	1.003	73.3	210.8	-5.4	0.277
4- 940	4-1250	0.208	113.1	-15.8	-2.44	1.337	96.0	0.302	1.005	333.7	614.4	0.701	1.309	1.95	1.008	72.4	219.9	-8.8	0.294
4- 940	4-1260	0.247	124.4	-11.2	-2.07	1.339	98.6	0.323	1.011	323.7	614.5	0.685	1.338	2.05	1.014	71.2	229.7	-11.9	0.319
4- 940	4-1260	0.630	178.9	-3.2	-2.07	1.145	121.4	0.524	0.679	233.1	883.8	0.323	1.035	2.05	0.738	106.4	347.4	-1.2	0.375
4- 940	4-1270	0.303	134.2	-7.2	-1.66	1.342	101.8	0.352	1.017	312.8	613.6	0.659	1.376	2.23	1.019	69.4	240.1	-14.4	0.352
4- 940	4-1270	0.580	179.1	-2.8	-1.66	1.134	119.0	0.489	0.668	233.2	894.0	0.341	0.994	2.23	0.724	95.7	337.6	-3.7	0.304
4- 940	4-1280	0.380	143.0	-3.9	-1.14	1.344	105.8	0.395	1.023	300.6	611.5	0.619	1.427	2.54	1.024	66.8	251.4	-16.3	0.401
4- 940	4-1280	0.580	179.5	-1.9	-1.14	1.129	119.0	0.491	0.663	232.4	903.3	0.338	0.989	2.54	0.720	86.9	326.3	-7.0	0.298

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 940	4-1290	0.490	151.4	-1.1	-0.43	1.346	111.3	0.459	1.029	286.5	607.5	0.557	1.501	3.05	1.028	62.8	263.9	-17.4	0.475
4- 940	4-1290	0.621	180.4	-0.7	-0.43	1.127	121.2	0.523	0.662	230.7	911.6	0.315	1.008	3.05	0.720	77.8	317.6	-9.8	0.346
4- 940	4-1300	0.655	160.4	1.2	0.68	1.348	119.3	0.557	1.035	269.4	600.5	0.459	1.611	3.97	1.032	56.3	277.9	-17.5	0.592
4- 940	4-1300	0.720	180.2	0.9	0.68	1.128	126.3	0.596	0.662	227.0	918.1	0.267	1.056	3.97	0.721	66.8	314.5	-11.1	0.452
4- 940	4-1350	0.857	315.5	-7.2	-7.52	1.114	47.0	0.686	0.649	139.6	881.7	0.203	1.094	-5.09	0.699	121.7	82.8	17.8	0.557
4- 940	4-1360	0.615	342.0	-11.6	-5.84	1.353	63.7	0.526	1.050	83.7	475.9	0.498	1.602	-3.60	1.036	121.5	129.9	12.4	0.550
4- 940	4-1360	0.708	316.5	-7.5	-5.84	1.115	54.8	0.582	0.650	133.7	886.0	0.271	1.028	-3.60	0.698	108.0	82.9	17.4	0.408
4- 940	4-1370	0.470	351.3	-13.5	-4.91	1.355	70.8	0.446	1.057	66.6	468.9	0.585	1.528	-2.85	1.037	116.3	143.1	8.5	0.456
4- 940	4-1370	0.642	317.5	-7.2	-4.91	1.114	58.2	0.535	0.648	131.7	894.1	0.301	0.995	-2.85	0.692	96.7	74.3	16.7	0.333
4- 940	4-1380	0.370	1.0	-15.4	-4.28	1.357	75.9	0.397	1.063	51.8	464.1	0.641	1.485	-2.42	1.037	115.1	154.8	4.2	0.398
4- 940	4-1380	0.781	313.3	-4.6	-4.28	1.089	50.4	0.647	0.626	139.7	912.1	0.221	1.032	-2.42	0.648	69.8	40.8	12.5	0.467
4- 940	4-1380	0.675	316.2	-5.8	-4.28	1.104	56.3	0.565	0.639	134.3	906.6	0.278	1.000	-2.42	0.673	81.6	53.6	14.7	0.363
4- 940	4-1390	0.298	12.0	-17.3	-3.81	1.359	79.9	0.367	1.069	38.5	460.9	0.677	1.462	-2.17	1.038	111.2	165.7	-0.1	0.363
4- 940	4-1400	0.246	25.2	-19.1	-3.41	1.361	83.2	0.350	1.076	26.4	458.7	0.659	1.453	-2.01	1.038	110.1	176.0	-4.5	0.343
4- 940	4-1410	0.212	41.4	-20.1	-3.06	1.364	86.1	0.342	1.083	15.2	457.3	0.712	1.454	-1.94	1.038	109.5	186.0	-8.9	0.333
4- 940	4-1420	0.195	60.1	-19.5	-2.73	1.366	88.8	0.342	1.091	4.6	456.6	0.718	1.464	-1.92	1.038	109.5	195.8	-12.9	0.332
4- 940	4-1430	0.195	79.1	-17.1	-2.40	1.369	91.4	0.347	1.099	354.6	816.3	0.718	1.481	-1.96	1.039	109.7	205.4	-16.7	0.337
4- 940	4-1440	0.747	329.5	-2.9	-2.05	1.278	55.1	0.589	0.871	110.8	582.3	0.358	1.384	-2.06	0.914	54.9	65.2	18.8	0.593
4- 940	4-1440	0.211	96.0	-13.4	-2.05	1.371	93.9	0.357	1.109	345.1	816.6	0.712	1.505	-2.06	1.040	110.3	215.1	-20.1	0.349
4- 940	4-1450	0.675	332.5	-2.7	-1.64	1.285	58.8	0.543	0.885	104.0	585.2	0.404	1.365	-2.24	0.923	58.1	73.6	19.3	0.543
4- 940	4-1450	0.240	109.5	-9.4	-1.64	1.374	96.4	0.373	1.119	336.0	817.2	0.702	1.536	-2.24	1.042	111.2	224.7	-23.2	0.366
4- 940	4-1460	0.608	335.8	-2.2	-1.15	1.292	62.1	0.499	0.898	97.2	587.9	0.449	1.346	-2.53	0.928	60.9	82.1	19.1	0.497
4- 940	4-1460	0.279	120.1	-5.6	-1.15	1.378	99.0	0.392	1.130	327.4	818.1	0.687	1.574	-2.53	1.044	112.4	234.4	-25.9	0.389
4- 940	4-1470	0.545	339.2	-1.0	-0.48	1.298	65.3	0.460	0.930	90.2	590.5	0.492	1.328	-3.01	0.934	63.4	90.7	1	0.456
4- 940	4-1470	0.325	128.4	-2.0	-0.48	1.381	101.7	0.416	1.143	319.1	819.5	0.667	1.619	-3.01	1.047	113.8	244.0	-2	0.418
4- 940	4-1480	0.488	342.8	1.3	0.51	1.303	68.2	0.424	0.921	83.0	592.9	0.531	1.312	-3.83	0.940	65.6	99.2	15.3	0.420
4- 940	4-1480	0.378	135.1	1.8	0.51	1.385	104.5	0.444	1.157	311.2	821.1	0.643	1.670	-3.83	1.051	115.5	253.7	-30.7	0.452
4- 940	4-1490	0.437	346.5	6.6	2.32	1.308	70.9	0.393	0.932	75.7	595.1	0.566	1.298	-5.47	0.948	67.4	107.4	10.2	0.394
4- 940	4-1490	0.439	140.8	7.0	2.32	1.389	107.4	0.475	1.172	303.6	823.0	0.615	1.728	-5.47	1.056	117.4	263.2	-33.7	0.493
4- 940	4-1500	0.434	349.3	21.7	7.01	1.312	73.3	0.366	0.942	68.4	597.3	0.597	1.286	-9.99	0.951	69.0	115.0	-2.2	0.390
4- 940	4-1500	0.521	146.5	17.8	7.01	1.393	110.4	0.508	1.188	296.4	825.2	0.584	1.792	-9.99	1.061	119.5	272.1	-40.3	0.551
4- 940	4-1520	0.456	351.0	-51.2	-16.02	1.319	77.9	0.322	0.958	52.9	601.2	0.849	1.267	13.36	0.962	71.5	153.5	47.4	0.379
4- 940	4-1530	0.325	3.1	-37.7	-8.80	1.321	79.8	0.307	0.965	45.3	603.1	0.669	1.261	6.30	0.966	72.4	161.6	32.0	0.311
4- 940	4-1540	0.571	35 .4	-15.7	-6.52	1.456	69.0	0.606	1.508	57.2	264.5	---	2.422	4.19	1.145	57.4	145.0	21.0	0.612
4- 940	4-1540	0.271	11.1	-33.2	-6.52	1.324	81.7	0.295	0.971	37.6	608.9	0.685	1.257	4.19	0.971	73.0	157.6	24.0	0.288
4- 950	4-1010	0.963	320.2	-4.2	-6.45	1.000	38.8	0.799	0.560	154.0	185.4	---	1.008	-5.04	0.484	69.8	48.9	14.1	0.587
4- 950	4-1020	0.880	324.6	-4.3	-5.13	1.047	44.3	0.731	0.592	147.4	188.9	---	1.025	-3.97	0.571	67.9	51.3	14.6	0.533
4- 950	4-1030	0.811	328.7	-4.3	-4.25	1.088	48.7	0.670	0.625	141.0	192.4	---	1.043	-3.36	0.658	67.3	54.8	15.4	0.493
4- 950	4-1040	0.751	332.5	-4.3	-3.59	1.122	52.3	0.616	0.656	134.7	196.0	---	1.060	-2.99	0.692	67.4	59.1	16.2	0.461
4- 950	4-1050	0.697	336.1	-4.2	-3.05	1.152	55.5	0.568	0.687	128.4	199.5	---	1.077	-2.77	0.736	67.8	64.2	16.9	0.435
4- 950	4-1060	0.647	339.5	-4.0	-2.57	1.178	58.3	0.525	0.716	122.0	202.9	---	1.092	-2.66	0.771	68.4	69.9	17.5	0.412
4- 950	4-1070	0.602	342.8	-3.7	-2.12	1.200	60.9	0.488	0.744	115.7	206.3	---	1.106	-2.63	0.801	69.0	76.2	17.8	0.391
4- 950	4-1080	0.559	346.0	-3.3	-1.67	1.218	63.2	0.454	0.770	109.3	209.6	---	1.119	-2.67	0.826	69.6	82.8	17.7	0.373
4- 950	4-1090	0.519	349.1	-2.6	-1.20	1.235	65.4	0.425	0.794	102.9	212.9	---	1.131	-2.79	0.847	70.2	89.8	17.2	0.357
4- 950	4-1100	0.481	352.2	-1.6	-0.66	1.249	67.4	0.400	0.816	96.5	216.1	---	1.143	-3.02	0.865	70.8	96.9	16.1	0.342
4- 950	4-1110	0.446	355.4	-0.0	-0.01	1.261	69.3	0.377	0.837	90.0	219.2	---	1.153	-3.39	0.881	71.4	104.1	14.2	0.330
4- 950	4-1120	0.413	58.6	2.4	0.84	1.271	71.1	0.358	0.857	83.6	222.3	---	1.163	-3.98	0.895	71.9	111.3	11.2	0.319
4- 950	4-1130	0.383	1.8	6.7	2.09	1.281	72.8	0.341	0.875	77.1	225.3	---	1.173	-4.98	0.908	72.3	118.2	6.7	0.312
4- 950	4-1140	0.362	4.9	14.8	4.26	1.289	74.5	0.326	0.891	70.6	228.3	---	1.182	-6.92	0.919	72.7	124.7	-0.7	0.313
4- 950	4-1150	0.379	8.3	32.8	9.38	1.296	76.0	0.314	0.906	64.2	231.3	---	1.191	-1 83	0.930	73.0	130.1	-15.0	0.345
4- 950	4-1170	0.580	353.4	-65.2	-24.16	1.308	79.3	0.292	0.933	50.1	237.0	---	1.205	22.15	0.949	73.8	191.2	50.8	0.452
4- 950	4-1180	0.341	18.4	-47.6	-11.19	1.313	80.7	0.286	0.944	43.6	239.9	---	1.214	9.41	0.957	73.9	175.0	34.5	0.306
4- 950	4-1190	0.272	27.5	-39.3	-7.59	1.318	82.2	0.281	0.955	36.8	242.6	---	1.223	6.04	0.966	74.0	176.9	23.7	0.279
4- 950	4-1200	0.233	36.1	-35.0	-5.84	1.322	83.7	0.277	0.965	29.8	245.2	---	1.232	4.53	0.974	74.1	182.3	16.5	0.269
4- 950	4-1210	0.205	45.9	-32.3	-4.77	1.326	85.2	0.275	0.974	22.6	247.7	---	1.242	3.70	0.981	74.2	188.8	10.7	0.265
4- 950	4-1220	0.184	57.5	-30.2	-4.00	1.329	86.8	0.274	0.983	15.1	250.0	---	1.253	3.21	0.988	74.1	196.0	5.8	0.264
4- 950	4-1230	0.170	71.4	-27.7	-3.39	1.332	88.4	0.276	0.991	7.4	252.1	---	1.264	2.90	0.995	74.0	203.7	1.4	0.266
4- 950	4-1240	0.164	87.0	-24.1	-2.88	1.335	90.1	0.280	0.998	359.3	613.9	0.713	1.279	2.72	1.002	73.7	211.8	-2.6	0.271
4- 950	4-1250	0.168	103.1	-19.4	-2.40	1.338	92.0	0.287	1.005	350.9	615.4	0.716	1.29	2.64	1.008	73.3	220.4	-6.1	0.280
4- 950	4-1260	0.185	118.3	-14.2	-1.95	1.340	94.1	0.298	1.012	341.8	616.3	0.710	1.31	2.63	1.014	72.7	229.6	-9.2	0.293
4- 950	4-1270	0.216	131.6	-9.1	-1.47	1.342	96.6	0.314	1.018	332.1	616.7	0.699	1.337	2.71	1.019	71.8	239.3	-11.8	0.312
4- 950	4-1270	0.659	194.4	-2.2	-1.47	1.159	122.7	0.541	0.694	234.2	878.7	0.319	1.069	2.71	0.762	111.6	3.3	6.4	0.423
4- 950	4-1280	0.262	182.9	-4.8	-0.95	1.344	99.4	0.337	1.024	321.6	616.2	0.679	1.368	2.89	1.024	70.4	249.6	-13.8	0.339
4- 950	4-1280	0.575	194.2	-1.7	-0.95	1.143	118.5	0.481	0.677	235.0	889.6	0.351	1.002	2.89	0.740	99.4	354.1	4.8	0.314
4- 950	4-1290	0.327	152.8	-1.3	-0.33	1.346	102.9	0.370	1.030	309.9	614.6	0.640	1.411	3.19	1.029	68.4	260.6	-15.0	0.378
4- 950	4-1290	0.558	194.5	-0.6	-0.33	1.137	117.7	0.470	0.671	234.5	899.3	0.356	0.986	3.19	0.734	90.7	343.2	1.8	0.286
4- 950	4-1300	0.418	161.8	1.4	0.46	1.348	107.5	0.419	1.036	296.7	611.5	0.601	1.470	3.71	1.033	65.4	272.5	-15.4	0.436
4- 950	4-1300	0.580	195.1	0.8	0.46	1.134	118.9	0.488	0.668	233.3	908.2	0.342	0.994	3.71	0.731	82.4	333.2	-1.7	0.310
4- 950	4-1310	0.550	170.6	3.6	1.61	1.351	113.9	0.494	1.042	281.1	608.2	0.527	1.557	4.56	1.036	60.5	285.5	-14.7	0.725
4- 950	4-1310	0.647	196.4	2.4	1.61	1.134	122.3	0.539	0.667	230.8	915.8	0.308	1.027	4.58	0.732	73.1	328.0	-4.1	0.384
4- 950	4-1320	0.783	199.1	4.0	3.54	1.135	129.3	0.636	0.668	225.5	920.6	0.243	1.094	6.26	0.733	81.0	328.6	-4.6	0.525
4- 950	4-1370	0.788	331.6	-8.3	-7.50	1.123	50.8	0.636	0.655	135.8	882.0	0.239	1.074	-5.96	0.706	116.5	101.6	15.3	0.401
4- 950	4-1380	0.557	1.9	-12.9	-5.75	1.358	66.6	0.496	1.064	76.5	472.7	0.536	1.592	-4.45	1.038	119.5	150.1	3.9	0.513
4- 950	4-1380	0.671	333.9	-8.1	-5.75	1.123	56.8	0.554	0.657	131.4	887.6	0.293	1.020	-4.45	0.703	104.5	99.5	15.0	0.371
4- 950	4-1390	0.431	11.3	-14.2	-4.68	1.360	72.6	0.431	1.070	60.6	466.7	0.608	1.532	-3.64	1.038	115.3	162.2	-0.9	0.437
4- 950	4-1390	0.626	334.5	-7.2	-4.60	1.121	59.0	0.522	0.655	130.2	896.4	0.313	0.996	-3.64	0.696	93.9	88.8	15.5	0.318
4- 950	4-1400	0.342	21.4	-15.4	-3.92	1.362	77.4	0.391	1.076	46.6	462.6	0.655	1.497	-3.16	1.038	112.7	173.3	-5.6	0.390
4- 950	4-1410	0.278	33.3	-16.4	-3.32	1.364	81.1	0.367	1.083	33.9	459.8	0.686	1.480	-2.87	1.038	111.1	183.9	-10.1	0.361
4- 950	4-1420	0.251	47.6	-16.8	-2.82	1.366	84.3	0.353	1.090	22.2	458.9	0.705	1.475	-2.71	1.038	110.2	194.2	-14.4	0.346
4- 950	4-1430	0.203	64.9	-16.1	-2.36	1.368	87.1	0.348	1.097	11.3	456.8	0.715	1.480	-2.63	1.038	109.8	204.4	-18.3	0.340

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 950	4-1440	0.192	83.9	-13.8	-1.91	1.371	89.7	0.350	1.105	1.0	456.2	0.718	1.492	-2.64	1.039	109.9	214.6	-21.8	0.342
4- 950	4-1450	0.199	102.2	-10.1	-1.45	1.373	92.3	0.357	1.134	351.2	816.1	0.716	1.512	-2.72	1.040	110.3	224.7	-24.9	0.351
4- 950	4-1460	0.730	346.5	-1.4	-0.35	1.284	56.0	0.580	0.881	108.7	583.3	0.370	1.393	-2.89	0.917	55.4	85.0	19.6	0.581
4- 950	4-1460	0.221	117.7	-5.9	-0.95	1.376	94.9	0.369	1.124	341.9	816.4	0.709	1.539	-2.89	1.042	110.9	234.9	-27.5	0.365
4- 950	4-1470	0.661	349.7	-0.6	-0.37	1.291	59.5	0.536	0.895	102.1	586.2	0.415	1.374	-3.17	0.924	58.4	93.3	18.7	0.533
4- 950	4-1470	0.256	129.9	-2.0	-0.37	1.379	97.4	0.388	1.135	333.0	817.1	0.697	1.573	-3.17	1.044	111.9	245.2	-29.6	0.385
4- 950	4-1480	0.596	352.9	0.7	0.36	1.297	62.7	0.494	0.908	95.3	588.9	0.459	1.356	-3.63	0.931	61.1	101.7	16.9	0.490
4- 950	4-1480	0.299	139.5	1.6	0.36	1.383	100.1	0.407	1.147	324.5	818.2	0.680	1.613	-3.63	1.048	113.2	255.4	-31.3	0.439
4- 950	4-1490	0.536	356.3	3.0	1.36	1.302	65.7	0.457	0.919	88.4	591.9	0.500	1.339	-4.38	0.938	63.5	109.8	14.0	0.452
4- 950	4-1490	0.351	147.2	5.3	1.36	1.386	102.8	0.432	1.160	316.4	819.6	0.659	1.661	-4.38	1.051	114.7	265.5	-32.9	0.442
4- 950	4-1500	0.484	359.7	7.4	2.94	1.307	68.6	0.423	0.930	81.5	594.0	0.537	1.324	-5.73	0.945	65.5	117.6	9.1	0.421
4- 950	4-1500	0.410	153.7	9.7	2.94	1.390	105.6	0.460	1.174	305.6	821.3	0.633	1.714	-5.73	1.056	116.4	275.5	-34.7	0.480
4- 950	4-1510	0.447	2.7	17.0	6.03	1.312	71.1	0.393	0.941	74.2	596.4	0.571	1.310	-8.59	0.951	67.3	124.7	0.2	0.405
4- 950	4-1510	0.482	159.5	16.7	6.03	1.394	108.5	0.492	1.189	301.2	823.3	0.604	1.774	-8.59	1.061	118.4	285.4	-36.1	0.529
4- 950	4-1520	0.507	0.7	42.1	15.64	1.316	73.5	0.368	0.950	67.1	598.6	0.600	1.299	-17.98	0.957	68.8	131.2	-20.3	0.459
4- 950	4-1540	0.444	8.9	-50.6	-15.40	1.322	78.0	0.325	0.965	51.6	602.9	0.652	1.279	13.50	0.968	71.2	173.0	40.6	0.382
4- 950	4-1550	0.327	20.3	-39.1	-9.09	1.325	80.0	0.310	0.972	46.1	604.9	0.670	1.274	7.42	0.974	72.1	171.9	27.5	0.320
4- 960	4-1040	0.900	341.8	-3.6	-4.45	1.066	43.3	0.739	0.907	144.5	191.6	---	1.056	-4.41	0.597	61.8	65.0	17.3	0.564
4- 960	4-1050	0.835	345.7	-3.5	-3.53	1.104	47.5	0.681	0.839	140.2	195.1	---	1.075	-3.82	0.658	62.6	69.5	17.8	0.525
4- 960	4-1060	0.773	349.4	-3.2	-2.81	1.137	51.2	0.630	0.671	133.9	198.6	---	1.093	-3.45	0.706	63.5	74.7	18.2	0.493
4- 960	4-1070	0.719	352.8	-2.9	-2.20	1.165	54.4	0.585	0.701	127.6	202.0	---	1.110	-3.24	0.748	64.5	80.5	18.4	0.465
4- 960	4-1080	0.668	356.2	-2.5	-1.66	1.189	57.2	0.541	0.730	121.4	205.5	---	1.125	-3.14	0.782	65.5	86.8	18.3	0.441
4- 960	4-1090	0.622	359.4	-1.9	-1.13	1.210	59.8	0.504	0.757	115.1	208.8	---	1.139	-3.13	0.810	66.5	93.4	17.8	0.418
4- 960	4-1100	0.578	2.5	-1.1	-0.59	1.227	62.3	0.471	0.783	108.8	212.2	---	1.152	-3.21	0.835	67.3	100.3	16.9	0.399
4- 960	4-1110	0.537	5.6	-0.0	-0.01	1.243	64.5	0.442	0.807	102.5	215.4	---	1.168	-3.39	0.855	68.2	107.3	15.4	0.381
4- 960	4-1120	0.499	8.6	1.5	0.65	1.256	66.6	0.416	0.830	96.2	218.7	---	1.175	-3.70	0.874	68.9	114.3	13.2	0.365
4- 960	4-1130	0.463	11.7	3.8	1.48	1.268	68.5	0.393	0.850	89.9	221.9	---	1.185	-4.20	0.890	69.6	121.2	10.1	0.352
4- 960	4-1140	0.431	14.8	7.3	2.59	1.278	70.4	0.373	0.870	83.6	225.0	---	1.194	-5.01	0.904	70.3	127.9	5.9	0.341
4- 960	4-1150	0.405	17.8	13.1	4.30	1.287	72.2	0.356	0.887	77.2	228.1	---	1.203	-6.44	0.917	70.8	134.2	-0.2	0.336
4- 960	4-1160	0.396	20.1	24.1	7.48	1.295	73.9	0.340	0.904	70.8	231.2	---	1.211	-9.35	0.929	71.4	139.7	-10.2	0.344
4- 960	4-1170	0.486	16.9	47.1	16.19	1.302	75.5	0.328	0.919	64.5	234.3	---	1.220	-17.79	0.940	71.8	144.1	-29.4	0.417
4- 960	4-1190	0.499	19.4	-59.5	-19.47	1.314	78.9	0.304	0.945	50.3	240.2	---	1.232	18.40	0.960	72.7	198.3	41.1	0.415
4- 960	4-1200	0.332	35.9	-44.2	-10.26	1.319	80.4	0.297	0.957	43.7	243.1	---	1.241	9.46	0.969	73.0	180.9	26.6	0.319
4- 960	4-1210	0.270	44.6	-36.2	-6.98	1.323	81.9	0.291	0.968	36.9	245.8	---	1.249	6.45	0.978	73.2	193.7	17.0	0.294
4- 960	4-1220	0.231	53.2	-31.4	-5.23	1.327	83.5	0.287	0.978	29.8	248.5	---	1.258	5.00	0.986	73.4	199.2	10.1	0.283
4- 960	4-1230	0.202	63.2	-28.6	-4.10	1.330	85.1	0.284	0.987	22.4	251.0	---	1.267	4.17	0.993	73.5	206.0	4.7	0.279
4- 960	4-1240	0.180	75.2	-24.8	-3.26	1.333	86.7	0.283	0.995	14.8	253.2	---	1.277	3.67	1.001	73.5	213.4	0.1	0.278
4- 960	4-1250	0.166	89.6	-21.2	-2.58	1.337	88.5	0.285	1.003	6.9	255.2	---	1.289	3.36	1.007	73.5	221.4	-3.8	0.280
4- 960	4-1260	0.162	105.7	-16.6	-1.98	1.339	90.3	0.289	1.011	358.5	616.8	0.719	1.303	3.19	1.014	73.2	230.0	-7.1	0.286
4- 960	4-1270	0.170	122.1	-11.3	-1.42	1.342	92.4	0.295	1.018	349.7	618.0	0.716	1.319	3.12	1.019	72.8	239.2	-9.8	0.295
4- 960	4-1280	0.192	137.4	-6.1	-0.87	1.344	94.6	0.308	1.024	340.2	618.6	0.709	1.340	3.16	1.024	72.2	248.8	-11.9	0.310
4- 960	4-1290	0.230	150.7	-1.7	-0.29	1.346	97.3	0.326	1.030	329.9	618.4	0.695	1.366	3.29	1.029	71.1	259.0	-13.3	0.332
4- 960	4-1290	0.579	209.5	-0.5	-0.29	1.152	118.6	0.480	0.687	236.6	885.1	0.357	1.016	3.29	0.757	103.0	10.4	12.4	0.333
4- 960	4-1300	0.284	162.0	1.8	0.37	1.349	100.4	0.352	1.036	318.7	617.3	0.672	1.401	3.56	1.033	69.6	269.8	-13.9	0.363
4- 960	4-1300	0.545	209.6	0.7	0.37	1.144	115.9	0.456	0.678	236.4	895.1	0.369	0.987	3.56	0.747	94.1	0.0	10.3	0.283
4- 960	4-1310	0.350	171.9	4.3	1.18	1.351	104.4	0.390	1.042	306.1	614.9	0.636	1.449	4.01	1.036	67.3	281.3	-13.6	0.408
4- 960	4-1310	0.551	210.1	2.2	1.18	1.141	117.2	0.461	0.675	235.6	904.4	0.363	0.986	4.01	0.743	86.3	349.3	6.7	0.286
4- 960	4-1320	0.468	188.1	6.2	2.26	1.353	109.6	0.448	1.048	291.8	610.7	0.579	1.518	4.76	1.039	63.6	293.4	-12.3	0.477
4- 960	4-1320	0.595	211.1	3.8	2.26	1.140	119.5	0.495	0.673	233.8	912.8	0.340	1.007	4.76	0.741	78.1	342.0	3.5	0.337
4- 960	4-1330	0.826	190.4	7.5	3.90	1.355	117.2	0.537	1.055	274.7	603.8	0.488	1.622	6.09	1.042	57.7	306.7	-9.7	0.585
4- 960	4-1330	0.692	212.9	5.3	3.90	1.140	124.3	0.566	0.674	230.2	919.3	0.292	1.055	6.09	0.741	68.1	340.2	1.9	0.440
4- 960	4-1390	0.668	12.2	-12.1	-6.75	1.360	61.2	0.561	1.070	87.9	477.9	0.470	1.671	-6.25	1.030	123.9	156.5	-0.0	0.590
4- 960	4-1390	0.733	349.4	-8.4	-6.75	1.130	53.6	0.597	0.664	132.8	882.8	0.267	1.060	-6.25	0.711	112.4	119.1	11.2	0.441
4- 960	4-1400	0.508	21.8	-12.8	-5.07	1.362	68.9	0.475	1.077	70.3	470.1	0.565	1.589	-4.87	1.038	118.1	169.2	-5.3	0.487
4- 960	4-1400	0.642	351.3	-7.6	-5.07	1.130	58.2	0.532	0.664	129.4	889.3	0.311	1.017	-4.87	0.707	101.7	115.2	11.4	0.343
4- 960	4-1410	0.397	31.4	-13.3	-3.98	1.364	74.4	0.421	1.083	55.2	465.0	0.627	1.540	-4.09	1.038	114.5	180.6	-10.3	0.424
4- 960	4-1410	0.896	343.3	-3.3	-3.98	1.088	43.8	0.729	0.625	144.3	914.1	0.170	1.081	-4.09	0.633	58.8	64.9	17.5	0.576
4- 960	4-1410	0.619	353.5	-6.3	-3.98	1.127	59.5	0.514	0.661	129.0	898.7	0.321	1.000	-4.09	0.698	91.3	103.0	13.6	0.308
4- 960	4-1420	0.317	42.1	-13.5	-3.17	1.366	78.7	0.388	1.090	41.8	461.4	0.667	1.512	-3.62	1.038	112.4	191.9	-14.9	0.385
4- 960	4-1430	0.258	54.9	-13.3	-2.51	1.368	82.2	0.368	1.097	29.6	458.9	0.693	1.500	-3.34	1.038	111.1	202.7	-19.1	0.363
4- 960	4-1440	0.218	70.3	-12.2	-1.94	1.370	85.2	0.358	1.104	18.2	457.3	0.709	1.498	-3.18	1.038	110.4	213.5	-22.8	0.352
4- 960	4-1450	0.196	88.5	-9.9	-1.40	1.373	88.0	0.355	1.111	7.6	456.3	0.717	1.506	-3.12	1.039	110.2	224.2	-26.0	0.350
4- 960	4-1460	0.196	107.4	-6.3	-0.88	1.375	90.7	0.359	1.120	357.5	815.8	0.718	1.521	-3.16	1.040	110.3	235.0	-28.5	0.35
4- 960	4-1470	0.208	124.7	-2.1	-0.82	1.378	93.2	0.367	1.129	347.9	815.8	0.714	1.544	-3.28	1.042	110.8	245.8	-30.5	0.360
4- 960	4-1480	0.715	3.6	0.4	0.29	1.289	56.7	0.573	0.892	106.9	584.3	0.381	1.403	-3.52	0.921	55.9	104.5	18.0	0.571
4- 960	4-1480	0.237	138.9	1.7	0.29	1.381	95.8	0.381	1.139	338.8	816.2	0.705	1.574	-3.52	1.045	111.6	256.6	-31.9	0.383
4- 960	4-1490	0.648	6.8	1.8	1.02	1.296	60.1	0.530	0.905	100.3	587.2	0.425	1.384	-3.91	0.929	58.7	112.6	15.8	0.525
4- 960	4-1490	0.277	150.1	5.0	1.02	1.384	98.4	0.399	1.151	330.0	817.0	0.691	1.610	-3.91	1.048	112.6	267.2	-32.8	0.405
4- 960	4-1500	0.587	9.9	3.9	1.96	1.301	63.2	0.490	0.917	93.6	590.0	0.467	1.367	-4.54	0.936	61.2	120.4	12.7	0.485
4- 960	4-1500	0.325	158.9	8.2	1.96	1.387	101.1	0.422	1.163	321.7	818.1	0.673	1.653	-4.54	1.052	113.9	277.6	-33.4	0.434
4- 960	4-1510	0.531	13.2	7.4	3.30	1.306	66.1	0.454	0.929	86.8	592.7	0.507	1.350	-5.58	0.944	63.5	127.8	8.1	0.450
4- 960	4-1510	0.382	166.2	11.7	3.30	1.391	103.9	0.448	1.176	313.7	819.6	0.650	1.703	-5.58	1.057	115.5	287.9	-34.0	0.468
4- 960	4-1520	0.487	16.2	14.0	5.52	1.311	68.9	0.422	0.939	79.9	595.3	0.543	1.335	-7.53	0.951	65.5	134.7	1.0	0.426
4- 960	4-1520	0.448	172.4	16.7	5.52	1.394	106.8	0.477	1.191	306.0	821.4	0.623	1.759	-7.53	1.063	117.3	298.0	-35.3	0.510
4- 960	4-1530	0.476	18.0	27.9	10.30	1.315	71.4	0.394	0.949	72.9	597.8	0.575	1.322	-12.04	0.957	67.1	140.5	-11.6	0.426
4- 960	4-1530	0.541	179.0	25.8	10.30	1.398	109.7	0.509	1.207	298.7	823.5	0.592	1.821	-12.04	1.069	119.3	308.1	-39.4	0.570
4- 960	4-1560	0.414	28.1	-47.5	-13.64	1.325	78.2	0.327	0.973	50.4	604.8	0.654	1.291	12.69	0.976	71.0	188.8	32.1	0.376
4- 970	4-1060	0.916	359.0	-2.7	-3.39	1.086	42.5	0.744	0.625	145.4	193.9	---	1.089	-4.50	0.625	57.3	80.5	19.1	0.591
4- 970	4-1070	0.851	2.7	-2.4	-2.50	1.121	46.6	0.690	0.656	139.1	197.4	---	1.109	-3.97	0.680	58.9	85.8	19.2	0.553
4- 970	4-1080	0.792	6.3	-2.0	-1.78	1.152	50.2	0.641	0.687	133.0	200.8	---	1.127	-3.64	0.725	60.4	91.5	19.0	0.520

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THE72	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 970	4-1090	0.737	9.6	-1.5	-1.15	1.178	53.4	0.596	0.717	126.8	204.3	---	1.144	-3.45	0.763	61.8	97.8	18.5	0.491
4- 970	4-1100	0.687	12.8	-0.8	-0.58	1.200	56.3	0.555	0.745	120.6	207.7	---	1.159	-3.37	0.795	63.1	104.3	17.6	0.465
4- 970	4-1110	0.639	16.0	-0.0	-0.01	1.219	59.0	0.519	0.772	114.5	211.1	---	1.173	-3.39	0.822	64.2	111.9	16.3	0.442
4- 970	4-1120	0.595	19.0	1.0	0.58	1.236	61.4	0.486	0.798	108.3	214.5	---	1.185	-3.51	0.845	65.3	117.8	14.5	0.421
4- 970	4-1130	0.554	22.0	2.5	1.22	1.251	63.7	0.456	0.821	102.1	217.8	---	1.196	-3.74	0.866	66.4	124.6	12.1	0.402
4- 970	4-1140	0.515	25.0	4.4	1.98	1.263	65.9	0.430	0.843	95.9	221.1	---	1.206	-4.13	0.884	67.3	131.3	9.0	0.385
4- 970	4-1150	0.480	28.0	7.3	2.94	1.274	67.9	0.407	0.864	89.7	224.4	---	1.216	-4.75	0.900	68.1	137.9	5.0	0.371
4- 970	4-1160	0.449	30.9	11.6	4.29	1.284	69.8	0.387	0.883	83.4	227.6	---	1.224	-5.78	0.915	68.9	144.2	-0.3	0.361
4- 970	4-1170	0.428	33.6	18.8	6.46	1.293	71.6	0.369	0.901	77.1	230.8	---	1.233	-7.64	0.928	69.6	149.9	-7.8	0.358
4- 970	4-1180	0.439	34.7	32.3	10.86	1.300	73.4	0.353	0.917	70.8	234.0	---	1.240	-11.75	0.940	70.2	154.4	-20.2	0.377
4- 970	4-1190	0.645	20.5	58.3	25.80	1.307	75.0	0.341	0.932	64.7	237.1	---	1.249	-28.40	0.952	70.7	159.0	-44.8	0.554
4- 970	4-1210	0.429	42.5	52.0	-15.16	1.318	78.6	0.314	0.958	50.3	243.3	---	1.259	15.15	0.972	71.9	207.1	30.4	0.398
4- 970	4-1220	0.313	54.1	-38.2	-8.54	1.323	80.2	0.306	0.970	45.6	246.2	---	1.267	8.80	0.981	72.3	205.3	17.6	0.325
4- 970	4-1230	0.259	62.2	-30.5	-5.74	1.327	81.0	0.300	0.980	36.6	249.0	---	1.275	6.31	0.990	72.6	209.5	9.3	0.305
4- 970	4-1240	0.223	70.9	-25.3	-4.13	1.331	83.4	0.295	0.990	29.4	251.6	---	1.283	5.02	0.998	72.8	215.7	3.2	0.295
4- 970	4-1250	0.195	81.2	-21.1	-3.03	1.335	85.1	0.292	0.999	21.9	254.0	---	1.292	4.27	1.006	73.0	223.0	-1.6	0.291
4- 970	4-1260	0.175	93.7	-17.0	-2.20	1.338	86.8	0.291	1.008	14.1	256.1	---	1.302	3.82	1.012	73.1	231.0	-5.4	0.290
4- 970	4-1270	0.163	108.6	-12.4	-1.50	1.341	88.7	0.293	1.016	5.8	257.9	---	1.313	3.54	1.019	73.0	239.6	-8.4	0.293
4- 970	4-1280	0.163	125.2	-7.2	-0.87	1.343	90.7	0.297	1.023	357.1	619.3	0.719	1.328	3.40	1.024	72.8	248.7	-10.7	0.300
4- 970	4-1290	0.176	142.0	-2.1	-0.27	1.346	92.8	0.306	1.030	347.9	620.1	0.715	1.345	3.37	1.029	72.4	258.4	-12.3	0.311
4- 970	4-1300	0.205	157.2	2.2	0.34	1.348	95.3	0.319	1.037	337.9	620.3	0.706	1.367	3.45	1.033	71.6	268.5	-13.0	0.327
4- 970	4-1300	0.595	224.9	0.6	0.34	1.162	119.2	0.488	0.699	237.8	880.2	0.357	1.040	3.45	0.775	107.0	27.2	18.8	0.364
4- 970	4-1310	0.250	170.3	5.3	1.00	1.350	98.2	0.339	1.043	327.0	619.6	0.690	1.396	3.65	1.037	70.5	279.1	-13.0	0.252
4- 970	4-1310	0.539	224.8	1.9	1.00	1.151	116.5	0.447	0.687	238.1	890.7	0.379	0.994	3.65	0.760	97.4	17.4	17.8	0.287
4- 970	4-1320	0.314	181.5	7.5	1.76	1.352	101.7	0.389	1.049	315.0	617.8	0.662	1.436	4.01	1.040	68.7	290.1	-12.0	0.388
4- 970	4-1320	0.531	225.2	3.4	1.76	1.147	116.1	0.442	0.682	237.6	900.3	0.580	0.983	4.01	0.753	89.7	6.1	14.9	0.271
4- 970	4-1330	0.403	191.4	8.9	2.73	1.354	106.2	0.414	1.055	301.6	614.5	0.619	1.492	4.60	1.042	65.9	301.6	-10.1	0.441
4- 970	4-1330	0.558	225.9	5.0	2.73	1.145	117.4	0.463	0.680	236.3	909.2	0.365	0.994	4.60	0.750	82.3	357.0	11.2	0.301
4- 970	4-1340	0.530	200.3	9.7	4.08	1.356	112.2	0.482	1.061	286.0	609.1	0.550	1.573	5.61	1.044	61.4	313.8	-7.1	0.523
4- 970	4-1340	0.626	227.3	6.4	4.08	1.145	120.7	0.513	0.680	233.7	916.8	0.331	1.028	5.61	0.749	76.8	353.0	8.7	0.376
4- 970	4-1350	0.755	230.0	7.6	6.27	1.146	127.2	0.606	0.681	228.6	921.8	0.268	1.093	7.48	0.749	62.8	354.3	8.3	0.506
4- 970	4-1400	0.833	3.9	-8.3	-8.09	1.135	48.4	0.666	0.670	136.3	880.1	0.224	1.116	-8.39	0.717	121.3	134.5	7.3	0.540
4- 970	4-1410	0.604	32.1	-11.2	-5.49	1.363	64.1	0.531	1.084	81.1	474.7	0.508	1.659	-6.10	1.038	121.8	175.9	-8.9	0.555
4- 970	4-1410	0.689	7.1	-7.5	-5.49	1.137	55.7	0.567	0.671	130.2	883.8	0.291	1.052	-6.10	0.715	109.1	135.7	6.1	0.409
4- 970	4-1420	0.464	41.6	-11.1	-3.98	1.365	70.9	0.459	1.090	64.6	468.0	0.599	1.591	-4.91	1.038	117.0	188.3	-14.2	0.467
4- 970	4-1420	0.617	8.5	-6.3	-3.98	1.136	59.3	0.514	0.671	127.6	891.0	0.[illegible]	1.016	-4.91	0.710	99.3	130.5	7.1	0.521
4- 970	4-1430	0.366	51.6	-10.7	-2.94	1.367	75.9	0.414	1.097	50.3	463.4	0.[illegible]	1.551	-4.22	1.038	114.0	200.1	-18.9	0.415
4- 970	4-1430	0.849	1.2	-2.8	-2.94	1.100	46.4	0.696	0.636	141.4	914.5	0.193	1.079	-4.22	0.646	61.9	85.4	18.9	0.554
4- 970	4-1430	0.605	8.4	-4.8	-2.94	1.132	59.8	0.508	0.667	127.9	901.0	0.328	1.006	-4.22	0.700	89.0	117.2	11.1	0.502
4- 970	4-1440	0.293	63.0	-9.9	-2.14	1.369	79.8	0.386	1.104	37.4	460.2	0.678	1.529	-3.79	1.038	112.2	211.6	-22.9	0.394
4- 970	4-1450	0.241	76.8	-8.3	-1.47	1.372	83.2	0.370	1.111	25.5	457.9	0.700	1.521	-3.53	1.039	111.1	223.0	-26.3	0.366
4- 970	4-1460	0.208	93.4	-5.8	-0.88	1.374	86.2	0.362	1.118	14.4	456.5	0.713	1.523	-3.40	1.040	110.6	234.4	-28.9	0.359
4- 970	4-1470	0.194	112.1	-2.2	-0.31	1.376	89.0	0.362	1.126	3.9	455.6	0.719	1.533	-3.37	1.041	110.5	245.8	-30.9	0.360
4- 970	4-1480	0.200	130.7	1.8	0.26	1.379	91.6	0.367	1.135	354.0	815.2	0.718	1.552	-3.44	1.043	110.7	257.2	-32.1	0.368
4- 970	4-1490	0.222	146.9	5.4	0.87	1.381	94.2	0.378	1.144	344.6	815.3	0.712	1.577	-3.60	1.046	111.3	268.3	-32.7	0.382
4- 970	4-1500	0.702	20.6	2.4	1.56	1.293	57.3	0.567	0.902	105.2	585.4	0.391	1.413	-3.90	0.926	56.2	123.4	14.4	0.562
4- 970	4-1500	0.258	159.8	8.4	1.56	1.384	96.8	0.393	1.155	335.5	815.8	0.701	1.609	-3.90	1.050	112.2	279.1	-32.7	0.401
4- 970	4-1510	0.638	23.7	4.3	2.40	1.299	60.6	0.525	0.914	98.7	588.4	0.434	1.395	-4.38	0.935	58.9	131.0	11.1	0.519
4- 970	4-1510	0.302	170.1	10.9	2.40	1.387	99.5	0.413	1.167	326.9	816.7	0.685	1.649	-4.38	1.054	113.3	289.6	-32.3	0.426
4- 970	4-1520	0.580	26.8	7.1	3.51	1.305	63.6	0.487	0.926	92.0	591.3	0.475	1.378	-5.17	0.943	61.3	138.2	6.8	0.481
4- 970	4-1520	0.355	178.3	13.6	3.51	1.391	102.2	0.437	1.180	318.7	817.9	0.665	1.694	-5.17	1.059	114.7	299.8	-31.8	0.456
4- 970	4-1530	0.530	29.9	11.8	5.17	1.310	66.5	0.452	0.937	85.3	594.1	0.513	1.361	-6.51	0.951	63.5	145.0	0.9	0.450
4- 970	4-1530	0.417	185.1	16.9	5.17	1.394	105.1	0.464	1.193	310.8	819.6	0.640	1.747	-6.51	1.064	116.4	309.7	-31.5	0.493
4- 970	4-1540	0.496	32.5	20.4	8.09	1.314	69.2	0.421	0.948	78.5	596.8	0.548	1.347	-9.13	0.958	65.4	150.9	-8.1	0.432
4- 970	4-1540	0.493	191.4	22.3	8.09	1.398	108.0	0.494	1.208	303.2	821.5	0.612	1.805	-9.13	1.070	118.2	319.6	-32.6	0.540
4- 970	4-1550	0.528	31.7	38.4	15.21	1.318	71.6	0.394	0.957	71.7	599.3	0.580	1.334	-15.96	0.965	67.0	155.5	-24.6	0.460
4- 970	4-1570	0.617	26.2	-60.2	-24.56	1.324	76.4	0.346	0.973	56.3	604.5	0.637	1.309	24.38	0.979	69.9	212.6	37.4	0.521
4- 980	4-1090	0.866	19.7	-1.2	-1.28	1.138	45.9	0.697	0.674	138.1	199.4	---	1.148	-3.82	0.702	55.9	102.8	19.0	0.576
4- 980	4-1100	0.800	23.1	-0.7	-0.61	1.166	49.5	0.650	0.704	132.0	202.9	---	1.162	-3.54	0.744	57.8	108.9	18.2	0.545
4- 980	4-1110	0.753	26.4	-0.0	-0.01	1.189	52.7	0.606	0.733	125.9	206.4	---	1.178	-3.40	0.779	59.5	115.3	16.9	0.513
4- 980	4-1120	0.702	29.5	0.8	0.55	1.210	55.6	0.567	0.761	119.9	209.9	---	1.192	-3.35	0.809	61.0	121.8	15.3	0.487
4- 980	4-1130	0.655	32.6	1.8	1.11	1.228	58.3	0.531	0.788	113.8	213.3	---	1.205	-3.40	0.835	62.4	128.4	13.2	0.462
4- 980	4-1140	0.610	35.5	3.0	1.71	1.244	60.8	0.498	0.812	107.7	216.7	---	1.217	-3.54	0.858	63.6	135.0	10.6	0.440
4- 980	4-1150	0.568	38.5	4.7	2.38	1.258	63.1	0.469	0.836	101.6	220.1	---	1.228	-3.81	0.878	64.8	141.6	7.5	0.420
4- 980	4-1160	0.530	41.4	6.9	3.18	1.270	65.3	0.443	0.858	95.4	223.5	---	1.237	-4.26	0.896	65.8	148.1	3.7	0.403
4- 980	4-1170	0.495	44.3	10.2	4.23	1.280	67.4	0.419	0.878	89.2	226.9	---	1.246	-4.97	0.913	66.8	154.4	-0.9	0.389
4- 980	4-1180	0.466	47.1	15.1	5.76	1.290	69.3	0.398	0.897	83.0	230.2	---	1.254	-6.19	0.927	67.7	160.3	-7.0	0.378
4- 980	4-1190	0.451	49.3	23.4	8.37	1.298	71.2	0.380	0.914	76.8	233.5	---	1.261	-8.51	0.941	68.5	165.6	-15.6	0.377
4- 980	4-1200	0.488	48.8	39.4	14.37	1.305	73.0	0.364	0.930	70.5	236.7	---	1.268	-14.21	0.953	69.2	169.3	-30.7	0.411
4- 980	4-1220	0.672	35.2	-63.7	-27.99	1.317	76.9	0.332	0.959	56.3	243.2	---	1.277	28.72	0.975	70.8	230.2	35.0	0.570
4- 980	4-1230	0.370	63.8	-41.9	-10.99	1.322	78.4	0.323	0.971	49.9	246.2	---	1.285	12.02	0.985	71.2	217.4	19.0	0.368
4- 980	4-1240	0.290	72.4	-29.7	-6.33	1.327	80.1	0.315	0.983	43.1	249.1	---	1.292	7.65	0.994	71.7	219.6	8.2	0.329
4- 980	4-1250	0.246	80.2	-22.4	-4.08	1.331	81.8	0.308	0.993	36.0	251.9	---	1.299	5.72	1.002	72.1	225.3	1.3	0.313
4- 980	4-1260	0.214	89.0	-17.0	-2.70	1.335	83.5	0.303	1.003	28.6	254.5	---	1.307	4.67	1.010	72.4	232.4	-3.6	0.305
4- 980	4-1270	0.189	99.7	-12.2	-1.72	1.338	85.2	0.300	1.012	20.9	256.8	---	1.316	4.05	1.017	72.6	240.9	-7.3	0.302
4- 980	4-1280	0.171	112.9	-7.4	-0.94	1.341	87.1	0.299	1.021	12.8	258.7	---	1.326	3.67	1.023	72.7	249.2	-10.0	0.302
4- 980	4-1290	0.163	128.5	-2.3	-0.28	1.344	89.0	0.301	1.029	4.2	260.3	---	1.338	3.45	1.028	72.7	258.4	-11.8	0.306
4- 980	4-1300	0.168	145.7	2.6	0.33	1.347	91.1	0.306	1.036	355.1	621.4	0.719	1.353	3.36	1.033	72.4	268.0	-12.8	0.313
4- 980	4-1310	0.188	162.6	6.7	0.93	1.349	93.5	0.315	1.043	345.4	621.8	0.714	1.371	3.37	1.037	71.9	278.1	-13.0	0.326
4- 980	4-1310	0.635	240.6	1.5	0.93	1.175	121.0	0.515	0.715	238.4	874.8	0.347	1.083	3.37	0.797	112.3	45.3	23.3	0.417

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 980	4-1320	0.224	177.6	9.3	1.55	1.351	96.2	0.330	1.049	334.9	621.5	0.703	1.396	3.49	1.000	71.1	288.4	-12.3	0.345
4- 980	4-1320	0.541	240.1	3.0	1.55	1.158	116.4	0.446	0.696	239.7	886.2	0.386	1.006	3.49	0.773	100.6	35.7	23.6	0.299
4- 980	4-1330	0.277	190.4	10.9	2.24	1.354	99.3	0.353	1.056	323.4	620.1	0.683	1.429	3.75	1.042	69.7	299.0	-10.7	0.373
4- 980	4-1330	0.519	240.3	4.5	2.24	1.152	115.3	0.429	0.685	239.4	896.1	0.394	0.905	3.75	0.764	92.9	24.3	21.8	0.263
4- 980	4-1340	0.351	201.3	11.6	3.07	1.355	103.2	0.388	1.062	310.7	617.6	0.650	1.474	4.19	1.044	67.5	310.0	-8.3	0.415
4- 980	4-1340	0.531	240.9	6.0	3.07	1.150	115.9	0.438	0.637	238.5	905.3	0.386	0.988	4.19	0.759	85.9	13.5	18.4	0.274
4- 980	4-1350	0.454	211.1	11.9	4.15	1.357	108.3	0.441	1.068	296.3	613.3	0.597	1.539	4.91	1.046	64.2	321.4	-4.9	0.477
4- 980	4-1350	0.578	241.9	7.3	4.15	1.149	118.1	0.473	0.686	236.6	913.6	0.361	1.010	4.91	0.756	78.4	7.1	15.3	0.327
4- 980	4-1360	0.603	220.7	11.7	5.74	1.359	115.4	0.523	1.075	279.4	606.5	0.513	1.637	6.17	1.047	58.8	333.7	-0.5	0.575
4- 980	4-1360	0.670	243.8	8.3	5.74	1.150	122.7	0.541	0.686	233.0	920.1	0.315	1.059	6.17	0.755	69.3	6.1	13.9	0.429
4- 980	4-1370	0.837	247.6	8.8	8.52	1.152	131.0	0.657	0.688	226.0	923.1	0.236	1.141	8.63	0.754	56.9	10.3	14.7	0.582
4- 980	4-1420	0.770	22.0	-6.9	-5.98	1.142	51.5	0.625	0.678	133.0	880.2	0.254	1.101	-7.34	0.721	117.2	152.0	1.1	0.485
4- 980	4-1430	0.550	51.9	-9.0	-3.91	1.366	66.5	0.508	1.097	75.1	472.0	0.540	1.655	-5.58	1.038	120.2	195.8	-17.1	0.524
4- 980	4-1430	0.652	24.7	-5.8	-3.91	1.143	57.4	0.541	0.679	128.0	884.9	0.311	1.046	-5.58	0.718	106.4	151.9	0.3	0.367
4- 980	4-1440	0.427	61.5	-8.0	-2.62	1.368	72.6	0.447	1.104	59.5	466.1	0.610	1.597	-4.61	1.038	116.1	208.5	-21.8	0.453
4- 980	4-1440	0.595	25.8	-4.4	-2.62	1.142	60.2	0.499	0.678	125.9	892.5	0.339	1.017	-4.61	0.713	97.3	145.7	2.2	0.302
4- 980	4-1450	0.338	72.0	-6.7	-1.69	1.370	77.2	0.408	1.111	45.6	461.9	0.657	1.564	-4.03	1.039	113.6	220.8	-25.7	0.410
4- 980	4-1450	0.804	19.1	-1.8	-1.69	1.110	48.8	0.664	0.647	138.5	914.8	0.217	1.076	-4.03	0.658	64.7	106.0	17.8	0.495
4- 980	4-1450	0.597	25.3	-2.8	-1.69	1.137	60.0	0.503	0.673	126.8	903.1	0.334	1.012	-4.03	0.703	86.9	131.6	8.1	0.298
4- 980	4-1460	0.273	84.3	-4.7	-0.95	1.372	81.0	0.385	1.117	33.1	458.9	0.687	1.583	-3.67	1.039	112.0	233.0	-28.6	0.385
4- 980	4-1470	0.229	99.2	-1.9	-0.32	1.375	84.2	0.372	1.125	21.4	456.9	0.706	1.543	-3.46	1.041	111.1	245.1	-30.7	0.372
4- 980	4-1480	0.203	116.8	1.7	0.26	1.377	87.2	0.367	1.132	10.5	455.5	0.717	1.548	-3.36	1.042	110.8	257.0	-31.9	0.368
4- 980	4-1490	0.198	135.9	5.7	0.82	1.379	89.9	0.369	1.141	0.2	454.7	0.720	1.562	-3.36	1.045	110.8	268.7	-32.3	0.372
4- 980	4-1500	0.213	153.7	9.1	1.39	1.382	92.6	0.376	1.150	350.4	814.5	0.717	1.583	-3.45	1.048	111.1	280.0	-32.0	0.382
4- 980	4-1510	0.757	34.6	2.8	2.01	1.291	54.5	0.603	0.899	109.9	583.5	0.357	1.441	-3.65	0.925	53.6	134.2	12.5	0.600
4- 980	4-1510	0.242	168.7	11.6	2.01	1.384	95.3	0.389	1.160	341.1	814.6	0.709	1.611	-3.65	1.051	111.8	290.8	-31.2	0.396
4- 980	4-1520	0.691	37.6	4.4	2.74	1.297	57.9	0.561	0.912	103.6	586.7	0.401	1.423	-4.00	0.934	56.5	141.6	9.2	0.554
4- 980	4-1520	0.282	180.5	13.4	2.74	1.387	97.9	0.406	1.171	332.2	815.3	0.696	1.646	-4.00	1.056	112.8	301.2	-29.9	0.419
4- 980	4-1530	0.630	40.6	6.6	3.64	1.302	61.1	0.521	0.924	97.1	589.7	0.483	1.405	-4.55	0.942	59.1	148.6	5.1	0.513
4- 980	4-1530	0.331	189.9	15.2	3.64	1.390	100.7	0.427	1.183	323.7	816.3	0.678	1.688	-4.55	1.061	114.0	311.1	-28.4	0.446
4- 980	4-1540	0.575	43.6	10.0	4.87	1.307	64.1	0.484	0.935	90.5	592.7	0.483	1.389	-5.46	0.951	61.4	155.4	-0.0	0.479
4- 980	4-1540	0.388	197.5	17.3	4.87	1.394	103.5	0.452	1.196	315.6	817.7	0.656	1.737	-5.46	1.067	115.5	320.6	-27.0	0.478
4- 980	4-1550	0.530	46.5	15.6	6.79	1.312	66.9	0.450	0.946	83.9	595.6	0.520	1.372	-7.06	0.959	63.5	161.6	-6.9	0.450
4- 980	4-1550	0.455	204.0	20.4	6.79	1.397	106.3	0.480	1.211	307.8	819.5	0.629	1.792	-7.08	1.073	117.2	330.0	-26.3	0.518
4- 980	4-1560	0.509	48.4	26.1	10.48	1.316	69.5	0.420	0.956	77.1	598.4	0.554	1.357	-10.47	0.967	65.4	166.9	-17.6	0.440
4- 980	4-1560	0.540	210.4	26.4	10.48	1.401	109.3	0.511	1.226	300.3	821.6	0.599	1.852	-10.47	1.080	119.2	339.5	-27.6	0.570
4- 980	4-157.	[illegible]	42.7	48.3	21.32	1.320	71.8	0.594	0.965	70.4	601.1	0.584	1.345	-21.02	0.975	66.9	170.7	-39.0	0.513
4- 990	4-1110	0.879	36.7	[illegible]	-0.61	1.153	45.4	0.702	0.692	137.0	201.3	---	1.179	-3.40	0.725	53.6	120.1	17.2	0.596
4- 990	4-1120	0.821	40.0	0.6	0.55	1.179	48.9	0.657	0.722	131.0	204.8	---	1.196	-3.19	0.764	55.6	126.3	15.6	0.563
4- 990	4-1130	0.767	43.1	1.4	1.11	1.201	52.1	0.615	0.750	125.0	208.4	---	1.212	-3.08	0.797	57.5	132.6	13.7	0.533
4- 990	4-1140	0.716	46.2	2.3	1.62	1.220	55.0	0.576	0.778	119.0	211.9	---	1.225	-3.07	0.825	59.2	139.0	11.4	0.505
4- 990	4-1150	0.668	49.1	3.4	2.14	1.237	57.8	0.541	0.803	113.0	215.4	---	1.238	-3.14	0.850	60.7	145.5	8.7	0.480
4- 990	4-1160	0.623	52.0	4.7	2.70	1.252	60.3	0.508	0.828	107.0	218.9	---	1.249	-3.30	0.873	62.2	152.0	5.6	0.457
4- 990	4-1170	0.581	54.9	6.5	3.34	1.264	62.7	0.475	0.851	100.9	222.4	---	1.258	-3.59	0.893	63.4	158.4	2.0	0.437
4- 990	4-1180	0.542	57.8	8.8	4.14	1.276	64.9	0.453	0.872	94.8	225.9	---	1.267	-4.07	0.910	64.6	164.7	-2.2	0.418
4- 990	4-1190	0.507	60.7	12.2	5.21	1.286	67.0	0.429	0.895	88.6	229.3	---	1.275	-4.84	0.927	65.7	171.0	-7.2	0.403
4- 990	4-1200	0.479	63.3	17.5	6.85	1.295	69.0	0.407	0.911	82.4	232.8	---	1.282	-6.19	0.941	66.7	176.8	-13.6	0.393
4- 990	4-1210	0.470	65.3	26.8	9.90	1.303	70.9	0.389	0.928	76.2	236.1	---	1.289	-8.97	0.955	67.6	182.0	-23.2	0.394
4- 990	4-1220	0.546	62.0	45.8	18.25	1.310	72.8	0.372	0.944	69.9	239.4	---	1.295	-17.05	0.967	68.4	185.3	-41.8	0.451
4- 990	4-1240	0.466	71.5	-49.4	-15.96	1.321	76.7	0.341	0.972	55.9	246.0	---	1.304	17.68	0.989	70.1	231.5	22.4	0.442
4- 990	4-1250	0.325	83.5	-29.5	-7.07	1.326	78.4	0.331	0.984	49.2	249.1	---	1.310	9.06	0.998	70.7	229.6	7.3	0.356
4- 990	4-1260	0.271	90.7	-19.2	-3.99	1.331	80.1	0.322	0.996	42.2	251.9	---	1.316	6.18	1.006	71.2	234.7	-1.0	0.331
4- 990	4-1270	0.235	98.4	-12.6	-2.23	1.334	81.9	0.315	1.006	34.9	254.6	---	1.323	4.79	1.014	71.7	241.9	-6.1	0.320
4- 990	4-1280	0.207	107.5	-7.3	-1.13	1.338	83.7	0.309	1.016	27.3	257.1	---	1.330	4.01	1.021	72.1	250.1	-9.6	0.314
4- 990	4-1290	0.186	118.8	-2.3	-0.31	1.341	85.5	0.306	1.025	19.3	259.2	---	1.339	3.54	1.027	72.3	258.9	-11.8	0.312
4- 990	4-1300	0.172	132.8	2.7	0.35	1.344	87.4	0.305	1.034	10.9	261.0	---	1.349	3.26	1.032	72.4	268.2	-13.1	0.313
4- 990	4-1310	0.168	149.3	7.5	0.93	1.347	89.5	0.308	1.041	2.0	262.3	---	1.362	3.11	1.036	72.3	277.8	-13.5	0.317
4- 990	4-1320	0.179	166.9	11.3	1.48	1.349	91.8	0.314	1.049	352.5	622.9	0.720	1.378	3.06	1.040	72.0	287.8	-13.0	0.326
4- 990	4-1330	0.205	183.7	13.5	2.04	1.352	94.3	0.325	1.056	342.4	622.9	0.713	1.399	3.12	1.042	71.4	297.9	-11.7	0.341
4- 990	4-1330	0.552	255.5	3.8	2.04	1.166	116.8	0.451	0.707	240.9	881.5	0.388	1.025	3.12	0.786	104.1	54.8	27.2	0.320
4- 990	4-1340	0.248	198.3	14.4	2.62	1.354	97.2	0.343	1.062	331.3	622.0	0.698	1.426	3.28	1.044	70.4	308.1	-9.6	0.362
4- 990	4-1340	0.513	255.5	5.4	2.62	1.158	114.9	0.422	0.698	241.0	891.7	0.403	0.992	3.28	0.774	95.9	43.9	26.8	0.262
4- 990	4-1350	0.309	210.6	14.4	3.30	1.356	100.7	0.370	1.069	319.2	620.1	0.674	1.464	3.57	1.046	68.7	318.6	-6.7	0.395
4- 990	4-1350	0.512	256.0	6.8	3.30	1.154	114.8	0.421	0.694	240.4	901.2	0.402	0.986	3.57	0.787	89.1	31.9	24.4	0.255
4- 990	4-1360	0.394	221.2	13.9	4.13	1.358	105.1	0.411	1.075	305.7	616.7	0.633	1.517	4.06	1.047	66.2	329.5	-3.0	0.483
4- 990	4-1360	0.542	256.7	7.9	4.13	1.153	116.2	0.443	0.692	239.0	910.0	0.386	0.999	4.06	0.763	82.2	23.1	21.2	0.288
4- 990	4-1370	0.513	230.9	13.1	5.26	1.360	110.9	0.473	1.081	290.2	611.3	0.569	1.593	4.88	1.047	62.1	341.0	1.4	0.516
4- 990	4-1370	0.608	258.1	8.7	5.26	1.153	119.4	0.493	0.692	236.4	917.5	0.351	1.033	4.88	0.760	74.4	19.7	19.0	0.361
4- 990	4-1380	0.728	260.7	9.1	7.02	1.154	125.4	0.580	0.694	231.5	922.5	0.291	1.096	6.34	0.759	64.4	21.5	18.8	0.480
4- 990	4-1440	0.660	62.0	-6.8	-3.75	1.367	61.0	0.571	1.104	86.9	477.3	0.473	1.735	-6.05	1.038	124.5	203.1	-19.0	0.598
4- 990	4-1440	0.718	39.9	-4.8	-3.75	1.147	53.9	0.590	0.686	130.1	880.6	0.281	1.091	-6.05	0.725	113.9	169.2	-5.3	0.440
4- 990	4-1450	0.503	71.6	-5.5	-2.18	1.369	68.6	0.490	1.111	69.5	469.6	0.567	1.655	-4.76	1.039	118.9	216.9	-23.7	0.502
4- 990	4-1450	0.620	42.1	-3.5	-2.18	1.148	58.8	0.519	0.686	125.9	886.0	0.330	1.043	-4.76	0.723	104.2	168.2	-6.6	0.339
4- 990	4-1460	0.393	81.5	-3.8	-1.14	1.371	74.2	0.437	1.118	54.5	464.2	0.629	1.606	-4.02	1.039	115.4	230.2	-27.3	0.443
4- 990	4-1460	0.575	43.0	-2.0	-1.14	1.147	61.1	0.485	0.685	124.2	894.0	0.353	1.018	-4.02	0.719	95.6	161.2	-3.0	0.265
4- 990	4-1470	0.314	92.6	-1.5	-0.36	1.373	78.5	0.404	1.124	41.0	460.3	0.670	1.579	-3.56	1.041	113.2	243.2	-29.7	0.407
4- 990	4-1470	0.763	36.9	-0.4	-0.36	1.120	51.0	0.633	0.658	135.7	915.0	0.241	1.074	-3.56	0.672	67.1	126.0	14.4	0.458
4- 990	4-1470	0.589	42.1	-0.6	-0.36	1.141	60.3	0.498	0.680	125.8	905.1	0.341	1.018	-3.56	0.707	85.0	146.4	4.4	0.294
4- 990	4-1480	0.257	105.9	1.5	0.28	1.375	82.1	0.385	1.132	28.7	457.6	0.696	1.567	-3.28	1.042	111.9	255.9	-31.1	0.387
4- 990	4-1490	0.220	122.1	5.2	0.83	1.377	85.3	0.375	1.139	17.2	455.6	0.712	1.566	-3.13	1.044	111.2	268.2	-31.5	0.377

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS ARRIVAL PLANET= EARTH															DEPARTURE PLANET= VENUS ARRIVAL PLANET= EARTH				
DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL		I 2	V 2	PSI 2	R A	DECL	SPEED
4- 990	4-1500	0.204	140.7	9.1	1.35	1.379	88.2	0.373	1.147	6.5	454.4	0.720	1.574		-3.07	1.047	110.9	280.0	-31.1	0.377
4- 990	4-1510	0.208	159.7	12.4	1.86	1.382	91.0	0.377	1.156	356.3	813.7	0.721	1.591		-3.09	1.050	111.1	291.3	-30.0	0.383
4- 990	4-1520	0.230	176.5	14.6	2.49	1.384	94.7	0.386	1.165	346.6	813.6	0.715	1.615		-3.20	1.054	111.5	301.9	-28.3	0.396
4- 990	4-1530	0.744	51.5	4.3	2.99	1.294	55.1	0.596	0.909	108.3	584.8	0.367	1.450		-3.42	0.933	53.9	152.1	6.8	0.591
4- 990	4-1530	0.265	190.2	15.8	2.99	1.387	98.4	0.400	1.176	337.4	813.9	0.705	1.646		-3.42	1.058	112.3	312.0	-26.3	0.414
4- 990	4-1540	0.680	54.5	6.0	3.69	1.300	58.5	0.555	0.921	102.0	588.1	0.410	1.432		-3.79	0.942	56.7	159.1	2.9	0.548
4- 990	4-1540	0.309	200.9	16.6	3.69	1.390	99.1	0.419	1.187	328.6	814.7	0.690	1.684		-3.79	1.066	113.4	321.6	-24.0	0.437
4- 990	4-1550	0.621	57.4	8.5	4.60	1.305	61.6	0.516	0.933	95.6	591.2	0.452	1.414		-4.38	0.951	59.3	165.9	-1.6	0.508
4- 990	4-1550	0.361	209.4	17.6	4.60	1.393	101.9	0.442	1.200	320.3	815.9	0.670	1.729		-4.38	1.069	114.7	330.7	-21.8	0.465
4- 990	4-1560	0.569	60.4	12.3	5.89	1.310	64.5	0.480	0.944	89.0	594.3	0.491	1.397		-5.38	0.960	61.6	172.4	-7.2	0.475
4- 990	4-1560	0.421	216.5	19.2	5.89	1.396	104.8	0.468	1.213	312.3	817.5	0.646	1.781		-5.38	1.076	116.3	339.6	-19.8	0.499
4- 990	4-1570	0.529	63.1	18.7	8.02	1.314	67.3	0.447	0.954	82.4	597.3	0.528	1.381		-7.23	0.969	63.6	178.5	-14.7	0.450
4- 990	4-1570	0.491	222.7	22.2	8.02	1.400	107.7	0.497	1.228	308.6	819.5	0.618	1.838		-7.23	1.082	118.1	348.5	-18.9	0.541
4- 990	4-1580	0.523	64.3	31.1	12.60	1.318	69.8	0.418	0.964	75.7	600.2	0.561	1.367		-11.54	0.977	65.4	183.4	-27.1	0.447
4- 990	4-1580	0.588	229.6	29.1	12.60	1.404	110.7	0.529	1.243	297.3	821.8	0.586	1.901		-11.54	1.090	120.1	357.8	-21.0	0.598
4-1000	4-1270	0.297	102.2	-15.7	-3.55	1.329	78.4	0.337	0.998	40.0	251.7	---	1.334		6.33	1.010	70.3	244.2	-3.6	0.350
4-1000	4-1280	0.259	108.9	-7.9	-1.55	1.334	80.3	0.320	1.009	40.8	256.5	---	1.340		4.58	1.017	70.9	251.5	-9.0	0.335
4-1000	4-1290	0.230	116.8	-2.3	-0.59	1.337	82.1	0.320	1.020	33.3	257.1	---	1.346		3.67	1.024	71.8	259.9	-12.1	0.327
4-1000	4-1300	0.205	126.4	2.6	0.41	1.341	84.0	0.315	1.029	25.5	259.4	---	1.353		3.14	1.030	71.6	268.9	-13.9	0.322
4-1000	4-1310	0.186	138.6	7.4	1.02	1.344	85.9	0.312	1.038	17.2	261.3	---	1.362		2.82	1.035	72.1	278.3	-14.5	0.321
4-1000	4-1320	0.176	153.6	11.9	1.54	1.347	88.0	0.312	1.047	8.5	262.8	---	1.373		2.64	1.039	72.2	287.9	-14.3	0.323
4-1000	4-1330	0.178	170.9	15.4	2.01	1.350	90.2	0.315	1.055	359.3	623.7	0.722	1.387		2.55	1.042	72.0	297.7	-13.2	0.329
4-1000	4-1340	0.194	188.7	17.4	2.46	1.352	92.6	0.323	1.062	349.4	624.0	0.719	1.404		2.55	1.044	71.6	307.5	-11.3	0.339
4-1000	4-1350	0.226	205.1	17.8	2.93	1.354	95.3	0.336	1.069	338.7	623.5	0.710	1.428		2.62	1.046	70.9	317.5	-8.7	0.355
4-1000	4-1350	0.514	270.8	6.0	2.93	1.104	114.8	0.420	0.706	242.4	887.2	0.410	1.003		2.62	0.783	98.9	64.7	29.1	0.269
4-1000	4-1360	0.275	219.0	17.0	3.44	1.356	98.5	0.357	1.075	327.1	622.1	0.692	1.459		2.80	1.047	69.6	327.6	-5.4	0.380
4-1000	4-1360	0.500	271.0	7.3	3.44	1.159	114.1	0.409	0.701	242.1	897.0	0.414	0.988		2.80	0.774	92.1	52.4	28.2	0.293
4-1000	4-1370	0.516	271.6	8.2	4.03	1.157	114.8	0.421	0.699	241.1	906.1	0.405	0.993		3.10	0.769	85.5	41.3	25.6	0.259
4-1000	4-1480	0.555	60.1	0.6	0.32	1.152	62.1	0.470	0.693	122.5	895.2	0.367	1.019		-3.19	0.726	96.2	177.4	-8.9	0.269
4-1000	4-1490	0.294	113.6	4.2	0.92	1.375	79.8	0.401	1.138	36.3	458.6	0.682	1.595		-2.87	1.044	112.3	266.5	-30.2	0.406
4-1000	4-1490	0.581	59.0	1.6	0.92	1.146	60.7	0.491	0.686	124.6	906.9	0.349	1.023		-2.87	0.735	83.5	161.7	0.2	0.290
4-1000	4-1500	0.245	128.2	7.9	1.42	1.377	83.3	0.385	1.146	24.2	456.0	0.705	1.587		-2.67	1.046	111.8	279.0	-29.9	0.390
4-1000	4-1510	0.217	145.7	11.9	1.87	1.379	86.5	0.378	1.153	12.9	454.2	0.717	1.590		-2.57	1.049	111.2	290.9	-28.7	0.384
4-1000	4-1520	0.210	164.9	15.2	2.29	1.382	89.4	0.379	1.162	2.2	453.1	0.722	1.602		-2.54	1.053	111.1	302.0	-26.8	0.386
4-1000	4-1530	0.222	183.4	17.2	2.72	1.384	92.2	0.385	1.171	352.2	812.6	0.720	1.621		-2.58	1.057	111.4	312.5	-24.5	0.395
4-1000	4-1540	0.250	198.9	17.8	3.18	1.387	94.9	0.396	1.181	342.6	812.6	0.713	1.649		-2.70	1.061	112.0	322.1	-21.8	0.409
4-1000	4-1550	0.289	211.3	17.9	3.70	1.389	97.6	0.412	1.192	333.6	813.1	0.700	1.683		-2.92	1.067	112.8	331.3	-18.9	0.429
4-1050	4-1370	0.283	193.3	22.3	4.63	1.346	80.9	0.352	1.069	35.7	261.2	---	1.446		-2.47	1.042	69.8	342.3	-14.5	0.377
4-1050	4-1380	0.251	202.7	22.5	4.11	1.350	83.0	0.345	1.079	27.6	263.1	---	1.452		-2.14	1.044	70.3	350.4	-10.3	0.369
4-1050	4-1390	0.226	214.5	22.7	3.70	1.353	85.2	0.341	1.089	19.1	264.6	---	1.461		-1.93	1.046	70.7	358.6	-6.3	0.364
4-1050	4-1400	0.208	229.0	22.4	3.36	1.355	87.4	0.340	1.098	10.2	265.6	---	1.471		-1.82	1.047	70.8	6.9	-2.4	0.362
4-1050	4-1410	0.201	246.0	21.0	3.05	1.358	89.8	0.342	1.107	0.8	266.2	---	1.485		-1.77	1.047	70.7	15.5	1.4	0.364
4-1050	4-1420	0.209	263.9	18.2	2.74	1.360	92.4	0.349	1.114	350.9	626.1	0.726	1.503		-1.77	1.047	70.4	24.4	5.1	0.370
4-1050	4-1420	0.470	348.5	6.4	2.74	1.181	112.8	0.387	0.739	249.3	884.5	0.453	1.026		-1.77	0.801	99.8	142.0	8.7	0.238
4-1050	4-1430	0.233	280.6	14.3	2.43	1.363	95.2	0.361	1.122	340.3	625.2	0.717	1.527		-1.82	1.048	69.6	33.7	8.6	0.382
4-1050	4-1440	0.452	346.5	5.9	2.43	1.177	112.0	0.374	0.734	249.3	890.2	0.460	1.009		-1.82	0.792	93.4	131.9	10.7	0.208
4-1050	4-1440	0.276	294.9	10.3	2.09	1.365	98.4	0.381	1.129	328.9	623.6	0.699	1.559		-1.94	1.048	68.4	43.7	11.8	0.401
4-1050	4-1440	0.457	346.8	5.0	2.09	1.175	112.3	0.379	0.732	248.5	903.2	0.455	1.009		-1.94	0.786	88.1	121.7	12.9	0.213
4-1050	4-1450	0.483	347.5	3.8	1.70	1.175	113.6	0.400	0.731	247.0	911.4	0.439	1.024		-2.13	0.782	82.6	114.7	14.6	0.244
4-1050	4-1560	0.504	144.8	9.4	4.40	1.177	65.4	0.416	0.734	113.5	80.2	0.429	1.040		2.31	0.787	101.3	285.2	-16.3	0.278
4-1050	4-1570	0.460	146.0	9.4	3.94	1.178	67.5	0.382	0.735	111.2	890.6	0.454	1.015		2.05	0.791	95.7	281.8	-15.9	0.229
4-1050	4-1580	0.264	211.9	19.0	3.57	1.384	84.0	0.406	1.201	20.9	450.1	0.714	0.689		1.88	1.077	112.1	355.4	2.8	0.422
4-1050	4-1580	0.443	146.4	8.8	3.57	1.177	68.3	0.369	0.733	110.6	899.7	0.462	1.004		1.88	0.792	90.2	271.9	-16.2	0.206
4-1050	4-1590	0.235	231.0	19.5	3.25	1.386	87.4	0.400	1.209	9.1	448.0	0.725	1.693		1.79	1.082	111.5	5.2	7.0	0.415
4-1050	4-1590	0.485	144.5	7.2	3.25	1.170	66.1	0.405	0.726	114.2	913.2	0.432	1.019		1.79	0.787	81.4	251.0	-16.5	0.244
4-1050	4-1600	0.230	250.8	18.1	2.94	1.388	90.5	0.402	1.217	358.1	806.9	0.728	1.707		1.76	1.087	111.5	14.7	10.9	0.416
4-1050	4-1610	0.243	268.6	15.2	2.63	1.390	93.5	0.410	1.226	347.9	806.6	0.723	1.729		1.78	1.092	111.8	24.0	14.6	0.423
4-1050	4-1620	0.272	282.9	11.8	2.31	1.392	96.4	0.423	1.236	338.4	807.1	0.713	1.759		1.86	1.098	112.5	33.3	18.0	0.436
4-1100	4-1460	0.266	279.5	5.4	1.06	1.368	82.2	0.380	1.131	28.6	263.4	---	1.561		-3.89	1.045	68.5	63.9	11.6	0.400
4-1100	4-1470	0.238	289.7	2.0	0.34	1.371	84.4	0.375	1.141	20.6	265.0	---	1.569		-3.53	1.047	68.9	72.5	13.6	0.391
4-1100	4-1480	0.218	302.2	-1.7	-0.27	1.373	86.7	0.373	1.151	12.3	266.2	---	1.580		-3.31	1.049	69.1	81.4	14.7	0.384
4-1100	4-1490	0.207	317.2	-5.5	-0.82	1.375	89.0	0.374	1.159	3.6	267.1	---	1.593		-3.20	1.051	69.2	90.7	15.2	0.382
4-1100	4-1490	0.413	60.9	-2.3	-0.82	1.208	110.2	0.350	0.772	259.0	382.4	0.502	1.042		-3.20	0.820	99.0	209.1	-24.6	0.220
4-1100	4-1500	0.210	333.9	-8.9	-1.35	1.378	91.9	0.379	1.167	354.5	627.5	0.725	1.609		-3.19	1.054	69.0	100.2	14.9	0.383
4-1100	4-1500	0.392	60.8	-3.9	-1.35	1.204	109.2	0.333	0.766	259.4	092.4	0.511	1.021		-3.19	0.814	93.8	199.4	-23.4	0.186
4-1100	4-1510	0.230	350.8	-11.4	-1.89	1.380	94.2	0.388	1.175	344.8	627.3	0.719	1.630		-3.26	1.056	68.5	110.1	13.8	0.390
4-1100	4-1510	0.391	61.0	-5.5	-1.89	1.202	109.1	0.331	0.764	259.0	901.5	0.511	1.017		-3.26	0.811	89.3	189.3	-20.2	0.180
4-1100	4-1520	0.267	6.2	-12.8	-2.47	1.381	97.3	0.403	1.182	334.3	626.3	0.705	1.658		-3.43	1.059	67.6	120.2	12.0	0.404
4-1100	4-1520	0.406	61.6	-6.9	-2.47	1.202	109.8	0.342	0.763	257.8	909.8	0.502	1.024		-3.43	0.811	85.0	181.8	-16.4	0.196
4-1100	4-1530	0.437	62.7	-8.1	-3.14	1.202	111.3	0.365	0.763	255.8	917.4	0.484	1.042		-3.73	0.812	80.5	178.4	-13.6	0.231
4-1100	4-1540	0.487	64.4	-9.0	-3.97	1.202	113.7	0.404	0.764	252.8	923.9	0.455	1.072		-4.22	0.815	75.5	178.6	-12.2	0.285
4-1100	4-1640	0.448	229.6	3.8	1.53	1.207	66.7	0.367	0.771	102.8	872.4	0.488	1.053		4.18	0.852	104.1	9.9	17.1	0.295
4-1100	4-1650	0.297	281.2	3.2	0.68	1.397	81.7	0.437	1.246	27.4	447.1	0.701	1.791		3.69	1.107	113.1	63.2	29.7	0.450
4-1100	4-1650	0.390	231.9	2.0	0.68	1.208	71.5	0.322	0.772	98.3	878.0	0.524	1.020		3.69	0.856	99.7	11.6	19.4	0.237
4-1100	4-1660	0.250	298.9	-0.1	-0.01	1.399	85.6	0.426	1.253	14.6	444.4	0.719	1.788		3.39	1.110	112.2	76.2	31.0	0.431
4-1100	4-1660	0.353	233.5	-0.0	-0.01	1.209	73.4	0.292	0.773	95.2	885.0	0.547	0.999		3.39	0.858	96.0	9.9	20.5	0.196
4-1100	4-1670	0.231	318.3	-3.8	-0.62	1.400	89.1	0.424	1.261	3.2	443.1	0.726	1.796		3.23	1.113	111.9	88.7	31.3	0.423
4-1100	4-1670	0.333	234.3	-2.2	-0.62	1.208	74.3	0.276	0.773	93.5	893.5	0.559	0.986		3.23	0.859	92.5	3.7	19.5	0.171
4-1100	4-1680	0.236	337.0	-7.1	-1.19	1.402	92.2	0.429	1.269	352.8	802.9	0.724	1.813		3.18	1.116	112.0	100.6	30.9	0.424
4-1100	4-1680	0.336	234.0	-4.1	-1.19	1.207	74.2	0.277	0.771	94.2	904.3	0.557	0.984		3.18	0.858	88.3	352.2	14.5	0.169
DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL		I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1100	4-1690	0.259	353.1	-9.6	-1.76	1.404	95.1	0.439	1.277	343.3	803.6	0.717	1.838	3.23	1.118	112.6	111.8	29.8	0.432
4-1100	4-1700	0.294	5.9	-11.3	-2.37	1.406	97.9	0.453	1.286	334.5	805.0	0.704	1.869	3.40	1.121	113.5	122.5	28.1	0.446
4-1150	4-1550	0.286	2.1	-18.1	-3.69	1.392	82.5	0.413	1.191	26.0	266.7	---	1.683	0.72	1.066	67.1	151.3	13.6	0.404
4-1150	4-1550	0.381	136.1	-11.5	-3.69	1.242	107.8	0.322	0.808	271.1	871.8	0.548	1.069	0.72	0.860	102.0	291.2	-19.5	0.241
4-1150	4-1560	0.259	12.7	-19.4	-3.56	1.395	84.7	0.409	1.200	18.3	268.6	---	1.691	0.66	1.071	67.6	159.6	10.4	0.396
4-1150	4-1560	0.335	134.9	-12.7	-3.56	1.235	105.6	0.285	0.798	273.6	884.0	0.570	1.025	0.66	0.853	96.2	284.7	-19.6	0.178
4-1150	4-1570	0.240	25.8	-20.5	-3.45	1.397	87.1	0.407	1.209	10.2	270.2	---	1.701	0.63	1.077	67.9	169.0	6.9	0.391
4-1150	4-1570	0.319	134.6	-13.0	-3.45	1.232	104.9	0.272	0.793	274.4	894.4	0.578	1.009	0.63	0.852	92.1	275.3	-19.7	0.149
4-1150	4-1580	0.230	41.4	-20.7	-3.34	1.399	89.5	0.408	1.217	1.6	271.3	---	1.713	0.63	1.081	68.0	176.7	3.2	0.390
4-1150	4-1580	0.317	134.7	-12.6	-3.34	1.231	104.8	0.270	0.791	274.0	903.8	0.577	1.005	0.63	0.853	88.6	264.5	-19.6	0.143
4-1150	4-1590	0.235	58.8	-19.6	-3.23	1.401	92.3	0.413	1.224	352.3	631.8	0.718	1.730	0.63	1.086	67.8	185.6	-0.7	0.394
4-1150	4-1590	0.326	135.5	-11.8	-3.23	1.230	105.3	0.278	0.791	272.8	912.3	0.571	1.010	0.63	0.856	85.3	255.8	-19.3	0.155
4-1150	4-1600	0.257	76.0	-17.2	-3.12	1.402	95.3	0.424	1.231	342.2	631.6	0.710	1.752	0.66	1.091	67.3	195.0	-4.6	0.405
4-1150	4-1600	0.347	136.3	-10.7	-3.12	1.230	106.4	0.295	0.791	270.6	920.0	0.558	1.024	0.66	0.859	82.1	251.1	-19.2	0.182
4-1150	4-1610	0.381	137.8	-9.2	-2.99	1.231	108.1	0.322	0.792	267.5	926.8	0.537	1.046	0.72	0.863	78.5	250.5	-19.0	0.222
4-1150	4-1620	0.434	139.9	-7.5	-2.83	1.232	110.7	0.363	0.793	263.1	932.4	0.505	1.081	0.81	0.868	74.3	253.2	-20.1	0.278
4-1150	4-1720	0.433	313.2	-10.4	-3.85	1.238	70.2	0.353	0.803	93.9	864.6	0.519	1.086	-0.81	0.884	106.0	103.5	20.5	0.286
4-1150	4-1730	0.374	316.1	-11.7	-3.69	1.239	73.1	0.308	0.804	87.9	866.7	0.556	1.052	-0.72	0.884	102.3	108.6	19.6	0.230
4-1150	4-1740	0.268	20.9	-19.1	-3.55	1.418	85.9	0.452	1.302	13.3	444.1	0.714	1.889	-0.66	1.119	113.2	161.2	6.3	0.428
4-1150	4-1740	0.333	318.4	-12.9	-3.55	1.240	75.1	0.277	0.806	83.1	874.0	0.562	1.029	-0.66	0.882	99.2	111.5	18.9	0.189
4-1150	4-1750	0.251	39.7	-19.8	-3.44	1.419	89.2	0.450	1.309	2.6	443.5	0.720	1.898	-0.63	1.118	113.1	170.9	2.2	0.423
4-1150	4-1750	0.305	320.2	-13.7	-3.44	1.240	76.5	0.256	0.807	79.4	880.2	0.600	1.013	-0.63	0.880	96.5	111.4	18.4	0.157
4-1200	4-1610	0.322	210.1	-16.2	-4.20	1.259	103.9	0.276	0.837	285.7	864.1	0.606	1.068	5.48	0.902	101.8	346.8	15.7	0.251
4-1200	4-1620	0.258	206.9	-14.1	-2.93	1.251	101.1	0.229	0.823	291.5	879.7	0.634	1.011	4.55	0.894	95.8	338.9	16.9	0.175
4-1200	4-1630	0.236	205.8	-10.5	-2.00	1.248	100.3	0.214	0.818	293.3	891.5	0.643	0.993	3.99	0.893	92.3	330.7	15.4	0.144
4-1200	4-1640	0.276	87.6	-6.3	-1.25	1.406	82.7	0.438	1.246	24.2	272.5	---	1.793	3.65	1.105	66.7	235.8	-10.8	0.429
4-1200	4-1640	0.230	205.7	-6.7	-1.25	1.247	100.1	0.231	0.816	293.4	901.6	0.644	0.988	3.66	0.894	89.6	322.2	11.9	0.133
4-1200	4-1650	0.249	99.7	-3.4	-0.60	1.408	85.2	0.434	1.255	16.0	274.4	---	1.799	3.46	1.109	67.3	244.9	-12.9	0.423
4-1200	4-1650	0.235	206.3	-3.1	-0.60	1.247	100.4	0.215	0.815	292.2	910.5	0.640	0.991	3.46	0.895	87.2	315.6	7.4	0.137
4-1200	4-1660	0.232	118.8	0.1	0.01	1.410	87.0	0.432	1.263	7.3	275.8	---	1.809	3.39	1.113	67.6	254.5	-14.3	0.421
4-1200	4-1660	0.249	207.5	0.1	0.01	1.247	101.1	0.225	0.816	289.9	918.4	0.632	0.999	3.39	0.897	84.9	312.4	3.3	0.153
4-1200	4-1670	0.231	132.4	3.8	0.62	1.412	90.7	0.434	1.271	357.7	636.4	0.719	1.822	3.43	1.116	67.6	264.7	-15.0	0.425
4-1200	4-1670	0.271	209.2	2.8	0.62	1.247	102.2	0.241	0.817	286.6	925.3	0.620	1.014	3.43	0.899	82.5	312.4	0.4	0.178
4-1200	4-1680	0.251	150.9	7.1	1.26	1.413	93.9	0.447	1.278	347.2	636.0	0.714	1.842	3.58	1.119	67.2	275.3	-14.8	0.436
4-1200	4-1680	0.304	211.4	5.0	1.26	1.248	103.8	0.265	0.818	282.4	931.2	0.601	1.035	3.58	0.901	79.9	315.0	-1.2	0.212
4-1200	4-1690	0.296	168.3	9.4	1.98	1.415	97.6	0.456	1.285	335.4	634.4	0.699	1.870	3.88	1.120	66.3	286.6	-13.8	0.457
4-1200	4-1690	0.351	214.0	6.8	1.98	1.249	105.9	0.299	0.820	277.3	936.2	0.575	1.064	3.88	0.902	76.9	319.5	-1.6	0.256
4-1250	4-1380	0.504	308.9	7.3	3.40	1.177	114.2	0.430	0.730	246.5	521.2	0.430	---	0.47	0.804	102.2	109.7	23.6	0.272
4-1250	4-1390	0.469	309.7	7.6	3.48	1.168	113.5	0.399	0.718	245.1	529.7	0.431	---	0.48	0.787	96.7	102.9	24.5	0.237
4-1250	4-1400	0.490	310.3	7.8	3.58	1.162	113.7	0.402	0.712	243.8	538.4	0.426	---	0.52	0.775	91.1	92.8	25.2	0.228
4-1250	4-1410	0.511	311.1	7.6	3.68	1.160	114.7	0.418	0.709	242.3	546.8	0.412	1.005	0.57	0.767	85.2	83.1	25.0	0.269
4-1250	4-1520	0.546	101.6	5.6	2.97	1.155	62.7	0.459	0.703	120.9	531.3	0.380	1.026	-0.61	0.739	97.3	227.3	-19.4	0.270
4-1250	4-1530	0.545	100.9	5.8	3.09	1.148	62.7	0.460	0.695	122.1	542.1	0.375	1.016	-0.54	0.730	88.2	212.2	-14.6	0.256
4-1250	4-1670	0.208	276.5	11.7	1.95	1.259	98.4	0.207	0.853	307.0	865.4	0.676	1.029	1.49	0.927	98.1	45.8	25.7	0.169
4-1250	4-1680	0.175	271.8	18.1	2.50	1.253	96.5	0.179	0.843	314.0	882.5	0.692	0.993	0.98	0.920	93.7	33.8	21.7	0.117
4-1250	4-1690	0.169	270.8	20.9	2.78	1.251	96.2	0.172	0.840	315.4	894.1	0.695	0.984	0.75	0.913	91.2	23.0	16.9	0.101
4-1250	4-1700	0.172	271.6	21.8	2.95	1.251	96.3	0.173	0.839	314.5	903.4	0.694	0.984	0.62	0.917	89.3	14.7	12.4	0.101
4-1250	4-1710	0.181	273.4	21.6	3.08	1.251	96.7	0.178	0.839	312.2	911.2	0.690	0.987	0.55	0.916	87.6	10.1	9.3	0.110
4-1250	4-1720	0.300	166.9	15.0	3.18	1.408	82.0	0.456	1.293	25.6	274.8	---	1.883	0.50	1.120	66.4	318.2	-14.9	0.459
4-1250	4-1720	0.194	275.7	20.8	3.18	1.252	97.4	0.187	0.840	308.8	918.0	0.683	0.997	0.50	0.915	86.0	9.0	7.8	0.125
4-1250	4-1730	0.273	179.2	17.1	3.27	1.410	84.7	0.450	1.302	17.1	276.4	---	1.889	0.48	1.121	66.9	327.2	-12.1	0.452
4-1250	4-1750	0.212	278.5	19.4	3.27	1.252	98.4	0.199	0.842	304.7	924.0	0.674	1.009	0.48	0.914	84.3	10.5	7.8	0.145
4-1250	4-1740	0.256	194.4	18.8	3.56	1.412	87.5	0.448	1.311	8.0	277.4	---	1.898	0.47	1.121	67.2	336.2	-8.8	0.449
4-1250	4-1740	0.236	281.4	17.9	3.56	1.253	99.6	0.216	0.843	300.0	929.3	0.661	1.025	0.47	0.913	82.6	13.9	8.7	0.168
4-1250	4-1750	0.254	212.4	19.5	3.44	1.414	90.6	0.450	1.319	358.2	637.6	0.725	1.912	0.47	1.121	67.2	345.3	-5.1	0.451
4-1250	4-1750	0.266	284.6	16.1	3.44	1.254	101.1	0.237	0.845	294.6	934.0	0.644	1.046	0.47	0.912	80.6	18.7	10.2	0.196
4-1250	4-1760	0.273	231.1	18.5	3.53	1.415	93.9	0.457	1.326	347.4	636.8	0.720	1.932	0.50	1.120	66.7	354.7	-1.1	0.460
4-1250	4-1760	0.304	287.9	14.3	3.53	1.255	103.1	0.266	0.847	288.7	938.1	0.622	1.072	0.50	0.910	78.3	24.5	12.3	0.231
4-1250	4-1770	0.354	291.4	12.5	3.62	1.257	105.6	0.303	0.849	282.1	941.4	0.592	1.106	0.54	0.909	75.5	31.3	14.5	0.273
4-1300	4-1430	0.417	19.0	7.2	2.59	1.224	109.8	0.350	0.801	264.3	509.3	0.521	---	-3.55	0.861	104.3	169.1	-7.7	0.260
4-1300	4-1440	0.392	19.5	5.8	1.97	1.214	108.8	0.330	0.785	263.2	517.9	0.526	---	-3.33	0.843	100.2	167.2	-8.5	0.217
4-1300	4-1450	0.379	19.9	4.3	1.41	1.207	108.3	0.319	0.776	262.2	526.5	0.528	---	-3.23	0.831	96.2	162.2	-8.0	0.188
4-1300	4-1460	0.375	20.3	2.6	0.87	1.204	108.2	0.317	0.770	261.2	535.2	0.526	---	-3.22	0.823	92.2	154.6	-6.0	0.174
4-1300	4-1470	0.382	20.9	0.9	0.32	1.202	108.6	0.323	0.767	260.1	543.6	0.520	1.015	-3.31	0.818	88.3	146.8	-2.9	0.179
4-1300	4-1480	0.402	21.7	-0.8	-0.28	1.201	109.6	0.338	0.767	258.5	551.6	0.508	1.026	-3.49	0.816	84.2	141.4	0.2	0.202
4-1300	4-1490	0.436	22.8	-2.5	-0.97	1.202	111.2	0.365	0.768	256.4	559.0	0.487	1.048	-3.82	0.816	79.7	139.4	2.4	0.242
4-1300	4-1610	0.389	194.5	9.1	3.05	1.217	71.7	0.322	0.790	94.8	513.6	0.536	1.045	3.76	0.862	101.4	341.8	6.0	0.253
4-1300	4-1620	0.341	197.1	8.1	2.35	1.219	74.1	0.286	0.794	89.8	518.5	0.567	1.021	3.45	0.868	98.1	344.3	8.8	0.209
4-1300	4-1630	0.306	199.5	6.7	1.74	1.221	75.7	0.260	0.796	85.7	524.4	0.589	1.003	3.28	0.874	95.3	344.6	11.1	0.177
4-1300	4-1640	0.283	200.8	4.9	1.16	1.222	76.8	0.244	0.797	82.9	531.6	0.603	0.992	3.21	0.877	92.7	341.2	12.1	0.155
4-1300	4-1650	0.423	190.2	1.6	0.59	1.197	69.6	0.351	0.761	103.9	562.7	0.494	1.028	3.25	0.844	78.7	296.5	-10.1	0.248
4-1300	4-1650	0.279	200.7	2.5	0.59	1.220	76.9	0.241	0.795	83.1	542.0	0.604	0.986	3.25	0.878	89.4	331.0	9.4	0.146
4-1300	4-1750	0.229	319.6	68.3	9.73	1.258	92.2	0.157	0.859	343.6	904.1	0.724	0.993	-9.21	0.922	89.2	71.4	-34.0	0.179
4-1300	4-1760	0.175	322.4	55.3	6.59	1.259	92.8	0.161	0.860	339.7	910.1	0.722	0.998	-6.36	0.920	88.3	67.5	-23.8	0.144
4-1300	4-1770	0.156	327.7	43.8	4.89	1.260	93.5	0.166	0.862	335.2	915.4	0.719	1.005	-4.98	0.918	87.0	66.2	-14.9	0.135
4-1300	4-1780	0.151	332.4	33.3	3.79	1.261	94.3	0.174	0.864	330.2	920.3	0.714	1.014	-4.19	0.917	85.9	67.3	-7.7	0.137
4-1300	4-1790	0.156	338.9	24.5	2.96	1.262	95.2	0.183	0.866	324.9	924.8	0.708	1.025	-3.72	0.915	84.7	70.2	2.1	0.145
4-1300	4-1800	0.169	344.1	17.3	2.29	1.263	96.3	0.194	0.868	319.4	929.0	0.700	1.037	-3.43	0.914	83.5	74.4	2.2	0.157
4-1300	4-1810	0.278	358.3	8.7	1.70	1.417	84.8	0.468	1.351	16.3	275.6	---	1.984	-3.27	1.114	66.0	43.4	9.2	0.472
4-1300	4-1810	0.187	349.0	11.5	1.70	1.264	97.5	0.208	0.871	313.7	933.0	0.689	1.052	-3.27	0.913	82.2	79.7	5.6	0.172

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1300	4-1820	0.258	272.6	6.4	1.15	1.418	87.6	0.466	1.360	7.5	276.4	---	1.994	-3.21	1.114	66.2	52.2	11.6	0.465
4-1300	4-1820	0.212	353.6	6.8	1.15	1.266	98.9	0.223	0.873	307.8	936.7	0.676	1.070	-3.21	0.912	80.7	85.9	8.0	0.190
4-1300	4-1830	0.252	289.3	3.4	0.61	1.420	90.6	0.468	1.368	358.2	636.7	0.728	2.008	-3.25	1.115	66.2	61.5	13.6	0.464
4-1300	4-1830	0.243	357.9	3.1	0.61	1.267	100.5	0.247	0.875	301.6	940.1	0.655	1.091	-3.25	0.912	78.9	92.8	9.7	0.213
4-1300	4-1840	0.267	307.0	0.2	0.04	1.421	93.9	0.474	1.375	348.0	636.1	0.723	2.028	-3.38	1.115	65.8	71.4	14.9	0.469
4-1300	4-1840	0.287	2.2	0.2	0.04	1.268	102.5	0.273	0.878	295.0	943.1	0.638	1.118	-3.38	0.912	76.4	100.3	10.6	0.242
4-1300	4-1850	0.331	6.4	-2.2	-0.59	1.269	105.0	0.308	0.880	287.9	945.5	0.609	1.151	-3.63	0.912	74.4	108.3	10.8	0.273
4-1300	4-1850	0.578	34.1	-1.0	-0.59	1.137	119.1	0.489	0.688	234.9	1252.5	0.352	1.024	-3.63	0.718	97.0	187.3	-13.0	0.289
4-1300	4-1860	0.573	34.3	-2.3	-1.34	1.134	118.8	0.485	0.685	234.6	1261.7	0.352	1.017	-4.03	0.712	88.4	175.9	-9.5	0.279
4-1350	4-1470	0.328	85.8	2.9	0.76	1.279	105.0	0.312	0.887	289.3	493.3	0.608	---	-4.07	0.916	106.1	220.8	-29.6	0.276
4-1350	4-1480	0.296	86.1	-1.9	-0.47	1.265	103.8	0.283	0.857	288.7	502.3	0.615	---	-3.00	0.896	102.6	224.1	-29.1	0.224
4-1350	4-1490	0.279	86.4	-5.2	-1.19	1.256	103.0	0.262	0.849	288.3	511.4	0.620	---	-2.42	0.882	99.3	224.8	-29.1	0.183
4-1350	4-1500	0.266	86.6	-7.8	-1.70	1.250	102.4	0.248	0.840	287.9	520.5	0.623	---	-2.08	0.873	96.2	222.3	-28.8	0.152
4-1350	4-1510	0.261	87.0	-9.8	-2.09	1.246	102.1	0.242	0.823	287.4	529.6	0.624	---	-1.87	0.867	93.3	216.4	-27.5	0.132
4-1350	4-1520	0.261	87.5	-11.3	-2.42	1.245	102.1	0.240	0.820	286.6	538.3	0.623	---	-1.74	0.865	90.5	208.2	-26.8	0.123
4-1350	4-1530	0.268	88.2	-12.4	-2.71	1.243	102.4	0.243	0.818	285.5	546.7	0.619	1.017	-1.67	0.865	87.9	200.4	-21.1	0.120
4-1350	4-1540	0.281	89.2	-13.0	-2.99	1.243	103.0	0.252	0.818	285.8	554.6	0.612	1.024	-1.65	0.867	85.2	195.4	-17.7	0.140
4-1350	4-1550	0.301	90.5	-13.2	-3.27	1.244	104.0	0.267	0.819	287.4	561.8	0.601	1.038	-1.68	0.870	82.5	193.8	-15.5	0.164
4-1350	4-1560	0.331	92.2	-13.1	-3.57	1.245	105.3	0.289	0.821	278.3	568.4	0.584	1.059	-1.76	0.874	79.6	195.0	-14.8	0.197
4-1350	4-1570	0.372	94.4	-12.6	-3.91	1.247	107.3	0.320	0.824	274.3	574.0	0.561	1.088	-1.91	0.879	76.3	198.5	-15.2	0.239
4-1350	4-1580	0.431	97.1	-11.9	-4.33	1.249	110.1	0.364	0.825	269.0	578.5	0.527	1.129	-2.14	0.885	72.4	203.7	-16.5	0.295
4-1350	4-1690	0.334	284.2	-7.4	-2.01	1.266	75.3	0.296	0.858	73.5	493.5	0.605	1.112	1.91	0.932	105.1	79.9	29.5	0.270
4-1350	4-1700	0.282	289.3	-10.5	-2.37	1.268	78.1	0.260	0.863	68.2	494.4	0.638	1.088	1.76	0.935	102.8	90.0	30.4	0.231
4-1350	4-1710	0.240	294.8	-14.1	-2.68	1.271	80.4	0.235	0.868	55.1	495.3	0.664	1.072	1.68	0.938	101.2	100.1	30.8	0.202
4-1350	4-1720	0.207	301.3	-18.4	-2.98	1.274	82.3	0.217	0.873	45.7	496.1	0.684	1.062	1.65	0.940	100.1	110.5	30.7	0.181
4-1350	4-1730	0.181	309.5	-23.7	-3.27	1.276	84.1	0.204	0.879	35.8	496.4	0.700	1.058	1.68	0.941	99.4	121.3	30.0	0.166
4-1350	4-1740	0.160	320.7	-30.0	-3.59	1.280	85.9	0.196	0.885	25.2	495.8	0.712	1.059	1.77	0.943	99.0	132.9	28.5	0.158
4-1350	4-1750	0.422	274.2	-11.0	-3.94	1.231	70.8	0.342	0.804	93.0	573.6	0.529	1.079	1.92	0.878	75.2	17.5	13.5	0.285
4-1350	4-1750	0.147	337.3	-37.0	-3.94	1.285	87.8	0.194	0.893	13.4	494.0	0.720	1.066	1.92	0.946	99.2	145.5	26.0	0.157
4-1350	4-1760	0.349	279.6	-15.2	-4.38	1.245	74.7	0.288	0.821	81.6	572.2	0.585	1.057	2.18	0.889	78.5	27.3	19.9	0.237
4-1350	4-1760	0.146	1.6	-42.4	-4.38	1.288	90.0	0.199	0.902	0.1	490.7	0.723	1.081	2.18	0.949	99.8	158.9	22.2	0.166
4-1350	4-1770	0.291	285.6	-21.4	-4.97	1.253	78.1	0.246	0.836	69.3	569.8	0.631	1.041	2.60	0.898	81.2	37.9	27.4	0.197
4-1350	4-1770	0.165	29.8	-42.8	-4.97	1.294	92.5	0.214	0.914	345.7	846.2	0.719	1.110	2.60	0.954	101.2	172.5	17.7	0.186
4-1350	4-1780	0.253	292.2	-30.2	-5.87	1.260	80.8	0.217	0.848	56.9	567.3	0.664	1.032	3.34	0.905	83.0	48.9	36.6	0.171
4-1350	4-1780	0.208	52.4	-39.5	-5.87	1.300	95.5	0.241	0.929	331.1	841.5	0.705	1.153	3.34	0.960	103.2	185.5	13.3	0.220
4-1350	4-1790	0.242	298.7	-42.9	-7.54	1.265	82.9	0.199	0.858	45.3	565.4	0.687	1.028	4.87	0.909	84.1	59.9	49.0	0.164
4-1350	4-1790	0.273	67.7	-37.6	-7.54	1.308	98.9	0.280	0.947	317.7	837.8	0.682	1.213	4.87	0.968	105.9	197.7	10.9	0.270
4-1350	4-1800	0.301	301.0	-62.5	-12.19	1.269	84.7	0.188	0.865	34.9	564.7	0.702	1.028	9.38	0.911	84.6	72.5	69.3	0.204
4-1350	4-1820	0.190	330.0	55.3	7.06	1.275	87.5	0.180	0.876	16.6	566.0	0.718	1.034	-10.16	0.914	84.6	97.1	-26.8	0.210
4-1350	4-1830	0.114	345.0	21.2	1.86	1.277	88.6	0.180	0.880	8.9	567.9	0.722	1.039	-5.10	0.915	84.3	182.2	-9.3	0.152
4-1350	4-1840	0.103	358.5	1.0	0.08	1.279	89.7	0.182	0.884	1.6	570.2	0.723	1.045	-3.47	0.916	83.8	109.4	-0.8	0.142
4-1350	4-1850	0.106	12.0	-10.3	-0.85	1.281	90.8	0.186	0.888	354.7	932.7	0.722	1.053	-2.68	0.918	83.2	116.9	3.4	0.142
4-1350	4-1860	0.115	24.8	-16.4	-1.45	1.282	91.9	0.191	0.891	347.9	935.5	0.720	1.061	-2.24	0.919	82.5	124.6	5.2	0.147
4-1350	4-1870	0.128	36.3	-19.4	-1.89	1.284	93.1	0.198	0.894	341.2	938.3	0.716	1.071	-1.97	0.921	81.7	132.2	5.6	0.154
4-1350	4-1880	0.145	46.3	-20.3	-2.25	1.285	94.3	0.207	0.897	334.6	941.2	0.711	1.082	-1.80	0.923	80.8	139.8	5.1	0.164
4-1350	4-1890	0.166	55.0	-20.1	-2.56	1.286	95.6	0.218	0.899	327.9	944.1	0.703	1.095	-1.70	0.926	79.8	147.5	3.7	0.176
4-1350	4-1900	0.280	345.3	-14.7	-2.84	1.434	86.5	0.489	1.408	10.7	276.5	---	2.096	-1.66	1.123	65.3	130.2	14.6	0.464
4-1350	4-1900	0.191	62.4	-19.4	-2.84	1.288	97.0	0.232	0.902	321.1	946.8	0.693	1.111	-1.66	0.929	78.6	155.2	1.9	0.192
4-1350	4-1910	0.269	0.6	-16.9	-3.12	1.436	89.3	0.489	1.415	2.0	277.4	---	2.108	-1.66	1.126	65.5	139.2	11.9	0.460
4-1350	4-1910	0.221	69.0	-18.3	-3.12	1.289	98.7	0.249	0.904	314.0	949.4	0.679	1.130	-1.66	0.932	77.3	162.9	-0.5	0.212
4-1350	4-1920	0.275	17.8	-18.1	-3.41	1.437	92.4	0.493	1.423	352.6	637.6	0.721	2.125	-1.71	1.130	65.3	148.4	8.7	0.461
4-1350	4-1920	0.258	74.9	-17.0	-3.41	1.290	100.6	0.272	0.907	306.6	951.6	0.660	1.153	-1.71	0.936	75.6	170.8	-3.2	0.236
4-1350	4-1920	0.540	110.8	-6.6	-3.41	1.168	116.8	0.451	0.712	241.5	1246.5	0.391	1.034	-1.71	0.758	100.6	274.7	-27.8	0.289
4-1350	4-1930	0.304	80.4	-15.6	-3.72	1.291	103.0	0.301	0.909	298.7	953.3	0.636	1.183	-1.82	0.940	73.6	179.0	-6.3	0.268
4-1350	4-1930	0.509	110.6	-7.7	-3.72	1.163	115.3	0.427	0.707	242.1	1256.7	0.405	1.009	-1.82	0.755	92.5	262.0	-28.9	0.244
4-1350	4-1940	0.515	111.0	-8.4	-4.10	1.162	115.5	0.432	0.705	241.5	1265.8	0.401	1.010	-2.00	0.756	85.6	249.1	-28.3	0.246
4-1350	4-1950	0.551	111.9	-8.6	-4.57	1.161	117.3	0.459	0.705	239.9	1274.0	0.381	1.028	-2.30	0.758	78.7	240.6	-26.8	0.288
4-1400	4-1460	0.501	138.2	-2.8	-0.95	1.547	104.6	0.741	2.560	325.4	438.9	0.664	---	-2.90	1.259	122.5	245.2	-26.1	0.671
4-1400	4-1470	0.393	140.1	-1.8	-0.37	1.454	102.5	0.550	1.490	324.3	447.4	0.671	---	-3.18	1.141	118.2	250.8	-28.3	0.534
4-1400	4-1480	0.315	141.1	1.5	0.35	1.392	100.6	0.426	1.180	323.9	456.6	0.677	---	-3.62	1.059	114.0	256.3	-31.1	0.430
4-1400	4-1490	0.259	141.3	6.9	1.33	1.350	98.9	0.343	1.040	324.2	466.4	0.684	---	-4.35	1.003	110.0	261.5	-35.0	0.350
4-1400	4-1500	0.224	141.1	16.9	2.85	1.322	97.6	0.285	0.965	325.0	476.7	0.690	---	-5.62	0.965	106.3	266.0	-41.5	0.292
4-1400	4-1510	0.221	141.4	35.7	5.73	1.303	96.5	0.245	0.920	326.2	487.4	0.695	---	-8.28	0.939	102.9	268.6	-53.7	0.261
4-1400	4-1520	0.342	150.7	65.9	14.07	1.290	95.6	0.218	0.893	327.8	498.3	0.699	---	-16.39	0.921	99.8	254.9	-75.5	0.323
4-1400	4-1540	0.384	159.7	-72.9	-16.80	1.276	94.9	0.189	0.865	328.6	519.0	0.702	---	14.93	0.904	94.7	266.2	35.0	0.273
4-1400	4-1550	0.243	143.5	-59.7	-9.52	1.273	94.6	0.182	0.859	329.1	528.9	0.703	---	7.87	0.902	92.4	266.6	25.3	0.164
4-1400	4-1560	0.197	140.8	-50.1	-6.84	1.271	94.6	0.179	0.856	328.8	538.2	0.703	---	5.43	0.902	90.4	261.7	18.8	0.128
4-1400	4-1570	0.176	140.8	-42.4	-5.39	1.271	94.8	0.179	0.855	327.6	546.7	0.702	1.008	4.22	0.904	88.4	255.1	13.2	0.114
4-1400	4-1580	0.168	142.2	-35.6	-4.44	1.271	95.1	0.182	0.855	325.8	554.6	0.699	1.011	3.54	0.907	86.8	249.3	7.9	0.113
4-1400	4-1590	0.160	144.4	-29.3	-3.73	1.272	95.6	0.188	0.857	323.1	561.7	0.696	1.018	3.12	0.911	85.2	245.9	3.0	0.120
4-1400	4-1600	0.174	147.2	-23.6	-3.16	1.275	96.3	0.196	0.859	319.8	568.2	0.691	1.027	2.86	0.916	83.6	245.3	-1.3	0.134
4-1400	4-1610	0.187	150.4	-18.3	-2.66	1.274	97.2	0.207	0.862	315.7	574.1	0.684	1.040	2.72	0.921	82.0	247.1	-5.0	0.151
4-1400	4-1620	0.205	154.0	-13.6	-2.19	1.276	98.3	0.221	0.865	311.0	579.3	0.674	1.057	2.66	0.926	80.4	250.8	-8.0	0.173
4-1400	4-1630	0.232	157.7	-9.4	-1.72	1.278	99.7	0.240	0.869	305.5	583.8	0.660	1.078	2.69	0.932	78.6	256.0	-10.4	0.200
4-1400	4-1640	0.267	161.7	-5.8	-1.22	1.280	101.6	0.265	0.873	299.2	587.6	0.641	1.104	2.80	0.937	76.6	262.5	-12.2	0.233
4-1400	4-1650	0.315	165.9	-2.6	-0.66	1.282	104.0	0.299	0.877	292.0	590.5	0.615	1.139	3.03	0.942	74.1	270.1	-13.4	0.275
4-1400	4-1660	0.382	170.4	0.1	0.02	1.284	107.2	0.345	0.882	283.6	592.2	0.578	1.164	3.40	0.947	70.9	278.7	-13.9	0.330
4-1400	4-1670	0.477	175.6	2.3	0.93	1.287	111.8	0.411	0.887	273.6	592.4	0.523	1.251	4.04	0.951	66.5	288.3	-13.6	0.404
4-1400	4-1670	0.809	207.1	0.9	0.93	1.046	132.0	0.688	0.592	214.6	893.3	0.185	0.998	4.04	0.595	104.1	11.8	10.3	0.475
4-1400	4-1680	0.621	181.8	4.2	2.31	1.290	118.6	0.508	0.892	261.1	589.9	0.439	1.345	5.15	0.955	60.0	299.4	-12.3	0.520

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1400	4-1680	0.809	208.1	2.2	2.31	1.032	132.1	0.692	0.582	213.4	902.3	0.179	0.985	5.15	0.562	84.9	358.4	6.1	0.464
4-1400	4-1690	0.914	210.0	3.6	4.85	1.029	138.0	0.761	0.572	209.8	908.8	0.139	1.020	7.45	0.555	84.9	350.6	3.0	0.574
4-1400	4-1740	0.660	350.6	-11.4	-6.75	1.294	59.9	0.531	0.902	100.7	490.7	0.423	1.380	-5.33	0.954	121.6	135.4	8.4	0.532
4-1400	4-1750	0.516	357.7	-12.3	-5.29	1.297	67.2	0.433	0.908	86.5	486.4	0.515	1.301	-4.15	0.955	115.1	146.8	4.3	0.421
4-1400	4-1760	0.412	4.1	-13.2	-4.35	1.300	72.2	0.368	0.914	74.2	484.2	0.578	1.249	-3.48	0.956	111.0	156.9	0.0	0.349
4-1400	4-1770	0.337	10.5	-13.9	-3.66	1.302	75.9	0.323	0.919	63.1	482.9	0.622	1.216	-3.08	0.957	108.2	166.5	-4.3	0.301
4-1400	4-1780	0.278	17.5	-14.4	-3.10	1.305	78.9	0.292	0.925	52.4	482.1	0.655	1.194	-2.84	0.957	106.3	175.9	-8.8	0.269
4-1400	4-1790	0.230	25.9	-14.8	-2.60	1.308	81.6	0.270	0.931	41.9	481.4	0.679	1.182	-2.71	0.958	105.0	185.3	-13.4	0.247
4-1400	4-1800	0.777	340.6	-2.7	-2.15	1.220	52.4	0.613	0.771	122.5	571.7	0.299	1.244	-2.66	0.831	56.1	68.4	18.7	0.568
4-1400	4-1800	0.192	36.4	-14.7	-2.15	1.310	83.8	0.256	0.937	31.3	480.5	0.697	1.177	-2.66	0.959	104.2	195.0	-17.9	0.234
4-1400	4-1810	0.690	344.1	-2.5	-1.69	1.231	56.9	0.551	0.789	115.3	514.2	0.354	1.223	-2.69	0.845	60.4	76.9	19.0	0.503
4-1400	4-1810	0.161	50.4	-13.9	-1.69	1.315	86.0	0.249	0.945	20.5	479.4	0.709	1.180	-2.69	0.961	103.9	205.3	-22.3	0.229
4-1400	4-1820	0.608	347.8	-2.2	-1.22	1.242	61.1	0.492	0.805	107.8	576.3	0.409	1.201	-2.81	0.858	64.3	85.7	18.5	0.443
4-1400	4-1820	0.142	68.8	-11.4	-1.22	1.317	89.1	0.248	0.953	9.4	477.9	0.717	1.189	-2.81	0.963	103.9	214.2	-26.4	0.231
4-1400	4-1830	0.531	351.6	-1.5	-0.68	1.252	65.0	0.437	0.821	99.9	578.0	0.462	1.180	-3.02	0.869	67.7	94.6	17.1	0.389
4-1400	4-1830	0.138	90.6	-6.6	-0.68	1.321	90.4	0.253	0.962	358.0	836.1	0.718	1.206	-3.02	0.967	104.4	227.6	-30.0	0.241
4-1400	4-1840	0.461	355.6	-0.1	-0.05	1.260	68.6	0.388	0.836	91.7	579.3	0.512	1.161	-3.36	0.880	70.6	108.5	14.6	0.341
4-1400	4-1840	0.154	111.7	-0.4	-0.05	1.325	92.8	0.266	0.973	346.5	834.2	0.714	1.232	-3.36	0.971	105.2	239.6	-33.1	0.258
4-1400	4-1850	0.398	359.8	2.3	0.77	1.268	71.8	0.346	0.850	83.1	580.3	0.556	1.144	-3.92	0.890	73.1	112.2	10.6	0.302
4-1400	4-1850	0.189	128.7	5.4	0.77	1.330	95.4	0.286	0.986	335.2	832.5	0.704	1.267	-3.92	0.977	106.5	251.8	-35.5	0.285
4-1400	4-1860	0.345	4.2	7.0	1.95	1.274	74.5	0.311	0.862	74.4	581.1	0.594	1.130	-4.85	0.898	75.0	120.5	4.5	0.273
4-1400	4-1860	0.240	141.4	10.8	1.95	1.336	98.3	0.314	1.000	324.4	831.1	0.686	1.314	-4.85	0.984	108.3	283.8	-37.6	0.320
4-1400	4-1870	0.307	8.7	16.2	3.95	1.280	77.0	0.283	0.872	65.7	581.9	0.625	1.119	-6.61	0.906	76.5	127.7	-5.0	0.258
4-1400	4-1870	0.307	151.0	17.1	3.95	1.342	101.4	0.348	1.017	314.2	830.4	0.662	1.371	-6.61	0.992	110.4	275.6	-40.3	0.367
4-1400	4-1880	0.311	11.6	36.1	8.36	1.284	79.1	0.262	0.881	57.1	582.7	0.650	1.112	-10.79	0.913	77.6	133.2	-21.2	0.277
4-1400	4-1880	0.404	159.5	28.0	8.36	1.348	104.6	0.389	1.035	304.8	830.5	0.632	1.437	-10.79	1.001	112.9	286.7	-46.1	0.436
4-1400	4-1890	0.636	340.2	70.3	28.08	1.288	80.8	0.247	0.869	49.2	583.9	0.669	1.109	-30.29	0.919	78.2	143.8	-49.1	0.531
4-1400	4-1900	0.665	331.8	-74.7	-30.05	1.291	82.9	0.231	0.896	39.1	584.7	0.688	1.103	28.06	0.925	79.0	214.5	52.1	0.495
4-1400	4-1910	0.310	27.3	-61.5	-12.22	1.294	84.4	0.224	0.901	31.6	586.4	0.699	1.104	10.45	0.930	79.1	191.8	40.9	0.250
4-1400	4-1910	0.646	174.8	-23.8	-12.22	1.308	115.6	0.532	1.096	280.1	834.9	0.513	1.680	10.45	1.031	121.9	308.0	-2.8	0.592
4-1400	4-1920	0.557	13.4	-19.6	-8.00	1.437	69.5	0.572	1.391	58.2	262.5	---	2.186	6.46	1.122	58.5	161.9	19.1	0.585
4-1400	4-1920	0.225	42.1	-52.9	-8.00	1.296	85.8	0.219	0.906	23.8	588.1	0.708	1.105	6.46	0.936	79.2	190.4	28.3	0.208
4-1400	4-1930	0.501	18.6	-16.8	-6.06	1.439	72.0	0.558	1.403	51.7	265.7	---	2.185	4.76	1.127	59.9	168.5	14.0	0.558
4-1400	4-1930	0.185	55.4	-47.8	-6.06	1.298	87.2	0.231	0.911	16.1	590.0	0.714	1.108	4.76	0.941	79.1	194.3	19.2	0.194
4-1400	4-1940	0.452	24.1	-15.2	-4.90	1.441	74.4	0.545	1.414	45.1	268.8	---	2.185	3.86	1.132	61.2	175.6	9.7	0.535
4-1400	4-1940	0.161	69.9	-43.6	-4.90	1.300	88.5	0.216	0.915	8.4	592.1	0.717	1.112	3.86	0.946	78.9	200.0	12.2	0.191
4-1400	4-1950	0.406	30.5	-14.3	-4.08	1.443	76.9	0.534	1.425	38.3	271.7	---	2.185	3.31	1.137	62.3	183.0	5.8	0.515
4-1400	4-1950	0.148	85.3	-38.9	-4.08	1.302	89.9	0.218	0.918	0.7	594.1	0.718	1.118	3.31	0.952	78.6	206.6	6.5	0.192
4-1400	4-1960	0.364	30.1	-13.6	-3.45	1.445	79.4	0.524	1.435	31.2	274.4	---	2.186	2.98	1.141	63.3	190.6	2.1	0.499
4-1400	4-1960	0.144	100.8	-33.1	-3.45	1.303	91.3	0.222	0.922	352.9	956.1	0.717	1.126	2.98	0.957	78.1	213.8	-1.6	0.197
4-1400	4-1970	0.327	47.5	-12.9	-2.92	1.446	82.0	0.517	1.444	23.7	276.8	---	2.189	2.78	1.146	64.2	198.6	-1.5	0.486
4-1400	4-1970	0.149	115.0	-26.4	-2.92	1.305	92.8	0.228	0.925	344.9	958.1	0.714	1.136	2.78	0.962	77.6	221.4	-2.6	0.206
4-1400	4-1980	0.296	59.2	-11.9	-2.43	1.448	84.7	0.511	1.452	15.8	278.8	---	2.195	2.68	1.150	64.9	207.0	-4.8	0.476
4-1400	4-1980	0.164	127.3	-19.7	-2.43	1.306	94.4	0.238	0.928	336.8	959.8	0.707	1.149	2.68	0.966	76.9	229.5	-6.2	0.219
4-1400	4-1990	0.275	73.7	-10.4	-1.97	1.449	87.6	0.509	1.460	7.2	280.2	---	2.203	2.66	1.154	65.3	215.8	-8.0	0.471
4-1400	4-1990	0.188	137.7	-13.8	-1.97	1.308	96.2	0.251	0.931	328.3	961.8	0.697	1.165	2.66	0.971	75.9	238.1	-9.3	0.236
4-1400	4-1990	0.481	187.8	-4.5	-1.97	1.191	113.3	0.396	0.732	249.2	1242.8	0.442	1.023	2.66	0.807	101.0	346.7	2.6	0.277
4-1400	4-2000	0.269	90.8	-8.1	-1.49	1.450	90.7	0.510	1.467	357.8	640.9	0.718	2.216	2.73	1.158	65.4	225.3	-10.8	0.473
4-1400	4-2000	0.221	146.5	-8.7	-1.49	1.309	98.3	0.270	0.934	319.3	962.4	0.682	1.185	2.73	0.975	74.7	247.2	-11.7	0.258
4-1400	4-2000	0.442	187.3	-3.7	-1.49	1.187	111.5	0.366	0.727	250.3	1213.3	0.461	0.593	2.73	0.804	93.8	336.6	0.8	0.223
4-1410	4-1460	0.554	144.3	-2.5	-0.87	1.641	102.8	0.938	11.012	333.6	431.0	0.682	---	-3.17	1.373	124.2	250.3	-26.9	0.777
4-1410	4-1470	0.417	146.9	-1.1	-0.32	1.513	100.9	0.660	2.018	332.4	439.3	0.686	---	-3.29	1.215	120.0	255.6	-28.5	0.606
4-1410	4-1480	0.323	148.2	1.3	0.29	1.430	99.1	0.489	1.353	332.0	448.4	0.691	---	-3.51	1.109	115.8	261.0	-30.5	0.480
4-1410	4-1490	0.256	148.3	5.4	1.01	1.375	97.5	0.379	1.121	332.4	458.4	0.696	---	-3.89	1.037	111.7	266.4	-33.2	0.386
4-1410	4-1500	0.211	147.5	12.3	1.92	1.339	96.1	0.306	1.009	333.6	469.1	0.701	---	-4.49	0.988	107.8	271.5	-37.0	0.313
4-1410	4-1510	0.185	146.1	23.5	3.2	1.315	95.0	0.256	0.948	335.3	480.3	0.705	---	-5.49	0.955	104.2	276.0	-43.2	0.260
4-1410	4-1520	0.186	144.8	40.3	5.33	1.298	94.1	0.222	0.911	337.2	491.7	0.708	---	-7.31	0.933	101.0	279.3	-53.7	0.230
4-1410	4-1530	0.245	146.5	62.1	9.70	1.287	93.4	0.200	0.888	339.2	503.1	0.711	---	-11.41	0.919	98.1	278.6	-70.7	0.245
4-1410	4-1540	0.555	216.9	82.6	25.47	1.280	92.9	0.185	0.874	341.5	514.5	0.713	---	-26.91	0.911	95.5	199.9	-83.6	0.458
4-1410	4-1560	0.331	157.4	-75.8	-14.59	1.274	92.9	0.173	0.861	340.2	533.6	0.712	---	13.67	0.906	91.3	266.8	38.2	0.243
4-1410	4-1570	0.217	145.8	-62.8	-8.73	1.273	92.9	0.172	0.860	339.7	542.6	0.712	1.007	8.09	0.907	89.5	263.7	30.1	0.159
4-1410	4-1580	0.174	145.3	-51.9	-6.20	1.273	93.2	0.173	0.859	338.2	550.8	0.711	1.008	5.84	0.910	87.8	258.4	22.0	0.134
4-1410	4-1590	0.156	147.4	-42.1	-4.73	1.273	93.6	0.176	0.861	335.8	558.2	0.709	1.012	4.67	0.914	86.2	254.0	14.3	0.124
4-1410	4-1600	0.150	150.7	-33.3	-3.72	1.275	94.1	0.181	0.863	332.7	565.0	0.706	1.018	3.98	0.919	84.8	251.9	7.6	0.128
4-1410	4-1610	0.153	154.7	-25.3	-2.95	1.276	94.8	0.189	0.866	328.9	571.0	0.702	1.029	3.56	0.924	83.4	252.4	2.0	0.139
4-1410	4-1620	0.163	159.0	-18.2	-2.30	1.278	95.7	0.193	0.869	324.5	576.5	0.696	1.041	3.31	0.929	82.0	255.0	-2.4	0.154
4-1410	4-1630	0.179	163.6	-12.3	-1.72	1.280	96.8	0.211	0.872	319.3	581.4	0.688	1.057	3.17	0.934	80.6	259.4	-5.8	0.173
4-1410	4-1640	0.203	168.2	-7.3	-1.16	1.282	98.1	0.227	0.876	313.5	585.6	0.677	1.076	3.15	0.940	79.1	265.0	-8.4	0.196
4-1410	4-1650	0.235	172.9	-3.2	-0.60	1.284	99.8	0.249	0.881	307.0	589.2	0.662	1.099	3.22	0.944	77.3	271.0	-10.1	0.224
4-1410	4-1660	0.278	177.6	0.1	0.01	1.286	101.9	0.277	0.885	299.7	592.0	0.640	1.130	3.40	0.949	75.3	279.4	-11.1	0.260
4-1410	4-1670	0.336	182.5	2.7	0.73	1.288	104.7	0.315	0.890	291.4	593.9	0.609	1.170	3.73	0.953	72.6	287.9	-11.2	0.306
4-1410	4-1680	0.415	187.7	4.8	1.62	1.291	108.5	0.368	0.894	281.9	594.5	0.565	1.224	4.28	0.957	69.1	297.1	-10.5	0.368
4-1410	4-1680	0.830	222.1	1.5	1.62	1.066	132.8	0.693	0.607	215.9	868.6	0.186	1.027	4.28	0.621	113.2	31.7	17.9	0.512
4-1410	4-1690	0.530	193.5	6.4	2.87	1.293	114.0	0.446	0.900	270.4	593.2	0.499	1.301	5.21	0.961	64.0	307.4	-8.8	0.457
4-1410	4-1690	0.777	223.9	3.0	2.87	1.045	130.1	0.664	0.591	215.6	898.4	0.199	0.984	5.21	0.585	93.2	16.9	14.7	0.439
4-1410	4-1700	0.705	208.7	7.6	4.89	1.296	122.2	0.561	0.906	255.9	588.9	0.397	1.415	6.92	0.964	56.2	319.0	-6.0	0.593
4-1410	4-1700	0.831	224.2	4.5	4.89	1.039	133.0	0.702	0.587	213.4	906.4	0.175	0.998	6.92	0.573	75.6	5.9	11.0	0.493
4-1410	4-1750	0.986	335.3	-5.0	-8.42	0.974	37.0	0.821	0.945	156.4	900.3	0.098	0.993	-7.80	0.425	88.8	74.8	17.1	0.590
4-1410	4-1760	0.605	10.0	-11.5	-6.00	1.301	62.8	0.495	0.916	94.4	488.1	0.463	1.369	-5.67	0.958	119.3	155.0	0.0	0.491
4-1410	4-1770	0.474	16.9	-11.8	-4.59	1.303	69.1	0.412	0.922	80.9	484.5	0.542	1.302	-4.56	0.958	113.9	165.7	-4.8	0.399

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1410	4-1780	0.381	23.4	-11.9	-3.61	1.306	73.6	0.356	0.928	69.0	482.4	0.598	1.258	-3.92	0.959	110.4	175.6	-9.5	0.339
4-1410	4-1790	0.311	30.4	-11.8	-2.87	1.309	77.1	0.317	0.934	57.9	481.1	0.638	1.229	-3.52	0.960	108.0	185.3	-14.1	0.298
4-1410	4-1800	0.256	38.2	-11.4	-2.24	1.311	79.9	0.290	0.940	47.1	480.1	0.667	1.212	-3.29	0.960	106.4	195.1	-18.6	0.271
4-1410	4-1810	0.211	47.9	-10.4	-1.69	1.314	82.5	0.272	0.946	36.4	479.0	0.689	1.203	-3.17	0.962	105.3	205.2	-23.0	0.254
4-1410	4-1820	0.760	357.9	-1.5	-1.15	1.227	53.2	0.602	0.783	120.5	572.7	0.312	1.254	-3.15	0.837	56.6	88.0	19.5	0.556
4-1410	4-1820	0.176	60.4	-8.6	-1.15	1.317	84.8	0.261	0.953	25.6	477.9	0.704	1.202	-3.15	0.963	104.7	215.9	-27.0	0.246
4-1410	4-1830	0.676	1.3	-1.0	-0.62	1.238	57.6	0.543	0.800	113.3	515.2	0.365	1.234	-3.21	0.850	60.6	96.4	18.5	0.495
4-1410	4-1830	0.151	76.9	-5.4	-0.62	1.320	87.0	0.257	0.961	14.6	476.5	0.714	1.208	-3.21	0.966	104.6	227.2	-30.5	0.245
4-1410	4-1840	0.598	4.9	-0.1	-0.04	1.248	61.6	0.487	0.816	106.0	517.4	0.419	1.213	-3.38	0.863	64.2	104.9	16.7	0.438
4-1410	4-1840	0.141	97.4	-0.4	-0.04	1.324	89.3	0.259	0.970	3.4	476.8	0.718	1.221	-3.38	0.969	104.8	239.1	-33.4	0.251
4-1410	4-1850	0.525	8.6	1.3	0.61	1.257	65.3	0.435	0.831	98.3	579.3	0.469	1.193	-3.67	0.875	67.4	113.3	14.0	0.388
4-1410	4-1850	0.150	119.0	5.4	0.61	1.328	91.7	0.268	0.980	352.1	833.0	0.717	1.243	-3.67	0.974	105.4	251.5	-35.6	0.265
4-1410	4-1860	0.459	12.5	3.6	1.41	1.265	68.7	0.389	0.845	90.3	580.8	0.516	1.174	-4.14	0.886	70.2	121.5	10.0	0.344
4-1410	4-1860	0.179	137.7	10.5	1.41	1.332	94.2	0.284	0.992	340.8	831.3	0.710	1.273	-4.14	0.979	106.5	264.0	-37.0	0.287
4-1410	4-1870	0.402	16.4	7.5	2.47	1.272	71.7	0.350	0.858	82.1	582.1	0.558	1.158	-4.89	0.895	72.4	129.3	4.5	0.310
4-1410	4-1870	0.226	152.0	14.8	2.47	1.337	96.9	0.307	1.005	330.0	830.0	0.696	1.314	-4.89	0.986	107.9	276.4	-37.9	0.318
4-1410	4-1880	0.356	20.5	14.2	4.07	1.278	74.4	0.317	0.869	73.8	583.3	0.594	1.145	-6.20	0.904	74.2	136.4	-5.4	0.286
4-1410	4-1880	0.285	162.7	19.3	4.07	1.343	99.9	0.338	1.020	319.7	829.2	0.675	1.365	-6.20	0.994	109.7	288.3	-38.9	0.358
4-1410	4-1890	0.334	24.0	26.8	6.93	1.283	76.7	0.291	0.879	65.5	584.5	0.624	1.135	-8.79	0.912	75.6	142.1	-15.4	0.282
4-1410	4-1890	0.365	171.5	25.8	6.93	1.349	103.0	0.378	1.037	310.1	829.0	0.649	1.425	-8.79	1.002	111.9	300.0	-41.2	0.412
4-1410	4-1900	0.399	22.4	50.7	14.14	1.287	78.8	0.270	0.888	57.4	585.8	0.648	1.128	-15.72	0.920	76.6	145.9	-35.2	0.341
4-1410	4-1900	0.503	181.7	39.2	14.14	1.355	106.3	0.415	1.055	301.2	829.6	0.617	1.493	-15.72	1.012	114.4	311.2	-48.9	0.505
4-1410	4-1920	0.521	13.4	-71.6	-22.67	1.294	82.6	0.239	0.902	39.8	588.4	0.686	1.117	21.61	0.933	78.0	217.1	45.9	0.407
4-1410	4-1930	0.292	45.2	-58.0	-11.06	1.297	84.1	0.231	0.907	32.2	590.2	0.698	1.117	10.27	0.939	78.2	204.9	32.9	0.257
4-1410	4-1940	0.542	31.2	-18.6	-7.33	1.459	70.1	0.572	1.404	56.5	264.0	---	2.207	6.82	1.130	58.8	180.0	12.4	0.581
4-1410	4-1940	0.217	58.8	-49.5	-7.33	1.299	85.6	0.225	0.912	24.5	592.0	0.707	1.118	6.82	0.945	78.3	205.6	21.7	0.220
4-1410	4-1950	0.486	36.4	-15.5	-5.42	1.441	72.5	0.557	1.416	50.0	267.2	---	2.206	5.20	1.135	60.2	186.4	7.3	0.555
4-1410	4-1950	0.178	72.0	-43.7	-5.42	1.301	87.0	0.222	0.917	16.7	593.9	0.713	1.121	5.20	0.951	78.3	210.2	13.4	0.207
4-1410	4-1960	0.437	42.3	-13.5	-4.21	1.443	75.0	0.545	1.427	43.3	270.4	---	2.205	4.30	1.180	61.5	193.5	3.0	0.533
4-1410	4-1960	0.154	86.5	-38.5	-4.21	1.303	88.4	0.221	0.921	8.8	595.9	0.717	1.125	4.30	0.956	78.2	216.3	6.9	0.208
4-1410	4-1970	0.392	49.0	-12.1	-3.33	1.445	77.5	0.534	1.437	36.4	273.3	---	2.205	3.75	1.145	62.6	201.0	-0.8	0.514
4-1410	4-1970	0.141	102.3	-32.5	-3.33	1.305	89.8	0.223	0.925	0.9	597.8	0.719	1.131	3.75	0.961	77.9	223.3	1.7	0.205
4-1410	4-1980	0.351	57.2	-10.7	-2.63	1.446	80.1	0.525	1.447	29.1	275.9	---	2.207	3.42	1.149	63.6	208.9	-4.3	0.499
4-1410	4-1980	0.139	118.1	-25.6	-2.63	1.306	91.3	0.227	0.928	352.8	959.6	0.718	1.138	3.42	0.966	77.5	231.0	-2.6	0.211
4-1410	4-1990	0.314	67.4	-9.3	-2.02	1.448	82.7	0.518	1.456	21.4	278.2	---	2.210	3.23	1.153	64.5	217.2	-7.4	0.487
4-1410	4-1990	0.147	132.6	-18.3	-2.02	1.308	92.9	0.234	0.931	344.5	961.3	0.714	1.149	3.23	0.971	77.0	239.1	-6.1	0.220
4-1410	4-2000	0.286	80.1	-7.4	-1.45	1.449	85.5	0.514	1.464	13.2	280.0	---	2.216	3.15	1.157	65.1	226.1	-10.1	0.479
4-1410	4-2000	0.165	145.1	-11.5	-1.45	1.309	94.7	0.244	0.934	335.9	962.7	0.706	1.162	3.15	0.975	76.3	247.8	-8.9	0.234
4-1410	4-2000	0.509	203.9	-3.1	-1.45	1.198	114.6	0.417	0.741	249.3	1236.1	0.432	1.050	3.15	0.820	105.3	3.3	9.9	0.321
4-1410	4-2000	0.739	208.4	-1.9	-1.45	1.219	125.7	0.586	0.771	239.7	1220.5	0.319	1.282	3.15	0.851	122.3	15.9	11.2	0.553
4-1410	4-2010	0.270	95.6	-4.8	-0.90	1.450	88.5	0.512	1.472	4.3	281.2	---	2.225	3.17	1.160	65.4	235.5	-12.5	0.477
4-1410	4-2010	0.194	155.6	-6.0	-0.90	1.310	96.6	0.259	0.937	326.9	963.8	0.695	1.180	3.17	0.979	75.3	256.9	-10.9	0.252
4-1410	4-2010	0.441	202.8	-2.3	-0.90	1.191	111.3	0.383	0.733	251.5	1248.4	0.466	0.999	3.17	0.813	96.5	353.3	9.1	0.235
4-1420	4-1470	0.453	151.0	-1.1	-0.31	1.586	90.5	0.813	3.754	341.1	431.6	0.702	---	-3.38	1.306	121.6	260.4	-28.6	0.691
4-1420	4-1480	0.335	152.6	1.1	0.26	1.474	97.0	0.572	1.646	340.7	440.9	0.704	---	-3.43	1.167	117.4	265.5	-30.0	0.537
4-1420	4-1490	0.256	152.5	4.7	0.67	1.403	95.5	0.424	1.230	341.3	451.1	0.708	---	-3.59	1.075	113.2	270.8	-31.8	0.424
4-1420	4-1500	0.202	150.8	10.4	1.55	1.356	94.2	0.330	1.062	342.9	462.2	0.711	---	-3.87	1.012	109.1	275.7	-34.4	0.339
4-1420	4-1510	0.168	147.9	19.0	2.37	1.325	93.1	0.268	0.976	345.2	474.0	0.714	---	-4.33	0.971	105.4	280.3	-36.1	0.274
4-1420	4-1520	0.153	144.2	30.9	3.45	1.305	92.2	0.228	0.927	347.9	486.2	0.716	---	-5.08	0.944	102.0	284.3	-44.1	0.226
4-1420	4-1530	0.158	140.4	45.6	5.03	1.292	91.6	0.202	0.899	350.5	498.3	0.717	---	-6.35	0.926	99.0	287.2	-53.5	0.198
4-1420	4-1540	0.397	137.6	61.7	7.76	1.283	91.1	0.185	0.881	352.8	510.1	0.718	---	-8.78	0.916	96.3	288.1	-67.6	0.197
4-1420	4-1550	0.318	140.9	79.0	14.13	1.278	90.8	0.175	0.871	354.5	521.2	0.719	---	-14.86	0.910	93.9	275.1	-03.8	0.268
4-1420	4-1570	0.595	271.1	-83.9	-27.70	1.274	91.2	0.167	0.862	351.9	539.2	0.718	---	27.55	0.909	90.2	265.8	42.6	0.460
4-1420	4-1580	0.269	145.6	-74.8	-11.78	1.273	91.2	0.167	0.862	351.4	548.0	0.718	1.006	11.91	0.912	88.4	264.9	37.7	0.215
4-1420	4-1590	0.183	144.6	-60.9	-7.22	1.274	91.5	0.169	0.863	349.4	555.6	0.717	1.009	7.65	0.916	86.9	260.7	28.2	0.176
4-1420	4-1600	0.149	148.4	-48.3	-5.00	1.275	92.0	0.172	0.865	346.4	562.4	0.716	1.014	5.75	0.920	85.5	257.7	18.6	0.139
4-1420	4-1610	0.135	153.7	-36.5	-3.63	1.277	92.6	0.177	0.868	342.7	568.6	0.714	1.022	4.70	0.926	84.3	257.1	10.5	0.138
4-1420	4-1620	0.134	159.6	-26.0	-2.64	1.278	93.3	0.184	0.871	338.4	574.2	0.711	1.032	4.08	0.931	83.0	258.7	4.0	0.145
4-1420	4-1630	0.141	165.7	-17.1	-1.87	1.280	94.2	0.192	0.875	333.4	579.3	0.707	1.044	3.70	0.936	81.9	262.3	-0.9	0.158
4-1420	4-1640	0.156	171.8	-9.8	-1.20	1.282	95.3	0.203	0.879	327.9	583.7	0.700	1.058	3.48	0.942	80.6	267.3	-4.5	0.174
4-1420	4-1650	0.178	177.7	-4.2	-0.59	1.284	96.6	0.218	0.884	321.7	587.7	0.691	1.076	3.38	0.947	79.3	273.5	-7.0	0.194
4-1420	4-1660	0.207	183.4	0.1	0.01	1.287	98.2	0.236	0.888	314.9	591.0	0.679	1.097	3.40	0.951	77.9	280.6	-8.5	0.219
4-1420	4-1670	0.246	188.9	3.3	0.64	1.289	100.1	0.260	0.893	307.4	593.7	0.661	1.124	3.52	0.955	76.1	288.4	-9.0	0.249
4-1420	4-1680	0.297	194.2	5.7	1.33	1.291	102.6	0.292	0.897	299.1	595.5	0.636	1.159	3.77	0.959	73.9	296.8	-8.8	0.288
4-1420	4-1690	0.365	199.7	7.4	2.16	1.294	105.8	0.335	0.902	289.8	596.4	0.600	1.205	4.21	0.962	71.1	305.9	-7.7	0.339
4-1420	4-1700	0.459	205.5	8.6	3.25	1.296	110.3	0.398	0.908	279.1	595.8	0.547	1.268	4.93	0.965	67.0	315.5	-5.7	0.410
4-1420	4-1700	0.767	237.8	3.5	3.25	1.058	129.2	0.650	0.602	217.4	594.1	0.211	0.993	4.93	0.610	100.7	37.2	21.8	0.436
4-1420	4-1710	0.597	212.0	9.4	4.84	1.299	116.7	0.488	0.913	266.2	593.0	0.467	1.360	6.19	0.968	61.1	326.2	-2.7	0.514
4-1420	4-1710	0.779	238.8	5.0	4.84	1.049	129.8	0.661	0.595	216.1	903.0	0.202	0.987	6.19	0.591	84.3	23.6	18.8	0.440
4-1420	4-1720	0.881	240.7	6.3	7.62	1.046	135.4	0.727	0.593	212.7	909.7	0.162	1.024	8.65	0.583	66.7	16.3	16.1	0.547
4-1420	4-1770	0.722	21.6	-10.5	-6.87	1.303	57.1	0.574	0.924	103.9	491.4	0.394	1.453	-7.35	0.959	124.7	162.5	-3.4	0.582
4-1420	4-1780	0.553	29.3	-10.3	-4.80	1.306	65.2	0.467	0.930	88.6	485.9	0.496	1.365	-5.58	0.960	117.5	174.1	-8.7	0.461
4-1420	4-1790	0.437	36.1	-9.9	-3.50	1.309	70.8	0.396	0.936	75.6	482.7	0.566	1.307	-4.62	0.961	113.0	184.7	-13.7	0.383
4-1420	4-1800	0.353	43.0	-9.2	-2.57	1.312	74.9	0.347	0.942	63.9	480.6	0.615	1.269	-4.04	0.962	109.9	196.9	-18.4	0.332
4-1420	4-1810	0.288	50.5	-8.2	-1.82	1.314	78.2	0.313	0.948	52.7	479.2	0.651	1.245	-3.68	0.963	107.9	205.3	-22.7	0.298
4-1420	4-1820	0.236	59.4	-6.6	-1.19	1.317	81.0	0.290	0.955	41.8	477.9	0.678	1.231	-3.48	0.964	106.5	216.0	-26.7	0.274
4-1420	4-1830	0.195	70.7	-4.1	-0.61	1.320	83.5	0.275	0.962	30.9	476.6	0.697	1.226	-3.30	0.966	105.7	227.2	-30.2	0.260
4-1420	4-1840	0.745	15.0	-0.1	-0.04	1.234	54.0	0.593	0.794	116.6	573.8	0.323	1.265	-3.39	0.844	56.9	107.3	18.1	0.545
4-1420	4-1840	0.165	85.4	-0.3	-0.04	1.323	85.8	0.267	0.969	19.9	475.1	0.710	1.228	-3.39	0.969	105.3	239.0	-33.0	0.258
4-1420	4-1850	0.665	18.4	0.9	0.54	1.244	58.1	0.537	0.810	111.6	576.4	0.375	1.245	-3.49	0.857	60.7	115.5	16.0	0.488

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1420	4-1850	0.148	104.3	4.8	0.54	1.326	88.2	0.266	0.977	8.7	473.5	0.717	1.238	-3.49	0.972	105.3	251.4	-35.0	0.262
4-1420	4-1860	0.590	21.9	2.2	1.18	1.253	62.0	0.483	0.826	104.4	578.6	0.427	1.225	-3.70	0.870	64.1	123.4	13.1	0.435
4-1420	4-1860	0.150	125.7	10.5	1.18	1.330	90.5	0.272	0.987	357.5	831.8	0.719	1.255	-3.70	0.977	105.7	264.0	-36.2	0.272
4-1420	4-1870	0.521	25.5	4.2	1.91	1.262	65.5	0.435	0.840	96.9	580.7	0.475	1.206	-4.06	0.882	67.1	131.2	9.2	0.388
4-1420	4-1870	0.172	145.8	15.0	1.91	1.334	93.0	0.284	0.998	346.1	830.1	0.715	1.281	-4.06	0.982	106.5	276.5	-36.6	0.290
4-1420	4-1880	0.460	29.2	7.3	2.84	1.269	68.7	0.391	0.854	89.2	582.5	0.520	1.188	-4.64	0.892	69.6	138.7	4.2	0.349
4-1420	4-1880	0.211	161.9	18.2	2.84	1.339	95.6	0.303	1.010	335.4	828.7	0.704	1.317	-4.64	0.989	107.7	288.8	-36.4	0.316
4-1420	4-1890	0.408	32.9	12.3	4.11	1.275	71.6	0.354	0.866	81.3	584.1	0.560	1.172	-5.59	0.903	71.7	145.7	-2.4	0.318
4-1420	4-1890	0.205	174.1	21.1	4.11	1.344	98.5	0.329	1.024	325.0	827.8	0.687	1.362	-5.59	0.997	109.2	300.5	-36.0	0.350
4-1420	4-1900	0.371	36.5	20.7	6.11	1.281	74.2	0.322	0.877	73.3	585.6	0.594	1.159	-7.28	0.912	73.4	151.8	-11.7	0.300
4-1420	4-1900	0.333	183.5	24.9	6.11	1.349	101.5	0.362	1.040	315.2	827.5	0.664	1.416	-7.28	1.005	111.2	311.8	-36.1	0.394
4-1420	4-1910	0.370	39.7	35.8	9.98	1.286	76.5	0.297	0.886	65.4	587.1	0.623	1.150	-10.86	0.920	74.7	156.3	-25.8	0.308
4-1420	4-1910	0.428	192.0	32.0	9.98	1.355	104.6	0.400	1.057	306.1	827.9	0.635	1.480	-10.86	1.014	113.4	322.9	-38.6	0.456
4-1420	4-1920	0.532	27.5	61.4	21.69	1.290	78.5	0.277	0.895	57.7	588.7	0.646	1.143	-22.28	0.928	75.7	159.2	-49.1	0.434
4-1420	4-1920	0.639	206.6	48.5	21.69	1.361	107.9	0.441	1.076	297.8	828.8	0.602	1.550	-22.26	1.024	115.8	333.7	-49.8	0.594
4-1420	4-1940	0.415	44.6	-65.2	-17.04	1.296	82.4	0.245	0.908	40.3	591.9	0.685	1.131	17.02	0.942	77.2	221.8	37.3	0.351
4-1420	4-1950	0.587	43.8	-21.2	-9.12	1.439	68.2	0.586	1.405	61.0	262.2	---	2.229	9.40	1.134	57.8	191.8	11.1	0.610
4-1420	4-1950	0.261	64.1	-51.6	-9.12	1.299	83.9	0.237	0.914	32.6	593.8	0.697	1.130	9.40	0.949	77.5	216.9	23.9	0.256
4-1420	4-1960	0.522	49.1	-15.8	-6.01	1.441	70.7	0.571	1.426	54.7	265.6	---	2.227	6.59	1.138	59.2	197.3	4.8	0.577
4-1420	4-1960	0.200	76.4	-42.9	-6.01	1.301	85.4	0.231	0.919	24.8	595.6	0.707	1.131	6.59	0.955	77.6	219.9	14.0	0.228
4-1420	4-1970	0.469	54.5	-12.7	-4.28	1.443	73.2	0.557	1.429	48.2	268.9	---	2.225	5.18	1.143	60.6	204.0	0.1	0.552
4-1420	4-1970	0.164	89.4	-36.2	-4.28	1.303	86.9	0.227	0.923	16.8	597.5	0.713	1.133	5.18	0.960	77.7	225.5	6.7	0.218
4-1420	4-1980	0.421	60.7	-10.4	-3.13	1.445	75.7	0.545	1.440	41.4	272.0	---	2.224	4.37	1.148	61.9	211.4	-3.8	0.531
4-1420	4-1980	0.143	104.1	-29.8	-3.13	1.305	88.4	0.226	0.927	3.7	599.4	0.718	1.137	4.37	0.966	77.6	232.4	1.2	0.215
4-1420	4-1990	0.377	67.9	-8.5	-2.26	1.446	78.2	0.534	1.450	34.3	274.8	---	2.224	3.88	1.152	63.0	219.3	-7.2	0.513
4-1420	4-1990	0.133	120.2	-22.7	-2.26	1.307	89.9	0.228	0.931	0.5	601.1	0.719	1.143	3.88	0.971	77.4	240.2	-3.1	0.217
4-1420	4-2000	0.337	76.7	-6.5	-1.54	1.448	80.8	0.525	1.459	26.8	277.4	---	2.226	3.58	1.156	64.0	227.6	-10.0	0.499
4-1420	4-2000	0.135	136.3	-15.1	-1.54	1.308	91.5	0.232	0.934	352.1	962.7	0.718	1.151	3.58	0.975	77.0	248.5	-6.4	0.223
4-1420	4-2010	0.303	87.8	-4.3	-0.90	1.449	83.6	0.519	1.468	18.9	279.5	---	2.230	3.42	1.160	64.8	236.5	-12.3	0.489
4-1420	4-2010	0.148	151.0	-8.0	-0.90	1.310	93.2	0.239	0.938	343.4	964.0	0.713	1.162	3.42	0.979	76.5	257.3	-8.9	0.234
4-1420	4-2020	0.278	101.6	-1.6	-0.30	1.450	86.5	0.515	1.476	10.3	281.1	---	2.236	3.38	1.163	65.3	245.9	-14.1	0.483
4-1420	4-2020	0.172	163.6	-2.3	-0.30	1.311	95.1	0.251	0.941	334.3	965.1	0.705	1.176	3.38	0.983	75.7	266.5	-10.4	0.248
4-1420	4-2020	0.448	218.5	-0.8	-0.30	1.195	111.5	0.368	0.739	252.3	1243.1	0.467	1.010	3.38	0.822	99.3	10.4	16.3	0.254
4-1430	4-1470	0.514	158.6	-1.0	-0.32	1.681	96.7	1.034	21.186	350.7	425.2	0.715	---	-3.47	1.421	123.2	265.2	-28.5	0.799
4-1430	4-1480	0.360	153.5	1.1	0.26	1.527	93.9	0.681	2.241	350.2	434.3	0.716	---	-3.36	1.234	119.0	269.6	-29.5	0.602
4-1430	4-1490	0.262	152.8	4.9	0.82	1.433	92.9	0.480	1.379	351.2	444.7	0.717	---	-3.35	1.115	114.6	274.3	-30.7	0.465
4-1430	4-1500	0.199	149.7	9.6	1.39	1.373	91.8	0.359	1.120	353.3	456.4	0.719	---	-3.43	1.037	110.4	278.9	-32.4	0.365
4-1430	4-1510	0.161	144.6	16.8	2.00	1.335	90.8	0.283	1.003	356.4	469.0	0.720	---	-3.62	0.985	106.4	283.3	-34.8	0.289
4-1430	4-1520	0.141	138.1	26.0	2.71	1.310	90.0	0.235	0.941	0.0	122.1	---	---	-3.94	0.952	102.8	287.0	-38.6	0.233
4-1430	4-1530	0.137	131.5	36.3	3.58	1.294	89.4	0.205	0.905	3.5	135.2	---	---	-4.47	0.931	99.6	289.6	-44.4	0.191
4-1430	4-1540	0.146	125.7	47.1	4.77	1.284	89.0	0.187	0.884	6.4	147.6	---	---	-5.33	0.918	96.8	290.6	-53.3	0.165
4-1430	4-1550	0.172	121.3	58.4	6.59	1.277	88.7	0.176	0.872	8.4	159.1	---	---	-6.85	0.911	94.3	288.9	-65.4	0.160
4-1430	4-1560	0.234	117.2	70.8	9.99	1.274	88.7	0.170	0.866	9.3	169.6	---	---	-9.95	0.909	92.1	280.4	-79.1	0.190
4-1430	4-1570	0.423	83.3	85.9	19.37	1.272	88.7	0.167	0.863	9.4	179.1	---	---	-19.05	0.909	90.2	200.5	-87.6	0.326
4-1430	4-1590	0.394	125.3	-85.7	-18.00	1.273	89.5	0.166	0.863	3.5	193.8	---	1.007	18.89	0.916	87.3	267.2	42.0	0.326
4-1430	4-1600	0.207	137.6	-67.8	-8.65	1.274	89.9	0.168	0.866	0.9	200.8	---	1.012	9.83	0.921	85.9	263.0	32.3	0.190
4-1430	4-1610	0.148	144.9	-52.3	-5.25	1.276	90.4	0.172	0.869	357.2	567.0	0.720	1.018	6.74	0.926	84.7	261.0	21.0	0.156
4-1430	4-1620	0.124	152.9	-37.9	-3.43	1.278	91.1	0.176	0.873	353.0	572.6	0.719	1.026	5.24	0.932	83.6	261.7	11.5	0.148
4-1430	4-1630	0.118	161.5	-.9	-2.23	1.280	91.8	0.182	0.877	348.0	577.7	0.718	1.036	4.38	0.937	82.6	264.6	4.4	0.152
4-1430	4-1640	0.123	169.9	-14.	-1.35	1.282	92.8	0.189	0.881	342.5	582.2	0.715	1.048	3.87	0.943	81.6	269.2	-0.6	0.162
4-1430	4-1650	0.136	178.1	-5.9	-0.62	1.284	93.8	0.198	0.886	336.5	586.3	0.710	1.062	3.56	0.948	80.6	275.0	-4.1	0.176
4-1430	4-1660	0.156	185.8	0.1	0.01	1.287	95.1	0.211	0.891	329.9	589.8	0.703	1.078	3.39	0.953	79.4	281.7	-6.3	0.194
4-1430	4-1670	0.184	192.9	4.3	0.61	1.289	96.6	0.226	0.895	321.8	592.9	0.693	1.098	3.34	0.957	78.2	289.2	-7.4	0.215
4-1430	4-1680	0.219	199.4	7.1	1.21	1.291	98.4	0.246	0.900	313.1	595.4	0.678	1.122	3.39	0.961	76.7	297.2	-7.6	0.241
4-1430	4-1690	0.264	205.6	9.0	1.85	1.294	100.7	0.273	0.905	306.8	597.2	0.658	1.153	3.56	0.964	74.9	305.7	-6.8	0.273
4-1430	4-1700	0.323	211.5	10.1	2.58	1.296	103.5	0.310	0.910	297.6	598.1	0.628	1.192	3.88	0.967	72.6	314.5	-5.3	0.316
4-1430	4-1710	0.402	217.4	10.8	3.49	1.298	107.3	0.360	0.916	287.3	598.0	0.586	1.245	4.43	0.969	69.3	323.9	-3.0	0.373
4-1430	4-1710	0.779	252.9	3.7	3.49	1.074	129.6	0.651	0.615	218.7	809.5	0.214	1.016	4.41	0.637	308.3	59.2	26.4	0.458
4-1430	4-1720	0.513	223.7	11.1	4.72	1.301	112.5	0.432	0.921	275.4	596.2	0.523	1.319	5.29	0.971	64.7	333.9	0.2	0.455
4-1430	4-1720	0.748	253.6	5.3	4.72	1.059	128.0	0.634	0.604	218.1	899.0	0.221	0.987	5.29	0.609	91.8	44.1	25.0	0.411
4-1430	4-1730	0.678	230.9	11.1	6.62	1.304	120.2	0.539	0.927	260.8	591.7	0.427	1.427	6.88	0.973	57.6	345.1	4.3	0.577
4-1430	4-1730	0.803	254.9	6.6	6.62	1.054	130.9	0.672	0.600	216.1	907.0	0.197	1.003	6.88	0.597	76.2	32.9	22.3	0.467
4-1430	4-1780	0.957	10.3	-5.4	-8.06	1.011	39.1	0.794	0.569	153.0	894.2	0.118	1.021	-9.29	0.491	110.9	124.3	12.1	0.574
4-1430	4-1790	0.655	41.1	-8.7	-4.99	1.309	60.2	0.537	0.938	97.7	488.6	0.435	1.442	-6.52	0.962	122.2	82.2	-11.7	0.539
4-1430	4-1800	0.507	48.5	-7.9	-3.30	1.311	67.2	0.445	0.945	83.2	483.8	0.524	1.365	-5.14	0.963	119.2	193.7	-17.0	0.437
4-1430	4-1810	0.404	55.5	-6.8	-2.18	1.314	72.2	0.383	0.951	70.6	480.8	0.587	1.315	-4.35	0.964	112.2	204.8	-21.6	0.372
4-1430	4-1820	0.326	62.8	-5.2	-1.33	1.317	76.1	0.340	0.957	58.8	478.7	0.632	1.282	-3.86	0.966	109.6	215.0	-25.6	0.328
4-1430	4-1830	0.266	71.1	-3.1	-0.65	1.319	79.3	0.310	0.963	47.6	477.0	0.664	1.262	-3.57	0.967	107.8	227.2	-29.1	0.300
4-1430	4-1840	0.219	81.3	-0.2	-0.04	1.322	82.0	0.291	0.970	36.4	475.5	0.688	1.252	-3.40	0.969	106.7	239.0	-31.9	0.283
4-1430	4-1850	0.314	28.8	0.6	0.52	1.229	50.3	0.642	0.789	123.6	572.2	0.283	1.296	-3.34	0.837	53.2	118.4	17.1	0.598
4-1430	4-1850	0.183	94.5	3.8	0.52	1.325	84.6	0.279	0.977	25.3	473.0	0.705	1.250	-3.34	0.972	106.0	251.3	-33.9	0.274
4-1430	4-1860	0.733	32.1	1.5	1.08	1.239	54.6	0.586	0.805	116.9	575.0	0.334	1.277	-3.37	0.852	57.2	126.1	14.7	0.538
4-1430	4-1860	0.160	111.6	9.0	1.08	1.328	87.0	0.274	0.985	14.1	472.2	0.715	1.256	-3.37	0.976	105.8	263.8	-35.0	0.273
4-1430	4-1870	0.656	35.4	2.7	1.67	1.249	58.6	0.531	0.821	110.0	577.6	0.384	1.257	-3.50	0.865	60.7	133.8	11.7	0.483
4-1430	4-1870	0.155	132.2	14.5	1.67	1.331	89.4	0.276	0.994	2.9	470.5	0.720	1.269	-3.50	0.981	106.0	276.4	-35.2	0.280
4-1430	4-1880	0.585	38.8	4.4	2.32	1.257	62.3	0.481	0.835	102.9	580.0	0.434	1.237	-3.75	0.878	63.9	141.2	8.0	0.433
4-1430	4-1880	0.169	153.3	18.7	2.32	1.335	91.8	0.285	1.005	351.7	828.8	0.718	1.291	-3.75	0.986	106.6	288.8	-34.6	0.294
4-1430	4-1890	0.519	42.3	6.9	3.10	1.265	65.7	0.434	0.849	95.6	582.3	0.484	1.218	-4.16	0.890	66.7	148.5	3.4	0.389
4-1430	4-1890	0.200	171.1	21.1	3.10	1.339	94.4	0.301	1.016	340.8	827.4	0.711	1.322	-4.16	0.993	107.5	300.6	-33.4	0.315
4-1430	4-1900	0.462	45.8	10.6	4.09	1.272	68.8	0.393	0.862	88.1	584.3	0.524	1.201	-4.83	0.901	69.1	155.5	-2.2	0.353

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1430	4-1900	0.247	184.8	22.7	4.09	1.344	97.1	0.323	1.029	330.2	826.4	0.697	1.362	-4.83	1.000	108.8	311.8	-31.8	0.343
4-1430	4-1910	0.415	49.3	16.3	5.52	1.278	71.6	0.357	0.874	80.5	586.2	0.562	1.186	-5.94	0.911	71.1	161.9	-9.6	0.325
4-1430	4-1910	0.307	195.2	24.6	5.52	1.349	100.0	0.352	1.044	320.3	826.0	0.677	1.411	-5.94	1.008	110.5	322.5	-10.5	0.380
4-1430	4-1920	0.387	52.4	26.0	7.89	1.283	74.1	0.327	0.884	72.7	588.0	0.595	1.173	-8.01	0.921	72.7	167.3	-19.6	0.311
4-1430	4-1920	0.383	203.8	28.2	7.89	1.355	103.1	0.386	1.060	310.9	826.2	0.651	1.469	-8.01	1.018	112.6	332.9	-30.3	0.428
4-1430	4-1930	0.412	52.8	43.1	13.02	1.288	76.3	0.302	0.893	65.0	589.8	0.623	1.163	-12.84	0.930	74.0	170.0	-36.1	0.335
4-1430	4-1930	0.495	212.5	36.4	13.02	1.360	106.3	0.425	1.077	302.2	827.0	0.620	1.535	-12.84	1.027	114.9	343.5	-33.7	0.409
4-1430	4-1940	0.758	19.0	67.6	33.68	1.292	78.2	0.284	0.901	57.0	591.7	0.646	1.157	-33.22	0.938	74.9	177.1	-63.9	0.595
4-1430	4-1960	0.327	69.8	-55.4	-12.10	1.298	82.2	0.250	0.915	40.4	593.2	0.686	1.144	13.13	0.952	76.5	228.8	26.6	0.310
4-1430	4-1970	0.558	62.1	-16.3	-6.72	1.440	68.9	0.584	1.419	59.3	263.8	---	2.248	8.05	1.141	58.2	208.1	2.4	0.601
4-1430	4-1970	0.227	83.1	-41.9	-6.72	1.301	83.8	0.241	0.920	32.5	597.1	0.698	1.142	8.05	0.959	76.9	229.2	14.2	0.253
4-1430	4-1980	0.501	67.3	-11.7	-4.27	1.442	71.4	0.569	1.431	52.8	267.3	---	2.245	5.91	1.146	59.7	214.4	-2.9	0.572
4-1430	4-1980	0.179	94.5	-32.7	-4.27	1.303	85.4	0.235	0.925	24.5	599.0	0.708	1.143	5.91	0.965	77.1	234.3	5.9	0.233
4-1430	4-1990	0.450	72.9	-8.7	-2.81	1.444	73.9	0.556	1.442	46.1	270.5	---	2.244	4.78	1.150	61.1	221.8	-6.9	0.548
4-1430	4-1990	0.150	107.5	-25.2	-2.81	1.305	86.9	0.231	0.930	16.4	600.8	0.714	1.145	4.78	0.970	77.2	241.2	0.0	0.225
4-1430	4-2000	0.404	79.3	-6.2	-1.79	1.446	76.4	0.544	1.453	39.2	273.6	---	2.242	4.11	1.155	62.3	229.7	-10.1	0.529
4-1430	4-2000	0.134	122.6	-17.7	-1.79	1.307	88.5	0.230	0.934	8.1	602.5	0.719	1.149	4.11	0.975	77.1	249.1	-4.2	0.224
4-1430	4-2010	0.362	87.1	-3.9	-0.99	1.447	79.0	0.534	1.462	31.9	276.4	---	2.243	3.70	1.158	63.4	238.2	-12.6	0.512
4-1430	4-2010	0.129	139.1	-10.1	-0.99	1.308	90.1	0.232	0.937	359.5	964.0	0.720	1.155	3.70	0.979	76.9	257.6	-7.2	0.227
4-1430	4-2020	0.324	96.7	-1.4	-0.31	1.449	81.7	0.526	1.471	24.2	278.8	---	2.245	3.46	1.162	64.3	247.1	-14.4	0.500
4-1430	4-2020	0.136	155.5	-3.0	-0.31	1.310	91.8	0.237	0.941	350.7	965.3	0.718	1.163	3.46	0.983	76.6	266.6	-9.2	0.239
4-1430	4-2030	0.294	108.8	1.5	0.30	1.450	84.5	0.520	1.480	16.0	280.7	---	2.249	3.35	1.165	65.0	256.5	-15.6	0.491
4-1430	4-2030	0.155	170.3	2.5	0.30	1.311	93.6	0.245	0.944	341.6	966.3	0.713	1.175	3.35	0.986	76.0	275.9	-10.2	0.247
4-1430	4-2030	469	234.5	0.7	0.30	1.199	112.4	0.383	0.746	252.5	1237.2	0.461	1.032	3.35	0.832	102.9	28.5	21.9	0.285
4-1430	4-2030	0.755	240.4	0.4	0.30	1.225	126.2	0.595	0.783	240.0	1224.8	0.317	1.249	3.35	0.869	123.7	46.6	21.9	0.572
4-1440	4-1480	0.413	150.9	1.1	0.28	1.593	89.5	0.830	4.229	1.0	68.9	---	---	-3.28	1.316	120.8	273.3	-28.8	0.686
4-1440	4-1490	0.286	148.9	4.3	0.83	1.465	89.2	0.548	1.594	2.3	79.7	---	---	-3.11	1.158	116.2	277.2	-29.6	0.513
4-1440	4-1500	0.213	143.8	8.9	1.35	1.389	88.5	0.391	1.582	5.3	92.2	---	---	-3.04	1.059	111.6	281.2	-30.7	0.393
4-1440	4-1510	0.171	136.4	14.7	1.86	1.341	87.8	0.298	1.025	9.5	105.9	---	---	-3.06	0.996	107.4	284.9	-32.3	0.305
4-1440	4-1520	0.151	127.9	21.2	2.38	1.311	87.2	0.244	0.947	14.3	120.3	---	---	-3.16	0.956	103.5	287.9	-34.8	0.240
4-1440	4-1530	0.144	120.4	27.7	2.97	1.292	86.7	0.211	0.906	18.8	134.3	---	---	-3.37	0.931	100.0	289.7	-38.7	0.191
4-1440	4-1540	0.145	114.7	34.1	3.65	1.281	86.4	0.192	0.882	22.4	147.5	---	---	-3.71	0.916	97.0	289.6	-44.5	0.157
4-1440	4-1550	0.153	111.1	40.9	4.52	1.274	86.3	0.181	0.869	24.6	159.2	---	---	-4.27	0.909	94.4	286.7	-52.5	0.136
4-1440	4-1560	0.169	109.1	48.8	5.75	1.270	86.3	0.175	0.862	25.4	169.7	---	---	-5.21	0.906	92.2	279.5	-62.4	0.130
4-1440	4-1570	0.200	107.8	58.5	7.74	1.269	86.4	0.172	0.859	24.9	178.9	---	---	-6.93	0.907	90.2	266.6	-72.5	0.145
4-1440	4-1580	0.276	103.3	70.9	11.88	1.269	86.6	0.171	0.859	23.5	187.1	---	1.006	-10.80	0.910	88.6	243.4	-81.7	0.199
4-1440	4-1590	0.580	23.3	82.1	26.95	1.270	86.9	0.171	0.861	21.8	194.7	---	1.008	-25.61	0.914	87.0	208.7	-88.3	0.433
4-1440	4-1610	0.255	126.2	-72.4	-11.02	1.273	88.2	0.172	0.868	12.4	206.2	---	1.017	12.89	0.925	84.9	266.3	35.4	0.241
4-1440	4-1620	0.153	139.3	-52.9	-5.48	1.276	88.8	0.174	0.872	8.1	211.7	---	1.024	7.62	0.931	83.9	264.5	21.7	0.174
4-1440	4-1630	0.119	149.6	-35.4	-3.08	1.278	89.5	0.178	0.877	3.1	216.7	---	1.033	5.51	0.937	82.9	266.4	10.8	0.159
4-1440	4-1640	0.108	160.4	-20.4	-1.69	1.281	90.4	0.182	0.882	357.6	581.2	0.721	1.043	4.41	0.943	82.1	270.5	3.3	0.160
4-1440	4-1650	0.111	171.4	-8.4	-0.73	1.283	91.3	0.188	0.887	351.6	585.2	0.720	1.054	3.77	0.949	81.2	276.0	-1.7	0.168
4-1440	4-1660	0.122	182.1	0.2	0.01	1.286	92.4	0.196	0.892	345.1	588.9	0.717	1.067	3.39	0.954	80.4	282.6	-4.8	0.179
4-1440	4-1670	0.140	192.1	5.9	0.64	1.288	93.7	0.206	0.897	338.1	592.1	0.712	1.082	3.16	0.958	79.4	289.9	-6.5	0.194
4-1440	4-1680	0.164	201.0	9.4	1.20	1.291	95.1	0.219	0.902	330.7	594.8	0.704	1.100	3.05	0.962	78.4	297.8	-7.1	0.212
4-1440	4-1690	0.196	209.0	11.5	1.74	1.293	96.9	0.236	0.908	322.8	597.1	0.693	1.122	3.05	0.965	77.2	306.0	-6.7	0.235
4-1440	4-1700	0.236	216.2	12.5	2.30	1.296	98.9	0.259	0.913	314.3	598.7	0.676	1.149	3.14	0.968	75.6	314.5	-5.4	0.262
4-1440	4-1710	0.288	222.8	13.0	2.91	1.298	101.5	0.289	0.918	305.1	599.7	0.652	1.184	3.34	0.970	73.7	323.3	-3.4	0.298
4-1440	4-1720	0.355	229.1	12.9	3.62	1.300	104.7	0.331	0.923	295.1	599.8	0.618	1.229	3.70	0.972	71.1	332.4	-0.8	0.344
4-1440	4-1720	0.832	268.2	3.5	3.62	1.095	132.2	0.680	0.635	219.3	884.0	0.204	1.067	3.70	0.674	118.3	83.2	27.5	0.525
4-1440	4-1730	0.446	235.4	12.6	4.54	1.303	109.1	0.389	0.929	283.9	598.7	0.567	1.240	4.28	0.973	67.4	342.0	2.6	0.409
4-1440	4-1730	0.737	268.5	5.2	4.54	1.070	127.3	0.621	0.614	219.8	894.6	0.233	0.995	4.28	0.629	98.6	66.8	28.4	0.403
4-1440	4-1740	0.576	242.2	12.0	5.84	1.306	115.2	0.473	0.935	270.7	595.6	0.492	1.378	5.28	0.975	61.9	352.5	6.6	0.503
4-1440	4-1740	0.753	269.4	6.5	5.84	1.062	128.1	0.634	0.698	218.5	903.4	0.222	0.993	5.28	0.612	84.2	52.9	27.1	0.414
4-1440	4-1750	0.848	271.2	7.3	7.99	1.060	133.2	0.698	0.606	215.4	910.2	0.183	1.029	7.15	0.604	68.4	45.2	25.3	0.514
4-1440	4-1800	0.909	28.0	-3.9	-5.19	1.020	41.7	0.764	0.577	150.8	895.3	0.136	1.018	-7.36	0.503	104.8	139.9	8.5	0.527
4-1440	4-1810	0.597	60.4	-5.8	-2.98	1.313	62.8	0.506	0.953	92.0	486.0	0.470	1.435	-5.43	0.965	120.3	202.7	-19.2	0.505
4-1440	4-1820	0.467	67.7	-4.4	-1.67	1.316	69.0	0.426	0.959	78.0	481.7	0.550	1.368	-4.40	0.967	115.1	214.7	-23.6	0.419
4-1440	4-1830	0.374	75.0	-2.6	-0.75	1.318	73.7	0.372	0.966	65.4	478.7	0.607	1.324	-3.79	0.968	111.6	226.6	-27.3	0.363
4-1440	4-1840	0.363	82.9	-0.2	-0.05	1.321	77.3	0.334	0.972	53.7	476.5	0.648	1.296	-3.41	0.970	109.3	238.7	-30.2	0.326
4-1440	4-1850	0.388	92.3	2.9	0.55	1.324	80.4	0.308	0.979	42.2	474.6	0.677	1.280	-3.19	0.973	107.8	251.0	-32.2	0.303
4-1440	4-1860	0.205	104.1	7.0	1.08	1.326	83.8	0.292	0.986	30.8	472.8	0.698	1.273	-3.07	0.976	106.9	263.5	-33.2	0.290
4-1440	4-1870	0.800	45.8	1.9	1.59	1.235	51.1	0.633	0.800	122.0	573.4	0.204	1.306	-3.04	0.847	53.5	136.8	12.9	0.588
4-1440	4-1870	0.176	119.4	12.1	1.59	1.329	85.7	0.283	0.993	19.5	471.0	0.712	1.275	-3.04	0.980	106.4	276.1	-33.4	0.285
4-1440	4-1880	0.722	49.0	3.0	2.10	1.244	55.2	0.579	0.816	115.3	576.3	0.344	1.287	-3.09	0.861	57.3	144.1	9.8	0.532
4-1440	4-1880	0.163	138.8	17.5	2.10	1.333	88.2	0.282	1.092	8.2	469.2	0.719	1.285	-3.09	0.985	106.4	288.4	-32.6	0.288
4-1440	4-1890	0.648	52.3	4.4	2.65	1.253	59.1	0.527	0.831	108.5	579.0	0.393	1.268	-3.24	0.875	60.7	151.4	6.2	0.479
4-1440	4-1890	0.169	160.1	21.5	2.65	1.336	90.7	0.287	1.012	357.0	827.5	0.721	1.302	-3.24	0.990	106.7	300.3	-31.1	0.298
4-1440	4-1900	0.579	55.6	6.3	3.27	1.261	62.6	0.478	0.845	101.5	581.6	0.441	1.248	-3.51	0.888	63.7	158.5	2.0	0.432
4-1440	4-1900	0.192	179.6	23.9	3.27	1.340	93.2	0.300	1.022	345.9	826.0	0.716	1.329	-3.51	0.997	107.4	311.6	-29.0	0.315
4-1440	4-1910	0.517	59.6	9.1	4.03	1.268	65.9	0.433	0.858	94.4	584.0	0.486	1.230	-3.95	0.900	66.4	165.5	-2.9	0.391
4-1440	4-1910	0.232	174.9	23.9	4.03	1.344	95.9	0.318	1.034	335.3	824.9	0.705	1.364	-3.95	1.004	108.5	322.2	-26.6	0.338
4-1440	4-1920	0.603	62.4	13.1	5.04	1.275	68.9	0.393	0.870	87.0	585.3	0.528	1.213	-4.66	0.911	68.7	172.2	-8.8	0.356
4-1440	4-1920	0.284	206.6	24.4	5.04	1.349	98.7	0.344	1.048	325.2	824.4	0.688	1.408	-4.66	1.012	110.0	332.3	-24.3	0.369
4-1440	4-1930	0.420	65.8	19.3	6.55	1.281	71.7	0.359	0.882	79.5	588.4	0.565	1.198	-5.88	0.922	70.6	178.5	-16.4	0.331
4-1440	4-1930	0.348	215.6	25.8	6.55	1.354	101.7	0.374	1.063	315.6	824.5	0.665	1.461	-5.88	1.021	111.8	342.1	-22.5	0.408
4-1440	4-1940	0.400	68.5	29.8	9.26	1.285	74.1	0.330	0.892	72.0	590.5	0.598	1.185	-8.32	0.931	72.2	183.8	-27.5	0.321
4-1440	4-1940	0.429	223.4	29.5	9.26	1.359	104.8	0.410	1.079	306.7	825.2	0.636	1.522	-8.32	1.031	113.9	351.6	-22.4	0.459
4-1440	4-1950	0.458	66.4	49.3	16.10	1.290	76.3	0.306	0.900	64.4	592.5	0.625	1.176	-14.89	0.940	73.4	186.7	-46.6	0.365
4-1440	4-1950	0.565	232.9	39.6	16.10	1.365	108.1	0.450	1.097	298.4	826.5	0.604	1.591	-14.89	1.041	116.3	2.1	-27.8	0.543

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1440	4-1970	0.460	70.5	-63.0	-10.70	1.297	80.5	0.266	0.915	47.7	596.4	0.672	1.159	20.43	0.955	75.4	243.3	30.9	0.416
4-1440	4-1980	0.597	75.2	-17.3	-7.68	1.439	67.0	0.598	1.420	63.7	262.0	---	2.269	9.68	1.143	57.2	219.0	0.4	0.628
4-1440	4-1980	0.260	91.4	-41.5	-7.68	1.299	82.2	0.254	0.921	40.0	598.3	0.687	1.156	9.68	0.962	76.0	238.4	14.5	0.281
4-1440	4-1990	0.533	80.3	-10.6	-4.15	1.441	69.6	0.582	1.432	57.3	265.0	---	2.266	6.42	1.148	58.7	224.9	-5.9	0.593
4-1440	4-1990	0.197	101.9	-28.5	-4.15	1.302	83.9	0.245	0.927	31.9	600.2	0.700	1.154	6.42	0.968	76.4	242.8	4.4	0.249
4-1440	4-2000	0.480	85.5	-6.7	-2.34	1.493	72.1	0.567	1.444	50.7	269.0	---	2.263	4.91	1.153	60.2	232.3	-10.0	0.567
4-1440	4-2000	0.162	113.1	-19.2	-2.34	1.304	85.5	0.239	0.932	23.7	602.0	0.709	1.154	4.91	0.974	76.6	249..	-1.9	0.236
4-1440	4-2010	0.433	91.3	-3.8	-1.19	1.445	74.6	0.554	1.455	43.9	272.2	---	2.271	4.07	1.15	61.6	240.3	-12.9	0.545
4-1440	4-2010	0.140	126.4	-11.2	-1.19	1.304	87.1	0.235	0.936	15.3	603.7	0.716	1.156	4.07	0.978	76.8	258.0	-6.0	0.232
4-1440	4-2020	0.389	98.2	-1.3	-0.35	1.446	77.2	0.542	1.465	36.8	275.2	---	2.260	3.57	1.161	62.8	249.0	-1[illegible].0	0.527
4-1440	4-2020	0.130	142.0	-3.6	-0.35	1.308	88.7	0.234	0.940	6.7	605.1	0.720	1.160	3.57	0.983	76.7	266.7	-8.6	0.233
4-1440	4-2030	0.348	106.6	1.3	0.32	1.448	79.9	0.533	1.475	29.3	277.9	---	2.261	3.26	1.164	63.8	258.0	-16.3	0.512
4-1440	4-2030	0.131	159.0	3.2	0.32	1.309	90.4	0.236	0.944	357.8	966.4	0.721	1.167	3.26	0.986	76.6	275.9	-10.0	0.237
4-1440	4-2040	0.314	117.2	4.2	0.91	1.449	82.7	0.525	1.484	21.3	280.1	---	2.263	3.10	1.166	64.6	267.4	-16.9	0.501
4-1440	4-2040	0.144	175.6	8.3	0.91	1.311	92.2	0.242	0.947	348.6	967.3	0.718	1.176	3.10	0.989	76.2	285.4	-10.4	0.246
4-1440	4-2040	0.537	251.5	1.8	0.91	1.207	115.6	0.435	0.760	250.5	1229.2	0.430	1.090	3.10	0.847	109.5	49.9	25.4	0.363
4-1440	4-2040	0.618	253.2	1.6	0.91	1.215	119.5	0.496	0.770	246.9	1225.7	0.388	1.152	3.10	0.857	115.3	54.7	25.0	0.445
4-1450	4-1480	0.533	146.2	1.0	0.33	1.686	85.0	1.052	15.819	15.6	65.4	---	---	-3.18	1.429	123.6	275.9	-28.0	0.819
4-1450	4-1490	0.350	142.6	4.0	0.93	1.502	84.0	0.634	1.948	15.4	76.8	---	---	-2.85	1.206	118.3	278.9	-28.5	0.577
4-1450	4-1500	0.257	135.8	7.8	1.43	1.401	84.2	0.428	1.240	19.6	90.4	---	---	-2.65	1.077	113.2	282.0	-29.2	0.427
4-1450	4-1510	0.210	127.4	12.0	1.87	1.342	84.0	0.317	1.033	25.4	105.7	---	---	-2.54	1.000	108.5	284.7	-30.2	0.323
4-1450	4-1520	0.188	119.4	16.0	2.29	1.307	83.7	0.256	0.942	31.6	121.5	---	---	-2.30	0.952	104.2	286.7	-31.9	0.249
4-1450	4-1530	0.180	113.3	19.7	2.71	1.285	83.5	0.223	0.895	37.0	136.5	---	---	-2.53	0.924	100.4	287.2	-34.5	0.194
4-1450	4-1540	0.177	109.3	23.2	3.16	1.273	83.4	0.205	0.870	40.9	149.9	---	---	-2.64	0.908	97.1	285.6	-38.3	0.155
4-1450	4-1550	0.178	107.2	26.9	3.66	1.266	83.4	0.194	0.857	42.9	161.5	---	---	-2.85	0.900	94.3	281.1	-43.3	0.129
4-1450	4-1560	0.180	106.5	31.3	4.27	1.263	83.5	0.188	0.852	43.3	171.6	---	---	-3.18	0.898	91.9	273.3	-49.0	0.115
4-1450	4-1570	0.185	106.9	36.8	5.07	1.262	83.8	0.185	0.850	42.3	180.3	---	1.007	-3.73	0.900	89.9	263.2	-54.7	0.113
4-1450	4-1580	0.197	108.0	44.1	6.25	1.263	84.1	0.182	0.851	40.3	187.9	---	1.006	-4.67	0.904	88.2	253.4	-60.3	0.123
4-1450	4-1590	0.225	108.8	54.1	8.32	1.264	84.5	0.181	0.854	37.3	194.7	---	1.009	-6.52	0.909	86.8	245.6	-67.5	0.145
4-1450	4-1600	0.312	103.9	68.6	13.33	1.267	85.0	0.180	0.858	33.9	201.0	---	1.013	-11.31	0.915	85.6	238.7	-78.6	0.215
4-1450	4-1620	0.371	107.1	-77.5	-16.58	1.272	86.5	0.179	0.869	23.5	211.2	---	1.024	19.03	0.929	83.7	272.1	38.7	0.341
4-1450	4-1630	0.164	136.3	-50.1	-5.68	1.275	87.2	0.181	0.874	18.6	216.1	---	1.032	8.36	0.936	82.9	268.4	21.2	0.192
4-1450	4-1640	0.119	147.3	-28.1	-2.52	1.278	88.0	0.183	0.880	13.6	220.5	---	1.041	5.43	0.942	82.2	271.4	8.3	0.168
4-1450	4-1650	0.106	158.7	-11.6	-0.96	1.281	88.9	0.186	0.886	7.0	224.5	---	1.051	4.10	0.948	81.5	275.7	0.5	0.167
4-1450	4-1660	0.106	171.2	0.2	0.02	1.284	89.9	0.190	0.892	0.4	228.1	---	1.062	3.38	0.954	80.8	283.2	-4.1	0.173
4-1450	4-1670	0.114	184.0	8.2	0.72	1.287	91.1	0.196	0.898	353.5	591.4	0.722	1.074	2.95	0.959	80.1	290.6	-6.5	0.183
4-1450	4-1680	0.129	196.4	13.0	1.29	1.289	92.3	0.204	0.904	346.2	594.2	0.719	1.088	2.70	0.963	79.3	298.4	-7.5	0.196
4-1450	4-1690	0.150	207.6	15.4	1.77	1.292	93.8	0.215	0.909	338.5	596.7	0.713	1.105	2.55	0.966	78.5	306.6	-7.4	0.211
4-1450	4-1700	0.178	217.4	16.4	2.23	1.295	95.4	0.230	0.915	330.4	598.7	0.705	1.125	2.50	0.969	77.4	315.0	-6.3	0.230
4-1450	4-1710	0.213	226.0	16.4	2.67	1.297	97.3	0.249	0.920	321.8	600.3	0.691	1.149	2.53	0.972	76.2	323.5	-4.9	0.254
4-1450	4-1720	0.257	233.6	15.8	3.14	1.300	99.7	0.274	0.926	312.6	601.2	0.672	1.179	2.64	0.973	74.5	332.2	-2.0	0.283
4-1450	4-1730	0.315	240.4	15.0	3.67	1.302	102.5	0.308	0.931	302.7	601.5	0.644	1.218	2.85	0.975	72.4	341.2	1.0	0.322
4-1450	4-1740	0.391	247.0	13.9	4.31	1.305	106.2	0.356	0.937	292.0	600.8	0.604	1.270	3.21	0.976	69.4	350.5	4.5	0.374
4-1450	4-1740	0.743	283.5	5.0	4.31	1.083	127.5	0.621	0.826	221.2	890.0	0.237	1.015	3.21	0.960	105.5	90.5	28.3	0.418
4-1450	4-1750	0.495	253.6	12.8	5.16	1.307	111.2	0.423	0.943	279.8	598.6	0.544	1.341	3.80	0.977	65.2	0.6	8.5	0.447
4-1450	4-1750	0.723	284.2	6.1	5.16	1.071	126.5	0.610	0.617	220.5	899.3	0.241	0.993	3.80	0.627	91.1	75.5	29.0	0.384
4-1450	4-1760	0.645	260.8	11.5	6.42	1.310	118.4	0.520	0.949	265.4	594.1	0.455	1.443	4.82	0.977	58.7	11.8	13.0	0.555
4-1450	4-1760	0.775	285.4	6.9	6.42	1.067	129.2	0.647	0.613	218.5	907.3	0.217	1.010	4.82	0.616	77.1	64.0	28.0	0.437
4-1450	4-1770	0.910	287.8	7.0	8.70	1.067	136.5	0.736	0.613	213.9	912.5	0.162	1.065	6.87	0.611	60.4	60.5	27.2	0.574
4-1450	4-1820	0.716	71.6	-3.8	-2.49	1.315	56.9	0.584	0.961	102.2	489.9	0.400	1.522	-5.40	0.968	125.6	211.2	-20.3	0.593
4-1450	4-1820	0.870	45.4	-2.0	-2.49	1.029	43.8	0.740	0.584	148.9	896.5	0.152	1.017	-5.40	0.516	99.7	155.8	4.4	0.490
4-1450	4-1830	0.548	79.6	-2.2	-1.00	1.317	65.1	0.480	0.968	86.3	483.5	0.503	1.432	-4.14	0.970	118.6	224.6	-24.6	0.478
4-1450	4-1840	0.432	87.0	-0.2	-0.06	1.320	70.8	0.410	0.974	72.7	479.4	0.575	1.373	-3.43	0.972	114.1	237.4	-27.8	0.405
4-1450	4-1850	0.347	94.7	2.3	0.63	1.323	75.1	0.362	0.980	60.1	476.5	0.626	1.335	-3.00	0.974	111.1	250.1	-29.9	0.357
4-1450	4-1860	0.282	103.4	5.4	1.17	1.325	78.6	0.329	0.987	48.2	474.0	0.663	1.311	-2.74	0.977	109.1	262.8	-31.1	0.327
4-1450	4-1870	0.232	114.1	9.3	1.64	1.328	81.7	0.307	0.994	36.5	471.2	0.689	1.299	-2.58	0.980	107.8	275.4	-31.2	0.308
4-1450	4-1880	0.196	127.9	14.1	2.07	1.331	84.4	0.294	1.001	25.0	469.8	0.707	1.296	-2.51	0.985	107.1	287.7	-30.4	0.299
4-1450	4-1890	0.787	82.7	3.1	2.49	1.239	51.8	0.625	0.811	120.3	574.8	0.304	1.317	-2.51	0.858	53.8	154.5	7.4	0.581
4-1450	4-1890	0.175	145.7	19.3	2.49	1.334	87.0	0.209	1.010	13.5	467.9	0.718	1.301	-2.51	0.989	106.8	299.6	-28.8	0.297
4-1450	4-1900	0.711	65.9	4.2	2.92	1.248	55.8	0.572	0.826	113.8	577.8	0.354	1.298	-2.58	0.872	57.4	161.6	3.9	0.526
4-1450	4-1900	0.172	166.6	23.4	2.92	1.337	89.5	0.291	1.019	2.1	466.1	0.722	1.315	-2.58	0.995	106.9	310.9	-26.5	0.303
4-1450	4-1910	0.640	69.1	5.7	3.39	1.257	59.5	0.521	0.840	107.0	580.6	0.402	1.278	-2.73	0.886	60.7	168.7	0.1	0.476
4-1450	4-1910	0.187	187.2	25.0	3.39	1.341	92.1	0.300	1.029	351.0	824.6	0.720	1.337	-2.73	1.002	107.4	321.6	-23.8	0.316
4-1450	4-1920	0.574	72.4	7.7	3.93	1.264	63.0	0.474	0.854	100.1	583.3	0.449	1.259	-2.99	0.899	63.6	175.7	-4.2	0.431
4-1450	4-1920	0.219	204.3	24.9	3.93	1.344	94.7	0.315	1.040	340.2	823.4	0.712	1.368	-2.99	1.009	108.3	331.8	-20.7	0.335
4-1450	4-1930	0.514	75.8	10.5	4.62	1.271	66.2	0.431	0.867	93.1	585.9	0.493	1.241	-3.49	0.911	66.1	182.7	-9.1	0.392
4-1450	4-1930	0.263	217.4	24.2	4.62	1.349	97.4	0.337	1.053	329.9	822.8	0.698	1.408	-3.49	1.017	109.6	341.4	-17.7	0.361
4-1450	4-1940	0.462	79.1	14.5	5.56	1.277	69.1	0.393	0.879	85.8	588.3	0.533	1.224	-4.11	0.922	68.3	189.7	-14.9	0.359
4-1450	4-1940	0.318	227.5	23.9	5.56	1.353	100.3	0.365	1.067	320.2	822.7	0.678	1.456	-4.11	1.025	111.2	350.7	-14.9	0.394
4-1450	4-1950	0.421	82.8	20.8	7.06	1.282	71.8	0.359	0.889	78.4	590.7	0.570	1.209	-5.38	0.953	70.2	196.3	-22.4	0.334
4-1450	4-1950	0.385	235.2	25.0	7.06	1.358	103.4	0.398	1.082	311.1	823.3	0.652	1.513	-5.38	1.034	113.1	359.9	-13.0	0.434
4-1450	4-1960	0.406	84.9	32.1	10.03	1.287	74.2	0.331	0.899	70.9	592.9	0.601	1.197	-8.13	0.942	71.7	202.1	-33.9	0.326
4-1450	4-1960	0.470	242.4	29.0	10.03	1.364	106.6	0.435	1.099	302.5	824.5	0.621	1.577	-8.13	1.044	115.3	9.3	-13.4	0.486
4-1450	4-1970	0.516	78.6	55.1	19.71	1.291	76.4	0.308	0.908	63.4	595.1	0.628	1.187	-17.59	0.951	73.0	205.5	-57.5	0.403
4-1450	4-1970	0.643	253.6	42.5	19.71	1.369	109.9	0.475	1.117	294.5	826.2	0.586	1.648	-17.59	1.054	117.7	19.5	-22.7	0.591
4-1450	4-1990	0.304	100.6	-42.9	-9.28	1.298	80.6	0.269	0.922	47.0	599.2	0.674	1.170	-7.84	0.965	75.0	247.9	15.6	0.318
4-1450	4-2000	0.564	93.7	-9.1	-3.85	1.439	67.8	0.595	1.434	61.6	263.8	---	2.286	-6.83	1.151	57.7	235.4	-8.8	0.613
4-1450	4-2000	0.216	111.0	-23.6	-3.85	1.301	82.5	0.257	0.928	39.0	601.2	0.689	1.167	6.63	0.972	75.6	251.2	2.1	0.265
4-1450	4-2010	0.511	98.4	-4.4	-1.67	1.441	70.4	0.579	1.446	55.1	267.4	---	2.296	4.69	1.155	59.3	242.9	-13.0	0.585
4-1450	4-2010	0.178	120.6	-12.3	-1.67	1.303	84.0	0.248	0.933	30.7	603.0	0.702	1.165	4.69	0.977	76.0	258.5	-4.7	0.247

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1450	4-2020	0.463	103.7	-1.3	-0.45	1.443	72.9	0.565	1.457	48.4	270.7	---	2.280	3.71	1.159	80.7	251.2	-15.6	0.562
4-1450	4-2020	0.153	132.0	-3.8	-0.45	1.305	85.7	0.241	0.938	22.3	604.6	0.712	1.165	3.71	0.982	76.3	267.0	-8.5	0.240
4-1450	4-2030	0.417	109.9	1.3	0.38	1.445	75.5	0.552	1.468	41.4	273.9	---	2.278	3.15	1.162	62.0	267.9	-17.1	0.542
4-1450	4-2030	0.138	145.9	3.6	0.38	1.307	87.4	0.238	0.943	13.6	606.1	0.718	1.167	3.15	0.985	76.5	276.1	-10.5	0.238
4-1450	4-2040	0.375	117.4	3.8	1.00	1.447	78.2	0.541	1.478	34.1	276.7	---	2.277	2.81	1.165	63.2	269.1	-17.9	0.525
4-1450	4-2040	0.133	162.4	9.9	1.00	1.309	89.1	0.238	0.947	4.6	607.3	0.722	1.172	2.81	0.989	76.4	285.5	-11.3	0.240
4-1450	4-2050	0.337	126.6	6.5	1.52	1.448	80.9	0.532	1.487	26.3	279.2	---	2.278	2.62	1.167	64.2	278.5	-17.8	0.512
4-1450	4-2050	0.180	179.9	14.5	1.52	1.310	90.9	0.241	0.951	355.4	968.2	0.722	1.179	2.62	0.991	76.2	295.0	-11.0	0.246
4-1460	4-1490	0.489	137.0	3.5	1.15	1.552	76.4	0.760	2.827	31.5	76.8	---	---	-2.49	1.270	122.2	278.8	-27.1	0.682
4-1460	1500	0.351	129.7	6.5	1.05	1.410	78.1	0.476	1.290	37.5	92.3	---	---	-2.16	1.092	115.9	280.7	-27.5	0.477
4-1460	4-1510	0.288	122.1	9.4	2.05	1.336	78.9	0.345	1.020	45.2	109.6	---	---	-1.96	0.994	110.2	282.3	-28.2	0.350
4-1460	4-1520	0.258	115.9	11.8	2.39	1.294	79.2	0.280	0.918	52.8	126.6	---	---	-1.84	0.938	105.1	282.8	-29.3	0.263
4-1460	4-1530	0.248	111.7	13.9	2.69	1.273	79.4	0.247	0.871	58.5	141.9	---	---	-1.78	0.907	100.7	281.7	-30.9	0.202
4-1460	4-1540	0.256	109.4	15.9	2.99	1.258	79.6	0.230	0.847	61.8	154.8	---	---	-1.77	0.891	97.1	278.3	-33.1	0.160
4-1460	4-1550	0.230	108.5	17.9	3.29	1.252	79.9	0.220	0.856	63.0	165.6	---	---	-1.81	0.884	94.0	272.4	-35.6	0.133
4-1460	4-1560	0.225	108.8	20.2	3.62	1.250	80.2	0.213	0.833	62.5	174.7	---	---	-1.91	0.884	91.4	264.5	-37.9	0.117
4-1460	4-1570	0.221	109.8	23.0	4.00	1.251	80.5	0.208	0.834	60.7	182.6	---	1.007	-2.08	0.887	89.3	256.7	-39.8	0.112
4-1460	4-1580	0.217	111.5	26.5	4.47	1.253	81.1	0.204	0.837	57.8	189.5	---	1.008	-2.37	0.893	87.6	250.9	-41.5	0.113
4-1460	4-1590	0.215	113.6	31.1	[illegible]	1.256	81.7	0.200	0.842	54.3	195.7	---	1.011	-2.84	0.900	86.1	248.1	-44.0	0.119
4-1460	4-1600	0.218	116.1	37.7	[illegible]	1.259	82.3	0.197	0.848	50.1	201.4	---	1.015	-3.68	0.908	85.0	247.8	-46.5	0.131
4-1460	4-1610	0.238	118.1	47.9	[illegible]	1.263	83.0	0.195	0.855	45.5	206.7	---	1.021	-5.49	0.916	84.0	249.7	-47.1	0.153
4-1460	4-1620	0.338	113.0	66.3	[illegible]	1.266	83.8	0.193	0.862	40.5	211.6	---	1.028	-11.45	0.924	83.1	257.2	-74.9	0.232
4-1460	4-1640	0.181	117.9	-45.7	[illegible]	1.274	85.5	0.190	0.876	28.6	220.0	---	1.043	8.93	0.939	81.9	277.0	20.0	0.210
4-1460	4-1650	0.127	118.3	-16.2	[illegible]	1.277	86.5	0.190	0.883	22.4	223.9	---	1.051	4.83	0.946	81.3	277.0	3.4	0.175
4-1460	4-1660	0.115	118.3	0.3	[illegible]	1.281	87.5	0.192	0.890	15.9	227.5	---	1.061	3.37	0.952	80.8	283.6	-4.2	0.174
4-1460	4-1670	0.113	171.0	10.5	[illegible]	1.284	88.5	0.195	0.897	9.0	230.8	---	1.071	2.65	0.958	80.2	291.1	-7.8	0.179
4-1460	4-1680	0.117	184.6	17.5	[illegible]	1.287	89.7	0.199	0.903	1.7	233.7	---	1.083	2.24	0.963	79.7	299.1	-9.2	0.188
4-1460	4-1690	0.126	193.8	20.1	[illegible]	1.290	91.0	0.205	0.910	354.1	596.3	0.723	1.096	2.00	0.967	79.1	307.3	-9.2	0.199
4-1460	4-1700	0.142	212.3	21.5	[illegible]	1.293	92.4	0.214	0.916	346.2	598.5	0.720	1.112	1.86	0.970	78.4	315.7	-8.2	0.212
4-1460	4-1710	0.166	224.4	21.5	[illegible]	1.296	94.0	0.226	0.922	337.8	600.3	0.714	1.130	1.78	0.973	77.6	324.2	-6.4	0.228
4-1460	4-1720	0.193	234.7	20.3	[illegible]	1.298	95.9	0.241	0.928	329.1	601.7	0.704	1.151	1.77	0.975	76.5	332.8	-4.0	0.248
4-1460	4-1730	0.232	243.5	18.7	[illegible]	1.301	97.8	0.262	0.933	319.9	602.7	0.688	1.178	1.81	0.976	75.1	341.4	-1.1	0.273
4-1460	4-1740	0.280	251.2	16.9	[illegible]	1.303	100.6	0.293	0.939	310.2	603.0	0.666	1.212	1.92	0.977	73.4	350.3	2.2	0.304
4-1460	4-1750	0.344	258.2	15.0	[illegible]	1.306	103.8	0.330	0.945	299.7	602.6	0.633	1.256	2.10	0.978	71.0	359.4	5.9	0.346
4-1460	4-1760	0.777	298.7	4.4	[illegible]	1.099	129.2	0.61	0.643	222.0	384.9	0.232	1.054	2.10	0.677	113.6	113.5	24.5	0.464
4-1460	4-1760	0.429	264.9	13.2	4.54	1.308	168.0	0.388	0.951	288.3	601.0	0.586	1.315	2.41	0.978	67.6	9.2	9.8	0.404
4-1460	4-1760	0.710	299.0	5.6	4.54	1.081	125.7	0.597	0.627	222.1	894.9	0.252	1.001	2.41	0.643	97.4	99.1	27.3	0.374
4-1460	4-1770	0.548	271.8	11.5	5.22	1.311	113.8	0.461	0.957	275.2	597.9	0.516	1.397	2.92	0.979	62.7	19.9	10.0	0.487
4-1460	4-1770	0.727	299.9	6.2	5.22	1.075	126.7	0.611	0.632	226.9	903.6	0.242	1.001	2.92	0.628	84.4	85.5	28.7	0.387
4-1460	4-1780	0.811	301.4	6.3	6.30	1.073	131.2	0.670	0.620	218.0	910.5	0.204	1.036	3.84	0.629	70.2	77.6	27.7	0.476
4-1460	4-1830	0.928	61.4	-1.2	-1.67	1.042	40.6	0.772	0.596	149.8	891.0	0.136	1.056	-4.90	0.543	117.0	179.4	-4.4	0.558
4-1460	4-1840	0.553	90.9	-0.1	-0.08	1.319	60.0	0.548	0.976	96.0	486.7	0.441	1.510	-3.46	0.972	123.2	233.9	-24.5	0.555
4-1460	4-1840	0.838	62.7	-0.1	-0.09	1.037	45.6	0.717	0.592	147.2	897.9	0.167	1.017	-3.46	0.531	95.3	170.0	-0.0	0.461
4-1460	4-1850	0.506	98.7	2.3	0.81	1.321	67.2	0.457	0.982	80.7	480.9	0.533	1.431	-2.74	0.975	117.1	247.8	-27.1	0.457
4-1460	4-1860	0.401	106.4	4.4	1.47	1.324	72.5	0.395	0.989	67.1	476.9	0.598	1.379	-2.31	0.978	113.2	261.1	-28.5	0.394
4-1460	4-1870	0.323	114.7	7.4	1.85	1.326	76.6	0.353	0.995	54.5	473.9	0.645	1.346	-2.06	0.981	110.6	274.0	-28.7	0.354
4-1460	4-1880	0.264	124.6	11.0	2.21	1.329	80.0	0.324	1.002	42.4	471.2	0.677	1.327	-1.90	0.985	108.9	286.5	-28.0	0.328
4-1460	4-1890	0.220	137.0	15.4	2.53	1.332	83.0	0.306	1.010	30.5	468.9	0.700	1.319	-1.80	0.989	107.8	298.5	-26.4	0.314
4-1460	4-1900	0.191	153.1	20.2	2.84	1.335	85.7	0.297	1.017	18.8	466.7	0.715	1.320	-1.77	0.994	107.3	309.9	-24.0	0.308
4-1460	4-1910	0.774	79.6	4.0	3.13	1.243	52.5	0.616	0.821	118.7	576.2	0.315	1.327	-1.78	0.870	54.1	171.8	1.1	0.574
4-1460	4-1910	0.178	173.0	24.3	3.13	1.338	88.3	0.296	1.026	7.2	469.8	0.722	1.330	-1.78	1.000	107.2	320.7	-21.1	0.310
4-1460	4-1920	0.760	82.8	5.1	3.44	1.252	56.4	0.564	0.836	112.2	579.3	0.364	1.307	-1.85	0.885	57.6	178.9	-2.4	0.522
4-1460	4-1920	0.184	194.2	25.9	3.44	1.341	90.9	0.302	1.035	356.0	823.1	0.723	1.348	-1.85	1.007	107.5	331.0	-17.8	0.318
4-1460	4-1930	0.631	86.0	6.6	3.79	1.260	60.1	0.515	0.850	105.5	582.3	0.412	1.288	-1.98	0.898	60.7	186.0	-6.2	0.474
4-1460	4-1930	0.207	213.0	25.3	3.79	1.345	93.6	0.314	1.046	345.1	821.9	0.718	1.374	-1.98	1.014	108.2	340.7	-14.3	0.334
4-1460	4-1940	0.566	89.3	8.4	4.21	1.267	63.5	0.470	0.863	93.6	585.2	0.458	1.269	-2.20	0.911	63.5	193.3	-10.2	0.431
4-1460	4-1940	0.245	227.6	23.7	4.21	1.349	96.3	0.332	1.058	334.6	821.2	0.706	1.409	-2.20	1.021	109.2	350.1	-10.8	0.355
4-1460	4-1950	0.508	92.6	11.0	4.75	1.273	66.0	0.428	0.876	91.6	587.9	0.501	1.250	-2.56	0.923	66.0	200.7	-14.6	0.393
4-1460	4-1950	0.292	238.7	22.2	4.75	1.353	99.1	0.357	1.071	324.7	821.0	0.689	1.453	-2.56	1.030	110.6	359.1	-7.4	0.383
4-1460	4-1960	0.456	96.3	14.7	5.53	1.279	69.5	0.391	0.897	84.4	590.5	0.540	1.234	-3.17	0.934	68.1	208.2	-19.8	0.361
4-1460	4-1960	0.350	247.2	21.5	5.53	1.357	102.0	0.337	1.085	315.4	821.5	0.665	1.505	-3.17	1.039	112.3	8.0	-4.5	0.417
4-1460	4-1970	0.471	99.5	20.6	6.87	1.284	72.1	0.350	0.897	77.0	593.0	0.576	1.219	-4.35	0.944	69.9	215.7	-26.4	0.336
4-1460	4-1970	0.417	254.3	22.2	6.87	1.362	105.1	0.421	1.104	306.6	822.6	0.637	1.565	-4.35	1.048	114.4	16.9	-2.7	0.457
4-1460	4-1980	0.402	102.0	32.2	9.95	1.289	74.5	0.331	0.907	69.5	595.4	0.607	1.206	-7.27	0.953	71.5	222.8	-37.8	0.328
4-1460	4-1980	0.503	269.7	26.4	9.95	1.367	108.4	0.460	1.118	293.4	824.3	0.604	1.632	-7.27	1.057	116.7	26.3	-3.7	0.509
4-1460	4-1990	0.636	83.9	62.4	26.62	1.293	76.6	0.308	0.915	62.0	597.6	0.633	1.197	-23.78	0.961	72.7	234.6	-70.1	0.489
4-1460	4-2000	0.386	108.2	-49.7	-13.39	1.296	78.9	0.286	0.922	53.5	599.9	0.658	1.186	16.38	0.968	73.9	259.0	20.7	0.385
4-1460	4-2010	0.596	107.2	-7.1	-3.20	1.438	66.1	0.608	1.434	66.0	262.0	---	2.307	6.34	1.153	56.7	246.0	-11.8	0.634
4-1460	4-2010	0.297	121.5	-17.5	-3.20	1.199	80.8	0.271	0.929	45.6	601.8	0.677	1.181	6.34	0.974	74.7	259.6	-7.2	0.279
4-1460	4-2020	0.542	111.6	-1.7	-0.68	1.440	68.7	0.591	1.447	59.4	265.7	---	2.303	3.99	1.157	58.3	253.8	-16.0	0.604
4-1460	4-2020	0.198	129.7	-4.5	-0.68	1.302	69.6	0.259	0.935	37.3	603.6	0.693	1.177	3.99	0.980	75.3	267.4	-8.6	0.258
4-1460	4-2030	0.494	116.5	1.4	0.30	1.442	71.2	0.575	1.459	52.7	269.1	---	2.299	2.98	1.160	59.9	262.4	-18.1	0.579
4-1460	4-2030	0.172	139.3	3.8	0.30	1.304	84.4	0.249	0.940	28.9	605.3	0.706	1.175	2.98	0.984	75.8	276.4	-11.8	0.249
4-1460	4-2040	0.447	122.1	3.8	1.23	1.448	73.9	0.561	1.470	45.8	272.4	---	2.296	2.43	1.161	61.3	271.4	-19.0	0.550
4-1460	4-2040	0.154	151.6	10.5	1.23	1.306	86.1	0.283	0.945	20.2	606.8	0.715	1.175	2.43	0.988	76.1	285.8	-13.0	0.245
4-1460	4-2050	0.403	128.7	6.1	1.74	1.445	76.5	0.549	1.481	38.6	275.4	---	2.294	2.11	1.166	62.5	280.5	-19.0	0.539
4-1460	4-2050	0.143	166.4	16.1	1.74	1.308	87.8	0.241	0.950	11.2	608.0	0.721	1.178	2.11	0.990	76.2	295.4	-12.9	0.245
4-1460	4-2060	0.383	136.9	8.4	2.15	1.447	79.2	0.539	1.491	31.1	278.0	---	2.294	1.92	1.167	63.6	289.8	-18.3	0.524
4-1460	4-2060	0.142	183.6	20.2	2.15	1.310	89.6	0.241	0.954	1.9	608.9	0.724	1.184	1.92	0.992	76.2	305.0	-11.9	0.248
4-1470	4-1500	0.524	127.0	5.5	2.15	1.421	59.2	0.561	1.351	60.3	99.1	---	---	-1.40	1.108	121.3	276.8	-25.7	0.576

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1470	4-1510	0.413	120.8	7.5	2.47	1.319	71.8	0.399	0.981	69.8	118.2	---	---	-1.21	0.974	113.5	277.0	-26.0	0.400
4-1470	4-1520	0.365	116.5	9.0	2.71	1.270	73.3	0.331	0.873	77.4	135.3	---	---	-1.07	0.907	106.9	276.0	-26.5	0.293
4-1470	4-1530	0.338	114.0	10.3	2.90	1.246	74.2	0.297	0.828	82.0	149.4	---	---	-0.98	0.874	101.5	273.3	-27.2	0.223
4-1470	4-1540	0.320	113.0	11.5	3.06	1.234	75.0	0.279	0.810	83.8	160.8	---	---	-0.93	0.859	97.1	268.6	-27.9	0.177
4-1470	4-1550	0.306	113.1	12.6	3.22	1.230	75.6	0.266	0.803	83.5	170.2	---	---	-0.90	0.856	93.5	262.3	-28.4	0.150
4-1470	4-1560	0.294	114.0	13.9	3.37	1.231	76.3	0.256	0.804	81.8	178.1	---	---	-0.91	0.859	90.7	255.7	-28.6	0.135
4-1470	4-1570	0.282	115.4	15.2	3.53	1.234	77.0	0.247	0.809	79.0	185.0	---	1.008	-0.94	0.866	88.4	250.4	-28.6	0.129
4-1470	4-1580	0.270	117.3	16.8	3.71	1.238	77.7	0.239	0.815	75.4	191.1	---	1.010	-1.00	0.875	86.6	247.4	-28.7	0.129
4-1470	4-1590	0.258	119.6	18.8	3.92	1.243	78.5	0.232	0.823	71.2	196.7	---	1.014	-1.11	0.885	85.1	246.6	-28.3	0.132
4-1470	4-1600	0.247	122.3	21.2	4.19	1.248	79.3	0.225	0.832	66.5	201.9	---	1.019	-1.28	0.895	83.9	248.5	-30.4	0.137
4-1470	4-1610	0.237	125.3	24.6	4.58	1.253	80.1	0.219	0.841	61.4	206.7	---	1.026	-1.59	0.906	83.0	252.0	-32.5	0.144
4-1470	4-1620	0.230	128.6	29.5	5.23	1.258	81.0	0.214	0.850	56.1	211.3	---	1.032	-2.16	0.916	82.3	256.8	-36.0	0.151
4-1470	4-1630	0.235	131.9	38.5	6.71	1.263	81.9	0.209	0.860	50.3	215.6	---	1.039	-3.55	0.925	81.6	263.2	-43.5	0.164
4-1470	4-1640	0.248	126.9	63.1	14.27	1.268	82.9	0.208	0.868	44.4	219.6	---	1.047	-11.03	0.934	81.1	280.1	-69.5	0.245
4-1470	4-1650	0.203	143.4	-41.0	-6.05	1.272	83.9	0.202	0.877	37.8	223.3	---	1.055	9.37	0.942	80.7	278.4	18.3	0.229
4-1470	4-1660	0.144	152.8	0.4	0.05	1.276	84.9	0.201	0.885	31.2	226.9	---	1.063	3.35	0.949	80.4	284.0	-5.1	0.181
4-1470	4-1670	0.136	161.7	13.4	1.41	1.280	86.0	0.200	0.893	24.3	230.1	---	1.072	2.07	0.956	80.0	291.8	-11.0	0.182
4-1470	4-1680	0.130	172.5	20.4	2.03	1.284	87.2	0.201	0.901	17.1	233.1	---	1.082	1.54	0.961	79.6	300.1	-12.6	0.188
4-1470	4-1690	0.128	185.6	24.9	2.41	1.288	88.4	0.204	0.908	9.6	235.7	---	1.093	1.25	0.966	79.2	308.5	-12.5	0.198
4-1470	4-1700	0.131	200.2	27.4	2.67	1.291	89.7	0.208	0.915	1.7	238.1	---	1.106	1.08	0.970	78.8	316.9	-11.2	0.205
4-1470	4-1710	0.139	215.4	27.8	2.86	1.294	91.1	0.214	0.922	353.6	600.1	0.724	1.120	0.98	0.973	78.2	325.4	-9.2	0.216
4-1470	4-1720	0.155	229.6	26.5	3.06	1.297	92.7	0.224	0.928	345.1	601.8	0.721	1.136	0.93	0.975	77.6	333.8	-6.7	0.229
4-1470	4-1730	0.178	241.9	24.2	3.22	1.300	94.5	0.237	0.935	336.3	603.1	0.713	1.156	0.90	0.977	76.7	342.3	-3.7	0.245
4-1470	4-1740	0.209	252.4	21.4	3.38	1.302	96.5	0.254	0.941	327.1	604.0	0.702	1.180	0.91	0.978	75.6	350.9	-0.4	0.265
4-1470	4-1750	0.250	261.2	18.6	3.55	1.305	98.9	0.278	0.947	317.5	604.4	0.684	1.210	0.94	0.979	74.1	359.6	3.2	0.291
4-1470	4-1760	0.304	269.0	15.9	3.73	1.307	101.7	0.310	0.953	307.3	604.2	0.657	1.248	1.01	0.979	72.1	8.7	6.9	0.325
4-1470	4-1770	0.374	276.0	13.4	3.95	1.310	105.3	0.356	0.958	296.3	603.1	0.620	1.297	1.13	0.980	69.4	18.2	10.7	0.371
4-1470	4-1770	0.713	314.0	4.9	3.95	1.092	125.9	0.596	0.639	223.5	890.3	0.258	1.020	1.13	0.661	103.7	121.6	22.2	0.386
4-1470	4-1780	0.473	282.8	11.1	4.23	1.312	110.1	0.415	0.964	284.2	600.8	0.564	1.364	1.31	0.980	65.6	28.6	14.6	0.455
4-1470	4-1780	0.697	314.5	5.4	4.23	1.083	125.1	0.588	0.630	222.8	899.5	0.259	1.001	1.31	0.641	90.8	108.0	24.8	0.358
4-1470	4-1790	0.605	290.0	9.0	4.63	1.315	116.7	0.503	0.971	270.1	596.5	0.483	1.459	1.63	0.981	59.9	40.3	18.4	0.530
4-1470	4-1790	0.742	315.5	5.3	4.63	1.079	127.6	0.622	0.627	221.0	907.4	0.237	1.018	1.63	0.631	76.2	97.0	25.8	0.406
4-1470	4-1800	0.858	317.7	4.8	5.32	1.079	133.9	0.703	0.627	216.9	913.0	0.186	1.068	2.23	0.626	65.3	93.1	25.8	0.526
4-1470	4-1850	0.873	79.2	1.1	1.27	1.051	43.8	0.734	0.604	147.0	891.3	0.161	1.048	-2.19	0.561	112.1	196.8	-9.5	0.509
4-1470	4-1860	0.599	110.1	3.8	1.93	1.323	62.8	0.516	0.990	89.7	483.5	0.480	1.501	-1.62	0.979	121.0	257.4	-25.5	0.523
4-1470	4-1860	0.957	75.4	1.3	1.93	1.017	38.5	0.798	0.580	152.8	906.6	0.117	1.043	-1.62	0.493	86.1	164.7	5.1	0.570
4-1470	4-1860	0.811	79.8	1.9	1.93	1.045	47.3	0.695	0.600	145.5	899.3	0.183	1.017	-1.62	0.548	91.6	185.2	-4.4	0.437
4-1470	4-1870	0.467	118.0	6.2	2.32	1.329	69.3	0.436	0.997	74.8	478.1	0.563	1.432	-1.31	0.982	115.8	271.3	-26.1	0.440
4-1470	4-1880	0.373	126.1	8.9	2.59	1.328	74.2	0.381	1.004	61.2	474.1	0.621	1.386	-1.13	0.986	112.4	284.4	-25.5	0.386
4-1470	4-1890	0.302	135.4	12.2	2.80	1.330	78.1	0.345	1.011	48.6	470.9	0.662	1.359	-1.02	0.990	110.2	296.7	-23.9	0.352
4-1470	4-1900	0.248	146.7	16.0	2.98	1.333	81.4	0.321	1.018	36.2	468.2	0.691	1.344	-0.95	0.995	108.7	308.4	-21.6	0.331
4-1470	4-1910	0.210	161.2	20.3	3.14	1.335	84.4	0.307	1.025	24.1	465.7	0.710	1.340	-0.91	1.000	107.9	319.4	-18.6	0.320
4-1470	4-1920	0.188	179.7	24.1	3.29	1.338	87.1	0.302	1.033	12.3	463.6	0.721	1.346	-0.90	1.006	107.5	329.8	-15.2	0.318
4-1470	4-1930	0.761	96.5	4.5	3.45	1.241	53.3	0.60	0.831	117.0	577.9	0.327	1.336	-0.92	0.884	54.5	189.2	-5.2	0.569
4-1470	4-1930	0.184	200.8	25.9	3.45	1.341	89.8	0.56	1.042	0.9	461.8	0.725	1.360	-0.92	1.012	107.6	339.7	-13.5	0.322
4-1470	4-1940	0.688	99.7	5.5	3.61	1.255	57.1	0.556	0.846	110.5	581.1	0.375	1.316	-0.96	0.898	57.8	196.5	-8.5	0.519
4-1470	4-1940	0.199	220.9	25.2	3.61	1.345	92.4	0.314	1.052	349.8	820.4	0.722	1.302	-0.96	1.019	108.1	349.2	-7.7	0.334
4-1470	4-1950	0.620	102.9	6.8	3.80	1.263	60.7	0.508	0.859	103.8	584.2	0.422	1.296	-1.05	0.911	60.9	204.0	-11.9	0.473
4-1470	4-1950	0.228	237.2	23.0	3.80	1.348	95.1	0.329	1.063	339.2	819.6	0.713	1.413	-1.05	1.027	109.0	358.4	-3.8	0.351
4-1470	4-1960	0.556	106.2	8.3	4.04	1.270	64.0	0.464	0.872	96.9	587.1	0.467	1.277	-1.18	0.924	63.6	211.7	-15.3	0.431
4-1470	4-1960	0.270	249.6	20.5	4.04	1.352	97.9	0.351	1.075	329.1	819.3	0.698	1.452	-1.18	1.034	110.1	7.4	-0.1	0.375
4-1470	4-1970	0.498	109.7	10.3	4.35	1.276	67.1	0.424	0.884	89.9	590.0	0.510	1.259	-1.41	0.935	66.0	219.8	-18.7	0.394
4-1470	4-1970	0.320	259.0	18.4	4.35	1.357	100.8	0.378	1.089	319.6	819.7	0.678	1.500	-1.41	1.043	111.7	16.2	3.3	0.404
4-1470	4-1980	0.446	113.2	13.2	4.84	1.281	69.9	0.387	0.895	82.7	592.7	0.548	1.242	-1.81	0.946	68.1	228.2	-22.5	0.362
4-1470	4-1980	0.378	266.3	17.1	4.84	1.361	103.8	0.409	1.104	310.7	820.7	0.652	1.556	-1.81	1.051	113.5	25.0	6.1	0.439
4-1470	4-1990	0.402	116.9	17.8	5.75	1.286	72.5	0.356	0.905	75.5	595.3	0.583	1.227	-2.64	0.955	69.9	236.9	-27.2	0.336
4-1470	4-1990	0.444	272.4	17.2	5.75	1.366	106.9	0.445	1.120	302.3	822.3	0.621	1.618	-2.64	1.060	115.7	34.0	8.0	0.479
4-1470	4-2000	0.381	120.0	28.6	8.41	1.290	74.9	0.329	0.914	67.7	597.7	0.614	1.215	-5.22	0.963	71.4	245.7	-36.7	0.323
4-1470	4-2000	0.526	278.1	21.0	8.41	1.371	110.2	0.485	1.137	294.4	824.4	0.586	1.688	-5.22	1.069	118.1	43.5	6.9	0.528
4-1470	4-2020	0.259	132.9	-8.3	-1.69	1.297	79.2	0.286	0.930	51.8	602.1	0.664	1.196	5.04	0.977	73.7	268.2	-6.9	0.289
4-1470	4-2030	0.575	125.0	2.0	0.85	1.438	67.0	0.603	1.848	63.4	263.9	---	2.322	2.58	1.158	57.3	265.0	-19.3	0.622
4-1470	4-2030	0.[illegible]	139.8	4.9	0.85	1.300	81.1	0.271	0.936	43.5	604.0	0.682	1.190	2.58	0.982	78.5	276.9	-14.2	0.269
4-1470	4-2040	0.566	129.5	4.5	1.75	1.440	69.6	0.587	1.861	56.8	267.4	---	2.318	1.77	1.169	59.0	273.9	-20.4	0.597
4-1470	4-2040	0.197	148.1	11.6	1.75	1.303	83.0	0.259	0.942	35.1	605.7	0.698	1.186	1.77	0.986	75.2	286.5	-16.0	0.259
4-1470	4-2050	0.479	134.6	6.4	2.23	1.442	72.2	0.572	1.473	50.0	270.8	---	2.314	1.38	1.164	60.4	283.0	-20.5	0.574
4-1470	4-2050	0.175	158.4	10.8	2.23	1.305	84.8	0.251	0.947	26.4	607.2	0.710	1.185	1.38	0.989	75.6	296.2	-15.9	0.253
4-1470	4-2060	0.434	140.6	8.2	2.54	1.444	74.9	0.558	1.484	42.9	273.9	---	2.312	1.16	1.165	61.8	292.2	-19.7	0.554
4-1470	4-2060	0.159	171.6	21.3	2.54	1.307	86.6	0.245	0.952	17.4	608.4	0.718	1.186	1.16	0.992	79.9	305.9	-14.8	0.251
4-1470	4-2070	0.391	147.9	10.1	2.78	1.445	77.6	0.547	1.494	35.5	276.7	---	2.310	1.03	1.167	63.0	301.3	-18.3	0.537
4-1470	4-2070	0.151	187.6	24.8	2.78	1.309	88.4	0.243	0.956	8.2	609.4	0.724	1.189	1.03	0.994	76.0	315.4	-12.8	0.252
4-1480	4-1510	0.625	122.1	6.2	3.[illegible]	1.295	61.0	0.520	0.928	97.4	129.9	---	---	0.05	0.944	120.9	269.6	-23.4	0.517
4-1480	4-1520	0.523	119.3	7.3	3.[illegible]	1.231	64.9	0.433	0.807	103.0	145.1	---	---	0.04	0.854	111.0	267.6	-23.3	0.363
4-1480	4-1530	0.467	118.2	8.2	3.42	1.205	67.3	0.389	0.768	105.2	156.7	---	---	0.04	0.818	103.4	264.1	-23.2	0.274
4-1480	4-1540	0.432	118.3	8.9	3.41	1.197	69.0	0.361	0.757	105.0	166.1	---	---	0.03	0.808	97.6	259.2	-23.0	0.219
4-1480	4-1550	0.405	119.2	9.5	3.40	1.198	70.3	0.339	0.758	103.1	173.8	---	---	0.03	0.811	93.1	253.8	-22.5	0.188
4-1480	4-1560	0.383	120.7	10.2	3.40	1.202	71.5	0.321	0.784	100.1	180.5	---	1.009	0.03	0.820	89.7	249.0	-21.9	0.171
4-1480	4-1570	0.363	122.6	10.8	3.39	1.209	72.6	0.305	0.778	96.4	186.5	---	1.010	0.03	0.833	87.1	245.9	-21.4	0.163
4-1480	4-1580	0.344	124.7	11.6	3.39	1.217	73.6	0.291	0.785	92.1	192.0	---	1.013	0.03	0.847	85.2	244.7	-21.3	0.161
4-1480	4-1590	0.325	127.3	12.4	3.39	1.224	74.7	0.278	0.797	87.4	197.1	---	1.018	0.03	0.862	83.7	245.8	-21.4	0.162
4-1480	4-1600	0.307	129.8	13.3	3.38	1.232	75.7	0.266	0.809	82.3	201.8	---	1.024	0.03	0.876	82.5	248.5	-21.8	0.165

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1480	4-1610	0.288	132.7	14.3	3.37	1.240	76.8	0.255	0.822	76.9	206.4	---	1.031	0.04	0.890	81.6	252.5	-22.3	0.163
4-1480	4-1620	0.270	135.8	15.3	3.36	1.247	77.8	0.246	0.834	71.3	210.7	---	1.038	0.05	0.903	81.0	257.7	-22.7	0.171
4-1480	4-1630	0.252	139.3	16.5	3.34	1.253	78.9	0.237	0.845	65.4	214.8	---	1.045	0.06	0.914	80.5	263.8	-23.0	0.175
4-1480	4-1640	0.234	143.3	17.8	3.32	1.260	80.0	0.229	0.856	59.2	218.7	---	1.053	0.08	0.925	80.1	270.6	-23.0	0.178
4-1480	4-1650	0.216	147.9	19.0	3.23	1.265	81.1	0.223	0.867	52.8	222.4	---	1.060	0.16	0.935	79.8	277.9	-22.4	0.182
4-1480	4-1660	0.196	153.2	-18.0	-2.76	1.271	82.2	0.218	0.877	46.2	225.9	---	1.068	6.16	0.944	79.6	284.4	5.2	0.215
4-1480	4-1670	0.186	159.3	25.0	3.56	1.275	83.4	0.214	0.887	39.3	229.2	---	1.076	-0.17	0.951	79.3	294.0	-22.5	0.190
4-1480	4-1680	0.171	167.0	26.8	3.47	1.280	84.6	0.211	0.896	32.1	232.2	---	1.085	-0.09	0.958	79.2	302.2	-20.6	0.194
4-1480	4-1690	0.158	176.4	29.1	3.44	1.284	85.8	0.210	0.905	24.7	234.9	---	1.095	-0.06	0.964	78.9	310.5	-18.5	0.199
4-1480	4-1700	0.149	188.0	31.1	3.43	1.288	87.1	0.210	0.913	17.0	237.4	---	1.105	-0.05	0.968	78.7	318.8	-16.2	0.205
4-1480	4-1710	0.143	201.9	32.4	3.42	1.291	88.4	0.213	0.921	9.0	239.6	---	1.116	-0.04	0.972	78.4	327.1	-13.4	0.213
4-1480	4-1720	0.144	217.4	32.4	3.41	1.295	89.9	0.217	0.928	0.7	241.5	---	1.130	-0.03	0.975	78.0	335.4	-10.4	0.221
4-1480	4-1730	0.151	233.1	30.7	3.40	1.298	91.4	0.225	0.935	352.2	603.1	0.725	1.145	-0.03	0.977	77.4	343.7	-7.1	0.232
4-1480	4-1740	0.166	247.5	27.6	3.40	1.301	93.1	0.235	0.942	343.4	604.4	0.720	1.163	-0.03	0.979	76.7	352.0	-3.6	0.245
4-1480	4-1750	0.190	259.9	25.8	3.39	1.304	95.1	0.249	0.948	334.2	605.2	0.712	1.184	-0.03	0.980	75.8	0.5	0.1	0.262
4-1480	4-1760	0.224	270.2	20.0	3.39	1.306	97.3	0.269	0.954	324.7	605.7	0.698	1.211	-0.03	0.980	74.6	9.1	3.8	0.284
4-1480	4-1770	0.269	279.0	16.4	3.38	1.309	99.8	0.295	0.960	314.7	605.6	0.677	1.243	-0.03	0.981	73.0	18.1	7.6	0.310
4-1480	4-1780	0.327	286.7	13.3	3.38	1.311	103.0	0.330	0.966	304.2	604.9	0.647	1.285	-0.03	0.981	70.8	27.5	11.2	0.347
4-1480	4-1790	0.747	329.1	4.0	3.38	1.107	127.2	0.611	0.654	224.5	885.3	0.255	1.053	-0.03	0.684	110.8	142.1	14.8	0.424
4-1480	4-1790	0.406	293.7	10.5	3.37	1.314	107.0	0.379	0.972	292.7	603.2	0.603	1.341	-0.04	0.982	67.8	37.7	14.7	0.397
4-1480	4-1790	0.683	329.3	4.4	3.37	1.092	124.4	0.576	0.640	224.5	895.0	0.27	1.009	-0.04	0.656	96.7	129.6	18.4	0.350
4-1480	4-1800	0.513	300.8	8.0	3.36	1.316	112.3	0.448	0.979	279.8	600.1	0.540	1.417	-0.05	0.982	63.4	48.9	18.0	0.469
4-1480	4-1600	0.697	330.0	4.3	3.36	1.037	125.2	0.589	0.636	223.3	903.6	0.261	1.010	-0.05	0.643	84.8	117.4	21.0	0.361
4-1480	4-1810	0.668	308.8	5.7	3.34	1.319	119.9	0.548	0.985	264.7	594.7	0.445	1.525	-0.06	0.983	56.8	61.7	20.8	0.577
4-1480	4-1810	0.768	331.4	3.7	3.34	1.085	129.2	0.641	0.634	220.7	910.7	0.227	1.041	-0.06	0.636	72.1	109.9	22.1	0.438
4-1480	4-1820	0.919	334.3	2.6	3.32	1.086	137.5	0.763	0.635	215.0	914.7	0.163	1.107	-0.08	0.635	56.2	109.6	22.1	0.588
4-1480	4-1870	0.824	96.7	3.2	3.45	1.060	46.8	0.698	0.613	144.3	891.8	0.185	1.041	0.06	0.580	107.9	214.5	-13.7	0.467
4-1480	4-1850	0.550	129.3	7.6	3.43	1.326	65.5	0.486	1.005	83.2	480.2	0.517	1.494	0.05	0.986	119.1	280.5	-23.0	0.498
4-1480	4-1880	0.917	92.9	2.5	3.43	1.029	41.0	0.769	0.590	150.3	907.3	0.136	1.044	0.05	0.522	67.5	182.2	-0.9	0.538
4-1480	4-1880	0.765	96.8	3.5	3.43	1.053	48.9	0.674	0.607	143.7	900.7	0.198	1.017	0.05	0.567	88.5	200.6	-8.6	0.417
4-1480	4-1890	0.432	137.5	10.0	3.42	1.329	71.4	0.416	1.012	68.5	475.0	0.591	1.433	0.04	0.991	114.6	293.8	-21.6	0.426
4-1480	4-1900	0.345	146.4	12.9	3.41	1.331	76.0	0.369	1.019	54.9	471.0	0.643	1.394	0.04	0.995	111.6	306.0	-19.2	0.380
4-1480	4-1910	0.281	156.8	16.1	3.41	1.334	79.8	0.338	1.026	42.0	467.7	0.679	1.372	0.03	1.000	109.7	317.4	-16.3	0.352
4-1480	4-1920	0.233	170.0	19.8	3.40	1.336	83.0	0.319	1.033	29.6	464.9	0.703	1.362	0.03	1.005	108.6	328.2	-12.8	0.335
4-1480	4-1930	0.201	186.9	23.1	3.40	1.339	85.9	0.310	1.041	17.5	462.5	0.718	1.363	0.03	1.011	108.0	338.4	-9.0	0.328
4-1480	4-1940	0.188	207.2	25.0	3.39	1.342	88.6	0.309	1.049	5.8	460.5	0.725	1.373	0.03	1.018	107.8	348.1	-5.0	0.328
4-1480	4-1950	0.746	113.4	4.6	3.39	1.251	54.1	0.596	0.841	115.1	579.6	0.340	1.343	0.03	0.898	54.9	207.0	-11.1	0.565
4-1480	4-1950	0.193	228.1	26.4	3.39	1.345	91.3	0.315	1.059	354.5	819.0	0.725	1.392	0.03	1.024	108.1	357.5	-1.0	0.336
4-1480	4-1960	0.675	116.6	5.3	3.38	1.259	57.9	0.547	0.855	108.6	582.9	0.387	1.323	0.03	0.912	58.1	214.7	-13.8	0.516
4-1480	4-1960	0.214	246.1	21.7	3.38	1.349	94.0	0.327	1.069	343.7	818.0	0.719	1.419	0.03	1.032	108.8	6.7	3.0	0.349
4-1480	4-1970	0.607	119.9	6.2	3.37	1.266	61.4	0.500	0.869	101.9	586.1	0.434	1.303	0.04	0.924	61.1	222.8	-16.3	0.472
4-1480	4-1970	0.249	260.0	18.5	3.37	1.352	96.7	0.346	1.080	333.5	817.7	0.707	1.454	0.04	1.039	109.8	15.8	6.8	0.369
4-1480	4-1980	0.544	123.3	7.1	3.37	1.273	64.6	0.457	0.881	95.0	589.2	0.478	1.284	0.04	0.936	63.7	231.2	-18.6	0.432
4-1480	4-1980	0.294	270.4	15.5	3.37	1.356	99.5	0.370	1.093	323.9	818.0	0.688	1.497	0.04	1.047	111.1	24.9	10.4	0.394
4-1480	4-1990	0.485	126.8	8.2	3.35	1.278	67.6	0.418	0.893	87.9	592.1	0.520	1.266	0.05	0.947	66.1	240.0	-20.5	0.396
4-1480	4-1990	0.347	278.5	13.0	3.35	1.360	102.5	0.399	1.107	314.8	818.9	0.665	1.548	0.05	1.055	112.8	33.8	13.7	0.425
4-1480	4-2000	0.431	130.6	9.4	3.33	1.284	70.4	0.383	0.904	80.7	594.8	0.558	1.250	0.07	0.957	68.1	249.1	-21.9	0.365
4-1480	4-2000	0.405	284.9	10.9	3.33	1.365	105.5	0.433	1.122	306.3	820.4	0.637	1.607	0.07	1.063	114.8	42.8	16.6	0.461
4-1480	4-2010	0.382	134.8	10.7	3.29	1.288	73.0	0.352	0.913	73.2	597.4	0.592	1.235	0.11	0.965	69.9	258.6	-22.7	0.338
4-1480	4-2010	0.469	290.2	9.1	3.29	1.370	108.7	0.469	1.138	298.2	822.5	0.604	1.672	0.11	1.071	117.0	52.0	19.1	0.501
4-1480	4-2020	0.336	139.4	11.6	3.10	1.292	75.4	0.326	0.922	65.5	599.9	0.622	1.223	0.30	0.972	71.4	268.3	-22.6	0.316
4-1480	4-2020	0.536	294.8	7.4	3.10	1.374	112.0	0.509	1.156	290.6	825.0	0.567	1.744	0.30	1.079	119.5	61.1	21.3	0.545
4-1480	4-2030	0.299	144.4	16.1	3.76	1.296	77.6	0.303	0.930	57.5	602.1	0.648	1.212	-0.37	0.978	72.6	278.2	-24.4	0.298
4-1480	4-2030	0.609	298.9	7.7	3.76	1.379	115.4	0.550	1.174	283.3	827.9	0.528	1.820	-0.37	1.086	122.2	70.6	21.7	0.593
4-1480	4-2040	0.262	150.5	17.4	3.51	1.299	79.7	0.285	0.937	49.4	604.1	0.670	1.204	-0.12	0.983	73.7	288.0	-22.8	0.285
4-1480	4-2050	0.562	142.5	8.2	3.46	1.439	68.0	0.598	1.462	60.7	265.6	---	2.337	-0.07	1.162	58.0	286.0	-22.7	0.617
4-1480	4-2050	0.229	157.7	19.8	3.46	1.302	81.6	0.270	0.944	40.9	605.9	0.688	1.199	-0.07	0.987	74.5	297.8	-21.2	0.272
4-1480	4-2060	0.513	147.3	9.1	3.44	1.441	70.7	0.582	1.475	54.0	269.1	---	2.333	-0.05	1.164	59.6	295.0	-21.5	0.593
4-1480	4-2060	0.202	166.7	22.6	3.44	1.304	83.5	0.259	0.949	32.3	607.4	0.703	1.196	-0.05	0.990	75.1	307.4	-19.2	0.264
4-1480	4-2070	0.465	152.8	10.2	3.42	1.443	73.3	0.568	1.486	47.0	272.3	---	2.329	-0.04	1.166	61.0	304.0	-19.8	0.571
4-1480	4-2070	0.300	178.1	25.6	3.42	1.306	85.4	0.252	0.955	23.4	608.6	0.714	1.195	-0.04	0.992	75.5	316.9	-16.7	0.260
4-1480	4-2080	0.420	159.4	11.5	3.41	1.444	76.0	0.555	1.497	39.8	275.3	---	2.327	-0.04	1.167	62.3	312.9	-17.7	0.552
4-1480	4-2080	0.165	192.5	28.2	3.41	1.308	87.2	0.247	0.959	14.2	609.6	0.722	1.197	-0.04	0.994	75.8	326.2	-13.7	0.258
4-1490	4-1520	0.767	122.9	6.3	5.20	1.179	52.0	0.616	0.735	127.2	153.4	---	---	2.17	0.780	121.6	260.5	-20.4	0.523
4-1490	4-1530	0.649	123.1	6.8	4.59	1.147	57.5	0.539	0.697	126.4	162.1	---	---	1.69	0.732	108.7	257.3	-19.9	0.380
4-1490	4-1540	0.580	124.2	7.3	4.20	1.143	61.0	0.487	0.693	124.2	169.5	---	---	1.34	0.728	99.7	253.1	-19.3	0.301
4-1490	4-1550	0.533	125.9	7.6	3.93	1.150	63.5	0.448	0.700	120.9	175.8	---	---	1.17	0.741	93.4	249.0	-18.6	0.255
4-1490	4-1560	0.496	128.0	7.9	3.71	1.161	65.5	0.416	0.713	117.0	181.6	---	1.010	1.06	0.761	88.9	245.8	-18.0	0.230
4-1490	4-1570	0.464	130.4	8.2	3.53	1.174	67.2	0.388	0.729	112.5	186.8	---	1.011	0.99	0.784	85.7	244.1	-17.7	0.217
4-1490	4-1580	0.436	132.9	8.5	3.36	1.187	68.7	0.364	0.745	107.7	191.7	---	1.016	0.96	0.806	83.4	244.1	-17.6	0.210
4-1490	4-1590	0.409	135.5	8.8	3.19	1.199	70.2	0.342	0.762	102.6	196.4	---	1.023	0.96	0.828	81.8	245.9	-17.7	0.207
4-1490	4-1600	0.384	138.2	9.1	3.02	1.211	71.5	0.323	0.779	97.3	200.9	---	1.030	0.98	0.848	80.6	249.0	-18.0	0.205
4-1490	4-1610	0.359	141.1	9.3	2.84	1.222	72.9	0.305	0.795	91.7	205.2	---	1.037	1.04	0.866	79.8	253.3	-18.2	0.205
4-1490	4-1620	0.335	144.1	9.3	2.62	1.231	74.2	0.290	0.810	85.8	209.4	---	1.045	1.15	0.883	79.2	258.6	-18.2	0.205
4-1490	4-1630	0.311	147.3	9.1	2.35	1.240	75.5	0.276	0.825	79.9	213.4	---	1.053	1.32	0.899	78.8	264.7	-17.7	0.206
4-1490	4-1640	0.280	150.8	8.3	1.96	1.249	76.8	0.263	0.839	73.6	217.3	---	1.060	1.68	0.912	78.6	271.3	-16.5	0.207
4-1490	4-1650	0.264	154.6	6.2	1.32	1.256	78.0	0.252	0.853	67.2	220.9	---	1.068	2.16	0.925	78.4	278.4	-15.8	0.209
4-1490	4-1660	0.241	158.8	-0.2	-0.05	1.263	79.3	0.243	0.865	60.6	224.5	---	1.07	3.44	0.935	78.4	285.2	-7.8	0.215
4-1490	4-1670	0.252	162.6	-30.4	-5.84	1.269	80.5	0.235	0.877	53.8	227.8	---	1.083	9.19	0.945	78.3	291.4	13.0	0.259
4-1490	4-1680	0.391	155.5	62.4	15.94	1.274	81.8	0.228	0.888	46.5	230.9	---	1.091	-12.72	0.953	78.3	327.9	-59.5	0.301

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1490	4-1690	0.233	173.2	41.5	6.97	1.279	83.1	0.224	0.898	39.3	233.7	---	1.099	-3.83	0.959	78.2	316.7	-33.8	0.221
4-1490	4-1700	0.198	182.2	37.0	5.34	1.284	84.4	0.221	0.908	31.8	236.4	---	1.108	-2.29	0.965	78.2	322.8	-25.2	0.218
4-1490	4-1710	0.177	192.5	35.9	4.63	1.288	85.8	0.219	0.917	24.0	238.8	---	1.118	-1.68	0.970	78.1	330.2	-19.9	0.220
4-1490	4-1720	0.162	204.9	35.8	4.21	1.292	87.2	0.220	0.925	15.9	240.9	---	1.129	-1.35	0.973	77.9	337.9	-15.4	0.224
4-1490	4-1730	0.154	219.5	35.2	3.93	1.296	88.6	0.222	0.934	7.6	242.7	---	1.141	-1.17	0.976	77.6	345.8	-11.3	0.230
4-1490	4-1740	0.152	235.6	33.4	3.70	1.299	90.2	0.227	0.941	359.1	604.2	0.727	1.155	-1.05	0.978	77.2	353.8	-7.3	0.238
4-1490	4-1750	0.159	251.5	30.0	3.51	1.302	91.8	0.235	0.948	350.3	605.4	0.725	1.171	-0.99	0.980	76.-	1.9	-3.3	0.248
4-1490	4-1760	0.175	265.8	25.6	3.34	1.305	93.7	0.247	0.955	341.2	606.3	0.720	1.191	-0.96	0.981	75.9	10.2	0.6	0.261
4-1490	4-1770	0.201	278.0	21.0	3.17	1.308	95.7	0.262	0.962	331.8	606.9	0.709	1.214	-0.96	0.982	74.9	18.7	4.4	0.277
4-1490	4-1780	0.238	288.7	16.6	3.00	1.310	98.1	0.284	0.968	322.1	606.9	0.693	1.243	-0.99	0.982	73.6	27.6	8.0	0.299
4-1490	4-1790	0.287	296.7	12.8	2.82	1.313	100.9	0.313	0.974	311.8	606.5	0.669	1.279	-1.05	0.982	71.9	36.9	11.4	0.329
4-1490	4-1800	0.352	304.3	9.5	2.60	1.315	104.4	0.352	0.980	300.9	605.3	0.635	1.325	-1.16	0.983	69.4	46.9	14.6	0.368
4-1490	4-1810	0.682	344.2	3.5	2.60	1.103	124.5	0.574	0.652	226.0	890.4	0.278	1.026	-1.16	0.672	102.4	149.6	10.1	0.361
4-1490	4-1810	0.439	311.5	6.6	2.33	1.318	106.8	0.407	0.986	288.9	603.0	0.585	1.388	-1.33	0.984	66.0	57.8	17.3	0.424
4-1490	4-1810	0.668	344.6	3.2	2.33	1.095	123.8	0.567	0.644	225.3	899 5	0.279	1.009	-1.33	0.655	90.7	137.5	13.6	0.336
4-1490	4-1820	0.561	318.7	4.2	1.95	1.320	114.8	0.484	0.993	275.3	599.1	0.512	1.474	-1.62	0.985	61.0	69.9	19.4	0.506
4-1490	4-1820	0.706	345.5	2.4	1.95	1.092	125.9	0.596	0.642	223.7	907.4	0.259	1.024	-1.62	0.647	79.3	127.7	16.1	0.377
4-1490	4-1830	0.805	347.4	1.4	1.35	1.091	131.3	0.667	0.641	220.1	913.4	0.213	1.069	-2.15	0.644	66.2	123.6	17.2	0.482
4-1490	4-1880	0.909	111.6	4.5	5.73	1.069	42.4	0.748	0.622	146.4	887.6	0.157	1.087	2.65	0.600	120.8	235.6	-17.2	0.563
4-1490	4-1890	0.655	140.1	8.6	4.87	1.328	70.4	0.589	1.013	92.8	483.5	0.457	1.569	1.87	0.991	123.3	288.6	-19.6	0.573
4-1490	4-1890	0.779	114.1	5.1	4.87	1.069	49.6	0.661	0.622	141.7	892.4	0.211	1.033	1.87	0.601	104.2	232.6	-16.4	0.431
4-1490	4-1900	0.504	148.7	10.8	4.39	1.330	68.1	0.458	1.020	76.4	476.7	0.552	1.488	1.48	0.996	117.3	302.3	-17.3	0.476
4-1490	4-1900	0.879	110.4	3.6	4.39	1.041	43.5	0.740	0.600	147.9	908.2	0.156	1.044	1.48	0.552	68.6	199.7	-6.7	0.510
4-1490	4-1900	0.760	113.8	4.7	4.39	1.061	50.5	0.651	0.615	142.0	902.2	0.215	1.016	1.48	0.588	85.9	216.4	-12.2	0.401
4-1490	4-1910	0.397	157.5	13.2	4.06	1.333	73.6	0.398	1.027	61.8	471.6	0.618	1.435	1.25	1.001	113.4	314.5	-14.3	0.415
4-1490	4-1920	0.319	167.3	15.8	3.82	1.335	77.8	0.358	1.034	48.1	467.6	0.663	1.404	1.11	1.006	111.0	325.6	-10.8	0.376
4-1490	4-1930	0.260	179.4	18.8	3.62	1.338	81.4	0.333	1.041	35.2	464.3	0.694	1.387	1.02	1.011	109.4	336.4	-6.9	0.352
4-1490	4-1940	0.215	194.7	21.6	3.44	1.340	84.6	0.319	1.048	22.7	461.6	0.714	1.383	0.97	1.017	108.5	346.5	-2.8	0.340
4-1490	4-1950	0.194	213.8	23.3	3.28	1.343	87.5	0.314	1.056	10.7	459.3	0.724	1.388	0.96	1.023	108.1	356.3	1.4	0.336
4-1490	4-1960	0.189	234.8	22.7	3.11	1.346	90.2	0.317	1.065	359.2	817.7	0.727	1.403	0.97	1.030	108.2	5.8	5.6	0.339
4-1490	4-1970	0.730	130.4	4.1	2.94	1.255	55.1	0.585	0.852	113.1	561.5	0.353	1.350	1.01	0.912	55.4	225.7	-15.8	0.561
4-1490	4-1970	0.203	254.2	19.9	2.94	1.349	92.9	0.327	1.075	348.2	816.6	0.723	1.426	1.01	1.037	108.6	15.2	9.6	0.349
4-1490	4-1980	0.659	133.6	4.5	2.74	1.263	58.7	0.537	0.865	106.6	584.8	0.401	1.330	1.09	0.925	58.6	233.9	-17.6	0.516
4-1490	4-1980	0.231	269.7	16.2	2.74	1.352	95.6	0.343	1.085	337.9	816.1	0.714	1.457	1.09	1.044	109.5	24.5	13.4	0.365
4-1490	4-1990	0.592	137.0	4.7	2.50	1.270	62.2	0.491	0.878	99.8	588.1	0.447	1.310	1.22	0.937	61.4	242.5	-18.9	0.471
4-1490	4-1990	0.271	281.4	12.5	2.50	1.356	98.4	0.364	1.097	328.1	816.4	0.698	1.496	1.22	1.051	110.6	33.9	16.9	0.387
4-1490	4-2000	0.529	140.4	4.8	2.18	1.276	65.3	0.449	0.890	92.9	591.2	0.491	1.290	1.44	0.948	64.0	251.5	-19.5	0.433
4-1490	4-2000	0.319	290.4	9.2	2.18	1.360	101.2	0.390	1.110	318.9	817.2	0.677	1.543	1.44	1.059	112.2	43.3	20.1	0.414
4-1490	4-2010	0.478	144.1	4.3	1.70	1.281	68.3	0.411	0.902	85.7	594.1	0.531	1.272	1.82	0.958	66.3	260.6	-19.1	0.399
4-1490	4-2010	0.374	297.4	6.0	1.70	1.364	104.2	0.421	1.124	310.2	818.6	0.651	1.598	1.82	1.066	114.0	52.7	23.1	0.447
4-1490	4-2020	0.416	148.1	2.4	0.83	1.286	71.1	0.377	0.912	78.3	596.9	0.568	1.256	2.61	0.966	68.3	269.9	-17.1	0.370
4-1490	4-2020	0.434	303.2	2.5	0.83	1.369	107.3	0.456	1.140	302.1	820.6	0.620	1.659	2.61	1.073	116.0	62.1	26.3	0.485
4-1490	4-2030	0.367	152.3	-5.1	-1.52	1.291	73.6	0.347	0.922	70.8	599.4	0.601	1.242	4.37	0.973	70.0	279.1	-10.4	0.351
4-1490	4-2030	0.500	308.1	-3.9	-1.52	1.373	110.5	0.493	1.156	294.4	823.0	0.586	1.726	4.87	1.080	118.4	71.2	31.1	0.530
4-1490	4-2050	0.341	159.5	36.6	9.22	1.298	78.2	0.301	0.938	54.8	603.9	0.656	1.220	-6.04	0.984	72.7	304.1	-38.3	0.319
4-1490	4-2060	0.275	167.7	29.2	5.99	1.301	80.3	0.283	0.945	46.5	605.7	0.677	1.213	-2.90	0.988	73.7	311.0	-27.9	0.292
4-1490	4-2070	0.549	160.2	12.2	4.95	1.440	69.1	0.593	1.476	57.8	267.3	---	2.352	-1.94	1.164	58.6	307.4	-22.3	0.613
4-1490	4-2070	0.236	176.0	28.2	4.95	1.303	82.2	0.270	0.951	37.9	607.3	0.695	1.208	-1.94	0.990	74.5	319.7	-22.7	0.280
4-1490	4-2080	0.498	165.3	12.2	4.41	1.442	71.8	0.578	1.488	51.0	270.6	---	2.348	-1.50	1.165	60.1	316.0	-19.5	0.589
4-1490	4-2080	0.206	186.0	29.1	4.41	1.306	84.1	0.260	0.957	29.0	608.6	0.708	1.205	-1.50	0.992	75.0	328.5	-18.4	0.271
4-1490	4-2090	0.450	171.3	12.6	4.07	1.443	74.5	0.564	1.499	43.9	273.7	---	2.345	-1.25	1.166	61.5	324.4	-16.6	0.568
4-1490	4-2090	0.183	198.6	30.4	4.07	1.308	86.0	0.253	0.962	79.9	609.6	0.718	1.205	-1.25	0.993	75.4	337.3	-14.4	0.267
4-1500	4-1530	0.928	127.7	6.1	7.85	1.078	41.7	0.753	0.631	146.1	166.1	---	---	5.30	0.621	124.0	254.5	-18.1	0.593
4-1500	4-1540	0.786	130.0	6.3	6.07	1.070	49.4	0.663	0.624	141.6	171.2	---	---	3.67	0.608	106.5	251.4	-17.5	0.445
4-1500	4-1550	0.699	132.6	6.4	5.10	1.084	54.3	0.596	0.636	137.1	176.2	---	---	2.87	0.636	95.5	248.3	-16.9	0.365
4-1500	4-1560	0.637	135.4	6.5	4.46	1.105	57.7	0.542	0.655	132.3	181.1	---	1.010	2.40	0.673	88.7	246.0	-16.5	0.319
4-1500	4-1570	0.589	138.3	6.6	3.98	1.126	60.4	0.498	0.676	127.4	185.8	---	1.012	2.12	0.731	84.3	245.0	-16.2	0.292
4-1500	4-1580	0.548	141.3	6.7	3.60	1.146	62.7	0.460	0.697	122.1	190.3	---	1.018	1.95	0.747	81.4	245.5	-16.2	0.276
4-1500	4-1590	0.511	144.2	6.7	3.26	1.165	64.7	0.427	0.719	116.8	194.7	---	1.026	1.85	0.779	79.5	247.4	-16.4	0.266
4-1500	4-1600	0.477	147.1	6.7	2.94	1.182	66.6	0.397	0.740	111.2	199.0	---	1.035	1.81	0.808	78.3	250.6	-16.7	0.259
4-1500	4-1610	0.446	150.1	6.6	2.63	1.197	68.3	0.371	0.761	105.4	203.2	---	1.043	1.82	0.833	77.5	255.0	-16.8	0.254
4-1500	4-1620	0.415	153.1	6.3	2.30	1.211	70.0	0.348	0.780	99.6	207.3	---	1.052	1.90	0.856	77.0	260.2	-16.8	0.250
4-1500	4-1630	0.386	156.2	5.8	1.92	1.223	71.6	0.327	0.799	93.5	211.2	---	1.060	2.04	0.876	76.7	266.2	-16.3	0.246
4-1500	4-1640	0.358	159.4	4.9	1.47	1.234	73.1	0.309	0.816	87.3	215.1	---	1.068	2.29	0.894	76.6	272.7	-15.2	0.244
4-1500	4-1650	0.330	162.7	3.2	0.87	1.244	74.6	0.293	0.833	80.9	218.8	---	1.076	2.70	0.909	76.6	279.5	-13.2	0.242
4-1500	4-1660	0.303	166.4	-0.1	-0.02	1.252	76.0	0.278	0.848	74.4	222.4	---	1.084	3.42	0.923	76.7	286.5	-9.8	0.243
4-1500	4-1670	0.281	170.1	-7.2	-1.65	1.260	77.4	0.266	0.862	67.6	225.8	---	1.092	4.87	0.935	76.8	293.2	-3.3	0.248
4-1500	4-1680	0.283	173.1	-26.8	-5.88	1.267	78.8	0.255	0.876	60.7	229.0	---	1.099	8.94	0.945	77.0	299.1	11.0	0.277
4-1500	4-1700	0.368	175.0	-59.7	14.39	1.279	81.7	0.238	0.900	45.8	234.8	---	1.114	-11.66	0.960	77.3	342.9	-49.8	0.304
4-1500	4-1710	0.254	189.0	45.1	8.12	1.284	83.0	0.233	0.911	38.3	237.4	---	1.123	-5.55	0.966	77.3	337.7	-32.5	0.249
4-1500	4-1720	0.212	198.8	40.1	6.11	1.289	84.4	0.230	0.921	30.5	239.7	---	1.132	-3.71	0.970	77.3	342.5	-23.4	0.241
4-1500	4-1730	0.186	209.7	37.8	5.09	1.293	85.9	0.228	0.930	22.5	241.8	---	1.142	-2.86	0.974	77.3	349.1	-17.1	0.240
4-1500	4-1740	0.169	222.8	36.4	4.43	1.297	87.4	0.229	0.939	14.3	243.6	---	1.154	-2.38	0.977	77.1	356.3	-11.9	0.242
4-1500	4-1750	0.158	238.0	34.4	3.95	1.301	88.9	0.232	0.947	5.8	245.1	---	1.167	-2.10	0.979	76.9	3.9	-7.2	0.246
4-1500	4-1760	0.156	254.3	31.1	3.56	1.304	90.6	0.238	0.955	357.1	606.4	0.728	1.181	-1.93	0.981	76.5	11.7	-2.9	0.253
4-1500	4-1770	0.164	270.2	26.5	3.22	1.307	92.3	0.246	0.962	348.1	607.3	0.725	1.199	-1.84	0.982	75.9	19.8	1.2	0.263
4-1500	4-1780	0.182	284.2	21.3	2.90	1.310	94.3	0.259	0.969	338.9	607.9	0.718	1.220	-1.81	0.982	75.1	28.2	4.9	0.275
4-1500	4-1790	0.211	296.0	16.2	2.59	1.312	96.5	0.276	0.975	329.3	608.2	0.706	1.245	-1.83	0.983	74.0	37.1	8.4	0.293
4-1500	4-1800	0.252	305.8	11.8	2.26	1.315	99.0	0.300	0.982	319.3	608.0	0.687	1.276	-1.91	0.984	72.6	46.3	11.5	0.316
4-1500	4-1810	0.305	314.3	8.0	1.90	1.317	102.1	0.332	0.988	308.8	607.2	0.660	1.316	-2.05	0.985	70.7	56.2	14.2	0.347

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1500	4-1810	3.700	359.2	2.5	1.90	1.116	125.4	0.584	0.666	227.1	885.4	0.277	1.055	-2.05	0.693	108.7	168.3	1.3	0.395
4-1500	4-1820	0.378	321.9	4.9	1.46	1.320	105.0	0.375	0.994	297.6	605.5	0.621	1.367	-2.29	0.986	68.0	66.8	16.3	0.390
4-1500	4-1830	0.653	359.4	2.1	1.46	1.104	123.1	0.554	0.654	227.1	895.0	0.292	1.016	-2.29	0.669	96.1	156.9	4.7	0.330
4-1500	4-1830	0.476	329.2	2.3	0.90	1.322	110.7	0.436	1.000	285.1	602.6	0.564	1.436	-2.68	0.907	64.2	78.3	17.7	0.453
4-1500	4-1830	0.664	360.0	1.2	0.90	1.099	123.7	0.564	0.650	226.0	903.6	0.283	1.016	-2.68	0.659	85.4	145.8	8.2	0.338
4-1500	4-1840	0.614	336.8	0.1	0.07	1.325	117.4	0.522	1.007	270.7	597.8	0.481	1.533	-3.33	0.989	58.5	91.0	18.3	0.545
4-1500	4-1840	0.725	1.2	0.1	0.07	1.098	127.0	0.610	0.648	223.7	910.9	0.253	1.043	-3.33	0.654	74.0	138.8	10.5	0.405
4-1500	4-1850	0.853	3.7	-1.2	-1.32	1.098	133.9	0.699	0.649	218.9	915.6	0.195	1.102	-4.57	0.654	60.2	137.9	11.1	0.535
4-1500	4-1900	0.844	129.5	6.3	6.84	1.078	46.3	0.699	0.631	142.8	887.3	0.190	1.072	4.36	0.622	115.8	255.4	-18.0	0.512
4-1500	4-1910	0.594	159.7	11.2	5.55	1.332	63.9	0.512	1.028	85.3	479.4	0.502	1.554	3.23	1.001	120.8	309.8	-13.1	0.541
4-1500	4-1910	0.737	131.4	6.4	5.55	1.078	52.2	0.626	0.630	139.1	893.2	0.236	1.025	3.23	0.623	101.1	250.8	-17.3	0.400
4-1500	4-1920	0.460	168.6	13.1	4.77	1.335	70.6	0.434	1.035	89.2	472.9	0.586	1.483	2.62	1.006	115.7	322.3	-9.4	0.458
4-1500	4-1920	0.840	127.8	4.3	4.77	1.052	46.0	0.709	0.609	145.4	909.1	0.177	1.041	2.62	0.582	69.6	217.6	-11.7	0.495
4-1500	4-1920	0.735	130.8	5.5	4.77	1.069	52.1	0.629	0.623	140.1	903.8	0.231	1.014	2.62	0.611	83.6	232.5	-14.8	0.388
4-1500	4-1930	0.363	178.1	15.2	4.22	1.337	75.7	0.383	1.041	54.7	468.9	0.643	1.440	2.25	1.092	112.4	333.7	-5.3	0.406
4-1500	4-1940	0.291	189.2	17.4	3.79	1.339	79.7	0.350	1.048	41.0	464.1	0.682	1.415	2.03	1.017	110.4	344.4	-1.0	0.373
4-1500	4-1950	0.239	203.2	19.5	3.43	1.342	83.1	0.331	1.055	28.1	460.9	0.707	1.404	1.89	1.023	109.1	354.6	3.3	0.354
4-1500	4-1960	0.205	220.7	20.8	3.11	1.344	86.2	0.322	1.063	15.7	458.4	0.721	1.405	1.82	1.029	108.5	4.5	7.6	0.345
4-1500	4-1970	0.190	241.2	20.2	2.79	1.347	89.0	0.321	1.072	3.2	456.5	0.728	1.416	1.81	1.036	108.3	14.3	11.7	0.344
4-1500	4-1980	0.194	261.5	17.5	2.47	1.350	91.8	0.328	1.081	352.8	815.3	0.726	1.435	1.85	1.042	108.6	24.0	15.6	0.350
4-1500	4-1990	0.712	147.4	3.1	2.13	1.260	56.1	0.573	0.862	110.9	883.4	0.368	1.355	1.96	0.925	56.0	245.2	-16.8	0.558
4-1500	4-1990	0.216	278.7	13.4	2.13	1.553	94.5	0.341	1.091	342.3	814.7	0.719	1.462	1.96	1.049	109.3	33.8	19.2	0.363
4-1500	4-2000	0.642	150.2	2.9	1.72	1.267	59.7	0.526	0.875	104.3	5 8.8	0.415	1.335	2.14	0.937	59.1	253.9	-19.2	0.513
4-1500	4-2000	0.251	291.9	9.3	1.72	1.356	97.2	0.359	1.102	332.3	814.8	0.706	1.497	2.14	1.055	110.3	43.6	22.5	0.381
4-1500	4-2010	0.576	154.1	2.4	1.21	1.273	63.0	0.481	0.888	97.5	590.0	0.461	1.315	2.46	0.948	61.9	262.8	-18.9	0.471
4-1500	4-2010	0.295	302.0	5.5	1.21	1.360	100.0	0.383	1.314	323.0	815.6	0.687	1.540	2.46	1.062	111.6	53.6	25.4	0.405
4-1500	4-2020	0.514	157.6	1.1	0.50	1.279	66.2	0.440	0.900	90.5	593.1	0.504	1.296	2.98	0.958	64.4	271.8	-17.5	0.435
4-1500	4-2020	0.347	309.8	1.9	0.50	1.364	102.9	0.411	1.127	314.3	816.9	0.664	1.590	2.98	1.069	113.2	63.6	28.1	0.435
4-1500	4-2030	0.457	161.4	-1.7	-0.65	1.284	69.1	0.403	0.911	83.2	596.0	0.543	1.278	3.96	0.966	66.6	280.7	-14.3	0.404
4-1500	4-2030	0.405	316.1	-2.1	-0.65	1.368	105.9	0.443	1.142	306.0	818.8	0.636	1.647	3.96	1.075	115.2	73.6	30.9	0.470
4-1500	4-2040	0.489	165.2	-9.1	-3.04	1.289	71.8	0.371	0.921	75.8	598.7	0.579	1.262	6.19	0.973	68.6	289.2	-7.4	0.384
4-1500	4-2040	0.472	321.6	-8.4	-3.04	1.372	109.0	0.478	1.157	298.2	821.2	0.604	1.711	6.19	1.081	117.4	83.5	34.9	0.514
4-1500	4-2050	0.488	165.4	-36.5	-12.07	1.293	74.2	0.343	0.930	68.2	601.2	0.611	1.249	15.05	0.979	70.2	297.5	13.6	0.428
4-1500	4-2050	0.592	328.9	-26.8	-12.07	1.377	112.2	0.516	1.174	290.9	823.9	0.568	1.780	15.05	1.087	119.7	91.0	47.5	0.602
4-1500	4-2060	0.710	142.1	64.6	30.51	1.297	76.8	0.316	0.938	59.6	603.5	0.642	1.235	-27.70	0.984	71.8	354.7	-58.9	0.567
4-1500	4-2070	0.348	176.8	40.9	10.29	1.300	78.9	0.297	0.946	51.6	605.4	0.665	1.227	-7.63	0.981	72.8	328.0	-36.6	0.392
4-1500	4-2080	0.589	173.0	15.9	6.97	1.439	87.6	0.605	1.478	61.5	265.4	---	2.371	-4.47	1.163	57.7	320.1	-22.8	0.636
4-1500	4-2080	0.278	185.7	34.2	6.97	1.303	80.9	0.281	0.953	43.2	607.0	0.685	1.221	-4.47	0.990	73.8	333.1	-26.3	0.302
4-1500	4-2090	0.533	178.0	14.3	5.56	1.441	70.3	0.588	1.490	54.8	268.8	---	2.367	-3.24	1.164	59.2	327.9	-18.6	0.609
4-1500	4-2090	0.238	194.9	32.2	5.56	1.306	82.9	0.269	0.959	34.4	608.4	0.701	1.217	-3.24	0.992	74.5	340.5	-19.9	0.287
4-1500	4-2100	0.482	183.6	13.7	4.74	1.443	72.9	0.573	1.502	47.9	271.9	---	2.363	-2.60	1.165	60.6	335.9	-14.9	0.586
4-1500	4-2100	0.204	205.9	31.9	4.74	1.308	84.8	0.260	0.964	25.4	609.5	0.713	1.215	-2.60	0.992	75.0	348.5	-14.7	0.279
4-1510	4-1550	0.927	138.8	5.7	8.11	1.002	40.6	0.779	0.574	152.4	175.8	---	---	6.36	0.488	104.4	251.1	-16.7	0.341
4-1510	4-1560	0.820	142.5	5.7	6.16	1.030	47.1	0.701	0.593	146.6	179.7	---	---	4.63	0.544	90.8	249.1	-16.4	0.451
4-1510	4-1570	0.744	146.1	5.6	5.01	1.062	51.6	0.636	0.618	141.1	183.8	---	1.011	3.72	0.606	83.4	248.3	-16.2	0.398
4-1510	4-1580	0.684	149.5	5.5	4.21	1.092	55.2	0.581	0.644	135.5	188.0	---	1.018	3.18	0.662	79.3	248.7	-16.3	0.365
4-1510	4-1590	0.633	152.9	5.4	3.60	1.119	58.1	0.534	0.670	129.9	192.1	---	1.027	2.85	0.710	76.8	250.5	-16.4	0.343
4-1510	4-1600	0.588	156.1	5.2	3.09	1.144	60.6	0.492	0.695	126.2	196.2	---	1.037	2.65	0.751	75.4	253.6	-16.6	0.327
4-1510	4-1610	0.548	159.3	5.0	2.64	1.165	62.9	0.455	0.720	118.4	200.3	---	1.048	2.55	0.787	74.6	257.7	-16.8	0.315
4-1510	4-1620	0.510	162.4	4.6	2.19	1.184	65.0	0.423	0.743	112.4	204.3	---	1.058	2.52	0.818	74.2	262.7	-16.7	0.305
4-1510	4-1630	0.474	165.6	4.1	1.74	1.200	67.0	0.393	0.766	106.4	208.3	---	1.067	2.58	0.845	74.1	268.4	-16.4	0.297
4-1510	4-1640	0.440	168.7	3.2	1.25	1.215	68.8	0.368	0.787	100.2	212.2	---	1.076	2.72	0.868	74.1	274.7	-15.5	0.290
4-1510	4-1650	0.407	171.9	2.0	0.69	1.228	70.6	0.344	0.807	94.9	215.9	---	1.085	2.98	0.888	74.3	281.4	-14.0	0.284
4-1510	4-1660	0.376	175.2	-0.1	-0.02	1.239	72.3	0.324	0.826	87.4	219.6	---	1.093	3.41	0.905	74.6	288.3	-11.6	0.279
4-1510	4-1670	0.347	178.6	-3.5	-1.00	1.249	73.9	0.306	0.843	80.8	223.1	---	1.101	4.13	0.920	74.9	295.2	-7.8	0.276
4-1510	4-1680	0.322	182.1	-9.8	-2.58	1.258	75.5	0.291	0.859	74.0	226.5	---	1.109	5.47	0.933	75.2	301.8	-1.8	0.278
4-1510	4-1690	0.315	185.1	-23.4	-5.82	1.266	77.0	0.277	0.874	67.0	229.7	---	1.116	8.48	0.943	75.6	307.6	9.1	0.295
4-1510	4-1700	0.452	178.3	-55.7	-17.43	1.273	78.5	0.267	0.888	60.1	232.7	---	1.125	19.86	0.952	75.8	313.2	33.3	0.420
4-1510	4-1720	0.345	194.3	54.7	12.81	1.285	81.6	0.247	0.913	44.4	238.0	---	1.138	-10.85	0.966	76.4	356.7	-39.9	0.309
4-1510	4-1730	0.257	206.2	44.3	8.07	1.290	83.1	0.242	0.924	36.8	240.3	---	1.147	-6.32	0.970	76.6	355.8	-26.7	0.270
4-1510	4-1740	0.215	216.3	39.3	6.08	1.295	84.6	0.239	0.934	28.8	242.4	---	1.157	-4.56	0.974	76.6	0.5	-18.3	0.259
4-1510	4-1750	0.188	227.7	36.4	4.93	1.299	86.1	0.238	0.943	20.6	244.2	---	1.168	-3.66	0.977	76.6	6.9	-12.0	0.256
4-1510	4-1760	0.169	241.3	33.8	4.14	1.302	87.6	0.239	0.952	12.3	245.8	---	1.180	-3.14	0.979	76.4	13.9	-6.7	0.257
4-1510	4-1770	0.158	256.8	30.6	3.53	1.306	89.3	0.242	0.961	3.7	247.1	---	1.193	-2.82	0.981	76.2	21.4	-2.2	0.261
4-1510	4-1780	0.157	273.2	26.1	3.03	1.309	91.0	0.249	0.968	354.0	608.	0.728	1.209	-2.63	0.982	75.7	29.4	1.9	0.267
4-1510	4-1790	0.167	288.8	20.6	2.58	1.312	92.9	0.258	0.976	345.8	608.9	0.724	1.228	-2.54	0.983	75.1	37.7	5.6	0.276
4-1510	4-1800	0.188	302.4	15.1	2.15	1.315	95.0	0.272	0.983	336.5	609.3	0.715	1.250	-2.53	0.984	74.3	46.4	8.8	0.289
4-1510	4-1810	0.221	313.9	10.2	1.71	1.317	97.3	0.291	0.989	326.8	609.3	0.701	1.277	-2.58	0.985	73.1	55.6	11.5	0.307
4-1510	4-1820	0.267	323.5	6.1	1.24	1.320	100.0	0.316	0.996	316.7	608.8	0.681	1.311	-2.72	0.986	71.6	65.4	13.7	0.331
4-1510	4-1820	0.762	14.7	1.5	1.24	1.137	128.5	0.624	0.688	227.3	879.5	0.259	1.118	-2.72	0.726	117.8	187.3	-7.1	0.478
4-1510	4-1830	0.327	331.9	2.8	0.71	1.322	103.3	0.351	1.002	306.0	607.7	0.650	1.354	-2.97	0.988	69.5	75.7	15.2	0.365
4-1510	4-1830	0.651	14.2	1.0	0.71	1.115	123.0	0.550	0.665	228.7	890.4	0.299	1.031	-2.97	0.685	101.3	175.5	-4.6	0.341
4-1510	4-1840	0.407	339.6	0.2	0.05	1.325	107.3	0.399	1.008	294.3	605.6	0.606	1.410	-3.36	0.989	66.5	85.8	16.0	0.413
4-1510	4-1840	0.637	14.6	0.1	0.05	1.108	122.3	0.542	0.658	228.1	899.4	0.301	1.015	-3.36	0.672	90.7	164.1	-1.0	0.317
4-1510	4-1850	0.517	347.1	-2.0	-0.83	1.327	112.7	0.466	1.014	281.2	602.1	0.542	1.487	-4.00	0.991	62.2	98.6	15.9	0.483
4-1510	4-1850	0.669	15.5	-1.1	-0.83	1.105	124.0	0.567	0.655	226.3	907.5	0.284	1.027	-4.00	0.666	80.4	154.9	2.4	0.352
4-1510	4-1860	0.674	355.1	-3.7	-2.17	1.329	120.3	0.562	1.021	265.8	596.2	0.447	1.595	-5.10	0.994	55.8	111.7	14.7	0.589
4-1510	4-1860	0.750	17.1	-2.5	-2.17	1.105	128.5	0.628	0.655	223.5	913.9	0.243	1.067	-5.10	0.664	88.9	150.9	4.3	0.443
4-1510	4-1870	0.914	20.5	-3.8	-4.62	1.106	137.1	0.736	0.657	217.1	917.0	0.173	1.140	-7.33	0.667	54.0	152.8	4.2	0.599
4-1510	4-1920	0.784	147.2	7.5	7.03	1.068	50.0	0.652	0.640	139.4	887.4	0.223	1.056	5.39	0.645	111.4	274.6	-16.4	0.467

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1510	4-1930	0.537	179.6	12.8	5.55	1.337	67.1	0.478	1.042	77.5	475.1	0.544	1.541	4.14	1.012	118.5	329.5	-4.8	0.513
4-1510	4-1930	0.696	148.8	7.1	5.55	1.087	54.6	0.590	1.039	136.5	894.1	0.262	1.016	4.14	0.647	98.3	248.7	-16.3	0.372
4-1510	4-1940	0.416	189.0	14.3	4.60	1.539	73.1	0.412	1.049	61.7	469.0	0.616	1.482	3.43	1.018	114.3	341.2	-0.2	0.442
4-1510	4-1940	0.798	145.5	4.6	4.60	1.064	48.6	0.675	0.619	142.7	910.0	0.202	1.037	3.43	0.612	70.8	236.3	-15.4	0.458
4-1510	4-1940	0.713	147.8	5.6	4.60	1.077	53.5	0.608	0.630	138.4	905.7	0.247	1.013	3.43	0.644	81.9	248.4	-16.2	0.380
4-1510	4-1950	0.329	199.5	15.8	3.91	1.341	77.7	0.370	1.056	47.3	464.3	0.665	1.447	3.01	1.023	111.5	352.2	4.5	0.398
4-1510	4-1960	0.264	212.2	17.1	3.35	1.344	81.5	0.344	1.063	33.7	460.6	0.697	1.429	2.74	1.029	109.9	2.6	9.0	0.371
4-1510	4-1970	0.220	228.2	17.8	2.87	1.346	84.8	0.331	1.070	20.9	457.7	0.716	1.424	2.59	1.035	108.9	12.9	13.3	0.356
4-1510	4-1980	0.194	247.6	17.0	2.42	1.349	87.8	0.326	1.078	8.9	455.5	0.726	1.430	2.53	1.041	108.5	23.9	17.3	0.350
4-1510	4-1990	0.189	268.2	14.3	1.98	1.351	90.6	0.330	1.087	357.5	814.1	0.728	1.445	2.54	1.047	108.6	33.3	21.0	0.352
4-1510	4-2000	0.204	286.9	10.1	1.52	1.354	93.4	0.340	1.096	346.7	813.4	0.723	1.469	2.63	1.053	109.1	43.7	24.3	0.361
4-1510	4-2010	0.694	164.5	1.5	1.00	1.265	57.1	0.560	0.872	108.5	585.3	0.384	1.360	2.83	0.937	86.7	265.4	-19.4	0.555
4-1510	4-2010	0.233	301.7	5.8	1.00	1.357	96.1	0.356	1.106	336.7	813.4	0.713	1.500	2.83	1.059	110.0	54.2	27.1	0.376
4-1510	4-2020	0.625	167.8	0.7	0.38	1.271	60.7	0.514	0.885	101.8	588.7	0.430	1.340	3.15	0.948	89.7	274.2	-18.3	0.511
4-1510	4-2020	0.274	313.1	1.9	0.38	1.361	98.8	0.377	1.118	327.2	814.1	0.697	1.539	3.15	1.065	111.1	64.7	29.4	0.397
4-1510	4-2030	0.560	171.2	-0.9	-0.44	1.278	61.0	0.470	0.897	94.9	597.9	0.475	1.320	3.70	0.958	62.4	282.9	-16.2	0.472
4-1510	4-2030	0.323	321.8	-1.8	-0.44	1.368	101.6	0.402	1.130	318.4	815.4	0.675	1.585	3.70	1.071	112.6	75.4	31.5	0.423
4-1510	4-2040	0.501	174.8	-3.9	-1.64	1.283	67.0	0.431	0.909	87.0	595.0	0.517	1.301	4.66	0.966	64.9	291.4	-12.6	0.430
4-1510	4-2040	0.380	328.9	-5.7	-1.64	1.368	104.5	0.432	1.144	310.0	817.2	0.650	1.638	4.66	1.077	114.4	86.0	33.4	0.456
4-1510	4-2050	0.481	178.3	-10.2	-3.78	1.288	69.9	0.396	0.920	80.5	597.8	0.556	1.284	6.55	0.973	67.0	299.6	-6.1	0.413
4-1510	4-2050	0.445	334.8	-11.2	-3.78	1.372	107.5	0.465	1.159	302.1	819.5	0.620	1.697	6.55	1.082	116.4	96.5	36.2	0.497
4-1510	4-2060	0.436	180.6	-26.5	-9.08	1.293	72.1	0.365	0.930	72.9	600.3	0.591	1.269	11.63	0.979	68.9	306.4	7.6	0.419
4-1510	4-2060	0.537	341.1	-22.3	-9.08	1.377	110.6	0.500	1.175	294.7	822.1	0.587	1.762	11.63	1.087	116.7	106.7	42.8	0.559
4-1510	4-2080	0.512	178.8	58.6	19.70	1.300	77.5	0.313	0.947	56.4	604.8	0.651	1.243	-17.60	0.987	71.9	355.0	-46.7	0.440
4-1510	4-2090	0.336	195.3	41.2	9.93	1.303	79.6	0.295	0.954	48.2	606.5	0.673	1.235	-8.06	0.989	73.0	348.2	-30.4	0.337
4-1510	4-2100	0.571	190.8	16.6	6.96	1.441	68.7	0.599	1.492	58.5	266.8	---	2.386	-5.32	1.163	58.2	5.0	-17.5	0.632
4-1510	4-2100	0.271	204.5	35.3	6.96	1.306	81.6	0.290	0.961	39.7	608.0	0.692	1.229	-5.32	0.990	73.8	353.0	-21.2	0.309
4-1510	4-2110	0.515	196.1	14.7	5.47	1.443	71.4	0.584	1.504	51.7	270.0	---	2.382	-4.07	1.163	59.7	347.2	-12.8	0.605
4-1510	4-2110	0.229	214.4	32.8	5.47	1.308	83.6	0.269	0.966	30.8	609.1	0.706	1.226	-4.07	0.991	74.5	359.8	-14.7	0.294
4-1520	4-1570	0.942	153.2	5.0	7.50	0.983	39.4	0.795	0.561	154.3	181.3	---	1.008	6.73	0.453	85.1	253.8	-17.0	0.548
4-1520	4-1580	0.851	157.4	4.8	5.60	1.023	45.2	0.724	0.588	148.3	184.9	---	1.014	5.10	0.540	77.4	253.9	-17.0	0.484
4-1520	4-1590	0.779	161.3	4.6	4.40	1.061	49.7	0.662	0.617	142.4	188.8	---	1.024	4.21	0.613	73.7	255.2	-17.1	0.442
4-1520	4-1600	0.719	165.0	4.3	3.53	1.094	53.3	0.606	0.645	136.5	192.8	---	1.037	3.66	0.673	71.9	257.8	-17.3	0.413
4-1520	4-1610	0.667	168.5	4.0	2.85	1.123	56.4	0.558	0.673	130.6	196.7	---	1.049	3.33	0.724	71.0	261.5	-17.4	0.391
4-1520	4-1620	0.619	171.9	3.6	2.25	1.149	59.1	0.514	0.701	124.6	200.7	---	1.061	3.14	0.766	70.7	266.2	-17.3	0.373
4-1520	4-1630	0.576	175.2	3.1	1.71	1.171	61.6	0.475	0.727	118.6	204.7	---	1.072	3.05	0.802	70.7	271.6	-17.0	0.359
4-1520	4-1640	0.534	178.4	2.3	1.17	1.190	63.9	0.441	0.752	112.4	208.6	---	1.083	3.06	0.833	71.0	277.6	-16.3	0.346
4-1520	4-1650	0.496	181.6	1.4	0.61	1.207	66.1	0.410	0.775	106.1	212.4	---	1.093	3.17	0.859	71.4	284.0	-15.0	0.334
4-1520	4-1660	0.459	184.8	-0.0	-0.01	1.222	68.1	0.382	0.797	99.8	216.2	---	1.102	3.40	0.881	71.9	290.8	-13.2	0.324
4-1520	4-1670	0.424	188.0	-2.1	-0.76	1.235	70.0	0.358	0.818	93.2	219.8	---	1.111	3.79	0.900	72.5	297.7	-10.5	0.316
4-1520	4-1680	0.393	191.3	-5.3	-1.74	1.246	71.8	0.336	0.837	86.6	223.3	---	1.119	4.44	0.916	73.0	304.6	-6.7	0.309
4-1520	4-1690	0.365	194.6	-10.5	-3.18	1.256	73.5	0.317	0.855	79.8	226.6	---	1.127	5.58	0.930	73.6	311.0	-1.1	0.307
4-1520	4-1700	0.350	197.6	-20.3	-5.70	1.265	75.2	0.301	0.872	72.8	229.8	---	1.134	7.81	0.941	74.1	316.8	7.7	0.314
4-1520	4-1710	0.389	197.8	-40.7	-11.82	1.273	76.8	0.287	0.887	65.8	232.8	---	1.142	13.66	0.951	74.5	321.4	23.9	0.361
4-1520	4-1730	0.545	188.2	66.3	23.19	1.286	80.2	0.263	0.914	50.0	238.2	---	1.155	-21.90	0.965	75.5	23.5	-45.2	0.455
4-1520	4-1740	0.319	213.8	49.6	10.96	1.291	81.7	0.256	0.926	42.6	240.5	---	1.164	-9.94	0.970	75.7	10.2	-29.9	0.313
4-1520	4-1750	0.249	224.3	40.8	7.28	1.296	83.2	0.251	0.938	34.8	242.7	---	1.173	-8.53	0.974	75.8	12.0	-19.1	0.284
4-1520	4-1760	0.210	234.5	35.7	5.44	1.301	84.9	0.248	0.948	26.8	246.6	---	1.183	-4.98	0.977	75.9	17.2	-11.6	0.274
4-1520	4-1770	0.183	246.2	32.0	4.28	1.305	86.4	0.247	0.957	18.6	246.2	---	1.194	-4.12	0.979	75.9	23.7	-5.9	0.270
4-1520	4-1780	0.165	260.1	28.4	3.44	1.308	88.0	0.249	0.966	10.1	247.6	---	1.207	-3.61	0.981	75.7	31.0	-1.1	0.270
4-1520	4-1790	0.156	275.8	24.0	2.78	1.312	89.7	0.253	0.975	1.5	248.8	---	1.221	-3.30	0.983	75.5	38.7	3.0	0.273
4-1520	4-1800	0.157	292.0	18.7	2.20	1.315	91.5	0.260	0.982	352.7	609.7	0.727	1.237	-3.13	0.984	75.0	47.0	6.4	0.278
4-1520	4-1810	0.171	307.3	13.0	1.67	1.318	93.5	0.270	0.990	343.6	610.3	0.722	1.257	-3.05	0.985	74.3	55.7	9.3	0.287
4-1520	4-1820	0.196	320.5	7.8	1.16	1.320	95.4	0.285	0.996	334.2	610.5	0.712	1.281	-3.06	0.987	73.4	64.8	11.6	0.301
4-1520	4-1830	0.234	331.7	3.5	0.63	1.323	98.1	0.306	1.003	324.4	610.4	0.696	1.310	-3.17	0.988	72.2	74.5	13.3	0.320
4-1520	4-1840	0.284	341.2	0.2	0.04	1.325	101.0	0.333	1.009	314.2	609.7	0.673	1.346	-3.37	0.990	70.5	84.6	14.2	0.346
4-1520	4-1840	0.663	29.2	0.1	0.04	1.128	123.6	0.556	0.678	230.1	885.6	0.301	1.055	-3.37	0.704	306.7	193.9	-12.6	0.370
4-1520	4-1850	0.351	349.6	-2.3	-0.64	1.327	104.5	0.371	1.016	303.1	608.2	0.639	1.392	-3.72	0.992	68.2	95.2	14.4	0.383
4-1520	4-1850	0.622	29.4	-1.0	-0.64	1.117	121.5	0.529	0.667	230.0	895.1	0.315	1.020	-3.72	0.686	95.5	182.7	-10.1	0.312
4-1520	4-1860	0.440	357.3	-4.3	-1.50	1.33	108.9	0.423	1.022	291.0	605.6	0.589	1.454	-4.28	0.994	65.0	106.4	13.7	0.437
4-1520	4-1860	0.630	30.0	-2.3	-1.50	1.113	122.0	0.536	0.663	229.1	903.6	0.307	1.019	-4.28	0.678	85.8	172.0	-6.5	0.318
4-1520	4-1870	0.564	5.1	-5.8	-2.71	1.332	114.9	0.497	1.028	277.3	601.3	0.517	1.540	-5.19	0.997	80.2	118.4	12.0	0.516
4-1520	4-1870	0.683	31.1	-3.6	-2.71	1.112	124.7	0.575	0.662	227.1	911.1	0.281	1.043	-5.19	0.675	75.7	165.2	-3.5	0.376
4-1520	4-1880	0.792	33.3	-5.0	-4.64	1.112	130.4	0.653	0.662	222.9	916.9	0.230	1.095	-6.85	0.677	63.7	163.9	-2.3	0.489
4-1520	4-1930	0.877	161.8	8.1	9.10	1.096	45.3	0.709	0.647	141.9	883.8	0.188	1.105	8.18	0.662	121.7	292.1	-13.7	0.571
4-1520	4-1940	0.633	190.3	12.2	6.47	1.339	62.6	0.535	1.050	86.9	478.5	0.488	1.611	5.83	1.018	122.3	336.2	-0.7	0.582
4-1520	4-1940	0.727	165.0	7.8	6.47	1.097	53.3	0.606	0.648	136.1	887.7	0.255	1.041	5.83	0.668	107.6	293.0	-12.9	0.426
4-1520	4-1950	0.481	199.9	13.3	4.97	1.342	70.0	0.450	1.057	69.5	470.8	0.582	1.532	4.62	1.024	116.6	348.5	4.5	0.487
4-1520	4-1950	0.657	166.2	7.0	4.97	1.096	56.9	0.557	0.647	134.0	895.3	0.287	1.007	4.62	0.670	95.8	285.8	-13.7	0.348
4-1520	4-1960	0.374	210.1	13.9	3.96	1.344	75.5	0.395	1.063	54.0	465.1	0.643	1.483	3.92	1.029	113.0	359.9	9.4	0.428
4-1520	4-1960	0.745	163.2	4.5	3.96	1.077	51.7	0.631	0.631	139.4	910.5	0.233	1.029	3.92	0.643	73.2	256.9	-17.2	0.423
4-1520	4-1960	0.701	184.5	5.0	3.96	1.084	54.2	0.597	0.636	137.2	908.3	0.257	1.015	3.92	0.654	78.2	262.9	-16.7	0.382
4-1520	4-1970	0.295	221.8	14.5	3.19	1.346	79.8	0.361	1.070	39.7	460.7	0.604	1.457	3.48	1.035	110.8	10.9	10.1	0.391
4-1520	4-1980	0.239	236.3	14.5	2.56	1.348	83.4	0.342	1.077	26.4	457.3	0.709	1.446	3.22	1.041	109.5	21.3	18.4	0.369
4-1520	4-1990	0.203	254.2	13.3	1.99	1.351	86.5	0.334	1.085	14.0	454.8	0.723	1.447	3.09	1.046	108.9	32.4	22.2	0.358
4-1520	4-2000	0.189	274.5	10.5	1.45	1.353	89.4	0.334	1.093	2.3	453.2	0.728	1.458	3.05	1.052	108.8	43.3	25.5	0.356
4-1520	4-2010	0.195	294.2	6.3	0.91	1.356	92.2	0.361	1.102	351.4	812.3	0.726	1.477	3.10	1.057	109.1	54.3	28.3	0.361
4-1520	4-2020	0.746	178.4	0.4	0.32	1.263	54.6	0.594	0.869	112.6	583.7	0.352	1.385	3.26	0.937	54.3	276.9	-19.1	0.598
4-1520	4-2020	0.219	310.8	2.0	0.32	1.359	94.9	0.354	1.111	341.1	812.2	0.718	1.505	3.26	1.063	109.7	65.5	30.5	0.372
4-1520	4-2030	0.675	181.6	-0.6	-0.55	1.270	58.3	0.546	0.882	106.0	587.2	0.400	1.364	3.56	0.948	57.5	285.5	-17.5	0.551

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1520	4-2030	0.255	323.6	-1.8	-0.35	1.362	97.6	0.372	1.122	331.6	812.8	0.704	1.539	3.56	1.068	110.7	76.6	32.1	0.390
4-1520	4-2040	0.608	184.9	+2.2	+1.19	1.276	61.7	0.501	0.895	99.2	590.5	0.446	1.344	4.06	0.957	60.4	293.9	-14.9	0.509
4-1520	4-2040	0.302	333.4	+5.3	-1.19	1.365	100.4	0.395	1.134	322.6	814.0	0.686	1.581	4.06	1.073	112.1	87.8	33.2	0.413
4-1520	4-2050	0.546	188.3	+5.0	-2.34	1.293	65.0	0.459	0.907	92.1	593.7	0.490	1.324	4.90	0.965	63.0	302.0	-11.0	0.471
4-1520	4-2050	0.356	341.3	+8.6	-2.34	1.369	103.2	0.422	1.146	314.1	815.7	0.663	1.630	4.90	1.078	113.7	98.7	34.2	0.442
4-1520	4-2060	0.493	191.7	+10.1	-4.17	1.288	68.0	0.421	0.919	84.9	596.6	0.531	1.306	6.43	0.972	65.4	309.7	-5.1	0.442
4-1520	4-2060	0.418	347.6	+13.3	-4.17	1.373	106.1	0.455	1.160	306.2	817.9	0.635	1.686	6.43	1.083	115.5	109.6	35.5	0.479
4-1520	4-2070	0.460	194.5	+21.1	-7.79	1.292	70.7	0.388	0.929	77.5	599.3	0.569	1.289	9.77	0.978	67.4	316.4	5.2	0.430
4-1520	4-2070	0.397	354.0	+20.8	-7.79	1.377	109.1	0.486	1.175	298.7	820.4	0.604	1.747	9.77	1.087	117.7	120.4	38.9	0.529
4-1520	4-2080	0.561	189.3	+48.0	-19.62	1.297	73.3	0.359	0.939	70.1	601.7	0.601	1.276	21.32	0.982	69.1	322.4	28.2	0.515
4-1520	4-2100	0.431	202.6	50.4	15.09	1.304	78.2	0.309	0.955	53.0	605.8	0.660	1.250	-13.93	0.987	72.1	6.4	-35.1	0.401
4-1520	4-2110	0.314	214.5	39.8	8.83	1.307	80.3	0.293	0.962	44.7	607.3	0.681	1.244	-7.94	0.989	73.1	5.8	-22.4	0.337
4-1520	4-2120	0.549	200.9	15.7	6.28	1.443	69.9	0.594	1.506	55.5	268.0	---	2.401	-5.67	1.161	58.8	358.3	-10.6	0.626
4-1520	4-2120	0.256	223.9	33.6	6.28	1.309	62.4	0.280	0.938	36.0	608.6	0.698	1.239	-5.67	0.990	7 .8	10.9	-14.4	0.312
4-1520	4-1590	0.958	169.3	4.0	6.25	0.988	38.5	0.803	0.565	154.4	186.1	---	1.018	6.55	0.475	.03	261.6	-18.1	0.574
4-1530	4-1600	0.875	173.5	3.7	4.53	1.032	44.0	0.737	0.593	148.3	188.8	---	1.031	5.15	0.565	67.5	263.6	-18.2	0.523
4-1530	4-1610	0.807	177.5	3.3	3.38	1.070	48.3	0.677	0.628	142.3	192.4	---	1.046	4.34	0.637	66.5	266.6	-18.2	0.486
4-1530	4-1620	0.747	181.2	2.9	2.52	1.104	52.0	0.622	0.654	136.2	196.5	---	1.061	3.84	0.696	66.3	270.7	-18.1	0.457
4-1530	4-1630	0.693	184.0	2.4	1.81	1.133	55.2	0.573	0.683	130.2	200.5	---	1.074	3.55	0.745	66.6	275.7	-17.7	0.434
4-1530	4-1640	0.643	188.2	1.8	1.18	1.158	58.1	0.529	0.711	124.0	204.4	---	1.087	3.39	0.786	67.2	281.3	-17.1	0.414
4-1530	4-1650	0.597	191.4	1.0	0.58	1.180	60.7	0.489	0.738	117.8	208.3	---	1.099	3.34	0.820	67.9	287.4	-16.0	0.396
4-1530	4-1660	0.554	194.7	-0.0	-0.01	1.199	63.2	0.453	0.764	111.5	212.1	---	1.110	3.40	0.849	68.6	293.9	-14.4	0.380
4-1530	4-1670	0.513	197.9	-1.4	-0.65	1.216	65.4	0.421	0.788	105.1	215.8	---	1.120	3.57	0.874	69.5	300.6	-12.3	0.366
4-1530	4-1680	0.475	201.1	-3.3	-1.39	1.230	67.6	0.393	0.810	98.6	219.5	---	1.129	3.89	0.894	70.3	307.4	-9.4	0.353
4-1530	4-1690	0.440	204.3	-6.1	-2.30	1.243	69.6	0.368	0.831	91.9	223.0	---	1.137	4.43	0.912	71.1	314.2	-5.6	0.343
4-1530	4-1700	0.409	207.5	-10.4	-3.55	1.254	71.5	0.346	0.851	85.1	226.4	---	1.145	5.34	0.926	71.8	320.6	-0.5	0.336
4-1530	4-1710	0.385	210.6	-17.5	-5.51	1.264	73.3	0.327	0.869	78.8	229.6	---	1.153	6.97	0.938	72.5	326.6	6.7	0.334
4-1530	4-1720	0.390	212.5	-30.8	-9.35	1.272	75.0	0.310	0.886	71.2	232.6	---	1.160	10.50	0.948	73.1	331.4	18.8	0.351
4-1530	4-1730	0.543	203.3	-56.6	-21.32	1.280	76.7	0.297	0.901	64.3	235.4	---	1.169	22.17	0.956	73.6	335.3	41.1	0.475
4-1530	4-1750	0.421	219.0	57.1	16.11	1.293	80.3	0.272	0.928	48.2	240.5	---	1.181	-15.84	0.968	74.7	27.0	-33.6	0.387
4-1530	4-1760	0.291	233.1	42.9	8.88	1.298	81.8	0.265	0.941	40.6	242.7	---	1.190	-8.91	0.972	75.0	23.6	-19.9	0.315
4-1530	4-1770	0.236	242.7	34.9	5.99	1.303	83.4	0.260	0.952	32.8	244.7	---	1.193	-6.33	0.976	75.2	27.3	-11.0	0.293
4-1530	4-1780	0.201	252.9	29.5	4.36	1.307	85.0	0.258	0.962	24.7	246.4	---	1.210	-5.02	0.979	75.3	33.3	-4.6	0.284
4-1530	4-1790	0.176	264.8	25.1	3.27	1.311	86.7	0.257	0.971	16.5	248.0	---	1.221	-4.27	0.981	75.2	40.3	0.3	0.280
4-1530	4-1800	0.160	278.9	20.5	2.45	1.315	88.3	0.259	0.980	8.1	249.3	---	1.234	-3.81	0.983	75.1	47.9	4.3	0.280
4-1530	4-1810	0.154	294.6	15.3	1.77	1.318	90.1	0.264	0.988	359.4	610.3	0.726	1.249	-3.53	0.985	74.8	56.1	7.5	0.282
4-1530	4-1820	0.159	310.7	9.7	1.17	1.321	92.0	0.271	0.996	350.6	611.1	0.726	1.267	-3.39	0.987	74.5	64.8	10.0	0.288
4-1530	4-1830	0.177	325.6	4.5	0.60	1.323	94.0	0.283	1.003	341.5	611.6	0.720	1.287	-3.34	0.988	73.6	73.9	11.9	0.297
4-1530	4-1840	0.206	338.6	0.3	0.04	1.326	96.3	0.299	1.010	332.1	611.8	0.708	1.312	-3.39	0.990	72.6	83.4	13.0	0.311
4-1530	4-1850	0.249	349.5	-2.9	-0.55	1.328	98.9	0.321	1.017	322.2	611.4	0.691	1.343	-3.54	0.993	71.3	93.3	13.3	0.332
4-1530	4-1850	0.702	44.5	-0.7	-0.55	1.145	125.4	0.581	0.696	230.9	880.1	0.291	1.100	-3.94	0.729	113.6	213.1	-19.2	0.429
4-1530	4-1860	0.309	358.9	-5.2	-1.22	1.331	102.0	0.350	1.023	311.7	610.5	0.665	1.382	-3.81	0.995	69.5	103.6	12.9	0.360
4-1530	4-1860	0.617	44.3	-1.9	-1.22	1.128	121.2	0.522	0.678	231.8	890.6	0.324	1.032	-3.81	0.701	100.0	201.9	-18.0	0.321
4-1530	4-1870	0.378	7.3	-6.9	-2.03	1.333	105.7	0.391	1.029	300.4	608.6	0.627	1.432	-4.25	0.998	67.0	114.3	11.7	0.401
4-1530	4-1870	0.604	44.6	-3.2	-2.03	1.122	120.6	0.518	0.671	231.3	899.6	0.326	1.017	-4.25	0.691	90.5	190.3	-15.2	0.299
4-1530	4-1880	0.478	15.3	-8.1	-3.01	1.335	110.6	0.449	1.036	287.7	605.5	0.571	1.500	-4.97	1.001	63.4	125.5	9.5	0.461
4-1530	4-1880	0.632	45.4	-4.6	-3.07	1.119	122.0	0.535	0.669	230.0	907.7	0.311	1.027	-4.97	0.688	81.3	181.0	-11.7	0.328
4-1530	4-1890	0.618	23.4	-8.9	-4.60	1.337	117.3	0.531	1.042	273.0	600.3	0.489	1.596	-6.18	1.005	57.9	137.5	6.3	0.553
4-1530	4-1890	0.705	46.9	-5.9	-4.60	1.119	125.7	0.588	0.668	227.2	914.5	0.275	1.062	-6.18	0.688	71.1	176.6	-9.3	0.407
4-1530	4-1900	0.845	49.9	-7.0	-7.19	1.120	132.9	0.684	0.670	221.7	918.5	0.212	1.128	-8.49	0.692	58.3	177.8	-9.1	0.545
4-1530	4-1950	0.799	180.1	8.1	7.62	1.106	49.8	0.651	0.656	137.6	883.2	0.229	1.083	7.76	0.685	336.6	310.8	-8.6	0.513
4-1530	4-1960	0.561	210.8	11.8	5.33	1.345	66.2	0.497	1.064	78.2	473.6	0.535	1.592	5.78	1.030	119.6	355.6	8.5	0.544
4-1530	4-1960	0.674	182.7	7.3	5.33	1.107	56.2	0.564	0.657	133.0	888.3	0.286	1.027	5.78	0.690	104.3	310.1	-8.0	0.389
4-1530	4-1970	0.428	220.8	11.9	3.94	1.347	72.8	0.426	1.071	61.4	466.5	0.615	1.527	4.71	1.035	114.9	7.8	13.8	0.464
4-1530	4-1970	0.620	183.5	6.0	3.94	1.105	58.9	0.525	0.655	131.6	896.7	0.311	0.999	4.71	0.692	93.6	301.8	-9.9	0.325
4-1530	4-1980	0.333	231.9	11.7	2.95	1.349	77.7	0.382	1.077	46.2	461.3	0.666	1.489	4.07	1.041	112.0	19.4	16.5	0.414
4-1530	4-1990	0.265	245.0	11.0	2.17	1.351	81.7	0.356	1.084	32.3	457.3	0.698	1.470	3.68	1.046	110.3	30.9	22.6	0.384
4-1530	4-2000	0.218	261.3	9.3	1.50	1.353	85.1	0.343	1.091	19.4	454.4	0.717	1.465	3.46	1.051	109.3	42.4	26.1	0.367
4-1530	4-2010	0.193	280.6	6.3	0.90	1.356	88.1	0.339	1.099	7.4	452.5	0.726	1.472	3.35	1.056	109.0	54.0	28.9	0.360
4-1530	4-2020	0.191	300.8	2.2	0.30	1.358	91.0	0.343	1.107	356.2	811.5	0.727	1.487	3.35	1.061	109.1	65.7	31.1	0.361
4-1530	4-2030	0.208	318.9	-2.0	-0.31	1.361	93.7	0.353	1.116	345.8	811.2	0.722	1.511	3.46	1.066	109.6	77.4	32.4	0.369
4-1530	4-2040	0.726	195.5	-8.4	-0.99	1.269	55.8	0.579	0.879	109.9	585.5	0.370	1.389	3.70	0.967	55.2	296.8	-16.2	0.591
4-1530	4-2040	0.240	333.3	-5.6	-0.99	1.364	98.4	0.369	1.128	336.1	811.6	0.721	1.542	3.70	1.070	110.4	89.0	33.2	0.383
4-1530	4-2050	0.657	198.7	-3.0	-1.79	1.276	59.4	0.533	0.892	103.2	588.9	0.417	1.368	4.11	0.956	58.3	304.9	-13.3	0.546
4-1530	4-2050	0.282	344.5	-8.6	-1.79	1.367	99.1	0.389	1.137	327.0	812.7	0.695	1.580	4.11	1.075	111.6	100.4	33.4	0.403
4-1530	4-2060	0.592	202.0	-5.5	-2.84	1.282	62.8	0.489	0.905	98.3	592.2	0.463	1.348	4.80	0.964	61.1	312.7	-9.3	0.505
4-1530	4-2060	0.333	353.3	-11.3	-2.84	1.370	101.8	0.413	1.149	318.4	814.3	0.674	1.625	4.80	1.079	113.0	111.5	33.3	0.429
4-1530	4-2070	0.535	205.3	-9.6	-4.35	1.287	66.0	0.449	0.917	89.2	595.2	0.506	1.328	5.98	0.970	63.6	320.1	-3.9	0.471
4-1530	4-2070	0.392	0.4	-14.9	-4.35	1.374	104.7	0.481	1.163	310.4	816.4	0.649	1.676	5.98	1.083	114.8	122.3	33.3	0.461
4-1530	4-2080	0.492	208.4	-17.3	-6.96	1.292	68.9	0.412	0.928	81.9	598.0	0.545	1.311	8.27	0.976	65.9	326.7	4.3	0.447
4-1530	4-2080	0.462	6.7	-20.1	-6.96	1.378	107.6	0.473	1.177	302.7	818.8	0.621	1.733	8.27	1.086	116.7	132.9	4.4	0.503
4-1530	4-2090	0.498	209.1	-33.7	-12.98	1.297	71.6	0.381	0.938	74.4	600.5	0.581	1.295	13.99	0.980	67.8	331.9	19.1	0.459
4-1530	4-2090	0.570	14.1	-30.7	-12.98	1.382	110.6	0.506	1.192	295.5	821.6	0.585	1.796	13.99	1.090	118.9	143.8	39.6	0.572
4-1530	4-2110	0.657	197.3	62.6	27.32	1.305	76.9	0.325	0.956	57.5	604.9	0.645	1.266	-26.90	0.985	71.2	32.0	-39.5	0.566
4-1530	4-2120	0.374	224.1	44.0	11.67	1.308	79.0	0.307	0.963	49.6	606.5	0.668	1.259	-11.54	0.987	72.2	19.4	-24.2	0.378
4-1530	4-2130	0.585	221.8	16.8	7.26	1.444	68.3	0.606	1.508	59.2	269.9	---	2.421	-7.44	1.159	57.7	9.4	-8.2	0.649
4-1530	4-2130	0.288	234.0	3.6	7.26	1.311	81.0	0.292	0.970	41.2	607.9	0.687	1.053	-7.44	0.988	73.1	22.0	-14.0	0.334
4-1540	4-1020	0.894	190.3	2.5	3.12	1.049	43.2	0.742	0.606	147.5	192.0	---	1.055	4.82	0.603	60.7	276.5	-18.8	0.560
4-1540	4-1630	0.827	194.2	2.0	2.09	1.086	47.5	0.688	0.636	141.3	195.8	---	1.072	4.15	0.669	61.4	280.8	-19.4	0.525
4-1540	4-1640	0.767	197.8	1.5	1.29	1.119	51.2	0.631	0.667	135.2	199.7	---	1.087	3.74	0.724	62.3	285.9	-17.8	0.495

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1540	4-1650	0.712	201.3	0.8	0.61	1.147	54.5	0.582	0.696	129.0	203.7	---	1.102	3.50	0.769	63.4	291.6	-16.8	0.470
4-1540	4-1660	0.661	204.7	-0.0	-0.01	1.171	57.5	0.538	0.725	122.8	207.5	---	1.115	3.39	0.807	64.6	297.8	-15.4	0.447
4-1540	4-1670	0.613	208.0	-1.0	-0.61	1.192	60.2	0.498	0.752	116.5	211.4	---	1.127	3.39	0.839	65.7	304.2	-13.5	0.427
4-1540	4-1680	0.568	211.2	-2.3	-1.23	1.210	62.7	0.462	0.778	110.1	215.1	---	1.137	3.50	0.865	66.9	310.9	-11.1	0.408
4-1540	4-1690	0.527	214.4	-4.1	-1.92	1.226	65.1	0.430	0.802	103.5	218.8	---	1.147	3.74	0.887	67.9	317.5	-8.1	0.392
4-1540	4-1700	0.488	217.6	-6.4	-2.73	1.240	67.3	0.401	0.825	96.9	222.3	---	1.156	4.15	0.906	69.0	324.2	-4.4	0.377
4-1540	4-1710	0.453	220.7	-9.8	-3.77	1.252	69.4	0.376	0.846	90.2	225.7	---	1.164	4.83	0.921	69.9	330.6	0.3	0.365
4-1540	4-1720	0.424	223.8	-15.0	-5.26	1.263	71.3	0.354	0.865	83.3	228.9	---	1.172	5.99	0.938	70.8	336.7	6.4	0.357
4-1540	4-1730	0.410	226.4	-23.9	-7.83	1.272	73.2	0.335	0.884	76.3	232.0	---	1.179	8.23	0.945	71.6	342.1	15.2	0.358
4-1540	4-1740	0.446	226.3	-40.7	-13.60	1.281	75.0	0.319	0.900	69.3	234.9	---	1.187	13.69	0.953	72.3	345.9	30.9	0.393
4-1540	4-1760	0.671	207.5	67.0	29.09	1.294	78.8	0.288	0.930	53.3	240.1	---	1.198	-29.60	0.966	73.7	50.2	-36.9	0.576
4-1540	4-1770	0.348	242.0	46.6	11.38	1.300	80.4	0.281	0.943	46.2	242.4	---	1.208	-12.17	0.971	74.0	35.8	-21.4	0.357
4-1540	4-1780	0.265	252.1	34.3	6.64	1.305	82.0	0.274	0.955	38.6	244.5	---	1.217	-7.74	0.975	74.3	37.3	-10.3	0.315
4-1540	4-1790	0.222	261.1	26.7	4.39	1.310	83.6	0.270	0.966	30.7	246.4	---	1.227	-5.80	0.978	74.5	42.8	-3.1	0.299
4-1540	4-1800	0.192	271.2	21.1	3.01	1.314	85.3	0.267	0.976	22.7	248.1	---	1.237	-4.75	0.981	74.6	49.4	2.1	0.291
4-1540	4-1810	0.170	283.3	16.0	2.04	1.318	87.0	0.267	0.986	14.5	249.6	---	1.249	-4.12	0.983	74.6	57.0	5.9	0.288
4-1540	4-1820	0.157	297.5	10.8	1.28	1.321	88.7	0.270	0.994	6.2	250.8	---	1.262	-3.74	0.986	74.4	65.2	8.9	0.287
4-1540	4-1830	0.155	313.3	5.4	0.63	1.324	90.5	0.275	1.002	357.6	611.9	0.727	1.278	-3.51	0.988	74.1	73.9	11.0	0.290
4-1540	4-1840	0.164	329.2	0.3	0.04	1.327	92.5	0.283	1.010	348.8	612.6	0.724	1.296	-3.40	0.990	73.5	83.0	12.3	0.296
4-1540	4-1850	0.186	343.9	-3.7	-0.52	1.330	94.6	0.295	1.017	339.7	613.0	0.717	1.318	-3.38	0.993	72.8	92.4	12.9	0.306
4-1540	4-1860	0.220	356.6	-6.6	-1.10	1.332	97.0	0.312	1.024	330.1	613.1	0.704	1.344	-3.47	0.995	71.8	102.1	12.7	0.321
4-1540	4-1870	0.266	7.5	-8.5	-1.72	1.334	99.7	0.336	1.030	320.1	612.5	0.685	1.376	-3.66	0.998	70.4	112.1	11.7	0.343
4-1540	4-1880	0.623	59.6	-2.7	-1.72	1.140	121.5	0.524	0.689	233.4	885.8	0.328	1.051	-3.66	0.719	104.6	221.7	-23.8	0.365
4-1540	4-1881	0.228	16.7	-9.7	-2.43	1.337	103.0	0.368	1.037	309.4	611.3	0.656	1.418	-3.98	1.002	68.5	122.3	9.9	0.374
4-1540	4-1880	0.588	59.4	-4.1	-2.43	1.132	119.7	0.499	0.680	233.4	895.3	0.340	1.020	-3.98	0.705	98.6	210.1	-22.5	0.293
4-1540	4-1890	0.409	25.2	-10.4	-3.31	1.339	107.1	0.412	1.043	297.6	609.0	0.613	1.473	-4.51	1.005	65.7	132.9	7.4	0.420
4-1540	4-1900	0.596	33.0	-5.4	-3.31	1.128	120.1	0.505	0.676	232.5	904.0	0.334	1.018	-4.51	0.700	85.9	198.8	-19.5	0.296
4-1540	4-1901	0.520	33.4	-10.8	-4.50	1.341	112.4	0.476	1.049	284.2	605.2	0.550	1.548	-5.37	1.009	61.7	144.1	3.9	0.489
4-1540	4-1900	0.612	41.0	-6.7	-4.50	1.127	122.4	0.539	0.675	230.7	911.7	0.311	1.039	-5.37	0.700	77.0	181.5	-16.5	0.347
4-1540	4-1910	0.679	41.9	-10.9	-6.32	1.343	120.0	0.568	1.056	268.3	598.8	0.458	1.658	-6.88	1.014	55.4	156.3	-0.5	0.595
4-1540	4-1910	0.738	63.1	-7.7	-6.32	1.127	127.2	0.608	0.675	227.0	917.5	0.265	1.086	-6.88	0.703	66.4	189.6	-14.9	0.447
4-1540	4-1970	0.727	198.3	-7.0	5.69	1.116	53.6	0.598	0.664	133.7	883.1	0.267	1.061	6.90	0.707	112.1	328.4	-2.3	0.459
4-1540	4-1980	0.495	231.6	9.8	3.82	1.350	69.4	0.465	1.078	69.6	468.9	0.277	1.579	5.34	1.041	117.4	15.8	17.3	0.509
4-1540	4-1980	0.627	200.3	5.6	5.82	1.116	58.8	0.525	0.665	130.1	889.3	0.316	1.013	5.34	0.712	101.4	326.2	-2.3	0.354
4-1540	4-1990	0.379	242.2	9.0	2.59	1.352	75.3	0.408	1.084	53.3	462.5	0.642	1.526	4.46	1.046	113.6	28.3	22.0	0.443
4-1540	4-1990	0.898	191.7	2.1	2.59	1.071	43.3	0.736	0.624	145.5	914.8	0.165	1.083	4.46	0.643	56.9	275.7	-99.2	0.580
4-1540	4-1990	0.588	200.8	4.3	2.59	1.114	60.6	0.498	0.662	129.2	898.4	0.333	0.992	4.46	0.712	91.6	316.8	-5.6	0.305
4-1540	4-2000	0.297	254.3	7.6	1.69	1.354	79.8	0.373	1.091	38.6	457.8	0.684	1.498	3.93	1.051	111.3	40.6	25.9	0.402
4-1540	4-2010	0.239	269.0	5.4	0.95	1.357	83.5	0.354	1.098	25.1	454.4	0.709	1.487	3.61	1.056	110.0	53.0	28.9	0.377
4-1540	4-2020	0.204	286.8	2.0	0.31	1.359	86.7	0.346	1.105	12.8	452.2	0.722	1.488	3.44	1.060	109.3	65.3	31.1	0.365
4-1540	4-2030	0.192	306.8	-2.1	-0.30	1.361	89.7	0.347	1.113	1.3	450.9	0.727	1.499	3.38	1.065	109.2	77.6	32.4	0.362
4-1540	4-2040	0.201	326.0	-6.1	-0.90	1.364	92.4	0.354	1.122	350.7	810.4	0.725	1.519	3.43	1.069	109.5	89.7	32.9	0.366
4-1540	4-2050	0.226	342.2	-9.3	-1.55	1.366	95.1	0.367	1.131	340.8	810.7	0.716	1.546	3.59	1.072	110.2	101.5	32.7	0.376
4-1540	4-2060	0.707	212.6	-3.5	-2.28	1.276	57.1	0.565	0.890	107.1	587.2	0.387	1.392	3.90	0.954	56.1	315.8	-11.3	0.584
4-1540	4-2060	0.264	3.9	-11.8	-2.28	1.369	97.8	0.384	1.141	331.6	811.6	0.703	1.580	3.90	1.076	111.2	112.9	31.9	0.393
4-1540	4-2070	0.640	215.8	-5.6	-3.19	1.282	60.6	0.519	0.903	100.3	590.5	0.434	1.372	4.43	0.961	59.1	323.4	-7.3	0.539
4-1540	4-2070	0.311	4.8	-13.9	-3.19	1.372	100.5	0.406	1.153	322.9	813.1	0.685	1.621	4.43	1.079	112.5	123.7	30.8	0.415
4-1540	4-2080	0.579	219.1	-8.8	-4.41	1.289	63.9	0.477	0.915	93.3	593.7	0.479	1.352	5.30	0.968	61.8	330.6	-2.4	0.500
4-1540	4-2080	0.366	12.6	-16.3	-4.41	1.376	103.2	0.432	1.165	314.7	815.1	0.662	1.668	5.30	1.082	114.1	134.1	29.6	0.444
4-1540	4-2090	0.528	222.2	-14.3	-6.29	1.293	67.0	0.439	0.927	86.1	596.5	0.520	1.333	6.86	0.973	64.2	337.3	4.4	0.468
4-1540	4-2090	0.430	19.3	-19.8	-6.29	1.379	106.1	0.461	1.178	307.0	817.4	0.636	1.721	6.86	1.085	115.9	144.3	29.1	0.480
4-1540	4-2100	0.500	224.6	-24.7	-9.87	1.298	69.8	0.404	0.937	78.8	599.2	0.559	1.316	10.12	0.977	66.4	342.9	14.8	0.453
4-1540	4-2100	0.512	25.8	-26.0	-9.87	1.383	109.0	0.492	1.193	299.7	820.1	0.606	1.780	10.12	1.088	117.9	154.5	30.6	0.529
4-1540	4-2110	0.585	220.0	-47.0	-20.19	1.302	72.4	0.375	0.947	71.4	601.5	0.592	1.302	20.14	0.981	68.1	347.0	35.6	0.516
4-1540	4-2130	0.475	231.1	52.0	17.03	1.309	77.5	0.323	0.964	54.4	605.6	0.653	1.276	-17.68	0.985	71.3	35.2	-27.5	0.452
4-1540	4-2140	0.327	244.6	36.3	8.60	1.312	79.7	0.306	0.972	46.3	607.1	0.675	1.269	-9.54	0.986	72.3	33.0	-13.9	0.361
4-1550	4-1640	0.908	207.3	1.2	1.55	1.070	42.8	0.743	0.621	146.1	194.8	---	1.082	4.21	0.643	56.1	291.5	-18.1	0.593
4-1550	4-1650	0.842	211.1	0.7	0.68	1.105	47.0	0.687	0.652	139.9	198.6	---	1.100	3.70	0.703	57.8	296.7	-17.2	0.557
4-1550	4-1660	0.782	214.7	-0.0	-0.01	1.136	50.7	0.635	0.683	133.7	202.6	---	1.116	3.39	0.752	59.5	302.4	-15.8	0.526
4-1550	4-1670	0.726	218.1	-0.8	-0.62	1.162	54.1	0.587	0.712	127.4	206.5	---	1.130	3.22	0.793	61.1	308.4	-14.1	0.499
4-1550	4-1680	0.674	221.5	-1.8	-1.19	1.185	57.1	0.543	0.741	121.1	210.3	---	1.143	3.16	0.827	62.7	314.8	-12.0	0.474
4-1550	4-1690	0.625	224.7	-2.9	-1.76	1.205	59.9	0.504	0.768	114.7	214.1	---	1.155	3.20	0.855	64.2	321.3	-9.4	0.451
4-1550	4-1700	0.580	227.9	-4.4	-2.36	1.223	62.5	0.468	0.794	108.2	217.8	---	1.165	3.35	0.879	65.5	327.9	-6.4	0.430
4-1550	4-1710	0.538	231.0	-6.4	-3.04	1.238	64.9	0.436	0.818	101.6	221.3	---	1.175	3.64	0.899	66.8	334.4	-2.8	0.412
4-1550	4-1720	0.499	234.2	-9.0	-3.88	1.251	67.2	0.408	0.840	94.9	224.7	---	1.183	4.12	0.915	68.0	340.9	1.5	0.395
4-1550	4-1730	0.465	237.3	-12.8	-5.00	1.263	69.3	0.383	0.861	88.1	228.0	---	1.191	4.91	0.929	69.1	347.2	6.7	0.382
4-1550	4-1740	0.439	240.2	-18.7	-6.71	1.273	71.3	0.361	0.881	81.2	231.1	---	1.199	6.32	0.940	70.0	353.1	13.5	0.373
4-1550	4-1750	0.433	242.3	-29.1	-9.89	1.282	73.2	0.342	0.899	74.2	234.1	---	1.207	9.21	0.950	70.9	358.1	23.7	0.377
4-1550	4-1760	0.525	238.6	-49.6	-18.71	1.289	75.0	0.327	0.915	67.3	236.9	---	1.215	17.74	0.957	71.6	1.1	43.2	0.445
4-1550	4-1780	0.447	248.5	53.8	16.41	1.302	78.8	0.298	0.945	51.6	241.9	---	1.227	-17.92	0.969	73.0	50.0	-24.9	0.430
4-1550	4-1790	0.300	262.3	34.4	7.55	1.308	80.5	0.290	0.958	44.3	243.1	---	1.236	-9.33	0.973	73.3	47.3	-9.8	0.340
4-1550	4-1800	0.245	270.6	23.8	4.35	1.313	82.1	0.284	0.969	36.6	246.2	---	1.245	-6.42	0.977	73.7	51.8	-1.3	0.315
4-1550	4-1810	0.211	279.2	16.7	2.65	1.317	83.8	0.279	0.980	28.6	248.0	---	1.254	-5.01	0.981	73.9	58.4	4.2	0.303
4-1550	4-1820	0.186	289.4	10.9	1.53	1.321	85.5	0.277	0.990	20.9	249.7	---	1.265	-4.20	0.984	73.9	66.1	7.9	0.296
4-1550	4-1830	0.168	301.6	5.6	0.71	1.325	87.2	0.278	1.000	12.8	251.2	---	1.277	-3.71	0.987	73.9	74.4	10.5	0.293
4-1550	4-1840	0.159	316.0	0.4	0.04	1.328	89.0	0.280	1.008	4.0	252.4	---	1.291	-3.41	0.985	73.7	83.1	12.2	0.293
4-1550	4-1850	0.160	331.8	-4.5	-0.54	1.331	90.9	0.286	1.016	356.9	613.4	0.726	1.307	-3.24	0.992	73.4	92.1	13.0	0.296
4-1550	4-1860	0.173	347.6	-8.3	-1.07	1.333	92.9	0.295	1.024	347.8	614.1	0.722	1.325	-3.17	0.995	72.9	101.4	13.0	0.302
4-1550	4-1870	0.198	2.1	-10.8	-1.60	1.336	95.1	0.308	1.031	338.0	614.5	0.714	1.348	-3.18	0.998	72.1	111.0	12.2	0.313
4-1550	4-1880	0.235	14.6	-12.2	-2.15	1.338	97.6	0.326	1.037	328.3	614.4	0.699	1.375	-3.29	1.002	71.0	120.7	10.7	0.329

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1550	4-1880	0.646	74.5	-3.2	-2.15	1.155	122.5	0.538	0.704	234.7	880.8	0.325	1.083	-3.29	0.740	109.8	242.0	-27.0	0.387
4-1550	4-1890	0.286	35.3	-12.8	-2.75	0.340	100.5	0.351	1.044	318.1	613.7	0.678	1.410	-3.51	1.006	69.5	150.5	8.5	0.353
4-1550	4-1890	0.581	74.3	-4.7	-2.75	1.142	119.2	0.491	0.689	235.4	891.0	0.351	1.028	-3.51	0.720	98.5	231.2	-27.3	0.299
4-1550	4-1900	0.353	35.7	-12.9	-3.47	1.343	104.0	0.385	1.050	306.9	612.1	0.645	1.494	-3.87	1.010	67.4	140.7	5.6	0.388
4-1550	4-1900	0.570	74.7	-6.1	-3.47	1.137	118.7	0.483	0.684	234.9	900.0	0.353	1.014	-3.87	0.714	90.0	218.9	-25.7	0.278
4-1550	4-1910	0.443	53.2	-12.7	-4.37	1.345	108.5	0.434	1.056	294.6	609.3	0.598	1.515	-4.45	1.014	64.4	151.2	1.9	0.440
4-1550	4-1910	0.595	75.4	-7.2	-4.37	1.135	119.9	0.502	0.682	233.6	908.4	0.340	1.023	-4.45	0.713	81.8	208.7	-22.9	0.303
4-1550	4-1920	0.567	51.7	-12.3	-5.65	1.347	104.5	0.505	1.062	280.3	604.6	0.526	1.599	-5.42	1.019	59.8	162.6	-2.6	0.519
4-1550	4-1920	0.660	76.9	-8.1	-5.65	1.134	123.1	0.549	0.667	231.7	915.4	0.307	1.055	-5.42	0.715	72.8	203.6	-20.5	0.374
4-1550	4-1930	0.782	79.5	-8.7	-7.72	1.135	129.3	0.635	0.682	226.2	920.1	0.249	1.116	-7.21	0.719	61.5	204.3	-20.0	0.497
4-1550	4-1980	0.817	212.9	6.3	6.08	1.124	49.1	0.658	0.671	136.4	979.8	0.229	1.112	7.97	0.721	120.7	343.7	2.5	0.555
4-1550	4-1990	0.581	242.2	7.6	3.57	1.354	65.3	0.515	1.085	79.0	472.4	0.526	1.643	5.75	1.046	120.6	23.9	19.8	0.567
4-1550	4-1990	0.665	216.3	5.1	3.57	1.126	56.9	0.550	0.672	130.1	883.4	0.303	1.042	5.75	0.727	108.3	345.3	4.3	0.409
4-1550	4-2000	0.437	252.6	6.3	2.11	1.356	72.4	0.440	1.091	61.2	64.5	0.611	1.572	4.61	1.051	115.6	37.5	24.5	0.478
4-1550	4-2000	0.586	217.9	3.6	2.11	1.126	60.9	0.491	0.672	127.2	890.6	0.342	1.002	4.61	0.731	98.8	341.5	3.4	0.322
4-1550	4-2010	0.338	283.9	4.4	1.11	1.358	77.6	0.395	1.098	45.5	458.9	0.665	1.331	3.94	1.056	112.6	50.8	28.0	0.423
4-1550	4-2010	0.856	209.3	1.0	1.11	1.084	45.9	0.703	0.633	142.7	916.1	0.188	1.079	3.94	0.669	59.0	295.1	-17.3	0.554
4-1550	4-2010	0.563	218.0	2.0	1.11	1.123	62.0	0.475	0.670	127.0	900.4	0.352	0.987	3.94	0.730	89.6	330.8	-1.3	0.289
4-1550	4-2020	0.268	277.3	1.7	0.34	1.360	81.7	0.369	1.105	31.4	454.9	0.697	1.512	3.53	1.060	110.8	64.0	30.4	0.390
4-1550	4-2030	0.222	293.5	-1.9	-0.31	1.362	85.2	0.356	1.112	18.5	452.2	0.716	1.507	3.29	1.064	109.8	77.0	31.8	0.372
4-1550	4-2040	0.199	312.5	-6.1	-0.90	1.364	88.2	0.352	1.119	6.7	450.6	0.725	1.514	3.18	1.068	109.5	89.7	32.3	0.364
4-1550	4-2050	0.199	332.3	-10.1	-1.46	1.367	91.1	0.356	1.127	355.9	809.9	0.726	1.529	3.17	1.071	109.6	101.9	31.8	0.364
4-1550	4-2060	0.217	350.1	-12.9	-2.04	1.369	93.8	0.366	1.136	345.8	810.0	0.720	1.552	3.26	1.074	110.1	113.6	30.7	0.371
4-1550	4-2060	0.217	350.1	-12.9	-2.04	1.369	93.8	0.366	1.136	345.8	810.0	0.720	1.552	3.26	1.074	110.1	113.6	30.7	0.371
4-1550	4-2070	0.249	4.4	-14.8	-2.67	1.372	96.5	0.381	1.146	336.4	810.7	0.709	1.582	3.47	1.077	110.9	126.7	29.0	0.384
4-1550	4-2080	0.688	229.7	-5.4	-3.41	1.282	58.3	0.550	0.900	104.2	588.7	0.405	1.396	3.84	0.959	57.0	334.0	-5.0	0.574
4-1550	4-2080	0.291	15.6	-16.1	-3.41	1.375	99.1	0.400	1.156	327.6	812.1	0.694	1.619	3.84	1.079	112.1	135.2	27.0	0.403
4-1550	4-2090	0.624	232.9	-8.0	-4.36	1.288	61.8	0.506	0.913	97.3	591.9	0.451	1.376	4.44	0.965	59.9	341.2	-0.4	0.531
4-1550	4-2090	0.341	24.4	-17.5	-4.36	1.378	101.8	0.623	1.168	319.3	813.9	0.674	1.662	4.44	1.082	113.5	145.1	24.9	0.428
4-1550	4-2100	0.566	236.1	-11.9	-5.70	1.294	65.0	0.466	0.925	90.3	594.9	0.494	1.356	5.47	0.970	62.5	348.0	5.2	0.493
4-1550	4-2100	0.399	31.6	-19.5	-5.70	1.381	104.6	0.449	1.181	311.4	816.9	0.650	1.711	5.47	1.084	115.1	154.7	23.1	0.459
4-1550	4-2110	0.522	239.0	-18.6	-7.93	1.299	67.9	0.429	0.936	83.0	597.7	0.534	1.339	7.40	0.974	64.8	354.2	12.9	0.464
4-1550	4-2110	0.487	38.0	-23.0	-7.93	1.385	107.4	0.479	1.194	304.0	818.6	0.622	1.766	7.40	1.086	117.0	168.2	22.5	0.497
4-1550	4-2120	0.515	240.3	-31.7	-12.73	1.303	70.7	0.397	0.947	75.6	600.1	0.571	1.323	11.92	0.978	66.8	359.1	25.7	0.460
4-1550	4-2120	0.564	44.9	-30.6	-12.73	1.388	110.3	0.511	1.209	296.9	821.4	0.592	1.827	11.92	1.083	119.1	176.1	25.2	0.555
4-1550	4-2150	0.378	255.1	39.7	10.81	1.314	78.2	0.322	0.973	51.3	606.1	0.660	1.286	-12.44	0.983	71.3	44.5	-14.9	0.397
4-1560	4-1670	0.853	228.2	-0.7	-0.69	1.125	46.9	0.686	0.670	138.1	201.2	---	1.129	3.03	0.735	55.5	313.3	-14.3	0.584
4-1560	4-1680	0.793	231.7	-1.4	-1.25	1.154	50.6	0.636	0.700	131.8	205.1	---	1.145	2.82	0.778	57.6	319.2	-12.3	0.551
4-1560	4-1690	0.736	235.1	-2.3	-1.75	1.179	53.9	0.589	0.730	125.5	209.0	---	1.160	2.72	0.815	59.5	325.4	-9.9	0.522
4-1560	4-1700	0.684	238.3	-3.3	-2.23	1.200	57.0	0.546	0.758	119.1	212.8	---	1.172	2.71	0.845	61.3	331.8	-7.2	0.495
4-1560	4-1710	0.635	241.5	-4.5	-2.72	1.219	59.8	0.507	0.785	112.7	216.5	---	1.184	2.78	0.870	63.0	338.3	-4.2	0.470
4-1560	4-1720	0.589	244.7	-6.1	-3.26	1.235	62.4	0.473	0.811	106.1	220.1	---	1.194	2.95	0.891	64.5	344.8	-0.7	0.448
4-1560	4-1730	0.546	247.8	-8.1	-3.88	1.249	64.8	0.441	0.835	99.5	223.5	---	1.203	3.26	0.909	65.9	351.4	3.2	0.427
4-1560	4-1740	0.507	250.9	-10.8	-4.67	1.262	67.1	0.414	0.857	92.8	226.9	---	1.211	3.76	0.923	67.2	357.9	7.6	0.409
4-1560	4-1750	0.473	253.9	-14.7	-5.79	1.273	69.3	0.389	0.878	88.0	230.0	---	1.219	4.60	0.935	68.3	4.3	13.0	0.394
4-1560	4-1760	0.449	256.8	-21.0	-7.60	1.282	71.3	0.368	0.897	79.1	233.0	---	1.227	6.17	0.945	69.3	10.3	20.0	0.384
4-1560	4-1770	0.453	258.3	-32.7	-11.41	1.291	73.3	0.350	0.915	72.1	235.9	---	1.234	9.73	0.954	70.2	15.3	31.4	0.390
4-1560	4-1780	0.646	245.2	-57.7	-25.81	1.298	75.1	0.335	0.931	65.3	238.6	---	1.243	23.90	0.961	70.9	19.3	57.5	0.523
4-1560	4-1800	0.348	272.9	36.2	9.09	1.311	78.9	0.308	0.960	49.8	243.5	---	1.255	-11.47	0.972	72.3	57.5	-10.4	0.371
4-1560	4-1810	0.271	281.1	20.7	4.23	1.316	80.6	0.300	0.972	42.5	245.7	---	1.264	-6.84	0.976	72.7	60.9	0.7	0.330
4-1560	4-1820	0.233	288.5	12.0	2.12	1.320	82.3	0.293	0.984	34.9	247.8	---	1.273	-4.98	0.980	73.0	67.5	6.6	0.314
4-1560	4-1830	0.206	297.1	5.7	0.89	1.324	84.0	0.289	0.995	27.2	249.6	---	1.283	-4.00	0.984	73.2	75.2	10.2	0.305
4-1560	4-1840	0.185	307.3	0.4	0.05	1.328	85.7	0.288	1.005	19.3	251.3	---	1.293	-3.43	0.988	73.3	83.6	12.4	0.300
4-1560	4-1850	0.171	319.8	-4.6	-0.60	1.332	87.5	0.288	1.014	11.2	252.8	---	1.306	-3.07	0.991	73.3	92.4	13.6	0.297
4-1560	4-1860	0.165	334.3	-9.2	-1.13	1.335	89.3	0.291	1.022	3.0	254.1	---	1.319	-2.85	0.994	73.1	101.5	13.8	0.297
4-1560	4-1870	0.169	350.2	-12.9	-1.61	1.337	91.3	0.297	1.030	354.5	605.1	0.724	1.336	-2.78	0.998	72.7	110.7	13.	0.301
4-1560	4-1880	0.184	6.0	-15.1	-2.07	1.340	93.4	0.306	1.037	345.6	615.8	0.720	1.355	-2.70	1.002	72.2	120.0	12.0	0.308
4-1560	4-1890	0.212	20.4	-16.1	-2.52	1.342	95.7	0.320	1.044	336.4	616.0	0.710	1.378	-2.74	1.006	71.4	129.5	10.0	0.320
4-1560	4-1890	0.742	90.7	-3.2	-2.52	1.182	127.0	0.602	0.734	233.9	873.6	0.292	1.176	-2.74	0.779	120.2	264.7	-27.0	0.507
4-1560	4-1890	0.770	91.1	-3.0	-2.52	1.187	128.4	0.621	0.740	233.1	872.8	0.280	1.200	-2.74	0.786	122.4	266.0	-26.8	0.536
4-1560	4-1900	0.252	32.8	-16.0	-3.00	1.345	98.3	0.339	1.051	326.5	615.8	0.694	1.407	-2.86	1.010	70.3	139.1	7.4	0.338
4-1560	4-1900	0.581	89.4	-5.2	-3.00	1.153	119.1	0.488	0.700	237.2	886.4	0.358	1.041	-2.86	0.737	102.3	252.6	-29.1	0.316
4-1560	4-1910	0.307	43.4	-15.4	-3.54	1.347	101.4	0.366	1.057	316.0	614.8	0.670	1.444	-3.08	1.014	68.7	148.8	4.1	0.364
4-1560	4-1910	0.553	89.5	-6.5	-3.54	1.146	117.7	0.467	0.692	237.1	896.0	0.369	1.015	-3.08	0.728	93.5	240.8	-29.2	0.271
4-1560	4-1920	0.380	52.7	-14.5	-4.20	1.349	105.2	0.404	1.063	304.3	612.0	0.634	1.492	-3.45	1.019	66.4	158.9	0.3	0.404
4-1560	4-1920	0.560	90.1	-7.6	-4.20	1.143	118.0	0.472	0.688	236.3	904.7	0.363	1.014	-3.45	0.726	85.8	228.6	-27.5	0.274
4-1560	4-1930	0.479	61.4	-13.5	-5.07	1.351	110.1	0.458	1.069	291.2	609.3	0.579	1.559	-4.04	1.024	62.9	169.7	-4.2	0.464
4-1560	4-1930	0.602	91.0	-8.3	-5.07	1.142	120.1	0.503	0.687	238.6	912.6	0.341	1.033	-4.04	0.727	77.8	220.3	-25.1	0.319
4-1560	4-1940	0.621	70.2	-12.4	-6.35	1.353	117.0	0.539	1.076	275.7	603.4	0.496	1.655	-5.07	1.029	57.6	181.5	-9.3	0.557
4-1560	4-1940	0.687	92.9	-8.7	-6.35	1.142	124.3	0.566	0.688	231.1	918.9	0.299	1.076	-5.07	0.731	68.5	217.8	-27.8	0.410
4-1560	4-1950	0.842	96.4	-8.6	-8.59	1.144	132.3	0.674	0.689	224.5	922.0	0.225	1.153	-7.07	0.737	56.1	211.1	-24.0	0.560
4-1560	4-2000	0.734	231.4	3.9	3.15	1.134	53.4	0.598	0.679	131.8	879.2	0.273	1.085	5.86	0.741	115.7	1.3	9.4	0.487
4-1560	4-2010	0.510	263.1	3.6	1.46	1.360	68.7	0.481	1.098	70.1	467.8	0.569	1.627	4.44	1.056	118.2	46.9	25.8	0.523
4-1560	4-2010	0.613	234.1	2.3	1.46	1.135	59.7	0.508	0.680	126.7	884.2	0.335	1.026	4.44	0.745	105.1	1.9	10.4	0.364
4-1560	4-2020	0.388	273.9	1.4	0.41	1.362	74.9	0.422	1.105	53.1	460.7	0.639	1.571	3.66	1.060	114.2	61.5	28.8	0.450
4-1560	4-2020	0.552	235.2	0.7	0.41	1.135	62.7	0.462	0.680	124.6	892.2	0.366	0.993	3.66	0.747	96.6	356.4	8.6	0.294
4-1560	4-2030	0.304	286.1	-1.6	-0.35	1.364	79.6	0.387	1.111	38.2	455.9	0.682	1.541	3.19	1.064	121.8	75.2	30.6	0.406
4-1560	4-2030	0.811	227.1	-0.4	-0.35	1.098	48.7	0.667	0.644	139.5	917.2	0.214	1.073	3.19	0.691	61.5	314.4	-13.4	0.523
4-1560	4-2030	0.546	235.0	-0.7	-0.35	1.131	63.1	0.458	0.676	125.0	902.8	0.367	0.985	3.19	0.743	87.7	344.1	2.5	0.278
4-1560	4-2040	0.267	300.7	-5.3	-0.96	1.366	83.4	0.368	1.118	24.7	452.6	0.707	1.529	2.91	1.067	110.5	88.6	31.1	0.381
4-1560	4-2050	0.213	318.2	-9.6	-1.44	1.368	86.7	0.360	1.125	12.5	450.6	0.720	1.530	2.76	1.070	109.9	101.5	30.6	0.367

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1560	4-2060	0.202	337.8	-13.5	-1.98	1.370	89.6	0.360	1.133	1.4	449.6	0.725	1.541	2.70	1.073	109.8	113.6	29.3	0.363
4-1560	4-2070	0.211	356.8	-16.2	-2.46	1.372	92.4	0.367	1.141	351.0	809.5	0.722	1.560	2.73	1.075	110.1	125.0	27.3	0.367
4-1560	4-2080	0.236	12.9	-17.5	-2.97	1.375	95.1	0.379	1.150	341.5	810.1	0.714	1.586	2.85	1.077	110.8	135.7	24.8	0.377
4-1560	4-2090	0.272	25.6	-18.0	-3.54	1.378	97.7	0.395	1.160	332.5	811.2	0.702	1.619	3.08	1.079	111.7	145.7	22.1	0.393
4-1560	4-2100	0.670	246.9	-7.0	-4.23	1.289	59.5	0.537	0.911	101.3	590.1	0.422	1.400	3.46	0.961	57.9	351.8	1.9	0.563
4-1560	4-2100	0.317	35.6	-18.4	-4.23	1.380	100.4	0.416	1.171	324.1	812.9	0.684	1.658	3.46	1.081	113.0	155.2	19.3	0.414
4-1560	4-2110	0.608	250.1	-9.8	-5.15	1.295	62.9	0.495	0.924	94.4	593.2	0.467	1.380	4.10	0.967	60.6	358.8	6.7	0.520
4-1560	4-2110	0.369	43.5	-19.1	-5.15	1.384	103.0	0.440	1.183	316.1	814.9	0.663	1.793	4.10	1.083	114.5	164.4	16.6	0.440
4-1560	4-2120	0.554	253.2	-14.1	-6.52	1.300	65.0	0.456	0.935	87.2	596.0	0.509	1.362	5.21	0.971	63.1	5.5	12.6	0.484
4-1560	4-2120	0.428	50.2	-20.7	-6.52	1.387	105.8	0.467	1.196	308.5	817.3	0.638	1.754	5.21	1.084	116.2	173.3	14.6	0.473
4-1560	4-2130	0.515	256.0	-21.7	-8.99	1.305	68.9	0.421	0.946	79.9	598.6	0.547	1.345	7.44	0.974	65.3	11.7	20.8	0.457
4-1560	4-2130	0.500	54.3	-24.3	-8.99	1.390	108.7	0.497	1.210	301.3	819.9	0.609	1.811	7.44	1.086	118.2	182.3	14.2	0.514
4-1560	4-2140	0.536	255.8	-27.8	-15.34	1.309	71.5	0.391	0.956	72.5	600.9	0.582	1.330	13.55	0.977	67.1	16.4	36.3	0.466
4-1560	4-2140	0.615	60.9	-33.9	-15.34	1.394	111.6	0.529	1.225	294.4	822.8	0.578	1.673	13.55	1.088	120.3	192.1	19.1	0.582
4-1560	4-2160	0.471	25.2	47.6	15.79	1.316	76.6	0.340	0.974	56.3	605.0	0.643	1.304	-15.04	0.981	70.2	58.1	-18.8	0.465
4-1570	4-1700	0.800	248.8	-2.6	-2.28	1.172	50.6	0.634	0.719	129.8	207.4	---	1.176	2.08	0.802	56.2	336.1	-7.4	0.571
4-1570	4-1710	0.743	252.1	-3.4	-2.64	1.195	53.9	0.589	0.749	123.4	211.2	---	1.190	2.03	0.834	58.4	342.4	-4.6	0.540
4-1570	4-1720	0.691	255.3	-4.4	-3.01	1.215	57.0	0.548	0.777	117.0	215.0	---	1.202	2.05	0.860	60.3	348.8	-1.6	0.512
4-1570	4-1730	0.641	258.6	-5.6	-3.38	1.233	59.8	0.510	0.803	110.5	219.6	---	1.213	2.13	0.883	62.1	355.3	1.7	0.485
4-1570	4-1740	0.595	261.5	-7.1	-3.81	1.246	62.4	0.476	0.828	104.0	222.1	---	1.223	2.30	0.901	63.7	2.0	5.3	0.461
4-1570	4-1750	0.552	264.6	-9.0	-4.32	1.261	64.9	0.446	0.852	97.3	225.5	---	1.232	2.58	0.917	65.2	8.7	9.1	0.439
4-1570	4-1760	0.512	267.7	-11.5	-4.98	1.273	67.2	0.419	0.874	90.6	228.7	---	1.240	3.04	0.930	66.5	15.5	13.3	0.419
4-1570	4-1770	0.478	270.8	-15.2	-5.97	1.283	69.3	0.395	0.894	83.8	231.8	---	1.248	3.83	0.941	67.6	22.2	18.3	0.402
4-1570	4-1780	0.453	273.7	-21.3	-7.71	1.292	71.4	0.375	0.913	76.9	234.7	---	1.255	5.38	0.950	68.7	28.8	24.9	0.390
4-1570	4-1790	0.462	275.0	-34.0	-11.95	1.300	73.4	0.357	0.930	70.0	237.5	---	1.262	9.45	0.958	69.6	34.6	37.0	0.396
4-1570	4-1810	0.422	282.1	43.2	13.03	1.315	77.2	0.327	0.961	55.3	242.8	---	1.276	-15.88	0.970	71.1	69.4	-14.4	0.427
4-1570	4-1820	0.299	292.4	17.4	3.96	1.319	79.0	0.317	0.975	48.2	245.1	---	1.284	-6.99	0.975	71.6	70.0	3.0	0.346
4-1570	4-1830	0.259	298.9	6.8	1.35	1.323	80.7	0.309	0.987	40.8	247.3	---	1.292	-4.55	0.980	72.1	76.6	9.7	0.326
4-1570	4-1840	0.231	306.1	0.4	0.07	1.328	82.4	0.303	0.998	33.3	249.4	---	1.301	-3.45	0.984	72.4	84.7	13.0	0.314
4-1570	4-1850	0.208	314.6	-4.7	-0.73	1.332	84.2	0.299	1.009	25.7	251.3	---	1.311	-2.84	0.989	72.6	93.2	14.7	0.307
4-1570	4-1860	0.189	325.1	-9.2	-1.31	1.335	85.9	0.298	1.018	17.9	253.0	---	1.322	-2.47	0.995	72.7	102.1	15.2	0.303
4-1570	4-1870	0.177	337.8	-13.4	-1.76	1.338	87.7	0.298	1.027	9.9	254.6	---	1.334	-2.25	0.997	72.7	111.1	14.8	0.301
4-1570	4-1880	0.173	352.6	-16.9	-2.15	1.341	89.6	0.301	1.036	1.7	255.8	---	1.348	-2.11	1.001	72.5	120.3	13.7	0.302
4-1570	4-1890	0.179	8.7	-19.1	-2.50	1.344	91.6	0.308	1.043	353.1	616.8	0.722	1.364	-2.04	1.005	72.1	129.4	11.9	0.306
4-1570	4-1900	0.196	24.5	-19.8	-2.84	1.346	93.8	0.318	1.050	344.2	617.5	0.717	1.384	-2.03	1.010	71.6	138.5	9.5	0.314
4-1570	4-1910	0.226	38.8	-19.2	-3.19	1.349	96.2	0.332	1.057	334.8	618.6	0.706	1.408	-2.08	1.014	70.8	147.9	6.5	0.327
4-1570	4-1910	0.592	104.6	-5.5	-3.19	1.166	119.5	0.493	0.712	238.8	881.7	0.361	1.063	-2.08	0.755	106.3	273.1	-27.8	0.345
4-1570	4-1920	0.269	51.0	-17.9	-3.56	1.351	99.0	0.352	1.064	324.7	617.2	0.689	1.438	-2.20	1.019	69.6	157.4	3.8	0.347
4-1570	4-1920	0.542	104.5	-6.8	-3.56	1.156	117.0	0.455	0.700	239.3	891.8	0.381	1.019	-2.20	0.742	96.8	263.0	-29.2	0.273
4-1570	4-1930	0.328	61.6	-16.3	-4.00	1.353	102.3	0.382	1.070	313.7	615.8	0.462	1.478	-2.40	1.024	67.8	167.2	-1.0	0.377
4-1570	4-1930	0.534	104.8	-7.7	-4.00	1.152	116.6	0.450	0.696	238.8	901.0	0.383	1.008	-2.40	0.739	89.2	250.4	-29.2	0.255
4-1570	4-1940	0.408	71.0	-14.6	-4.54	1.355	106.5	0.423	1.076	301.4	613.3	0.620	1.531	-2.72	1.029	65.2	177.5	-5.5	0.423
4-1570	4-1940	0.557	105.5	-8.3	-4.54	1.150	117.8	0.467	0.694	237.6	909.4	0.370	1.018	-2.72	0.739	81.9	239.4	-27.8	0.279
4-1570	4-1950	0.520	79.9	-12.9	-5.28	1.357	112.1	0.485	1.082	287.2	608.9	0.557	1.607	-3.27	1.034	61.3	188.7	-10.3	0.492
4-1570	4-1950	0.615	106.8	-8.5	-5.28	1.150	120.6	0.511	0.693	235.1	916.8	0.339	1.047	-3.27	0.743	73.9	233.7	-26.2	0.344
4-1570	4-1960	0.725	109.2	-8.3	-6.45	1.151	126.2	0.592	0.694	230.5	921.9	0.283	1.105	-4.24	0.748	63.9	233.9	-25.7	0.457
4-1570	4-2010	0.842	245.5	2.4	2.43	1.142	47.9	0.672	0.685	135.7	877.3	0.224	1.145	5.54	0.752	124.4	15.1	12.8	0.591
4-1570	4-2020	0.604	273.5	1.2	0.58	1.364	64.2	0.535	1.105	80.3	471.9	0.514	1.696	3.87	1.060	121.8	56.1	25.9	0.582
4-1570	4-2020	0.667	249.6	0.8	0.58	1.144	57.0	0.547	0.687	127.7	879.3	0.311	1.062	3.87	0.757	111.5	19.6	15.2	0.426
4-1570	4-2030	0.453	284.1	-1.3	-0.45	1.366	71.7	0.456	1.111	61.7	463.4	0.604	1.618	3.05	1.064	116.4	71.6	28.4	0.486
4-1570	4-2030	0.572	251.7	-0.8	-0.45	1.145	61.9	0.473	0.687	123.7	885.5	0.362	1.013	3.05	0.760	102.4	10.5	15.4	0.325
4-1570	4-2040	0.350	295.4	-4.3	-1.13	1.368	77.2	0.409	1.118	45.6	457.6	0.660	1.576	2.58	1.067	113.2	86.1	29.3	0.428
4-1570	4-2040	0.528	252.4	-2.2	-1.13	1.144	64.2	0.439	0.687	122.2	894.1	0.385	0.988	2.58	0.760	94.6	11.2	12.7	0.270
4-1570	4-2050	0.280	308.5	-8.0	-1.65	1.369	81.4	0.383	1.124	31.5	453.6	0.694	1.555	2.30	1.070	111.4	99.8	29.0	0.393
4-1570	4-2050	0.761	245.0	-1.9	-1.65	1.112	51.7	0.626	0.654	135.9	918.0	0.245	1.064	2.30	0.711	64.5	333.4	-7.7	0.485
4-1570	4-2050	0.538	251.7	-3.1	-1.65	1.139	63.6	0.448	0.682	123.4	905.5	0.376	0.987	2.30	0.753	85.6	357.0	5.5	0.275
4-1570	4-2060	0.234	324.4	-12.2	-2.07	1.371	85.0	0.370	1.131	18.8	451.1	0.713	1.549	2.13	1.072	110.4	112.6	27.6	0.373
4-1570	4-2070	0.212	343.0	-16.1	-2.45	1.373	88.1	0.366	1.139	7.2	449.7	0.722	1.555	2.05	1.074	110.1	124.5	25.5	0.365
4-1570	4-2080	0.210	2.5	-18.8	-2.81	1.376	90.9	0.369	1.146	356.6	809.3	0.723	1.570	2.03	1.076	110.2	135.6	22.8	0.364
4-1570	4-2090	0.226	20.2	-19.7	-3.18	1.378	93.6	0.378	1.155	346.8	809.6	0.718	1.592	2.08	1.077	110.7	145.8	19.7	0.371
4-1570	4-2100	0.255	34.7	-19.6	-3.58	1.381	96.2	0.392	1.164	337.7	810.5	0.708	1.620	2.20	1.078	111.5	155.5	16.4	0.394
4-1570	4-2110	0.717	261.0	-6.1	-4.03	1.290	57.2	0.568	0.909	105.2	568.1	0.392	1.425	2.42	0.957	55.7	2.4	4.6	0.596
4-1570	4-2110	0.294	46.0	-19.1	-4.03	1.383	98.8	0.409	1.175	329.1	812.0	0.694	1.656	2.42	1.080	112.5	166.6	13.1	0.402
4-1570	4-2120	0.651	264.1	-8.0	-4.61	1.296	60.7	0.525	0.922	98.4	591.3	0.438	1.405	2.77	0.963	58.6	9.6	8.6	0.550
4-1570	4-2120	0.340	54.9	-18.7	-4.61	1.386	101.5	0.431	1.186	321.0	813.8	0.675	1.697	2.77	1.081	113.9	173.4	9.9	0.425
4-1570	4-2130	0.591	267.3	-10.7	-5.40	1.301	63.9	0.484	0.934	91.4	594.2	0.481	1.386	3.30	0.967	61.3	16.8	13.2	0.509
4-1570	4-2130	0.393	62.1	-18.8	-5.40	1.389	104.2	0.456	1.198	313.2	816.0	0.652	1.744	3.30	1.082	115.5	182.0	7.0	0.453
4-1570	4-2140	0.539	270.5	-15.0	-6.65	1.306	66.9	0.448	0.945	84.3	596.9	0.522	1.368	4.42	0.971	63.6	23.8	18.7	0.473
4-1570	4-2140	0.452	68.3	-19.9	-6.65	1.393	107.0	0.484	1.212	305.8	818.5	0.626	1.798	4.42	1.084	117.3	190.5	5.0	0.487
4-1570	4-2150	0.504	273.3	-22.8	-9.15	1.311	69.7	0.415	0.956	77.0	599.4	0.559	1.352	6.74	0.974	65.6	30.5	26.8	0.446
4-1570	4-2150	0.525	74.0	-23.4	-9.15	1.396	109.9	0.514	1.226	298.8	821.2	0.596	1.856	6.74	1.086	119.3	199.4	4.9	0.529
4-1570	4-2160	0.555	271.2	-42.6	-17.46	1.315	72.3	0.387	0.965	69.6	601.7	0.592	1.339	14.88	0.976	67.4	36.1	45.6	0.471
4-1580	4-1720	0.804	265.9	-3.4	-3.01	1.190	50.8	0.633	0.739	127.6	209.5	---	1.207	1.21	0.822	55.3	353.0	-1.5	0.586
4-1580	4-1730	0.748	269.1	-4.2	-3.22	1.211	54.1	0.589	0.768	121.2	213.3	---	1.220	1.20	0.850	57.5	359.5	1.4	0.554
4-1580	4-1740	0.695	272.3	-5.1	-3.43	1.230	57.1	0.549	0.795	114.8	216.9	---	1.232	1.23	0.873	59.6	5.9	4.5	0.524
4-1580	4-1750	0.645	275.4	-6.1	-3.66	1.246	59.9	0.513	0.822	108.3	220.5	---	1.243	1.29	0.893	61.4	12.6	7.6	0.496
4-1580	4-1760	0.598	278.5	-7.4	-3.93	1.260	62.5	0.480	0.846	101.8	223.9	---	1.252	1.41	0.909	63.0	19.6	10.9	0.471
4-1580	4-1770	0.554	281.6	-8.9	-4.26	1.273	64.9	0.451	0.869	95.2	227.2	---	1.261	1.61	0.923	64.5	26.6	14.2	0.447
4-1580	4-1780	0.514	284.8	-10.9	-4.70	1.283	67.2	0.425	0.891	88.5	230.4	---	1.269	1.94	0.935	65.8	33.9	17.7	0.426
4-1580	4-1190	0.477	287.9	-13.8	-5.40	1.293	69.4	0.402	0.911	81.8	233.4	---	1.276	2.52	0.945	67.0	41.4	21.6	0.407

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1580	4-1800	0.448	291.0	-18.8	-6.74	1.301	71.5	0.382	0.929	74.9	236.3	---	1.284	3.76	0.954	68.1	48.9	26.9	0.392
4-1580	4-1810	0.451	292.7	-31.4	-10.80	1.309	73.4	0.364	0.946	68.1	239.1	---	1.291	7.71	0.962	69.0	56.1	38.2	0.392
4-1580	4-1830	0.328	304.5	13.2	3.33	1.321	77.2	0.337	0.976	53.8	244.3	---	1.305	-6.62	0.974	70.4	79.1	5.9	0.360
4-1580	4-1840	0.289	310.1	0.5	0.12	1.326	79.0	0.327	0.989	46.7	246.7	---	1.312	-3.50	0.980	71.0	86.1	13.7	0.337
4-1580	4-1850	0.260	316.1	-5.4	-1.06	1.331	80.8	0.319	1.001	39.4	249.0	---	1.320	-2.43	0.985	71.4	94.5	16.4	0.325
4-1580	4-1860	0.236	323.3	-9.6	-1.78	1.335	82.5	0.313	1.013	32.0	251.1	---	1.329	-1.90	0.990	71.8	103.3	17.2	0.310
4-1580	4-1870	0.218	332.1	-13.3	-2.12	1.339	84.3	0.309	1.023	24.4	253.0	---	1.339	-1.60	0.995	72.0	112.2	16.9	0.310
4-1580	4-1880	0.196	342.8	-16.8	-2.43	1.342	86.1	0.307	1.032	16.7	254.8	---	1.349	-1.41	0.999	72.1	121.2	15.9	0.306
4-1580	4-1890	0.185	355.9	-19.9	-2.66	1.345	87.9	0.308	1.041	8.7	256.4	---	1.362	-1.29	1.004	72.1	130.2	14.1	0.305
4-1580	4-1900	0.182	11.1	-22.1	-2.90	1.348	89.9	0.312	1.049	0.5	257.7	---	1.376	-1.23	1.009	71.9	139.2	11.8	0.306
4-1580	4-1910	0.189	27.4	-22.8	-3.11	1.350	92.0	0.318	1.056	351.9	618.7	0.720	1.392	-1.20	1.014	71.6	148.1	8.9	0.311
4-1580	4-1920	0.208	43.2	-22.1	-3.31	1.353	94.2	0.328	1.063	342.8	619.2	0.714	1.413	-1.21	1.019	71.0	157.2	5.6	0.320
4-1580	4-1920	0.622	120.0	-5.4	-3.31	1.181	120.8	0.512	0.727	239.9	876.3	0.355	1.100	-1.21	0.777	111.2	292.1	-24.1	0.396
4-1580	4-1930	0.239	57.4	-20.2	-3.52	1.355	96.8	0.344	1.070	333.1	619.2	0.702	1.438	-1.25	1.024	70.2	166.4	1.9	0.335
4-1580	4-1930	0.538	119.5	-6.8	-3.52	1.166	116.7	0.449	0.709	241.3	887.4	0.391	1.028	-1.25	0.758	99.9	283.7	-26.1	0.285
4-1580	4-1940	0.286	69.5	-17.9	-3.76	1.357	99.8	0.366	1.076	322.6	618.5	0.682	1.470	-1.31	1.029	68.8	175.9	-2.1	0.358
4-1580	4-1940	0.515	119.7	-7.6	-3.76	1.161	115.6	0.432	0.703	241.2	897.0	0.399	1.007	-1.33	0.752	92.3	272.4	-27.5	0.247
4-1580	4-1950	0.350	80.0	-15.4	-4.03	1.359	103.4	0.398	1.082	311.1	616.7	0.652	1.513	-1.47	1.035	66.9	185.9	-6.5	0.393
4-1580	4-1950	0.524	120.2	-8.0	-4.03	1.158	116.0	0.439	0.700	240.3	906.0	0.393	1.001	-1.47	0.752	85.4	260.1	-27.5	0.252
4-1580	4-1960	0.440	89.4	-13.0	-4.39	1.361	108.0	0.445	1.089	297.9	613.4	0.604	1.573	-1.71	1.040	63.9	196.8	-11.0	0.446
4-1580	4-1960	0.561	121.1	-8.0	-4.39	1.157	117.9	0.468	0.699	238.6	914.0	0.372	1.026	-1.71	0.755	78.3	251.6	-26.7	0.296
4-1580	4-1970	0.568	98.6	-10.8	-4.91	1.363	114.4	0.516	1.095	282.5	807.8	0.529	1.660	-2.11	1.045	59.3	209.0	-15.7	0.529
4-1580	4-1970	0.639	122.7	-7.6	-4.91	1.158	121.8	0.527	0.699	235.2	920.6	0.331	1.068	-2.11	0.759	69.9	248.8	-25.0	0.380
4-1580	4-1980	0.779	125.9	-6.7	-5.78	1.159	129.0	0.629	0.701	228.9	924.1	0.260	1.142	-2.86	0.764	58.8	252.0	-26.0	0.519
4-1580	4-1980	0.956	141.9	-3.6	-5.78	0.975	141.8	0.810	0.550	204.3	1259.6	0.105	0.995	2.86	0.482	91.8	306.8	-21.4	0.570
4-1580	4-2030	0.754	264.2	-0.8	-0.69	1.152	52.7	0.608	0.693	130.5	876.3	0.272	1.113	2.76	0.767	118.9	35.2	17.9	0.511
4-1580	4-2040	0.535	294.2	-3.6	-1.52	1.369	67.8	0.501	1.118	71.3	467.2	0.558	1.678	2.04	1.067	119.3	81.3	26.8	0.534
4-1580	4-2040	0.615	267.4	-2.5	-1.52	1.153	59.8	0.504	0.694	124.1	880.0	0.345	1.044	2.04	0.770	108.1	38.2	19.2	0.375
4-1580	4-2050	0.408	305.0	-6.6	-2.02	1.371	74.3	0.438	1.124	53.9	460.0	0.632	1.617	1.66	1.070	115.0	96.4	26.9	0.456
4-1580	4-2050	0.540	269.0	-3.9	-2.02	1.153	63.7	0.445	0.695	120.9	887.0	0.386	1.004	1.66	0.771	100.0	35.4	18.7	0.292
4-1580	4-2060	0.321	317.0	-10.0	-2.38	1.373	79.1	0.402	1.131	38.9	455.1	0.676	1.585	1.44	1.072	112.6	110.2	25.7	0.410
4-1580	4-2060	0.511	269.4	-4.9	-2.38	1.152	65.2	0.421	0.693	120.0	896.2	0.401	0.985	1.44	0.769	92.7	26.0	15.5	0.252
4-1580	4-2070	0.264	331.2	-13.9	-2.65	1.375	83.0	0.382	1.137	25.6	452.0	0.703	1.572	1.31	1.074	111.2	122.9	23.5	0.383
4-1580	4-2070	0.702	263.3	-3.5	-2.65	1.127	55.1	0.577	0.667	131.7	918.2	0.282	1.051	1.31	0.729	68.3	352.8	-0.9	0.436
4-1580	4-2070	0.583	268.1	-5.0	-2.65	1.146	63.5	0.448	0.686	122.5	908.9	0.379	0.994	1.31	0.758	82.9	9.2	7.7	0.282
4-1580	4-2080	0.228	348.3	-17.7	-2.89	1.377	86.3	0.374	1.144	13.6	450.2	0.717	1.572	1.23	1.075	110.5	134.5	20.7	0.369
4-1580	4-2090	0.214	7.5	-20.4	-3.11	1.379	89.3	0.373	1.152	2.6	449.3	0.722	1.582	1.20	1.076	110.4	145.2	17.4	0.365
4-1580	4-2100	0.220	26.3	-21.3	-3.32	1.381	92.0	0.379	1.160	352.5	809.4	0.720	1.599	1.21	1.077	110.7	155.2	13.9	0.368
4-1580	4-2110	0.240	42.6	-20.7	-3.54	1.384	94.7	0.390	1.169	343.2	810.0	0.713	1.624	1.25	1.078	111.3	164.6	10.2	0.377
4-1580	4-2120	0.273	55.6	-19.4	-3.78	1.386	97.3	0.405	1.179	334.4	811.2	0.702	1.655	1.34	1.079	112.2	173.5	6.5	0.393
4-1580	4-2130	0.697	278.2	-6.5	-4.07	1.297	58.3	0.556	0.919	102.5	589.3	0.408	1.430	1.50	0.958	56.5	20.5	10.8	0.562
4-1580	4-2130	0.313	65.7	-18.1	-4.07	1.389	99.9	0.424	1.189	326.1	812.9	0.686	1.693	1.50	1.080	113.4	182.1	3.0	0.411
4-1580	4-2140	0.633	281.4	-8.1	-4.45	1.303	61.7	0.514	0.932	95.6	592.3	0.453	1.411	1.75	0.963	59.3	28.0	14.4	0.537
4-1580	4-2140	0.360	73.7	-17.0	-4.45	1.392	102.6	0.446	1.201	318.2	814.9	0.665	1.736	1.75	1.081	114.8	190.6	-0.3	0.438
4-1580	4-2150	0.574	284.7	-10.3	-4.99	1.308	64.8	0.476	0.944	88.6	595.2	0.495	1.393	2.17	0.967	61.8	35.7	18.1	0.496
4-1580	4-2150	0.412	80.3	-16.5	-4.99	1.395	105.3	0.471	1.214	310.6	817.2	0.641	1.786	2.17	1.082	116.4	198.9	-3.1	0.467
4-1580	4-2160	0.521	288.0	-13.9	-5.90	1.312	67.7	0.441	0.955	81.5	597.8	0.536	1.376	2.98	0.971	64.0	43.4	22.5	0.460
4-1580	4-2160	0.471	85.9	-16.9	-5.90	1.398	108.1	0.500	1.227	305.4	819.7	0.614	1.841	2.98	1.084	118.3	207.3	-5.2	0.502
4-1580	4-2170	0.483	291.1	-20.9	-7.98	1.317	70.4	0.410	0.965	74.2	600.2	0.569	1.361	4.95	0.974	65.9	51.2	29.2	0.432
4-1580	4-2170	0.540	91.2	-19.7	-7.98	1.402	111.0	0.530	1.242	296.5	822.5	0.583	1.901	4.95	1.086	120.3	216.1	-5.3	0.543
4-1580	4-2180	0.566	287.2	-45.7	-18.73	1.320	73.0	0.384	0.974	66.9	602.4	0.601	1.348	15.60	0.976	67.5	59.6	52.2	0.472
4-1590	4-1740	0.806	283.1	-3.9	-3.36	1.207	51.0	0.630	0.759	125.4	211.4	---	1.238	0.27	0.838	54.6	10.0	4.6	0.597
4-1590	4-1750	0.750	286.3	-4.5	-3.41	1.227	54.2	0.589	0.788	119.3	215.1	---	1.251	0.27	0.863	56.9	16.6	7.4	0.564
4-1590	4-1760	0.697	289.4	-5.2	-3.46	1.244	57.2	0.550	0.815	112.7	218.7	---	1.263	0.28	0.884	58.9	23.4	10.2	0.533
4-1590	4-1770	0.647	292.5	-5.9	-3.51	1.259	60.0	0.515	0.840	106.2	222.2	---	1.273	0.30	0.902	60.8	30.5	12.9	0.505
4-1590	4-1780	0.600	295.5	-6.7	-3.58	1.272	62.6	0.484	0.864	99.7	225.5	---	1.282	0.33	0.917	62.4	37.8	15.5	0.479
4-1590	4-1790	0.555	298.7	-7.7	-3.66	1.283	65.0	0.456	0.887	93.2	228.8	---	1.291	0.39	0.930	63.9	45.4	17.9	0.454
4-1590	4-1800	0.513	301.9	-8.8	-3.77	1.293	67.3	0.430	0.908	86.6	231.9	---	1.298	0.48	0.941	65.2	53.3	20.1	0.432
4-1590	4-1810	0.473	305.2	-10.3	-3.96	1.302	69.4	0.408	0.927	79.9	234.9	---	1.306	0.64	0.950	66.4	61.4	22.2	0.412
4-1590	4-1820	0.437	308.6	-12.5	-4.37	1.310	71.5	0.389	0.945	73.1	237.8	---	1.313	1.02	0.959	67.4	69.9	24.5	0.394
4-1590	4-1830	0.411	311.9	-19.0	-6.09	1.317	73.5	0.372	0.962	66.3	240.6	---	1.319	2.72	0.966	68.4	78.3	29.5	0.379
4-1590	4-1840	0.355	317.1	2.1	0.59	1.323	75.4	0.358	0.977	59.4	243.3	---	1.326	-3.98	0.973	69.2	88.1	33.5	0.368
4-1590	4-1850	0.325	321.7	-9.0	-2.25	1.329	77.2	0.346	0.991	52.4	245.9	---	1.333	-1.16	0.980	69.8	96.3	20.3	0.349
4-1590	4-1860	0.296	326.9	-12.2	-2.75	1.334	79.1	0.336	1.004	45.9	248.3	---	1.341	-0.69	0.985	70.4	105.2	20.8	0.337
4-1590	4-1870	0.269	333.1	-14.7	-2.96	1.338	80.9	0.328	1.016	38.2	250.7	---	1.348	-0.50	0.991	70.9	114.1	20.1	0.328
4-1590	4-1880	0.244	340.5	-17.1	-3.08	1.342	82.6	0.322	1.026	30.8	252.9	---	1.357	-0.40	0.997	71.2	123.0	18.8	0.320
4-1590	4-1890	0.221	349.5	-19.5	-3.17	1.345	84.4	0.318	1.036	23.3	254.9	---	1.366	-0.34	1.002	71.5	131.8	16.8	0.314
4-1590	4-1900	0.204	0.6	-21.9	-3.23	1.348	86.3	0.317	1.046	15.6	256.8	---	1.377	-0.31	1.008	71.6	140.5	14.4	0.311
4-1590	4-1910	0.192	14.2	-23.8	-3.29	1.351	88.2	0.318	1.054	7.6	258.4	---	1.389	-0.29	1.013	71.6	149.2	11.6	0.310
4-1590	4-1920	0.189	29.8	-24.7	-3.34	1.354	90.2	0.321	1.062	359.3	619.7	0.721	1.403	-0.27	1.019	71.5	158.0	8.3	0.312
4-1590	4-1930	0.197	46.4	-24.0	-3.38	1.356	92.3	0.328	1.069	350.5	620.6	0.718	1.420	-0.27	1.024	71.1	166.8	4.8	0.318
4-1590	4-1940	0.217	62.2	-21.9	-3.43	1.359	94.7	0.339	1.076	341.2	621.0	0.711	1.441	-0.27	1.029	70.5	175.7	1.0	0.329
4-1590	4-1940	0.540	134.7	-6.7	-3.43	1.177	116.6	0.448	0.719	243.1	882.9	0.397	1.042	-0.27	0.774	103.0	302.1	-20.9	0.306
4-1590	4-1950	0.251	76.1	-19.0	-3.48	1.361	97.4	0.356	1.083	331.2	620.8	0.697	1.468	-0.29	1.035	69.6	185.1	-3.1	0.346
4-1590	4-1950	0.502	134.7	-7.4	-3.48	1.169	114.8	0.419	0.711	245.4	893.0	0.413	1.008	-0.29	0.766	95.0	292.8	-22.7	0.248
4-1590	4-1960	0.302	88.1	-15.8	-3.54	1.362	100.7	0.380	1.089	320.2	619.6	0.675	1.503	-0.31	1.040	68.1	194.9	-7.2	0.372
4-1590	4-1960	0.497	135.0	-7.6	-3.54	1.166	114.6	0.416	0.707	242.9	902.3	0.413	1.031	-0.31	0.765	88.4	280.9	-24.1	0.236
4-1590	4-1970	0.374	98.6	-12.8	-3.60	1.364	104.6	0.416	1.095	308.0	617.2	0.639	1.551	-0.35	1.045	65.9	205.5	-11.4	0.413
4-1590	4-1970	0.529	135.6	-7.3	-3.60	1.165	115.7	0.434	0.705	241.6	910.9	0.399	1.011	-0.35	0.766	81.9	270.5	-24.5	0.261
4-1590	4-1980	0.476	108.1	-10.0	-3.70	1.366	109.9	0.470	1.101	293.8	613.0	0.583	1.619	-0.41	1.050	62.5	217.3	-15.6	0.476

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1590	4-1980	0.573	136.8	-6.6	-3.70	1.164	118.4	0.476	0.705	239.2	918.4	0.369	1.040	-0.41	0.770	74.7	265.1	-24.3	0.323
4-1590	4-1990	0.627	117.7	-7.5	-3.84	1.168	117.3	0.554	1.107	276.7	605.9	0.494	1.721	-0.53	1.055	56.8	230.9	-19.4	0.576
4-1590	4-1990	0.674	139.0	-5.5	-3.84	1.165	123.6	0.553	0.706	234.6	923.8	0.315	1.096	-0.53	0.774	65.7	265.4	-24.2	0.429
4-1590	4-1990	0.949	156.7	-2.5	-3.84	0.994	141.1	0.799	0.560	205.8	1255.0	0.112	1.007	-0.53	0.479	108.8	330.3	-12.6	0.580
4-1590	4-2000	0.962	157.9	-2.6	-4.10	0.979	142.2	0.812	0.551	204.3	1263.6	0.103	0.998	-0.76	0.453	75.1	313.4	-18.1	0.582
4-1590	4-2050	0.641	304.2	-5.6	-2.91	1.373	62.7	0.558	1.124	82.5	472.4	0.496	1.752	0.54	1.070	123.3	90.0	24.3	0.600
4-1590	4-2050	0.685	282.4	-4.1	-2.91	1.160	56.4	0.554	0.700	126.1	876.1	0.312	1.088	0.54	0.778	114.4	55.5	20.6	0.446
4-1590	4-2060	0.460	314.8	-8.3	-3.06	1.375	70.7	0.475	1.131	63.2	463.4	0.593	1.668	0.42	1.072	117.5	105.7	23.5	0.496
4-1590	4-2060	0.575	285.0	-5.5	-3.06	1.161	62.1	0.469	0.701	120.9	881.1	0.372	1.030	0.42	0.780	105.3	57.0	20.9	0.333
4-1590	4-2070	0.373	326.0	-11.4	-3.16	1.377	76.4	0.426	1.137	47.0	457.4	0.652	1.622	0.35	1.074	114.1	119.6	21.5	0.434
4-1590	4-2070	0.517	286.2	-6.4	-3.16	1.161	85.0	0.423	0.701	118.4	888.7	0.405	0.998	0.35	0.779	98.0	52.3	20.0	0.266
4-1590	4-2080	0.299	338.8	-14.8	-3.23	1.379	80.8	0.399	1.144	32.9	453.4	0.688	1.599	0.31	1.075	112.2	132.2	18.6	0.398
4-1590	4-2080	0.844	275.6	-3.2	-3.23	1.118	47.4	0.680	0.656	138.7	919.2	0.210	1.102	0.31	0.711	57.9	359.1	-0.0	0.565
4-1590	4-2080	0.500	286.3	-6.9	-3.23	1.160	85.9	0.410	0.699	118.1	898.6	0.413	0.986	0.31	0.774	91.0	40.7	16.8	0.241
4-1590	4-2090	0.251	354.2	-18.3	-3.29	1.380	84.4	0.384	1.150	20.4	451.0	0.708	1.592	0.29	1.076	111.1	143.6	15.2	0.377
4-1590	4-2100	0.225	12.2	-21.0	-3.34	1.382	87.5	0.379	1.158	9.0	449.7	0.718	1.597	0.27	1.076	110.7	154.1	11.5	0.368
4-1590	4-2110	0.218	31.4	-22.0	-3.39	1.384	90.4	0.381	1.165	358.6	809.4	0.721	1.610	0.27	1.077	110.8	163.9	7.7	0.368
4-1590	4-2120	0.229	49.3	-21.3	-3.43	1.387	93.1	0.389	1.174	348.9	809.7	0.717	1.630	0.28	1.077	111.2	173.2	3.7	0.374
4-1590	4-2130	0.253	67.3	-19.4	-3.49	1.389	95.7	0.401	1.183	339.9	810.6	0.708	1.657	0.29	1.077	111.9	182.1	-0.1	0.386
4-1590	4-2140	0.288	75.7	-17.2	-3.54	1.392	98.3	0.417	1.193	331.4	812.0	0.695	1.691	0.31	1.078	112.9	190.7	-3.8	0.404
4-1590	4-2150	0.678	295.5	-6.0	-3.61	1.304	59.4	0.545	0.930	99.9	590.3	0.423	1.437	0.36	0.959	57.2	39.3	15.9	0.568
4-1590	4-2150	0.330	84.8	-15.2	-3.61	1.394	100.9	0.437	1.204	323.3	813.8	0.677	1.730	0.36	1.079	114.2	199.2	-7.2	0.426
4-1590	4-2160	0.614	298.8	-7.0	-3.71	1.309	62.6	0.505	0.942	93.0	593.3	0.466	1.418	0.42	0.963	59.9	47.3	18.4	0.525
4-1590	4-2160	0.377	92.1	-13.5	-3.71	1.397	103.6	0.460	1.216	315.6	815.9	0.656	1.776	0.42	1.080	115.7	207.6	-10.4	0.453
4-1590	4-2170	0.555	302.2	-8.3	-3.85	1.314	65.6	0.469	0.954	86.1	596.0	0.506	1.401	0.54	0.967	62.2	55.6	20.7	0.485
4-1590	4-2170	0.429	98.2	-12.1	-3.85	1.400	106.4	0.487	1.229	308.3	818.2	0.631	1.827	0.54	1.082	117.4	216.0	-13.2	0.484
4-1590	4-2180	0.501	305.7	-10.1	-4.11	1.318	68.4	0.436	0.964	79.0	598.6	0.544	1.384	0.78	0.971	64.3	64.1	22.8	0.449
4-1590	4-2180	0.486	103.3	-11.3	-4.11	1.404	109.2	0.515	1.243	301.2	820.8	0.603	1.884	0.78	1.084	119.3	224.5	-15.4	0.519
4-1590	4-2190	0.453	309.4	-13.4	-4.81	1.322	71.1	0.407	0.974	71.7	601.0	0.578	1.370	1.45	0.974	66.1	72.8	25.6	0.418
4-1590	4-2190	0.548	107.9	-11.5	-4.81	1.407	112.1	0.546	1.259	294.3	823.6	0.571	1.946	1.45	1.087	121.3	233.1	-16.6	0.558
4-1600	4-1890	0.278	350.0	-20.9	-4.28	1.344	80.9	0.336	1.030	37.1	252.5	---	1.376	1.17	0.999	70.4	134.4	20.7	0.333
4-1600	4-1900	0.251	357.7	-21.9	-4.01	1.348	82.7	0.331	1.040	29.8	254.8	---	1.384	0.96	1.005	70.7	142.8	17.6	0.326
4-1600	4-1910	0.227	7.2	-23.2	-3.81	1.351	84.6	0.327	1.050	22.3	256.9	---	1.393	0.84	1.011	71.0	151.2	14.5	0.320
4-1600	4-1920	0.208	18.8	-24.4	-3.65	1.354	86.4	0.326	1.059	14.5	258.8	---	1.403	0.76	1.017	71.2	159.6	11.1	0.317
4-1600	4-1930	0.196	32.8	-25.1	-3.52	1.357	88.4	0.327	1.067	6.5	260.4	---	1.415	0.71	1.023	71.2	168.0	7.5	0.316
4-1600	4-1940	0.193	48.9	-24.7	-3.40	1.360	90.5	0.330	1.075	358.0	621.7	0.720	1.430	0.69	1.029	71.0	176.6	3.8	0.319
4-1600	4-1950	0.202	65.7	-22.7	-3.28	1.362	92.8	0.338	1.082	349.0	622.5	0.716	1.447	0.68	1.034	70.7	185.4	-0.1	0.327
4-1600	4-1960	0.225	81.4	-19.5	-3.16	1.364	95.3	0.350	1.089	339.4	622.7	0.708	1.470	0.70	1.040	70.0	194.5	-4.0	0.339
4-1600	4-1960	0.493	149.7	-6.9	-3.16	1.178	114.2	0.410	0.719	245.6	888.8	0.424	1.013	0.70	0.780	97.6	310.8	-16.0	0.257
4-1600	4-1970	0.263	95.2	-15.8	-3.03	1.366	98.2	0.368	1.095	329.0	622.1	0.692	1.498	0.74	1.045	69.0	204.2	-7.9	0.359
4-1600	4-1970	0.477	149.9	-6.9	-3.03	1.173	113.5	0.398	0.713	245.4	898.5	0.429	0.997	0.74	0.777	91.0	300.2	-18.0	0.228
4-1600	4-1980	0.487	150.3	-6.3	-2.88	1.172	114.0	0.407	0.711	244.5	907.5	0.422	1.000	0.81	0.778	84.9	289.1	-19.6	0.237
4-1600	4-1990	0.524	151.2	-5.4	-2.69	1.171	115.8	0.436	0.710	242.6	915.7	0.401	1.020	0.93	0.780	78.5	281.7	-20.5	0.281
4-1600	4-2000	0.500	303.3	-8.2	-3.81	1.169	66.0	0.407	0.708	116.2	890.7	0.420	0.996	-0.84	0.783	96.3	69.0	19.4	0.246
4-1600	4-2100	0.282	0.9	-18.0	-3.65	1.384	82.2	0.398	1.156	27.7	452.3	0.696	1.617	-0.75	1.076	112.0	151.9	9.5	0.391
4-1600	4-2100	0.894	203.1	-7.9	-3.65	1.166	66.3	0.403	0.705	116.4	901.1	0.421	0.989	-0.75	0.777	89.3	55.3	17.1	0.235
4-1600	4-2110	0.242	17.3	-20.5	-3.51	1.385	85.6	0.388	1.163	15.8	450.5	0.712	1.615	-0.71	1.076	111.3	162.4	5.4	0.376
4-1600	4-2120	0.222	35.9	-21.6	-3.39	1.387	88.6	0.386	1.171	5.0	449.7	0.719	1.622	-0.68	1.076	111.1	172.2	1.4	0.371
4-1600	4-2130	0.222	54.7	-20.9	-3.27	1.389	91.4	0.390	1.179	355.0	809.6	0.719	1.638	-0.68	1.076	111.3	181.5	-2.7	0.374
4-1600	4-2140	0.237	73.3	-18.8	-3.15	1.392	94.1	0.399	1.187	345.7	810.2	0.713	1.661	-0.70	1.076	111.8	190.6	-6.5	0.383
4-1600	4-2150	0.265	84.7	-16.0	-3.02	1.394	96.7	0.413	1.197	337.0	811.3	0.703	1.691	-0.75	1.077	112.6	199.4	-10.2	0.398
4-1650	4-1980	0.297	71.5	-16.5	-3.61	1.304	79.8	0.377	1.086	38.4	260.4	---	1.496	5.07	1.044	68.4	218.8	-1.5	0.381
4-1650	4-1990	0.262	79.6	-13.0	-2.49	1.367	81.8	0.369	1.097	31.0	263.0	---	1.501	4.30	1.051	69.0	226.5	-5.5	0.370
4-1650	4-2000	0.232	89.6	-9.7	-1.64	1.370	83.9	0.364	1.106	23.3	265.3	---	1.508	3.84	1.057	69.5	234.8	-8.7	0.364
4-1650	4-2010	0.209	102.1	-6.2	-0.94	1.372	86.0	0.361	1.115	15.1	267.2	---	1.517	3.56	1.062	69.9	243.7	-11.2	0.360
4-1650	4-2020	0.195	117.3	-2.1	-0.31	1.375	88.3	0.360	1.123	6.4	268.6	---	1.528	3.42	1.067	70.0	253.2	-12.9	0.361
4-1650	4-2020	0.449	225.7	-0.8	-0.31	1.205	111.4	0.367	0.753	255.1	877.3	0.477	1.030	3.42	0.838	102.1	18.5	19.0	0.274
4-1650	4-2030	0.196	134.8	2.1	0.30	1.377	90.8	0.364	1.131	357.1	629.4	0.719	1.542	3.39	1.071	69.9	263.1	-13.9	0.366
4-1650	4-2030	0.409	225.3	0.8	0.30	1.199	109.5	0.336	0.745	255.9	888.0	0.494	0.995	3.39	0.830	95.8	10.1	18.5	0.217
4-1650	4-2040	0.215	152.8	5.9	0.91	1.379	93.5	0.372	1.138	347.0	629.5	0.714	1.561	3.47	1.074	69.5	273.4	-14.1	0.373
4-1650	4-2040	0.400	225.5	2.6	0.91	1.196	109.1	0.328	0.741	255.7	898.2	0.498	0.984	3.47	0.827	90.9	259.8	15.9	0.198
4-1650	4-2050	0.254	169.2	8.6	1.58	1.381	96.7	0.387	1.144	335.8	628.5	0.702	1.587	3.67	1.077	68.7	284.2	-13.4	0.397
4-1650	4-2050	0.410	226.0	4.3	1.58	1.195	109.6	0.336	0.739	254.8	907.4	0.491	0.987	3.67	0.825	86.3	350.8	12.0	0.209
4-1650	4-2060	0.440	226.9	6.0	2.35	1.194	111.3	0.359	0.739	253.0	915.6	0.474	1.004	4.04	0.825	81.5	345.8	8.7	0.240
4-1650	4-2170	0.483	27.8	-5.5	-2.42	1.198	66.5	0.400	0.743	109.3	882.1	0.446	1.041	-4.26	0.799	101.2	161.8	-6.3	0.260
4-1650	4-2180	0.296	80.0	-7.5	-1.67	1.397	80.8	0.430	1.208	31.0	453.4	0.689	1.728	-3.83	1.073	113.8	225.0	-26.3	0.425
4-1650	4-2180	0.447	28.8	-4.0	-1.61	1.198	68.2	0.373	0.743	107.2	889.6	0.466	1.020	-3.83	0.796	96.0	157.1	-5.5	0.218
4-1650	4-2190	0.249	95.7	-5.3	-0.94	1.399	84.4	0.418	1.215	19.2	451.2	0.708	1.723	-3.56	1.074	112.9	236.9	-28.8	0.411
4-1650	4-2190	0.437	29.0	-2.4	-0.94	1.196	68.6	0.366	0.741	107.1	899.1	0.470	1.012	-3.56	0.792	90.5	147.2	-1.6	0.204
4-1650	4-2200	0.224	113.6	-2.1	-0.34	1.401	87.5	0.414	1.223	8.5	450.1	0.717	1.729	-3.43	1.074	112.5	248.5	-30.5	0.406
4-1650	4-2200	0.505	26.1	-0.7	-0.34	1.188	65.1	0.421	0.731	113.0	914.6	0.423	1.038	-3.43	0.777	79.9	127.6	9.0	0.270
4-1650	4-2210	0.221	132.1	1.4	0.23	1.403	90.5	0.416	1.231	358.5	809.6	0.719	1.783	-3.39	1.076	112.5	259.8	-31.4	0.410
4-1650	4-2220	0.237	148.9	4.7	0.80	1.405	93.2	0.423	1.240	349.1	809.8	0.716	1.764	-3.45	1.078	112.9	270.9	-31.6	0.420
4-1650	4-2230	0.267	162.8	7.4	1.41	1.407	96.0	0.435	1.250	340.2	810.4	0.707	1.793	-3.61	1.080	113.6	281.5	-31.3	0.435
4-1700	4-2070	0.293	357.3	14.2	3.06	1.372	80.4	0.397	1.144	34.2	267.0	---	1.599	0.52	1.076	68.0	306.7	-17.9	0.410
4-1700	4-2080	0.263	167.0	16.6	3.16	1.375	82.7	0.389	1.154	26.2	269.1	---	1.604	0.46	1.079	68.6	315.9	-15.6	0.402
4-1700	4-2090	0.239	179.3	18.9	3.24	1.377	85.1	0.385	1.164	17.6	270.7	---	1.611	0.43	1.080	69.1	325.0	-12.8	0.397
4-1700	4-2090	0.385	301.1	9.8	3.24	1.213	107.8	0.313	0.779	264.1	877.2	0.535	1.022	0.43	0.861	99.7	91.9	25.2	0.212
4-1700	4-2100	0.225	194.5	20.8	3.32	1.380	87.6	0.383	1.172	8.6	271.7	---	1.621	0.42	1.081	69.3	334.0	-9.6	0.396
4-1700	4-2100	0.360	300.8	10.7	3.32	1.209	106.6	0.292	0.772	264.8	888.0	0.547	0.998	0.42	0.853	94.9	82.1	25.3	0.172

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1700	4-2110	0.223	212.3	21.5	3.39	1.382	90.3	0.385	1.180	358.9	632.0	0.726	1.635	0.41	1.082	69.2	343.2	-6.0	0.399
4-1700	4-2110	0.356	301.0	11.1	3.39	1.207	106.5	0.288	0.770	264.5	897.7	0.548	0.992	0.41	0.847	90.9	70.5	24.4	0.161
4-1700	4-2120	0.239	230.9	20.4	3.47	1.384	93.3	0.393	1.188	348.4	631.6	0.721	1.654	0.42	1.082	68.8	352.4	-2.1	0.407
4-1700	4-2120	0.366	301.5	11.0	3.47	1.206	107.0	0.297	0.769	263.5	906.7	0.541	0.997	0.42	0.843	87.2	60.9	22.9	0.173
4-1700	4-2130	0.275	247.9	18.0	3.55	1.385	96.6	0.407	1.195	336.9	630.1	0.709	1.681	0.45	1.081	67.9	2.0	2.0	0.424
4-1700	4-2130	0.390	302.4	10.5	3.55	1.207	108.2	0.316	0.769	261.6	914.7	0.526	1.012	0.45	0.850	83.4	56.0	21.7	0.203
4-1700	4-2140	0.430	303.8	9.6	3.64	1.207	110.1	0.348	0.770	258.8	921.8	0.502	1.038	0.49	0.838	79.2	55.3	21.3	0.249
4-1700	4-2250	0.477	111.3	7.1	3.01	1.214	66.9	0.398	0.780	104.9	872.9	0.470	1.090	-0.55	0.628	105.7	258.0	-24.5	0.295
4-1700	4-2260	0.418	113.7	8.5	3.12	1.215	69.8	0.351	0.781	99.2	877.7	0.507	1.056	-0.49	0.831	101.2	261.9	-24.9	0.239
4-1700	4-2270	0.275	174.9	16.5	3.20	1.403	83.8	0.439	1.269	20.5	448.6	0.712	1.826	-0.44	1.089	113.5	321.8	-16.1	0.444
4-1700	4-2270	0.378	115.4	9.8	3.20	1.216	71.8	0.319	0.783	95.7	883.8	0.533	1.032	-0.44	0.834	97.3	262.8	-25.1	0.197
4-1700	4-2280	0.250	193.6	18.8	3.28	1.405	87.3	0.434	1.276	9.0	446.8	0.723	1.830	-0.42	1.092	112.9	331.9	-12.6	0.438
4-1700	4-2280	0.358	116.6	10.9	3.28	1.216	73.1	0.299	0.783	93.3	891.0	0.549	1.017	-0.42	0.837	93.8	259.7	-25.2	0.168
4-1700	4-2290	0.247	212.8	19.5	3.35	1.406	90.5	0.435	1.285	358.5	805.8	0.726	1.844	-0.41	1.097	112.8	341.3	-8.9	0.440
4-1700	4-2290	0.343	117.0	11.5	3.35	1.216	73.6	0.290	0.782	92.5	899.9	0.555	1.009	-0.41	0.838	90.0	250.2	-24.5	0.153
4-1700	4-2300	0.263	230.1	18.6	3.42	1.408	93.5	0.442	1.294	348.6	805.7	0.721	1.866	-0.42	1.101	113.1	350.3	-5.2	0.448
4-1700	4-2300	0.481	109.6	7.9	3.42	1.201	66.6	0.400	0.762	107.2	924.3	0.457	1.067	-0.42	0.820	75.5	210.0	-13.5	0.276
4-1700	4-2300	0.369	115.2	10.7	3.42	1.212	72.3	0.311	0.777	96.1	913.1	0.535	1.019	-0.42	0.836	84.2	230.2	-20.5	0.175
4-1750	4-2150	0.393	16.9	10.2	3.41	1.237	108.3	0.333	0.822	270.7	864.5	0.548	1.096	-4.01	0.882	104.9	163.2	-7.0	0.265
4-1750	4-2160	0.280	245.8	13.1	2.65	1.385	82.6	0.413	1.205	25.6	269.2	---	1.703	-3.61	1.077	67.4	33.0	4.5	0.434
4-1750	4-2160	0.328	14.9	9.6	2.65	1.228	105.4	0.282	0.807	274.3	877.8	0.580	1.035	-3.61	0.866	98.2	155.0	-8.0	0.184
4-1750	4-2170	0.251	257.4	11.2	2.01	1.387	85.0	0.408	1.215	17.3	270.5	---	1.711	-3.38	1.077	67.9	41.2	7.6	0.425
4-1750	4-2170	0.308	14.3	7.8	2.01	1.225	104.5	0.266	0.802	275.2	888.4	0.589	1.015	-3.38	0.859	94.1	146.1	-6.8	0.153
4-1750	4-2180	0.231	271.6	8.7	1.44	1.389	87.5	0.407	1.224	8.6	271.5	---	1.722	-3.26	1.078	68.1	49.8	10.3	0.420
4-1750	4-2180	0.303	14.3	5.6	1.44	1.224	104.4	0.263	0.800	275.0	897.9	0.589	1.011	-3.26	0.854	90.8	137.0	-4.0	0.145
4-1750	4-2190	0.224	288.1	5.6	0.90	1.391	90.2	0.409	1.232	359.3	631.8	0.728	1.736	-3.23	1.079	68.0	59.0	12.5	0.419
4-1750	4-2190	0.311	14.8	3.4	0.90	1.223	108.8	0.269	0.799	273.9	906.4	0.584	1.015	-3.23	0.851	87.6	130.1	-0.5	0.154
4-1750	4-2200	0.235	305.6	2.0	0.35	1.393	93.1	0.416	1.240	349.4	631.5	0.724	1.755	-3.31	1.080	67.7	68.7	14.1	0.423
4-1750	4-2200	0.328	15.8	1.2	0.35	1.223	105.7	0.283	0.800	272.0	914.1	0.573	1.026	-3.31	0.849	84.5	126.6	2.5	0.175
4-1750	4-2210	0.265	322.2	-1.3	-0.25	1.395	96.3	0.428	1.247	338.7	630.4	0.713	1.781	-3.48	1.081	66.9	78.9	15.1	0.435
4-1750	4-2210	0.357	17.2	-0.8	-0.25	1.224	107.1	0.306	0.801	269.4	921.0	0.556	1.045	-3.48	0.849	81.3	126.4	4.5	0.206
4-1750	4-2220	0.598	19.0	-2.7	-0.92	1.225	109.1	0.338	0.802	265.9	927.0	0.531	1.073	-3.78	0.849	77.6	128.9	5.6	0.249
4-1750	4-2340	0.379	198.6	9.7	3.12	1.234	72.5	0.318	0.817	88.4	865.7	0.557	1.077	3.84	0.886	103.7	348.7	8.3	0.274
4-1750	4-2350	0.273	259.6	12.4	2.40	1.411	85.0	0.455	1.320	16.0	443.2	0.719	1.921	3.51	1.121	113.2	33.3	21.7	0.462
4-1750	4-2350	0.324	201.9	8.9	2.40	1.235	75.2	0.278	0.819	82.1	869.3	0.592	1.046	3.51	0.890	100.5	353.6	12.0	0.229
4-1800	4-1930	0.573	114.6	-6.5	-3.70	1.148	118.7	0.481	0.690	236.4	530.1	0.358	---	-1.75	0.731	99.0	278.2	-27.5	0.300
4-1800	4-1940	0.568	115.5	-7.2	-4.05	1.139	118.4	0.480	0.680	234.9	538.3	0.356	---	-1.92	0.720	91.5	268.6	-28.4	0.278
4-1800	4-1950	0.583	116.4	-7.6	-4.50	1.134	119.5	0.496	0.675	233.4	546.5	0.340	1.009	-2.20	0.716	83.7	257.6	-28.3	0.294
4-1800	4-2220	0.286	87.7	-5.1	-1.18	1.257	103.3	0.269	0.842	287.7	869.3	0.616	1.069	-2.42	0.884	100.1	227.1	-29.0	0.194
4-1800	4-2230	0.250	85.6	-8.4	-1.70	1.252	101.5	0.238	0.833	291.4	882.5	0.634	1.031	-2.06	0.875	95.3	218.0	-28.5	0.141
4-1800	4-2240	0.240	85.0	-10.7	-2.09	1.250	101.0	0.229	0.829	292.5	893.1	0.640	1.019	-1.84	0.873	92.0	207.8	-25.9	0.120
4-1800	4-2250	0.278	331.1	-12.2	-2.41	1.406	83.8	0.439	1.265	20.3	270.6	---	1.820	-1.71	1.085	66.4	118.3	16.9	0.431
4-1800	4-2250	0.241	85.3	-12.4	-2.41	1.249	101.0	0.228	0.828	292.2	902.4	0.639	1.016	-1.71	0.872	89.3	198.4	-21.8	0.116
4-1800	4-2260	0.256	343.3	-15.0	-2.70	1.408	86.3	0.436	1.273	12.3	272.1	---	1.829	-1.63	1.089	66.8	127.3	15.1	0.424
4-1800	4-2260	0.249	86.1	-13.4	-2.70	1.249	101.4	0.233	0.827	290.8	910.6	0.635	1.020	-1.63	0.873	86.8	192.0	-17.8	0.124
4-1800	4-2270	0.245	358.2	-17.4	-2.97	1.410	88.9	0.436	1.282	3.8	273.1	---	1.841	-1.60	1.092	66.9	136.3	12.7	0.420
4-1800	4-2270	0.265	87.5	-13.8	-2.97	1.249	102.1	0.243	0.828	288.6	918.0	0.626	1.029	-1.60	0.875	84.4	189.4	-14.9	0.141
4-1800	4-2280	0.247	15.0	-18.8	-3.24	1.411	91.6	0.440	1.289	354.6	633.6	0.722	1.857	-1.62	1.096	66.8	145.5	9.7	0.421
4-1800	4-2280	0.287	89.2	-13.9	-3.24	1.249	103.1	0.259	0.829	285.6	924.6	0.614	1.044	-1.62	0.878	82.0	189.7	-13.5	0.165
4-1800	4-2290	0.267	32.4	-18.9	-3.53	1.413	94.7	0.449	1.296	344.7	633.3	0.715	1.878	-1.69	1.100	66.4	154.9	6.2	0.428
4-1800	4-2290	0.318	91.3	-13.6	-3.53	1.250	104.6	0.282	0.830	281.8	930.4	0.596	1.064	-1.69	0.881	79.3	192.4	-13.4	0.196
4-1800	4-2300	0.360	93.9	-13.0	-3.85	1.251	108.6	0.312	0.832	277.1	935.4	0.572	1.091	-1.82	0.885	76.4	196.8	-14.3	0.236
4-1800	4-2310	0.417	96.9	-12.1	-4.25	1.252	109.8	0.355	0.834	273.3	939.3	0.538	1.129	-2.04	0.890	72.8	202.6	-15.9	0.289
4-1850	4-1980	0.462	186.0	-5.9	-2.44	1.209	112.1	0.380	0.756	254.9	516.9	0.469	---	2.72	0.830	102.9	344.5	1.8	0.284
4-1850	4-1990	0.438	186.7	-5.0	-1.97	1.190	111.1	0.361	0.742	253.5	525.6	0.474	---	2.70	0.817	97.9	341.2	1.9	0.239
4-1850	4-2000	0.427	187.3	-3.9	-1.48	1.191	110.7	0.353	0.733	252.3	534.4	0.474	---	2.76	0.811	93.0	334.4	0.7	0.213
4-1850	4-2010	0.430	187.9	-2.5	-0.98	1.188	110.9	0.357	0.728	251.1	543.3	0.468	0.988	2.91	0.808	88.2	325.5	-1.9	0.211
4-1850	4-2020	0.452	188.6	-0.9	-0.36	1.186	112.0	0.374	0.726	249.5	551.8	0.454	0.998	3.19	0.808	83.1	317.8	-4.8	0.236
4-1850	4-2030	0.496	189.7	0.9	0.40	1.186	114.2	0.410	0.726	247.2	559.6	0.429	1.024	3.85	0.809	77.4	314.0	-6.9	0.289
4-1850	4-2130	0.489	346.3	-9.1	-4.05	1.188	66.5	0.398	0.728	111.6	525.3	0.438	1.019	-3.35	0.796	98.4	119.7	9.9	0.251
4-1850	4-2140	0.465	346.7	-8.1	-3.41	1.186	67.6	0.381	0.726	110.9	534.4	0.450	1.003	-3.01	0.790	93.4	110.5	11.1	0.219
4-1850	4-2280	0.284	158.1	-52.0	-10.21	1.274	97.5	0.209	0.861	314.3	872.7	0.681	1.042	8.58	0.903	96.7	283.0	18.0	0.205
4-1850	4-2290	0.217	150.6	-46.3	-7.15	1.270	96.0	0.189	0.853	320.1	888.1	0.692	1.015	5.76	0.900	92.7	275.8	15.6	0.144
4-1850	4-2300	0.190	148.1	-40.1	-5.57	1.268	95.7	0.184	0.851	321.5	899.1	0.694	1.007	4.42	0.900	90.2	267.8	12.1	0.119
4-1850	4-2310	0.179	148.2	-34.0	-4.55	1.268	95.8	0.184	0.850	320.7	908.0	0.693	1.007	3.67	0.903	88.2	260.3	7.9	0.112
4-1850	4-2320	0.177	149.6	-28.2	-3.81	1.268	96.2	0.188	0.850	318.6	915.7	0.690	1.010	3.21	0.906	86.4	255.1	3.5	0.115
4-1850	4-2330	0.182	151.9	-22.8	-3.21	1.268	96.8	0.195	0.851	315.5	922.5	0.685	1.017	2.93	0.910	84.8	252.9	-0.7	0.126
4-1850	4-2340	0.279	56.4	-13.8	-2.69	1.423	84.3	0.464	1.320	18.1	274.9	---	1.932	2.77	1.138	66.0	204.2	-3.2	0.441
4-1850	4-2340	0.193	154.7	-17.8	-2.69	1.269	97.7	0.205	0.852	311.7	928.5	0.677	1.027	2.77	0.914	83.2	253.3	-4.4	0.141
4-1850	4-2350	0.256	70.1	-12.4	-2.21	1.425	86.9	0.461	1.328	9.7	276.5	---	1.940	2.70	1.123	66.5	212.0	-6.5	0.436
4-1850	4-2350	0.211	157.9	-13.3	-2.21	1.270	98.8	0.218	0.854	307.0	933.8	0.667	1.040	2.70	0.918	81.5	250.0	-7.4	0.162
4-1850	4-2360	0.246	86.5	-10.1	-1.74	1.427	89.8	0.462	1.335	0.7	277.5	---	1.952	2.72	1.127	66.6	222.1	-9.5	0.436
4-1850	4-2360	0.236	161.3	-9.3	-1.74	1.271	100.1	0.236	0.855	301.8	938.6	0.653	1.057	2.72	0.922	79.8	260.4	-9.8	0.187
4-1850	4-2370	0.255	94.6	-7.0	-1.24	1.428	92.9	0.467	1.343	350.8	637.6	0.716	1.970	2.82	1.131	66.4	232.0	-12.1	0.443
4-1850	4-2370	0.270	164.8	-5.8	-1.24	1.272	101.9	0.260	0.857	295.8	942.6	0.635	1.080	2.82	0.926	77.7	266.2	-11.6	0.218
4-1850	4-2380	0.287	122.5	-3.4	-0.69	1.429	96.6	0.478	1.349	339.6	636.6	0.704	1.995	3.03	1.134	65.8	242.8	-14.2	0.460
4-1850	4-2380	0.315	168.7	-2.7	-0.69	1.273	104.1	0.291	0.859	288.9	945.9	0.609	1.110	3.03	0.929	75.3	273.1	-12.8	0.258
4-1850	4-2390	0.563	196.8	-0.0	-0.02	1.134	118.0	0.475	0.668	233.9	1261.0	0.351	0.985	3.38	0.731	89.1	343.1	2.1	0.289
4-1900	4-2030	0.356	256.7	1.3	0.38	1.240	106.3	0.300	0.813	274.5	506.0	0.569	---	3.14	0.895	102.6	39.8	27.1	0.252
4-1900	4-2040	0.333	257.2	3.6	1.01	1.230	105.3	0.279	0.797	273.5	515.2	0.574	---	2.80	0.882	98.9	38.9	27.7	0.207

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1900	4-2050	0.321	257.7	5.7	1.53	1.224	104.7	0.266	0.787	272.4	524.4	0.577	---	2.59	0.874	95.5	34.3	27.5	0.175
4-1900	4-2060	0.317	258.3	7.4	1.99	1.220	104.6	0.262	0.781	271.6	533.6	0.577	---	2.48	0.868	92.2	26.3	25.6	0.158
4-1900	4-2070	0.323	258.9	8.9	2.43	1.218	104.8	0.265	0.778	270.4	542.6	0.572	0.985	2.46	0.864	89.1	17.5	22.1	0.158
4-1900	4-2080	0.339	259.7	10.0	2.88	1.218	105.5	0.276	0.778	268.9	551.2	0.563	0.993	2.52	0.862	85.8	11.1	18.3	0.175
4-1900	4-2090	0.367	260.9	10.7	3.36	1.218	106.8	0.297	0.779	266.6	559.1	0.547	1.010	2.66	0.861	82.3	8.6	15.7	0.208
4-1900	4-2100	0.410	262.4	11.1	3.91	1.220	108.9	0.331	0.781	263.5	566.1	0.522	1.039	2.92	0.861	78.3	9.6	14.6	0.256
4-1900	4-2210	0.452	74.9	0.8	0.30	1.235	68.2	0.383	0.804	97.6	507.9	0.496	1.112	-3.20	0.852	106.8	219.5	-24.7	0.297
4-1900	4-2220	0.390	77.9	2.7	0.91	1.237	71.3	0.336	0.808	91.4	511.3	0.536	1.080	-2.85	0.855	102.9	225.4	-27.3	0.245
4-1900	4-2230	0.344	80.7	4.9	1.41	1.240	73.6	0.302	0.812	86.0	515.4	0.567	1.057	-2.63	0.857	99.8	230.2	-29.7	0.205
4-1900	4-2240	0.310	83.1	7.2	1.86	1.242	75.3	0.276	0.815	81.2	520.1	0.590	1.040	-2.51	0.860	97.2	233.5	-31.9	0.175
4-1900	4-2250	0.284	85.3	9.7	2.27	1.243	76.7	0.256	0.818	77.0	525.5	0.608	1.027	-2.46	0.863	94.9	234.8	-34.0	0.152
4-1900	4-2260	0.475	70.9	6.3	2.68	1.210	66.9	0.396	0.766	105.4	563.4	0.463	1.070	-2.48	0.816	76.1	171.3	-4.1	0.273
4-1900	4-2260	0.267	86.9	12.3	2.68	1.244	77.7	0.243	0.819	73.9	531.9	0.620	1.018	-2.48	0.866	92.6	232.3	-35.6	0.135
4-1900	4-2270	0.354	78.3	10.4	3.12	1.229	73.1	0.303	0.794	90.2	557.8	0.554	1.035	-2.58	0.845	82.6	188.0	-16.4	0.183
4-1900	4-2270	0.266	86.8	14.6	3.12	1.243	77.8	0.240	0.818	73.9	541.4	0.621	1.014	-2.58	0.866	89.5	220.5	-34.5	0.127
4-1900	4-2320	0.196	135.7	62.2	7.86	1.267	87.4	0.166	0.860	18.5	534.5	0.717	1.002	-6.05	0.913	91.1	316.6	-64.0	0.136
4-1900	4-2320	0.209	205.5	57.0	7.86	1.282	92.7	0.192	0.889	343.2	859.2	0.717	1.060	-6.05	0.934	98.4	353.0	-35.4	0.198
4-1900	4-2330	0.276	127.6	73.3	12.05	1.266	87.3	0.165	0.858	19.4	545.1	0.717	0.999	-10.02	0.915	89.0	318.1	-78.5	0.188
4-1900	4-2340	0.160	162.1	-58.7	-6.28	1.269	89.2	0.164	0.863	5.7	561.7	0.722	1.004	8.96	0.928	85.9	281.8	30.7	0.181
4-1900	4-2370	0.110	173.3	-33.3	-2.72	1.270	90.0	0.165	0.865	0.2	566.2	0.722	1.008	5.62	0.932	85.1	284.7	16.9	0.143
4-1900	4-2380	0.100	184.4	-13.4	-1.04	1.271	90.8	0.168	0.868	354.3	930.3	0.722	1.014	4.18	0.936	84.3	289.0	7.8	0.137
4-1900	4-2390	0.106	195.2	-0.3	-0.02	1.273	91.8	0.172	0.870	348.0	934.2	0.720	1.020	3.41	0.939	83.5	294.3	2.0	0.141
4-1900	4-2400	0.119	205.2	7.5	0.70	1.274	92.8	0.179	0.873	341.4	937.7	0.717	1.029	2.96	0.942	82.7	300.4	-1.3	0.150
4-1900	4-2410	0.137	214.1	11.8	1.27	1.275	93.9	0.187	0.875	334.5	941.0	0.711	1.039	2.68	0.944	81.9	307.0	-3.0	0.162
4-1900	4-2420	0.292	134.7	8.6	1.76	1.427	83.2	0.482	1.365	21.1	277.8	---	2.023	2.53	1.141	65.8	284.4	-17.2	0.471
4-1900	4-2420	0.160	222.0	14.1	-1.76	1.276	95.2	0.198	0.878	327.3	944.0	0.703	1.052	2.53	0.946	80.9	314.1	-3.4	0.178
4-1900	4-2430	0.269	148.3	11.8	2.20	1.429	86.0	0.478	1.373	12.4	279.3	---	2.030	2.46	1.142	66.3	294.1	-16.9	0.466
4-1900	4-2430	0.188	228.9	15.0	2.20	1.278	96.7	0.213	0.880	319.9	946.7	0.693	1.068	2.46	0.947	79.7	321.6	-2.8	0.198
4-1900	4-2440	0.260	165.1	14.7	2.64	1.430	89.0	0.477	1.381	3.0	280.0	---	2.040	2.48	1.143	66.5	303.9	-14.1	0.466
4-1900	4-2440	0.223	235.1	15.2	2.64	1.279	98.5	0.232	0.882	312.0	949.1	0.677	1.088	2.48	0.948	78.3	329.2	-1.4	0.222
4-1900	4-2450	0.271	183.9	16.6	3.10	1.431	92.4	0.481	1.389	352.6	639.8	0.720	2.057	2.58	1.144	66.3	313.9	-11.4	0.472
4-1900	4-2450	0.265	240.8	14.9	3.10	1.280	100.6	0.258	0.885	303.8	951.0	0.657	1.113	2.58	0.948	76.5	337.2	0.6	0.252
4-1900	4-2450	0.555	274.7	5.7	3.10	1.153	117.0	0.455	0.695	238.6	1245.8	0.378	1.012	2.58	0.768	101.4	73.4	29.1	0.300
4-1900	4-2460	0.319	246.2	14.3	3.61	1.281	103.2	0.292	0.888	295.3	952.4	0.628	1.147	2.77	0.947	74.3	345.4	3.2	0.290
4-1900	4-2460	0.528	274.6	7.1	3.61	1.149	115.6	0.434	0.690	238.9	1256.1	0.391	0.990	2.77	0.759	93.0	59.5	29.4	0.259
4-1900	4-2470	0.541	275.1	8.0	4.22	1.147	116.2	0.444	0.688	238.1	1265.4	0.383	0.994	3.10	0.753	85.7	47.3	26.6	0.272
4-1950	4-2070	0.349	327.0	42.9	13.03	1.267	101.3	0.256	0.874	298.7	491.6	0.651	---	-8.39	0.943	103.0	96.0	-6.6	0.268
4-1950	4-2080	0.283	324.5	33.4	7.28	1.255	100.4	0.231	0.853	298.4	501.3	0.656	---	-4.77	0.926	100.0	97.0	1.0	0.200
4-1930	4-2090	0.253	323.9	28.8	5.70	1.248	99.8	0.215	0.840	298.1	511.1	0.660	---	-3.41	0.914	97.3	96.4	3.6	0.260
4-1950	4-2100	0.237	323.8	25.8	4.83	1.244	99.4	0.205	0.832	297.6	520.7	0.661	---	-2.72	0.906	94.8	92.4	4.7	0.133
4-1950	4-2110	0.230	324.0	23.1	4.23	1.241	99.4	0.202	0.828	296.9	530.1	0.661	---	-2.32	0.900	92.5	85.3	5.5	0.119
4-1950	4-2120	0.229	324.5	20.6	3.78	1.240	99.5	0.203	0.826	295.8	538.9	0.659	---	-2.08	0.895	90.3	77.1	6.6	0.116
4-1950	4-2130	0.235	325.3	18.0	3.41	1.240	100.0	0.209	0.826	294.2	547.2	0.654	0.999	-1.94	0.892	88.1	70.5	8.1	0.125
4-1950	4-2140	0.246	326.5	15.4	3.07	1.241	100.7	0.219	0.827	291.9	554.9	0.646	1.009	-1.87	0.890	85.9	67.1	9.8	0.142
4-1950	4-2150	0.265	328.0	12.7	2.75	1.242	101.7	0.235	0.830	289.1	561.9	0.635	1.025	-1.86	0.889	83.6	66.9	11.0	0.165
4-1950	4-2160	0.291	330.0	10.2	2.43	1.244	103.0	0.256	0.833	285.5	568.1	0.619	1.046	-1.90	0.888	81.1	69.3	13.4	0.195
4-1950	4-2170	0.327	332.2	7.7	2.08	1.246	104.9	0.285	0.836	281.2	573.4	0.598	1.078	-2.00	0.888	78.3	73.7	15.0	0.232
4-1950	4-2180	0.377	335.0	5.3	1.69	1.248	107.3	0.324	0.840	275.9	577.8	0.568	1.112	-2.19	0.888	75.1	79.7	16.3	0.277
4-1950	4-2310	0.300	172.2	15.2	3.64	1.272	77.1	0.283	0.886	65.0	491.8	0.635	1.137	2.02	0.929	104.6	334.3	-3.4	0.270
4-1950	4-2320	0.249	179.2	16.8	3.29	1.275	79.8	0.253	0.892	54.6	491.1	0.666	1.118	1.91	0.936	102.9	343.4	0.7	0.243
4-1950	4-2330	0.206	188.0	18.5	2.96	1.279	82.2	0.232	0.899	43.5	489.9	0.690	1.107	1.86	0.943	101.8	352.7	5.1	0.226
4-1950	4-2340	0.171	200.0	20.1	2.64	1.282	84.5	0.217	0.906	31.6	487.9	0.709	1.103	1.87	0.951	101.2	2.4	9.9	0.216
4-1950	4-2350	0.143	217.2	21.1	2.30	1.286	86.8	0.211	0.914	18.7	485.0	0.721	1.106	1.93	0.959	101.1	12.6	14.7	0.213
4-1950	4-2360	0.129	240.6	19.6	1.93	1.290	89.1	0.212	0.923	5.0	481.2	0.727	1.119	2.07	0.967	101.5	23.6	19.5	0.219
4-1950	4-2370	0.418	157.5	4.1	1.48	1.236	70.2	0.355	0.819	92.7	579.0	0.528	1.110	2.30	0.896	72.8	267.5	-16.8	0.299
4-1950	4-2370	0.136	266.3	14.2	1.48	1.295	91.7	0.223	0.934	350.8	837.2	0.726	1.142	2.30	0.976	102.4	35.3	24.1	0.233
4-1950	4-2380	0.353	162.2	3.0	0.89	1.244	73.4	0.310	0.833	83.7	580.1	0.575	1.091	2.69	0.909	75.3	277.6	-14.2	0.262
4-1950	4-2380	0.166	287.4	7.0	0.89	1.301	94.4	0.243	0.947	337.0	833.4	0.717	1.178	2.69	0.986	103.9	47.4	28.2	0.257
4-1950	4-2390	0.298	167.3	0.1	0.03	1.250	76.2	0.273	0.845	74.3	580.9	0.614	1.075	3.37	0.920	77.3	287.3	-9.4	0.234
4-1950	4-2390	0.215	302.1	0.2	0.03	1.307	97.5	0.274	0.962	324.1	830.6	0.698	1.226	3.37	0.996	105.9	59.7	31.9	0.291
4-1950	4-2400	0.253	174.9	-7.2	-1.47	1.256	78.7	0.244	0.855	64.7	581.4	0.646	1.063	4.69	0.929	78.8	296.0	-1.1	0.219
4-1950	4-2400	0.280	272.4	-6.8	-1.47	1.314	100.8	0.314	0.979	312.5	829.2	0.671	1.287	4.69	1.006	108.3	71.7	35.9	0.336
4-1950	4-2410	0.238	178.1	-27.7	-5.11	1.261	80.8	0.223	0.863	55.1	582.0	0.671	1.056	8.17	0.936	79.9	302.8	15.0	0.234
4-1950	4-2430	0.389	176.1	71.1	16.96	1.268	84.4	0.195	0.877	35.5	583.0	0.706	1.048	-14.24	0.945	81.2	5.2	-55.5	0.296
4-1950	4-2440	0.227	202.3	57.6	8.70	1.271	87.9	0.189	0.882	26.3	583.9	0.716	1.049	-6.15	0.947	81.4	351.7	-37.0	0.198
4-1950	4-2450	0.179	217.9	51.9	6.38	1.273	87.3	0.185	0.887	17.2	584.9	0.723	1.051	-3.99	0.949	81.4	354.4	-25.5	0.182
4-1950	4-2460	0.156	234.4	48.1	5.24	1.275	88.7	0.185	0.891	8.1	585.9	0.727	1.056	-3.03	0.950	81.3	360.0	-17.6	0.179
4-1950	4-2470	0.145	251.5	43.8	4.52	1.277	90.1	0.187	0.895	359.2	947.1	0.728	1.063	-2.50	0.950	81.1	6.5	-11.5	0.181
4-1950	4-2480	0.144	267.7	38.3	4.01	1.279	91.5	0.192	0.899	350.4	948.3	0.726	1.072	-2.19	0.950	80.7	13.5	-6.2	0.187
4-1950	4-2490	0.152	281.5	31.9	3.60	1.280	93.0	0.200	0.902	341.7	949.6	0.722	1.083	-2.00	0.949	80.1	20.7	-1.6	0.196
4-1950	4-2500	0.167	292.9	25.6	3.25	1.282	94.6	0.211	0.906	333.1	950.9	0.714	1.097	-1.90	0.948	79.3	28.3	2.5	0.208
4-1950	4-2510	0.281	229.0	15.0	2.92	1.430	86.3	0.491	1.420	11.4	279.0	---	2.118	-1.86	1.137	65.8	13.1	1.3	0.486
4-1950	4-2510	0.190	302.2	20.0	2.92	1.283	96.3	0.226	0.909	324.6	952.2	0.703	1.114	-1.86	0.947	78.3	36.2	6.2	0.223
4-1950	4-2520	0.269	245.4	14.0	2.60	1.431	89.3	0.491	1.428	2.0	279.4	---	2.129	-1.87	1.137	65.9	21.8	4.8	0.484
4-1950	4-2520	0.221	310.0	15.1	2.60	1.285	98.3	0.246	0.912	315.9	953.3	0.687	1.136	-1.87	0.946	77.0	44.5	9.5	0.243
4-1950	4-2530	0.276	263.5	11.8	2.27	1.432	92.7	0.495	1.436	351.8	639.0	0.725	2.147	-1.94	1.136	65.6	31.1	8.2	0.488
4-1950	4-2530	0.261	316.6	11.0	2.27	1.286	100.5	0.271	0.914	307.1	954.3	0.666	1.163	-1.94	0.945	75.3	53.2	12.3	0.269
4-1950	4-2530	0.511	351.7	4.7	2.27	1.161	115.1	0.424	0.715	242.7	1249.9	0.412	1.018	-1.94	0.767	97.3	146.3	7.2	0.248
4-1950	4-2540	0.501	351.8	4.0	1.90	1.159	114.6	0.417	0.712	242.6	1259.4	0.415	1.009	-2.08	0.760	90.4	134.7	10.1	0.233
4-1950	4-2550	0.520	352.3	3.0	1.47	1.158	115.6	0.433	0.711	241.5	1268.0	0.403	1.019	-2.31	0.756	84.0	125.6	12.5	0.257

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1960	4-2030	0.516	329.0	-1.2	-0.43	1.464	108.6	0.619	1.656	310.5	446.6	0.631	---	3.69	1.195	120.8	81.1	29.3	0.621
4-1960	4-2040	0.423	330.9	-5.1	-1.60	1.390	106.1	0.479	1.226	308.5	454.7	0.639	---	4.61	1.104	116.4	87.6	32.5	0.501
4-1960	4-2050	0.369	332.5	-13.3	-3.63	1.340	104.9	0.384	1.051	307.0	463.3	0.648	---	5.40	1.040	112.3	93.8	38.1	0.413
4-1960	4-2060	0.348	335.3	-32.7	-8.46	1.306	102.2	0.317	0.961	306.0	472.5	0.656	---	10.99	0.996	108.5	98.7	52.3	0.372
4-1960	4-2080	0.519	357.1	64.9	2.12	1.268	99.9	0.291	0.878	304.3	491.8	0.667	---	-20.05	0.944	102.1	95.0	-29.4	0.397
4-1960	4-2090	0.306	339.2	47.5	10.46	1.258	99.1	0.218	0.859	304.5	501.8	0.672	---	-8.61	0.928	99.2	101.9	-15.3	0.222
4-1960	4-2100	0.250	336.5	38.2	7.18	1.251	98.6	0.203	0.847	304.4	511.7	0.675	---	-5.57	0.917	98.7	102.5	-9.4	0.166
4-1960	4-2110	0.225	335.7	32.2	5.58	1.247	98.3	0.195	0.840	304.1	521.4	0.676	---	-4.22	0.909	98.4	98.9	-6.4	0.135
4-1960	4-2120	0.214	335.7	27.4	4.59	1.245	98.3	0.192	0.836	303.4	530.7	0.675	---	-3.48	0.903	98.2	92.5	-3.8	0.120
4-1960	4-2130	0.211	336.1	23.2	3.88	1.244	98.5	0.194	0.835	302.2	539.5	0.673	---	-3.04	0.899	98.1	85.2	-0.9	0.116
4-1960	4-2140	0.214	337.0	19.3	3.31	1.245	98.9	0.200	0.835	300.4	547.6	0.668	1.002	-2.78	0.896	98.1	79.5	2.4	0.123
4-1960	4-2150	0.224	338.4	15.7	2.82	1.245	99.5	0.209	0.837	298.1	555.1	0.662	1.012	-2.63	0.894	98.1	76.7	5.5	0.137
4-1960	4-2160	0.240	340.1	12.2	2.58	1.247	100.5	0.223	0.839	295.1	561.9	0.652	1.026	-2.56	0.893	98.0	76.9	8.3	0.158
4-1960	4-2170	0.262	342.2	9.1	1.94	1.249	101.7	0.242	0.842	291.5	568.0	0.638	1.045	-2.58	0.892	97.8	79.4	10.6	0.184
4-1960	4-2180	0.294	344.6	6.3	1.49	1.251	103.5	0.266	0.846	287.2	573.3	0.620	1.071	-2.66	0.893	97.3	83.8	12.4	0.215
4-1960	4-2190	0.336	347.4	3.6	0.99	1.253	105.4	0.298	0.849	282.1	577.8	0.596	1.103	-2.84	0.893	96.5	89.7	13.7	0.254
4-1960	4-2200	0.395	350.6	1.3	0.41	1.255	108.1	0.343	0.858	276.0	581.4	0.562	1.145	-3.14	0.895	95.1	96.7	14.4	0.302
4-1960	4-2210	0.471	354.4	-0.6	-0.32	1.258	112.0	0.399	0.859	268.7	583.6	0.516	1.202	-3.61	0.897	96.8	104.9	14.4	0.367
4-1960	4-2220	0.583	359.0	-2.6	-1.35	1.261	117.4	0.481	0.864	259.5	583.9	0.449	1.279	-4.40	0.900	98.0	114.3	13.7	0.456
4-1960	4-2220	0.931	27.4	-1.0	-1.35	1.020	139.8	0.779	0.966	208.6	893.1	0.129	1.043	-4.40	0.511	112.6	197.3	-11.5	0.549
4-1960	4-2230	0.751	5.1	-4.1	-3.41	1.264	125.5	0.596	0.870	247.4	581.3	0.351	1.390	-5.83	0.905	94.5	125.3	12.0	0.587
4-1960	4-2230	0.920	28.6	-2.1	-3.41	0.999	139.4	0.780	0.572	207.4	901.3	0.126	1.018	-5.83	0.467	85.3	182.5	-6.7	0.524
4-1960	4-2290	0.642	167.6	11.0	6.21	1.268	60.3	0.516	0.877	103.0	494.6	0.424	1.330	4.89	0.917	120.0	314.2	-9.4	0.516
4-1960	4-2300	0.503	174.1	12.1	5.1	1.271	67.2	0.420	0.884	90.0	491.3	0.513	1.255	3.88	0.924	113.6	325.1	-5.6	0.436
4-1960	4-2310	0.403	180.2	13.1	4.31	1.274	72.1	0.392	0.890	78.5	489.5	0.576	1.203	3.30	0.931	109.3	334.9	-1.5	0.349
4-1960	4-2320	0.328	186.5	14.0	3.66	1.277	75.9	0.304	0.896	67.5	488.3	0.623	1.168	2.93	0.938	106.4	344.2	2.8	0.302
4-1960	4-2330	0.268	193.6	14.8	3.13	1.280	78.9	0.269	0.902	56.5	487.1	0.659	1.145	2.71	0.945	104.4	353.4	7.3	0.270
4-1960	4-2340	0.815	155.1	2.9	2.66	1.286	49.5	0.649	0.747	128.8	569.3	0.262	1.232	2.60	0.818	53.8	240.7	-17.7	0.581
4-1960	4-2340	0.220	202.3	15.5	2.66	1.283	81.6	0.245	0.908	45.1	485.6	0.686	1.130	2.60	0.953	103.1	2.8	11.9	0.248
4-1960	4-2350	0.726	158.7	3.0	2.21	1.199	54.3	0.584	0.764	121.9	572.4	0.318	1.210	2.96	0.840	58.3	249.2	-18.5	0.518
4-1960	4-2350	0.180	213.8	15.9	2.21	1.286	84.0	0.228	0.915	33.2	483.6	0.706	1.124	2.56	0.960	102.3	12.6	16.6	0.234
4-1960	4-2360	0.639	162.3	2.8	1.79	1.211	50.9	0.520	0.781	114.7	575.2	0.375	1.187	2.60	0.859	62.5	258.0	-18.6	0.458
4-1960	4-2360	0.149	229.6	16.2	1.76	1.290	86.3	0.220	0.925	20.6	481.0	0.720	1.126	2.60	0.967	102.0	22.9	21.2	0.229
4-1960	4-2370	0.557	164.1	2.6	1.27	1.222	63.1	0.459	0.797	107.2	577.7	0.432	1.163	2.73	0.877	66.2	267.2	-18.0	0.402
4-1960	4-2370	0.131	251.0	12.6	1.27	1.293	88.7	0.219	0.932	7.4	477.9	0.727	1.136	2.73	0.975	102.2	34.1	25.7	0.231
4-1960	4-2380	0.481	170.2	1.7	0.71	1.231	67.0	0.402	0.813	99.1	579.8	0.486	1.140	2.97	0.893	69.6	276.6	-16.2	0.353
4-1960	4-2380	0.133	275.5	7.0	0.71	1.298	91.1	0.227	0.942	354.0	834.6	0.728	1.156	2.97	0.983	102.9	46.0	29.7	0.241
4-1960	4-2390	0.412	174.5	0.1	0.02	1.240	70.6	0.351	0.827	90.7	581.4	0.537	1.118	3.38	0.907	72.5	286.0	-13.1	0.310
4-1960	4-2390	0.158	297.1	0.2	0.02	1.303	93.1	0.244	0.953	340.8	831.6	0.720	1.186	3.38	0.991	104.0	58.5	33.2	0.260
4-1960	4-2400	0.351	179.1	-3.1	-0.92	1.248	73.7	0.309	0.841	81.7	582.6	0.581	1.100	4.06	0.918	74.9	295.1	-8.1	0.277
4-1960	4-2400	0.201	313.1	-6.0	-0.92	1.309	96.6	0.271	0.937	328.4	829.3	0.705	1.229	4.06	0.999	105.7	71.3	36.1	0.289
4-1960	4-2410	0.302	184.0	-9.8	-2.40	1.254	76.5	0.273	0.852	72.5	583.5	0.619	1.085	5.29	0.927	76.8	303.4	-0.3	0.255
4-1960	4-2410	0.261	324.4	-12.0	-2.40	1.315	99.7	0.305	0.982	316.9	828.0	0.682	1.202	5.29	1.008	107.8	84.1	39.0	0.328
4-1960	4-2420	0.276	188.7	-24.5	-5.30	1.259	78.8	0.246	0.862	63.0	584.1	0.650	1.074	7.95	0.935	78.2	310.2	12.6	0.255
4-1960	4-2420	0.351	333.3	-20.4	-5.30	1.321	103.0	0.347	1.000	306.6	827.8	0.652	1.347	7.95	1.017	110.3	96.4	43.5	0.382
4-1960	4-2430	0.372	185.7	-56.9	-14.45	1.264	80.9	0.226	0.870	53.6	564.7	0.674	1.067	16.87	0.940	79.3	315.0	36.2	0.349
4-1960	4-2430	0.498	344.4	-35.6	-14.45	1.328	106.5	0.394	1.019	297.4	826.6	0.617	1.420	16.87	1.025	113.1	106.4	56.3	0.497
4-1960	4-2450	0.338	200.6	67.1	14.25	1.271	84.6	0.199	0.884	33.4	585.5	0.708	1.059	-12.29	0.947	80.7	13.4	-45.5	0.276
4-1960	4-2450	0.629	352.2	28.7	14.25	1.343	114.2	0.499	1.060	280.7	832.8	0.531	1.589	-12.29	1.041	119.7	120.5	-0.7	0.558
4-1960	4-2460	0.368	189.2	20.2	8.55	1.418	68.7	0.565	1.359	61.4	263.5	---	2.128	-6.82	1.135	59.0	337.7	-27.1	0.609
4-1960	4-2460	0.225	220.7	57.1	8.55	1.274	86.2	0.193	0.889	24.1	586.2	0.718	1.061	-6.82	0.949	80.9	8.5	-30.9	0.213
4-1960	4-2460	0.660	353.3	15.6	8.55	1.350	118.0	0.552	1.082	273.5	635.6	0.485	1.679	-6.82	1.049	123.2	132.8	7.1	0.588
4-1960	4-2470	0.508	194.6	16.9	6.31	1.420	71.3	0.548	1.372	54.6	266.7	---	2.135	-4.82	1.136	60.5	344.5	-15.6	0.579
4-1960	4-2470	0.179	236.8	51.4	6.31	1.276	87.6	0.190	0.894	14.8	587.0	0.724	1.064	-4.82	0.949	80.9	11.8	-20.8	0.196
4-1960	4-2480	0.456	200.3	15.3	5.06	1.423	73.8	0.534	1.384	47.6	269.7	---	2.123	-3.82	1.137	61.9	351.7	-11.1	0.555
4-1960	4-2480	0.155	253.7	46.5	5.06	1.278	89.1	0.138	0.898	5.7	587.8	0.728	1.069	-3.82	0.950	80.8	17.3	-13.2	0.192
4-1960	4-2490	0.409	206.9	14.5	4.23	1.425	76.4	0.528	1.396	40.3	272.4	---	2.122	-3.25	1.137	63.0	359.3	-7.0	0.535
4-1960	4-2490	0.184	270.8	40.8	4.23	1.230	90.5	0.163	0.902	356.7	948.8	0.728	1.077	-3.25	0.949	80.5	23.8	-7.2	0.193
4-1960	4-2500	0.365	214.7	13.9	3.59	1.427	79.1	0.510	1.406	32.8	274.8	---	2.123	-2.90	1.137	64.0	7.0	-3.2	0.518
4-1960	4-2500	0.144	286.6	33.9	3.59	1.282	92.0	0.199	0.906	347.9	949.9	0.726	1.087	-2.90	0.949	80.1	30.9	-2.1	0.198
4-1960	4-2510	0.327	224.3	13.4	3.07	1.428	81.8	0.502	1.416	24.9	276.7	---	2.126	-2.69	1.136	64.8	14.8	0.4	0.504
4-1960	4-2510	0.153	300.0	26.6	3.07	1.283	93.5	0.208	0.910	339.2	951.1	0.720	1.099	-2.69	0.948	79.4	38.4	2.2	0.207
4-1960	4-2520	0.295	236.2	12.7	2.61	1.430	84.5	0.496	1.425	16.5	278.1	---	2.131	-2.59	1.136	65.4	23.0	5.8	0.493
4-1960	4-2520	0.171	310.9	19.9	2.61	1.285	95.2	0.221	0.913	330.6	952.3	0.711	1.114	-2.59	0.947	78.6	46.3	5.9	0.219
4-1960	4-2530	0.274	250.8	11.4	2.17	1.431	87.5	0.493	1.433	7.6	279.0	---	2.140	-2.56	1.135	65.7	31.6	7.0	0.487
4-1960	4-2530	0.197	319.9	14.2	2.17	1.296	97.0	0.237	0.916	322.0	955.4	0.699	1.133	-2.56	0.946	77.5	54.5	9.0	0.235
4-1960	4-2540	0.268	267.9	9.3	1.73	1.433	90.6	0.495	1.441	358.1	639.1	0.728	2.154	-2.61	1.135	65.6	40.7	10.0	0.486
4-1960	4-2560	0.232	327.4	9.5	1.73	1.288	99.1	0.258	0.919	313.4	954.4	0.681	1.156	-2.61	0.945	76.1	63.2	11.6	0.255
4-1960	4-2540	0.526	7.3	3.5	1.73	1.167	115.9	0.437	0.723	243.2	1244.2	0.407	1.039	-2.61	0.773	101.6	165.7	-1.7	0.275
4-1960	4-2550	0.284	285.9	6.4	1.26	1.434	94.2	0.501	1.449	357.6	633.3	0.723	2.175	-2.74	1.135	65.2	50.4	12.5	0.492
4-1960	4-2550	0.276	333.9	5.8	1.26	1.289	101.5	0.286	0.922	304.5	955.2	0.658	1.185	-2.74	0.945	74.3	72.3	13.5	0.281
4-1960	4-2550	0.494	7.0	2.7	1.26	1.163	114.4	0.414	0.718	232.6	1234.5	0.421	1.015	-2.74	0.764	94.9	154.4	1.0	0.233
4-1960	4-2560	0.525	303.0	3.2	0.73	1.435	98.1	0.514	1.436	336.9	636.3	0.707	2.204	-2.96	1.134	64.2	61.0	14.7	0.508
4-1960	4-2560	0.332	339.9	2.8	0.73	1.290	104.4	0.322	0.915	295.2	955.5	0.626	1.223	-2.96	0.945	72.0	81.9	14.8	0.319
4-1960	4-2560	0.498	7.2	1.6	0.73	1.162	114.6	0.417	0.716	243.2	1243.5	0.417	1.015	-2.96	0.760	87.5	144.0	4.2	0.236
4-1970	4-2030	0.574	338.3	-0.9	-0.35	1.549	108.4	0.777	2.888	313.6	437.8	0.645	---	3.56	1.298	123.1	86.5	28.8	0.722
4-1970	4-2040	0.457	340.8	-3.6	-1.17	1.447	106.0	0.573	1.532	315.3	445.7	0.691	---	4.03	1.175	118.8	93.0	30.7	0.574
4-1970	4-2050	0.373	342.6	-8.3	-2.29	1.379	103.8	0.444	1.184	313.6	454.2	0.659	---	4.84	1.091	114.6	99.6	33.6	0.462
4-1970	4-2060	0.319	344.0	-16.8	-4.04	1.335	101.9	0.355	1.034	312.6	463.3	0.666	---	6.29	1.033	110.6	106.3	38.9	0.381
4-1970	4-2070	0.304	346.1	-33.0	-7.42	1.303	100.3	0.294	0.954	312.0	472.9	0.674	---	9.38	0.992	107.0	112.8	49.7	0.334

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1970	4-2080	0.435	359.0	-62.0	-17.67	1.283	99.1	0.251	0.908	312.2	482.9	0. 0	---	19.36	0.964	103.7	115.5	72.8	0.403
4-1970	4-2100	0.390	359.7	63.9	16.27	1.260	97.8	0.205	0.863	311.2	503.0	0.686	---	-15.13	0.929	98.4	102.9	-31.3	0.297
4-1970	4-2110	0.261	349.1	49.6	9.19	1.255	97.3	0.193	0.853	311.4	513.1	0.688	---	-8.33	0.919	96.0	105.7	-22.7	0.187
4-1970	4-2120	0.217	346.8	39.9	6.44	1.251	97.1	0.186	0.847	311.2	522.9	0.689	---	-5.86	0.912	93.8	103.2	-17.3	0.144
4-1970	4-2130	0.199	346.3	32.4	4.92	1.250	97.1	0.184	0.844	310.5	532.0	0.689	---	-4.63	0.906	91.8	97.7	-12.7	0.125
4-1970	4-2140	0.192	346.8	26.1	3.90	1.249	97.4	0.186	0.843	309.2	540.6	0.686	1.000	-3.93	0.902	89.9	91.5	-7.9	0.119
4-1970	4-2150	0.193	347.9	20.5	3.14	1.250	97.8	0.191	0.844	307.3	549.5	0.682	1.005	-3.50	0.900	88.0	87.0	-3.0	0.124
4-1970	4-2160	0.201	349.5	15.6	2.51	1.251	98.4	0.200	0.845	304.8	555.7	0.676	1.015	-3.25	0.898	86.1	85.1	1.4	0.135
4-1970	4-2170	0.215	351.5	11.3	1.95	1.252	99.3	0.213	0.848	301.7	562.3	0.668	1.028	-3.11	0.897	84.3	85.9	4.9	0.153
4-1970	4-2180	0.235	353.9	7.5	1.43	1.254	100.4	0.229	0.851	298.0	568.3	0.656	1.046	-3.07	0.897	82.3	88.0	7.7	0.175
4-1970	4-2190	0.263	356.6	4.3	0.91	1.256	101.8	0.250	0.855	293.6	573.5	0.641	1.069	-3.12	0.897	80.1	93.3	9.6	0.202
4-1970	4-2200	0.299	359.5	1.5	0.36	1.258	103.6	0.278	0.859	288.6	578.1	0.620	1.097	-3.26	0.899	77.6	99.1	10.9	0.234
4-1970	4-2210	0.348	2.8	-0.9	-0.26	1.260	105.9	0.313	0.863	282.7	581.8	0.593	1.133	-3.51	0.901	74.8	106.0	11.4	0.275
4-1970	4-2220	0.412	6.5	-2.9	-1.01	1.263	109.1	0.360	0.868	275.9	584.5	0.555	1.180	-3.93	0.903	71.2	113.8	11.2	0.327
4-1970	4-2230	0.502	10.8	-4.6	-1.98	1.265	113.4	0.425	0.873	267.6	585.8	0.502	1.248	-4.60	0.906	66.6	122.5	10.2	0.398
4-1970	4-2240	0.631	16.1	-6.0	-3.40	1.268	119.6	0.515	0.879	257.3	584.9	0.426	1.331	-5.74	0.911	60.2	132.5	8.3	0.498
4-1970	4-2240	0.879	42.7	-2.7	-3.40	1.015	136.8	0.749	0.583	210.0	897.6	0.146	3.019	-5.74	0.502	97.0	202.1	-15.5	0.495
4-1970	4-2250	0.933	44.3	-4.0	-5.84	1.006	140.0	0.784	0.576	207.5	904.6	0.124	3.028	-7.91	0.483	73.6	190.6	-11.9	0.544
4-1970	4-2310	0.577	187.0	11.6	7.80	1.275	63.8	0.472	0.893	95.7	490.9	0.472	1.314	5.33	0.933	117.3	333.7	-1.0	0.481
4-1970	4-2320	0.452	193.7	12.1	4.52	1.279	69.9	0.388	0.899	82.7	487.7	0.550	1.248	4.34	0.941	111.9	344.1	3.7	0.395
4-1970	4-2330	0.362	200.4	12.4	3.62	1.281	74.3	0.329	0.905	70.8	485.6	0.607	1.203	3.76	0.948	108.3	353.8	8.3	0.337
4-1970	4-2340	0.293	207.5	12.5	2.90	1.284	77.8	0.288	0.911	59.2	483.9	0.649	1.174	3.40	0.955	105.9	3.5	13.0	0.296
4-1970	4-2350	0.237	216.0	12.4	2.29	1.287	80.7	0.260	0.918	47.5	482.2	0.619	1.156	3.18	0.961	104.3	13.0	17.6	0.269
4-1970	4-2360	0.796	172.2	2.0	1.74	1.195	50.7	0.634	0.758	126.5	571.2	0.273	1.238	3.08	0.836	54.4	260.1	-19.5	0.578
4-1970	4-2360	0.193	226.8	11.6	1.74	1.290	83.3	0.241	0.924	35.5	480.2	0.702	1.147	3.08	0.968	103.3	23.1	22.1	0.252
4-1970	4-2370	0.709	175.7	1.7	1.19	1.207	55.4	0.570	0.775	119.6	574.3	0.333	1.216	3.08	0.856	58.8	268.8	-19.1	0.517
4-1970	4-2370	0.158	241.4	9.8	1.19	1.294	85.7	0.230	0.932	23.1	477.8	0.717	1.146	3.08	0.975	102.8	33.8	26.5	0.243
4-1970	4-2380	0.624	179.4	1.1	0.64	1.218	59.8	0.507	0.791	112.4	577.2	0.390	1.193	3.18	0.874	62.8	277.6	-17.9	0.459
4-1970	4-2380	0.137	260.9	6.0	0.64	1.297	88.1	0.227	0.940	10.3	475.1	0.726	1.154	3.18	0.982	102.8	45.4	30.4	0.247
4-1970	4-2390	0.545	188.2	0.0	0.02	1.228	63.9	0.448	0.807	104.7	579.7	0.445	1.169	3.39	0.890	66.4	286.5	-15.7	0.406
4-1970	4-2390	0.134	284.1	0.2	0.02	1.301	90.5	0.233	0.949	357.5	832.4	0.728	1.170	3.39	0.988	103.3	57.8	33.7	0.248
4-1970	4-2400	0.472	187.2	-1.7	-0.71	1.237	67.7	0.394	0.822	96.7	581.8	0.498	1.147	3.75	0.904	69.6	295.4	-12.4	0.359
4-1970	4-2400	0.152	306.2	-6.1	-0.71	1.306	93.0	0.246	0.960	344.8	829.9	0.723	1.196	3.75	0.995	104.2	70.7	36.3	0.262
4-1970	4-2410	0.406	191.4	-4.8	-1.65	1.245	71.1	0.345	0.836	88.2	583.4	0.547	1.126	4.36	0.916	72.4	303.9	-7.5	0.319
4-1970	4-2410	0.190	323.4	-11.4	-1.65	1.311	95.7	0.268	0.972	332.7	828.0	0.711	1.233	4.36	1.003	105.6	84.0	38.3	0.200
4-1970	4-2420	0.351	195.9	-10.4	-3.01	1.252	74.1	0.306	0.849	79.3	584.7	0.589	1.108	5.41	0.925	74.6	311.8	-0.4	0.290
4-1970	4-2420	0.245	336.0	-16.2	-3.01	1.316	98.6	0.268	0.986	321.5	826.9	0.692	1.280	5.41	1.010	107.4	97.2	39.9	0.319
4-1970	4-2430	0.315	200.2	-21.1	-5.32	1.259	76.8	0.273	0.860	70.1	585.6	0.625	1.095	7.43	0.933	76.5	318.6	10.3	0.278
4-1970	4-2430	0.317	345.6	-22.3	-5.32	1.322	101.7	0.336	1.002	331.2	826.7	0.666	1.338	7.43	1.017	109.6	110.	42.2	0.305
4-1970	4-2440	0.335	202.2	-42.8	-10.57	1.264	79.1	0.247	0.870	60.7	586.2	0.655	1.085	12.40	0.939	77.8	323.5	27.9	0.308
4-1970	4-2440	0.426	354.7	-33.5	-10.57	1.329	105.0	0.378	1.020	301.8	827.4	0.634	1.405	12.40	1.025	112.2	122.6	48.4	0.440
4-1970	4-2460	0.612	170.8	75.1	27.90	1.271	83.4	0.210	0.885	39.9	586.8	0.699	1.071	-26.52	0.946	79.8	41.1	-47.7	0.488
4-1970	4-2470	0.295	223.2	62.5	11.88	1.275	84.9	0.202	0.891	30.9	587.4	0.711	1.071	-10.87	0.947	80.2	23.8	-35.6	0.265
4-1970	4-2470	0.644	8.4	22.8	11.88	1.349	116.1	0.529	1.080	277.4	853.9	0.509	1.651	-10.87	1.046	121.6	140.0	-2.2	0.576
4-1970	4-2480	0.586	207.3	19.0	7.65	1.421	69.7	0.561	1.374	58.4	264.8	---	2.144	-6.92	1.134	59.5	356.1	-14.0	0.603
4-1970	4-2480	0.210	240.3	53.8	7.65	1.277	86.5	0.197	0.896	21.5	587.9	0.720	1.073	-6.92	0.948	80.4	23.4	-23.4	0.221
4-1970	4-2490	0.488	212.8	15.8	5.63	1.423	72.3	0.545	1.387	51.5	267.8	---	2.142	-5.19	1.135	60.9	2.6	-8.6	0.575
4-1970	4-2490	0.170	256.3	47.7	5.63	1.280	88.0	0.195	0.901	12.3	588.6	0.726	1.077	-5.19	0.949	80.5	27.7	-14.6	0.206
4-1970	4-2500	0.438	218.8	13.9	4.40	1.425	74.9	0.531	1.399	44.4	270.6	---	2.141	-4.25	1.135	62.2	9.7	-4.3	0.552
4-1970	4-2500	0.148	273.2	41.6	4.40	1.282	89.5	0.196	0.906	3.2	589.4	0.728	1.083	-4.25	0.948	80.3	33.7	-7.8	0.202
4-1970	4-2510	0.391	225.8	12.6	3.52	1.427	77.5	0.519	1.409	37.1	273.1	---	2.141	-3.70	1.135	63.3	17.2	-0.4	0.532
4-1970	4-2510	0.139	290.1	34.5	3.52	1.283	91.0	0.200	0.910	354.3	950.3	0.728	1.092	-3.70	0.948	80.0	40.6	-2.4	0.203
4-1970	4-2520	0.349	234.2	11.5	2.83	1.429	80.2	0.509	1.420	29.5	275.3	---	2.143	-3.37	1.135	64.1	20.9	3.2	0.515
4-1970	4-2520	0.142	301.3	26.6	2.83	1.285	92.5	0.207	0.913	345.5	951.3	0.724	1.102	-3.37	0.947	79.5	48.0	2.0	0.208
4-1970	4-2530	0.313	244.5	10.2	2.24	1.431	82.9	0.502	1.429	21.5	277.0	---	2.147	-3.17	1.134	64.8	32.9	6.4	0.502
4-1970	4-2530	0.154	318.1	19.0	2.24	1.287	94.1	0.217	0.917	336.9	952.5	0.718	1.116	-3.17	0.947	78.8	55.9	5.7	0.216
4-1970	4-2540	0.285	257.2	8.6	1.70	1.432	85.7	0.498	1.438	13.0	278.3	---	2.154	-3.08	1.134	65.3	41.4	9.2	0.492
4-1970	4-2540	0.175	328.6	12.5	1.70	1.288	95.8	0.230	0.920	328.3	953.6	0.708	1.132	-3.08	0.946	77.9	64.2	8.6	0.228
4-1970	4-2550	0.269	272.6	6.3	1.18	1.434	88.7	0.497	1.446	4.0	278.9	---	2.165	-3.08	1.134	65.5	50.3	11.7	0.487
4-1970	4-2550	0.205	337.3	7.4	1.18	1.290	97.7	0.248	0.923	319.7	954.6	0.694	1.152	-3.08	0.946	76.7	72.9	10.8	0.245
4-1970	4-2550	0.568	23.3	2.2	1.18	1.176	118.1	0.471	0.734	242.7	1237.6	0.388	1.079	-3.08	0.784	107.6	185.3	-9.9	0.333
4-1970	4-2550	0.765	27.0	1.5	1.18	1.196	127.8	0.613	0.759	235.2	1230.1	0.295	1.225	-3.08	0.812	123.1	197.3	-11.6	0.534
4-1970	4-2560	0.271	290.0	3.5	0.65	1.435	91.9	0.500	1.454	354.3	638.8	0.727	1.181	-3.17	1.134	65.3	59.9	13.7	0.488
4-1970	4-2560	0.243	344.7	3.4	0.65	1.291	99.8	0.271	0.926	311.0	955.5	0.675	1.177	-3.17	0.945	75.2	82.0	12.3	0.267
4-1970	4-2560	0.491	22.3	1.4	0.65	1.169	114.6	0.416	0.724	244.7	1249.2	0.423	1.026	-3.17	0.770	97.5	173.8	-8.1	0.246
4-1970	4-2570	0.295	307.7	0.4	0.08	1.436	95.5	0.508	1.461	343.6	637.6	0.718	2.204	-3.36	1.134	64.7	70.1	15.2	0.497
4-1970	4-2570	0.292	351.2	0.3	0.08	1.292	102.4	0.301	0.929	302.1	956.2	0.649	1.208	-3.36	0.946	73.3	91.4	13.1	0.296
4-1970	4-2570	0.484	22.3	0.2	0.08	1.166	114.0	0.407	0.721	244.7	1258.8	0.428	1.015	-3.36	0.764	90.8	162.7	-5.0	0.227
4-1980	4-2040	0.500	349.3	-2.9	-0.98	1.521	105.4	0.711	2.300	322.6	437.2	0.666	---	3.68	1.264	120.9	98.4	29.3	0.660
4-1980	4-2050	0.396	351.6	-6.2	-1.77	1.429	103.3	0.525	1.414	320.7	445.5	0.671	---	4.08	1.152	116.7	104.8	30.8	0.523
4-1980	4-2060	0.326	353.2	-11.7	-2.79	1.368	101.4	0.406	1.140	319.5	454.5	0.678	---	4.73	1.075	112.7	111.4	33.3	0.421
4-1980	4-2070	0.277	354.2	-20.5	-4.25	1.327	99.7	0.325	1.014	319.0	464.1	0.684	---	5.86	1.023	108.9	118.0	37.9	0.345
4-1980	4-2080	0.263	355.5	-34.9	-6.71	1.300	98.4	0.270	0.945	319.0	474.2	0.690	---	7.99	0.986	105.5	125.1	46.7	0.297
4-1980	4-2090	0.321	0.8	-56.7	-12.18	1.282	97.3	0.232	0.905	319.5	484.7	0.695	---	13.16	0.960	102.4	134.1	63.3	0.306
4-1980	4-2110	0.669	60.3	75.6	31.10	1.263	96.4	0.194	0.866	318.5	505.1	0.698	---	-30.71	0.929	97.5	95.3	-39.5	0.529
4-1980	4-2120	0.301	3.0	62.7	12.33	1.258	96.0	0.183	0.857	319.4	515.4	0.701	---	-12.24	0.920	95.2	105.9	-34.1	0.234
4-1980	4-2130	0.216	356.6	49.0	7.51	1.255	95.8	0.178	0.853	319.3	525.1	0.701	---	-7.71	0.913	95.2	105.4	-27.0	0.161
4-1980	4-2140	0.185	355.5	38.0	5.24	1.254	95.9	0.177	0.851	318.5	531.3	0.700	---	-5.76	0.908	91.3	101.1	-20.4	0.133
4-1980	4-2150	0.173	356.1	29.0	3.86	1.254	96.2	0.179	0.850	317.0	540.3	0.698	1.003	-4.70	0.905	89.5	96.3	-13.7	0.123
4-1980	4-2160	0.172	357.5	21.4	2.89	1.255	96.6	0.185	0.852	314.8	550.4	0.694	1.009	-4.08	0.903	87.8	93.2	-7.4	0.125

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1980	4-2170	0.178	359.6	15.0	2.13	1.256	97.2	0.193	0.854	312.1	557.0	0.689	1.018	-3.70	0.902	86.1	92.4	-2.1	0.135
4-1980	4-2180	0.191	2.1	9.7	1.48	1.257	98.0	0.204	0.857	308.8	563.3	0.682	1.031	-3.47	0.901	84.3	93.9	2.0	0.149
4-1980	4-2190	0.210	4.9	5.3	0.90	1.259	99.1	0.219	0.860	304.9	569.0	0.672	1.048	-3.37	0.901	82.5	97.3	5.1	0.168
4-1980	4-2200	0.234	8.0	1.8	0.34	1.261	100.3	0.237	0.864	300.4	574.1	0.659	1.068	-3.36	0.902	80.6	102.1	7.1	0.191
4-1980	4-2210	0.267	11.2	-1.1	-0.23	1.263	102.0	0.260	0.868	295.4	578.6	0.642	1.094	-3.44	0.904	78.5	108.1	8.2	0.219
4-1980	4-2220	0.309	14.8	-3.4	-0.85	1.266	104.0	0.290	0.872	289.6	582.4	0.619	1.125	-3.63	0.906	76.0	114.9	8.6	0.253
4-1980	4-2230	0.363	18.5	-5.2	-1.56	1.268	106.6	0.329	0.877	283.1	585.4	0.588	1.165	-3.93	0.909	73..	122.4	8.1	0.296
4-1980	4-2240	0.437	22.8	-6.7	-2.44	1.270	110.1	0.381	0.882	275.4	587.2	0.546	1.217	-4.40	0.913	69.4	130.7	6.9	0.353
4-1980	4-2250	0.539	27.6	-7.8	-3.64	1.273	114.9	0.452	0.887	265.2	587.5	0.486	1.288	-5.36	0.917	64.4	139.8	4.8	0.431
4-1980	4-2250	0.870	57.2	-3.0	-3.64	1.035	136.0	0.736	0.596	212.0	893.3	0.158	1.035	-5.36	0.540	107.7	223.9	-22.5	0.503
4-1980	4-2260	0.688	33.6	-8.6	-5.46	1.276	122.0	0.553	0.893	254.4	585.3	0.399	1.387	-6.88	0.922	57.2	150.1	1.7	0.545
4-1980	4-2260	0.864	58.3	-4.5	-5.46	1.019	135.8	0.737	0.585	210.8	901.7	0.154	1.016	-6.88	0.511	85.4	209.0	-19.6	0.485
4-1980	4-2270	0.968	60.5	-5.7	-3.85	1.075	141.7	0.800	0.582	207.1	907.4	0.116	1.047	-9.98	0.505	63.5	201.0	-17.1	0.588
4-1980	4-2320	0.674	199.3	10.7	6.55	1.280	59.3	0.537	0.901	102.8	492.0	0.417	1.386	6.87	0.942	1.1.9	341.8	2.9	0.562
4-1980	4-2330	0.515	206.8	10.8	4.69	1.283	67.0	0.432	0.908	88.0	487.1	0.516	1.300	5.32	0.949	115.0	353.0	8.1	0.449
4-1980	4-2340	0.404	213.8	10.6	3.48	1.286	72.3	0.360	0.914	75.0	483.9	0.585	1.214	4.44	0.956	110.5	3.2	13.0	0.375
4-1980	4-2350	0.323	221.0	10.1	2.58	1.289	76.4	0.311	0.920	62.7	481.6	0.634	1.207	3.91	0.963	107.6	13.3	17.8	0.325
4-1980	4-2360	0.259	229.3	9.1	1.85	1.292	79.7	0.277	0.927	50.6	479.5	0.670	1.183	3.59	0.969	105.6	23.5	22.3	0.291
4-1980	4-2370	0.209	239.4	7.5	1.21	1.295	82.5	0.254	0.933	38.5	477.4	0.696	1.170	3.41	0.976	104.4	34.2	26.5	0.269
4-1980	4-2380	0.777	189.4	0.8	0.61	1.203	52.0	0.617	0.769	124.1	573.1	0.294	1.244	3.35	0.853	55.1	279.8	-19.0	0.574
4-1980	4-2330	0.171	252.7	4.7	0.61	1.298	85.0	0.241	0.940	26.2	475.1	0.713	1.167	3.35	0.982	103.7	45.5	30.3	0.256
4-1980	4-2390	0.691	192.9	0.0	0.02	1.215	56.6	0.555	0.786	117.1	576.2	0.350	1.221	3.39	0.871	59.3	288.3	-17.4	0.514
4-1980	4-2390	0.175	270.4	0.2	0.02	1.301	87.4	0.236	0.948	13.7	472.8	0.728	1.172	3.39	0.988	103.5	57.6	33.5	0.251
4-1980	4-2400	0.609	196.5	-1.1	-0.62	1.225	60.8	0.494	0.802	109.7	579.0	0.406	1.198	3.55	0.886	63.2	296.8	-14.9	0.458
4-1980	4-2400	0.137	292.2	-5.9	-0.62	1.305	89.8	0.239	0.956	1.2	470.5	0.728	1.185	3.55	0.994	103.7	70.4	36.0	0.253
4-1980	4-2410	0.532	200.5	-2.8	-1.34	1.235	64.8	0.437	0.818	102.0	581.5	0.460	1.175	3.85	0.900	66.7	305.2	-11.5	0.407
4-1980	4-2410	0.150	314.5	-11.7	-1.34	1.309	92.2	0.249	0.966	348.9	828.4	0.725	1.207	3.85	0.999	104.4	85.7	37.6	0.264
4-1980	4-2420	0.463	204.2	-5.6	-2.22	1.244	68.4	0.385	0.832	93.9	583.5	0.511	1.153	4.35	0.912	69.8	313.3	-6.8	0.362
4-1980	4-2420	0.182	333.0	-16.2	-2.22	1.313	96.8	0.268	0.977	337.2	826.8	0.716	1.239	4.35	1.005	105.5	97.2	38.4	0.282
4-1980	4-2430	0.403	208.4	-10.1	-3.41	1.251	71.7	0.340	0.846	85.4	585.1	0.558	1.133	5.19	0.922	72.4	321.0	-0.4	0.326
4-1980	4-2430	0.230	346.9	-19.7	-3.41	1.318	97.5	0.293	0.990	326.1	825.9	0.700	1.281	5.19	1.011	107.1	110.4	38.7	0.310
4-1980	4-2440	0.357	212.5	-18.1	-5.23	1.258	74.6	0.302	0.858	76.5	586.4	0.598	1.117	6.68	0.950	74.5	327.8	8.5	0.303
4-1980	4-2440	0.294	357.4	-23.8	-5.23	1.324	100.4	0.326	1.005	315.0	825.7	0.677	1.332	6.68	1.010	109.0	123.1	39.2	0.348
4-1980	4-2450	0.342	215.8	-32.8	-8.65	1.264	77.2	0.272	0.868	67.3	587.2	0.632	1.104	9.79	0.936	76.2	333.0	22.0	0.303
4-1980	4-2450	0.381	6.3	-30.7	-8.65	1.330	103.6	0.365	1.021	306.4	826.3	0.649	1.393	9.79	1.024	111.3	135.5	41.7	0.404
4-1980	4-2460	0.458	209.5	-58.9	-16.32	1.268	79.4	0.249	0.878	58.1	587.9	0.659	1.096	19.16	0.941	77.5	336.0	44.5	0.397
4-1980	4-2460	0.558	19.1	-46.1	-18.32	1.336	106.8	0.407	1.039	297.9	827.6	0.616	1.462	19.16	1.030	113.9	147.9	51.8	0.524
4-1980	4-2480	0.423	219.8	69.4	18.20	1.276	83.6	0.214	0.892	37.5	588.4	0.701	1.084	-17.95	0.946	79.4	41.4	-39.5	0.364
4-1980	4-2480	0.672	25.9	34.9	18.20	1.349	118.3	0.507	1.078	281.5	832.4	0.532	1.625	-17.95	1.043	120.2	143.2	-14.8	0.599
4-1980	4-2490	0.589	220.0	21.7	9.49	1.422	68.2	0.573	1.376	62.1	262.7	---	2.164	-9.54	1.132	58.5	8.0	-12.6	0.631
4-1980	4-2490	0.253	244.9	56.3	9.49	1.279	85.3	0.206	0.899	28.2	588.9	0.713	1.084	-9.54	0.947	79.8	35.1	-25.8	0.255
4-1980	4-2490	0.662	24.7	17.4	9.49	1.356	117.9	0.556	1.099	273.6	835.2	0.489	1.710	-9.54	1.049	123.4	159.1	-6.4	0.596
4-1980	4-2500	0.522	225.5	16.3	6.27	1.424	70.8	0.557	1.389	55.4	265.8	---	2.162	-6.62	1.133	59.9	13.4	-6.1	0.596
4-1980	4-2500	0.189	260.2	47.7	6.27	1.281	86.8	0.202	0.904	18.9	589.4	0.721	1.087	-9.62	0.947	80.0	37.7	-15.5	0.224
4-1980	4-2510	0.468	231.1	13.3	4.52	1.426	73.4	0.542	1.401	48.5	268.7	---	2.161	-5.18	1.133	61.3	20.1	-1.3	0.569
4-1980	4-2510	0.155	275.9	40.7	4.52	1.284	88.4	0.201	0.909	9.8	590.1	0.726	1.091	-5.18	0.947	80.0	43.2	-8.0	0.212
4-1980	4-2520	0.419	237.4	11.2	3.37	1.428	76.0	0.529	1.412	41.3	271.4	---	2.160	-4.37	1.133	62.4	27.3	2.6	0.546
4-1980	4-2520	0.138	292.6	33.3	3.37	1.286	89.9	0.200	0.913	0.8	590.8	0.728	.098	-4.37	0.947	79.8	49.9	-2.3	0.208
4-1980	4-2530	0.374	244.7	9.4	2.51	1.430	78.5	0.513	1.423	34.0	273.7	---	2.161	-3.88	1.134	63.4	34.9	-6.0	0.527
4-1980	4-2530	0.133	309.0	25.1	2.51	1.287	91.4	0.207	0.917	352.0	951.8	0.727	1.107	-3.88	0.947	79.4	57.3	2.2	0.210
4-1980	4-2540	0.335	253.7	7.7	1.81	1.432	81.2	0.510	1.433	26.3	275.7	---	2.164	-3.58	1.133	64.2	42.9	9.0	0.511
4-1980	4-2540	0.140	323.7	17.0	1.81	1.289	92.9	0.215	0.920	343.3	952.8	0.722	1.119	-3.58	0.946	78.9	65.3	5.6	0.215
4-1980	4-2550	0.301	264.7	5.7	1.20	1.433	83.9	0.504	1.442	18.2	277.3	---	2.169	-3.41	1.133	64.8	51.3	11.4	0.499
4-1980	4-2550	0.156	336.0	9.9	1.20	1.291	94.6	0.226	0.924	334.8	953.9	0.715	1.133	-3.41	0.946	78.1	73.6	8.3	0.225
4-1980	4-2560	0.277	276.2	3.3	0.63	1.435	86.8	0.501	1.451	9.7	278.3	---	2.177	-3.35	1.133	65.2	60.2	13.4	0.491
4-1980	4-2560	0.182	348.2	4.5	0.63	1.292	96.3	0.240	0.927	326.3	955.0	0.704	1.150	-3.35	0.946	77.1	82.3	10.1	0.237
4-1980	4-2570	0.268	294.2	0.4	0.07	1.436	89.8	0.501	1.459	0.5	279.8	---	2.190	-3.38	1.134	65.3	69.5	14.9	0.487
4-1980	4-2570	0.215	354.7	0.4	0.07	1.293	98.3	0.259	0.930	317.7	956.0	0.689	1.171	-3.38	0.946	75.9	91.3	11.1	0.254
4-1980	4-2570	0.511	37.8	0.1	0.07	1.176	115.4	0.428	0.732	245.4	1243.6	1.418	1.046	-3.38	0.778	101.6	193.5	-16.1	0.273
4-1980	4-2580	0.277	311.7	-2.7	-0.52	1.437	93.2	0.506	1.466	350.6	638.4	0.725	2.208	-3.52	1.134	65.0	79.5	15.7	0.490
4-1980	4-2580	0.257	2.0	-2.6	-0.52	1.295	100.6	0.284	0.933	309.0	956.8	0.668	1.198	-3.52	0.947	74.3	100.6	11.4	0.278
4-1980	4-2580	0.478	37.5	-1.2	-0.52	1.172	113.7	0.403	0.727	246.1	1253.9	0.434	1.020	-3.52	0.770	94.1	182.2	-14.0	0.228
4-1990	4-2040	0.558	355.9	-2.5	-0.90	1.618	104.1	0.909	7.531	330.4	429.2	0.682	---	3.41	1.379	122.7	103.9	28.0	0.764
4-1990	4-2050	0.425	359.1	-5.3	-1.54	1.491	102.3	0.638	1.893	328.3	437.3	0.685	---	3.57	1.227	118.6	109.8	28.7	0.595
4-1990	4-2060	0.334	1.0	-9.4	-2.26	1.409	100.4	0.472	1.306	327.0	446.1	0.689	---	3.86	1.126	114.5	116.0	29.9	0.470
4-1990	4-2070	0.273	2.0	-15.6	-3.14	1.355	98.8	0.345	1.094	326.5	455.7	0.695	---	4.36	1.057	110.7	122.3	31.9	0.376
4-1990	4-2080	0.235	2.3	-24.6	-4.32	1.320	97.4	0.294	0.991	326.6	466.0	0.700	---	5.19	1.010	107.1	128.7	35.8	0.306
4-1990	4-2090	0.224	2.5	-37.9	-6.12	1.296	96.3	0.246	0.934	327.3	476.8	0.704	---	6.65	0.978	103.9	135.4	43.2	0.259
4-1990	4-2100	0.255	4.5	-55.1	-9.43	1.281	95.4	0.214	0.907	328.3	487.8	0.708	---	9.66	0.955	101.0	144.1	58.5	0.247
4-1990	4-2110	0.415	24.3	-75.3	-18.46	1.271	94.8	0.192	0.880	329.7	498.9	0.711	---	18.38	0.939	98.4	160.1	75.8	0.342
4-1990	4-2130	0.412	28.8	76.4	18.56	1.261	94.5	0.174	0.861	328.4	518.7	0.711	---	-19.23	0.919	94.3	103.5	-41.7	0.336
4-1990	4-2140	0.228	4.7	59.4	8.99	1.259	94.5	0.173	0.858	328.4	528.3	0.711	---	-9.96	0.914	92.4	105.9	-34.7	0.189
4-1990	4-2150	0.174	2.3	44.	5.57	1.258	94.6	0.171	0.857	327.4	537.0	0.710	---	-6.84	0.910	90.6	103.2	-26.3	0.144
4-1990	4-2160	0.134	3.2	32..	3.74	1.259	94.9	0.174	0.857	325.6	544.9	0.708	1.006	-5.32	0.907	89.0	100.0	-17.9	0.128
4-1990	4-2170	0.151	5.3	21.7	2.55	1.260	95.4	0.179	0.859	323.1	552.2	0.705	1.013	-4.47	0.905	87.4	98.4	-10.4	0.127
4-1990	4-2180	0.156	8.2	13.6	1.67	1.261	96.0	0.187	0.861	320.1	558.7	0.700	1.023	-3.95	0.905	85.8	98.0	-4.4	0.134
4-1990	4-2190	0.168	11.4	7.2	0.96	1.263	96.8	0.197	0.865	316.5	564.8	0.694	1.035	-3.63	0.905	84.3	101.3	0.1	0.147
4-1990	4-2200	0.195	15.0	2.3	0.35	1.265	97.8	0.210	0.868	312.3	570.2	0.686	1.051	-3.45	0.906	82.6	105.3	3.2	0.163
4-1990	4-2210	0.208	18.6	-1.4	-0.23	1.267	98.9	0.226	0.872	307.7	575.1	0.675	1.069	-3.38	0.907	80.9	110.5	5.1	0.182
4-1990	4-2220	0.237	22.4	-4.2	-0.79	1.269	100.4	0.249	0.876	302.6	579.5	0.661	1.092	-3.40	0.909	79.1	116.6	6.1	0.206

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

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DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1990	4-2230	0.274	26.3	-6.3	-1.38	1.271	102.2	0.271	0.881	296.8	583.3	0.642	1.120	-3.52	0.912	76.9	123.5	6.1	0.239
4-1990	4-2240	0.321	30.3	-7.8	-2.03	1.273	104.4	0.303	0.885	290.4	586.4	0.617	1.154	-3.75	0.915	74.5	130.9	5.4	0.270
4-1990	4-2250	0.382	34.4	-8.9	-2.79	1.276	107.5	0.345	0.890	283.1	588.6	0.583	1.198	-4.14	0.919	71.4	138.9	3.9	0.317
4-1990	4-2260	0.465	39.3	-9.7	-3.76	1.278	111.2	0.402	0.895	274.6	589.6	0.535	1.256	-4.78	0.924	67.5	147.5	1.6	0.379
4-1990	4-2260	0.911	72.0	-2.9	-3.76	1.064	138.0	0.752	0.618	213.0	888.0	0.153	1.082	-4.78	0.593	120.6	248.7	-26.3	0.570
4-1990	4-2270	0.581	44.7	-10.1	-5.13	1.281	116.8	0.482	0.901	264.2	588.8	0.467	1.335	-5.82	0.929	62.0	157.0	-1.4	0.466
4-1990	4-2270	0.825	72.5	-4.7	-5.13	1.035	133.8	0.706	0.595	213.4	897.9	0.175	1.015	-5.82	0.541	96.9	230.8	-25.6	0.457
4-1990	4-2280	0.755	51.5	-10.3	-7.36	1.284	125.0	0.596	0.907	250.8	584.9	0.366	1.448	-7.74	0.935	53.9	167.9	-5.5	0.599
4-1990	4-2280	0.873	74.0	-6.0	-7.36	1.027	136.1	0.738	0.589	211.2	905.3	0.154	1.024	-7.74	0.529	75.5	217.9	-23.3	0.501
4-1990	4-2340	0.596	219.3	5.3	4.80	1.288	63.1	0.488	0.917	94.6	487.7	0.469	1.364	6.18	0.958	118.8	1.6	11.7	0.515
4-1990	4-2350	0.458	226.8	8.6	3.24	1.291	69.8	0.398	0.923	80.2	483.2	0.555	1.291	4.95	0.965	113.1	12.8	16.9	0.419
4-1990	4-2360	0.360	234.2	7.5	2.16	1.294	74.6	0.338	0.929	67.0	480.0	0.615	1.263	4.22	0.971	109.4	23.6	21.6	0.356
4-1990	4-2370	0.287	242.2	5.9	1.34	1.297	78.3	0.297	0.935	54.4	477.5	0.657	1.213	3.78	0.977	107.0	34.5	25.8	0.314
4-1990	4-2380	0.231	251.7	3.6	0.64	1.300	81.4	0.270	0.942	42.1	475.2	0.687	1.196	3.52	0.983	105.4	45.9	29.5	0.286
4-1990	4-2390	0.187	263.8	0.1	0.02	1.305	84.1	0.254	0.948	29.7	473.0	0.708	1.189	3.40	0.980	104.5	57.8	32.6	0.268
4-1990	4-2400	0.756	206.5	-0.7	-0.58	1.212	53.3	0.600	0.781	121.4	574.9	0.312	1.249	3.38	0.867	55.9	299.3	-16.4	0.568
4-1990	4-2400	0.158	279.7	-4.8	-0.58	1.306	86.6	0.246	0.955	17.4	470.9	0.729	1.191	3.38	0.993	104.1	70.5	-35.0	0.260
4-1990	4-2410	0.672	210.0	-1.8	-1.20	1.223	57.7	0.539	0.797	114.3	577.9	0.367	1.226	3.47	0.883	60.0	307.4	-13.6	0.509
4-1990	4-2410	0.144	299.9	-10.9	-1.20	1.309	89.0	0.246	0.964	5.2	466.8	0.726	1.201	3.47	0.998	104.2	83.6	36.4	0.259
4-1990	4-2420	0.593	213.7	-3.4	-1.87	1.233	61.9	0.480	0.813	108.9	580.7	0.422	1.203	3.69	0.896	63.8	315.5	-10.1	0.454
4-1990	4-2420	0.150	321.9	-16.5	-1.87	1.613	91.4	0.254	0.973	353.3	827.1	0.726	1.219	3.69	1.003	104.7	96.9	36.9	0.265
4-1990	4-2430	0.520	217.4	-5.8	-2.65	1.242	65.7	0.426	0.828	99.1	583.1	0.475	1.181	4.07	0.908	67.1	323.2	-5.7	0.405
4-1990	4-2430	0.175	341.7	-20.3	-2.65	1.617	93.8	0.268	0.983	341.8	825.7	0.719	1.246	4.07	1.008	105.6	110.1	36.6	0.279
4-1990	4-2440	0.455	221.3	-9.4	-3.65	1.250	69.2	0.377	0.842	91.0	585.0	0.525	1.160	4.70	0.918	70.0	330.7	-0.0	0.363
4-1990	4-2440	0.217	357.1	-22.7	-3.65	1.321	96.4	0.290	0.995	330.9	825.0	0.706	1.283	4.70	1.013	106.8	122.9	35.7	0.301
4-1990	4-2450	0.401	225.3	-15.3	-5.06	1.259	72.4	0.335	0.855	82.4	586.6	0.569	1.141	5.77	0.927	72.5	337.6	7.4	0.331
4-1990	4-2450	0.272	8.7	-25.1	-5.06	1.326	99.2	0.318	1.008	320.6	824.8	0.687	1.329	5.77	1.018	108.5	135.0	34.7	0.333
4-1990	4-2460	0.366	228.9	-25.4	-7.39	1.264	75.2	0.299	0.867	73.5	587.7	0.607	1.126	7.78	0.933	74.5	343.5	11.9	0.312
4-1990	4-2460	0.344	14.0	-29.1	-7.39	1.332	102.2	0.353	1.023	311.1	825.4	0.662	1.384	7.78	1.023	110.6	146.7	34.8	0.376
4-1990	4-2470	0.786	230.2	-3.5	-12.36	1.269	77.7	0.277	0.877	64.3	588.5	0.639	1.114	12.44	0.938	76.1	347.3	34.4	0.332
4-1990	4-2470	0.453	27.1	-37.5	-12.36	1.338	105.3	0.392	1.040	302.4	826.5	0.632	1.448	12.44	1.029	112.9	158.5	38.5	0.446
4-1990	4-2480	0.711	197.1	-68.9	-31.96	1.274	79.7	0.251	0.886	55.6	589.2	0.664	1.108	31.74	0.941	77.2	352.7	62.2	0.578
4-1990	4-2500	0.318	249.4	60.1	12.50	1.281	84.0	0.218	0.900	34.9	589.7	0.704	1.097	-13.31	0.945	79.0	47.3	-28.6	0.307
4-1990	4-2500	0.646	39.7	24.1	12.50	1.356	116.0	0.533	1.097	278.7	833.5	0.513	1.682	-13.31	1.045	121.8	165.2	-15.8	0.589
4-1990	4-2510	0.558	238.4	17.1	7.05	1.425	69.2	0.570	1.390	59.2	263.7	---	2.183	-8.16	1.131	58.9	24.1	-3.7	0.618
4-1990	4-2510	0.213	265.7	47.5	7.05	1.284	85.6	0.211	0.906	25.7	590.2	0.715	1.098	-8.16	0.946	79.4	47.3	-16.2	0.245
4-1990	4-2520	0.499	243.7	12.6	4.59	1.428	71.8	0.554	1.403	52.5	266.7	---	2.181	-6.00	1.131	60.3	30.3	1.6	0.587
4-1990	4-2520	0.166	279.8	38.3	4.59	1.286	87.2	0.208	0.911	16.5	590.8	0.722	1.101	-6.00	0.946	79.5	52.1	-7.7	0.224
4-1990	4-2530	0.448	249.4	9.7	3.13	1.430	74.4	0.540	1.415	45.6	269.5	---	2.180	-4.86	1.131	61.5	37.4	5.6	0.561
4-1990	4-2530	0.140	295.2	30.1	3.13	1.288	88.7	0.207	0.916	7.5	591.5	0.726	1.106	-4.86	0.945	79.4	58.7	-1.7	0.215
4-1990	4-2540	0.401	255.9	7.3	2.11	1.452	76.9	0.528	1.426	38.4	272.0	---	2.180	-4.19	1.132	62.6	45.0	8.5	0.540
4-1990	4-2540	0.128	311.6	21.7	2.11	1.290	90.2	0.210	0.920	358.7	952.3	0.727	1.973	-4.19	0.946	79.2	66.2	2.8	0.213
4-1990	4-2550	0.359	263.7	5.2	1.32	1.438	79.5	0.519	1.437	31.0	274.2	---	2.182	-3.78	1.132	63.5	53.0	11.5	0.522
4-1990	4-2550	0.129	327.5	13.3	1.32	1.292	91.8	0.215	0.924	350.0	953.3	0.725	1.123	-3.78	0.946	78.8	74.3	6.0	0.215
4-1990	4-2560	0.322	273.2	2.9	0.66	1.435	82.2	0.511	1.446	23.3	276.1	---	2.186	-3.53	1.132	64.3	61.4	13.6	0.507
4-1990	4-2560	0.141	341.8	6.1	0.66	1.293	93.3	0.224	0.928	341.5	954.4	0.720	1.135	-3.53	0.946	78.2	82.7	8.3	0.220
4-1990	4-2570	0.293	286.8	0.3	0.07	1.437	84.9	0.506	1.455	15.1	277.5	---	2.192	-3.40	1.133	64.8	70.2	15.1	0.495
4-1990	4-2570	0.162	353.7	0.6	0.07	1.295	95.0	0.235	0.931	333.1	955.5	0.712	1.150	-3.40	0.947	77.4	91.5	9.6	0.230
4-1990	4-2580	0.274	299.0	-2.6	-0.50	1.438	87.8	0.504	1.463	6.5	278.5	---	2.202	-3.37	1.134	65.1	79.4	15.9	0.488
4-1990	4-2580	0.191	3.7	-3.3	-0.50	1.296	96.9	0.251	0.934	324.6	956.5	0.700	1.168	-3.37	0.948	76.4	100.5	10.2	0.244
4-1990	4-2580	0.553	54.0	-0.9	-0.50	1.185	117.4	0.460	0.743	245.0	1236.9	0.401	1.085	-3.37	0.789	107.4	214.5	-22.0	0.330
4-1990	4-2580	0.741	57.7	-0.6	-0.50	1.203	126.6	0.598	0.768	237.4	1229.4	0.308	1.227	-3.37	0.816	122.1	226.5	-22.1	0.522
4-1990	4-2590	0.271	315.5	-5.7	-1.07	1.439	0.9	0.506	1.471	357.2	638.7	0.727	2.216	-5.44	1.135	65.1	89.0	16.1	0.486
4-1990	4-2590	0.227	12.1	-6.0	-1.07	1.298	98.9	0.271	0.937	316.0	957.4	0.684	1.191	-3.44	0.949	75.8	109.6	10.0	0.262
4-1990	4-2590	0.480	52.8	-2.4	-1.07	1.178	113.8	0.404	0.733	247.3	1248.8	0.437	1.030	-3.44	0.777	97.4	202.6	-21.4	0.240
4-2000	4-2050	0.466	4.2	-4.8	-1.46	1.570	100.4	0.798	3.456	336.5	429.6	0.699	---	3.14	1.321	120.3	114.8	26.8	0.681
4-2000	4-2060	0.351	6.7	-8.4	-2.03	1.459	98.9	0.561	1.597	335.1	430.3	0.702	---	3.23	1.186	116.2	120.4	27.2	0.527
4-2000	4-2070	0.274	7.7	-13.4	-2.65	1.388	97.4	0.416	1.207	334.6	448.0	0.705	---	3.42	1.097	112.3	126.2	27.9	0.415
4-2000	4-2080	0.224	7.5	-20.5	-3.37	1.342	96.0	0.329	1.048	334.9	458.5	0.709	---	3.77	1.037	108.6	131.9	29.0	0.330
4-2000	4-2090	0.195	6.4	-30.0	-4.29	1.312	94.9	0.263	0.967	336.0	469.6	0.713	---	4.34	0.996	105.2	137.6	32.9	0.266
4-2000	4-2100	0.188	4.9	-41.9	-5.57	1.292	94.1	0.223	0.921	337.4	481.1	0.716	---	5.31	0.968	102.2	143.4	39.2	0.221
4-2000	4-2110	0.207	4.1	-55.5	-7.66	1.279	93.4	0.197	0.894	338.9	492.7	0.718	---	7.10	0.948	99.5	150.2	50.2	0.200
4-2000	4-2120	0.280	7.7	-70.9	-12.02	1.271	93.0	0.180	0.878	340.3	503.9	0.720	---	11.17	0.931	97.1	162.0	66.4	0.227
4-2000	4-2130	0.601	105.1	-82.8	-28.12	1.266	92.6	0.170	0.868	341.8	514.9	0.721	---	27.00	0.925	94.9	181.5	81.2	0.460
4-2000	4-2150	0.267	10.4	7.9	11.53	1.263	93.0	0.166	0.862	338.6	532.5	0.719	---	-13.19	0.913	91.5	105.4	-80.4	0.235
4-2000	4-2160	0.167	5.3	51.4	5.95	1.263	93.2	0.167	0.862	337.2	540.8	0.718	1.005	-7.89	0.910	89.8	104.5	-30.5	0.157
4-2000	4-2170	0.137	7.1	34.5	3.52	1.264	93.6	0.170	0.863	335.0	548.2	0.716	1.010	-5.75	0.909	88.3	103.0	-20.3	0.133
4-2000	4-2180	0.130	10.5	20.8	2.11	1.265	94.1	0.176	0.866	332.7	554.9	0.713	1.018	-4.62	0.908	86.9	102.9	-11.7	0.129
4-2000	4-2190	0.135	14.6	10.6	1.13	1.266	94.7	0.183	0.869	328.7	561.1	0.710	1.028	-3.96	0.908	85.5	104.7	-5.2	0.134
4-2000	4-2200	0.146	19.1	3.3	0.38	1.268	95.5	0.192	0.872	324.7	566.7	0.705	1.040	-3.56	0.909	84.0	108.1	-0.6	0.144
4-2000	4-2210	0.163	23.7	-1.9	-0.24	1.270	96.4	0.204	0.876	320.3	571.9	0.698	1.055	-3.31	0.910	82.6	112.9	2.3	0.158
4-2000	4-2220	0.184	28.2	-5.5	-0.80	1.272	97.5	0.218	0.880	315.5	576.6	0.689	1.072	-3.18	0.912	81.1	118.5	4.0	0.175
4-2000	4-2230	0.211	32.8	-7.9	-1.32	1.275	98.9	0.235	0.885	310.2	580.8	0.677	1.092	-3.14	0.915	79.4	124.9	4.6	0.195
4-2000	4-2240	0.244	37.2	-9.6	-1.85	1.277	100.5	0.256	0.889	304.8	584.5	0.662	1.117	-3.19	0.918	77.6	131.9	4.3	0.220
4-2000	4-2250	0.284	41.7	-10.7	-2.41	1.279	102.4	0.283	0.894	298.0	587.6	0.641	1.147	-3.33	0.922	75.5	139.3	3.2	0.250
4-2000	4-2260	0.336	46.2	-11.3	-3.05	1.282	104.9	0.317	0.899	290.9	590.0	0.613	1.184	-3.60	0.926	73.0	147.2	1.4	0.288
4-2000	4-2270	0.404	51.0	-11.6	-3.81	1.284	106.2	0.363	0.904	282.8	591.5	0.575	1.232	-4.03	0.931	69.8	155.5	-1.1	0.338
4-2000	4-2280	0.497	56.1	-11.6	-4.82	1.286	112.6	0.426	0.909	273.3	591.6	0.521	1.297	-4.72	0.936	65.6	164.5	-4.2	0.407
4-2000	4-2280	0.810	87.1	-4.6	-4.82	1.052	132.4	0.690	0.607	215.4	893.7	0.188	1.025	-4.72	0.673	103.5	253.7	-28.4	0.459
4-2000	4-2290	0.661	62.2	-11.3	-6.31	1.289	118.3	0.516	0.915	261.6	589.5	0.443	1.387	-5.92	0.942	59.4	174.6	-8.0	0.507

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2000	4-2290	0.810	88.1	-6.0	-6.31	1.040	132.9	0.694	0.597	214.3	902.2	0.183	1.011	-5.92	0.554	85.0	238.5	-27.8	0.447
4-2000	4-2300	0.902	90.0	-6.9	-6.[illegible]	1.035	137.5	0.752	0.594	211.1	908.6	0.148	1.041	-8.24	0.551	66.3	229.2	-26.2	0.540
4-2000	4-2350	0.702	231.2	7.6	4.64	1.294	58.1	0.560	0.925	102.9	490.1	0.407	1.442	6.89	0.966	123.8	10.0	14.4	0.599
4-2000	4-2360	0.526	239.4	6.5	2.86	1.297	66.6	0.446	0.931	86.4	483.6	0.516	1.347	5.20	0.972	116.3	22.5	19.8	0.473
4-2000	4-2370	0.407	247.0	4.9	1.62	1.299	72.4	0.371	0.938	72.2	479.4	0.590	1.286	4.28	0.978	111.6	34.3	24.4	0.392
4-2000	4-2380	0.321	254.9	2.9	0.73	1.302	76.7	0.321	0.944	59.0	476.3	0.640	1.247	3.73	0.984	108.6	46.0	28.1	0.339
4-2000	4-2390	0.257	263.9	0.1	0.02	1.305	80.1	0.269	0.950	46.3	473.7	0.676	1.224	3.40	0.989	106.6	58.1	31.1	0.304
4-2000	4-2400	0.208	274.9	-3.7	-0.60	1.307	83.0	0.268	0.956	33.9	471.4	0.700	1.213	3.22	0.993	105.5	70.6	33.4	0.281
4-2000	4-2410	0.174	289.1	-8.9	-1.16	1.310	85.6	0.257	0.963	21.7	469.4	0.716	1.213	3.14	0.998	104.9	83.6	34.7	0.263
4-2000	4-2420	0.736	223.7	-2.3	-1.73	1.222	54.6	0.583	0.792	218.7	576.6	0.330	1.254	3.17	0.878	56.9	318.2	-11.8	0.560
4-2000	4-2420	0.155	307.4	-14.8	-1.73	1.313	88.0	0.254	0.971	9.6	467.5	0.724	1.218	3.17	1.002	104.7	96.7	35.8	0.263
4-2000	4-2430	0.655	227.2	-3.7	-2.32	1.232	58.9	0.523	0.808	111.5	579.5	0.385	1.231	3.30	0.892	60.8	325.9	-8.2	0.502
4-2000	4-2430	0.154	328.8	-20.3	-2.32	1.317	90.4	0.259	0.979	357.9	826.0	0.726	1.232	3.30	1.006	105.0	109.7	34.5	0.266
4-2000	4-2440	0.578	230.8	-5.7	-2.98	1.241	62.9	0.467	0.824	104.0	582.2	0.439	1.208	3.56	0.904	64.4	333.4	-4.1	0.449
4-2000	4-2440	0.171	349.5	-23.6	-2.98	1.320	92.8	0.270	0.989	346.6	824.9	0.722	1.256	3.56	1.010	105.7	122.3	33.1	0.276
4-2000	4-2450	0.509	234.0	-8.5	-3.78	1.250	66.6	0.415	0.838	96.1	584.4	0.490	1.184	4.00	0.914	67.6	340.8	1.0	0.402
4-2000	4-2450	0.205	6.4	-25.1	-3.78	1.325	95.3	0.288	1.000	335.8	824.2	0.712	1.287	4.00	1.014	106.7	134.4	31.1	0.294
4-2000	4-2460	0.448	238.4	-12.9	-4.84	1.258	70.0	0.369	0.852	87.8	586.3	0.538	1.186	4.74	0.922	70.3	347.8	7.2	0.362
4-2000	4-2460	0.252	19.3	-26.1	-4.84	1.329	98.0	0.312	1.012	325.6	824.1	0.696	1.328	4.74	1.018	108.2	145.7	29.1	0.319
4-2000	4-2470	0.400	242.2	-10.7	-6.42	1.284	73.0	0.329	0.864	79.2	587.7	0.580	1.199	6.01	0.929	72.6	354.3	15.3	0.332
4-2000	4-2470	0.315	29.3	-27.9	-6.42	1.334	100.8	0.343	1.026	316.1	824.5	0.674	1.377	6.01	1.022	110.0	156.6	27.5	0.354
4-2000	4-2480	0.378	245.3	-31.5	-9.26	1.270	75.7	0.297	0.876	70.3	588.7	0.616	1.135	8.56	0.934	74.5	359.6	27.1	0.319
4-2000	4-2480	0.393	37.8	-32.2	-9.26	1.340	103.8	0.379	1.041	307.2	825.6	0.647	1.437	8.56	1.027	112.1	167.4	27.9	0.403
4-2000	4-2490	0.446	242.8	-52.6	-16.49	1.275	78.1	0.271	0.885	51.3	589.8	0.645	1.125	15.51	0.939	75.9	2.2	47.2	0.367
4-2000	4-2490	0.535	48.4	-43.1	-16.49	1.345	106.9	0.418	1.058	298.9	827.1	0.615	1.501	15.51	1.032	114.5	178.6	34.3	0.494
4-2000	4-2510	0.452	247.5	67.1	19.11	1.283	82.5	0.233	0.901	41.4	590.4	0.692	1.181	-20.63	0.943	78.1	62.1	-32.7	0.419
4-2000	4-2520	0.597	251.3	18.3	8.18	1.427	67.6	0.580	1.392	63.1	261.5	---	2.204	-9.97	1.129	57.7	35.0	-1.8	0.647
4-2000	4-2520	0.246	272.5	47.7	8.18	1.296	94.2	0.223	0.908	32.5	590.9	0.705	1.210	-9.97	0.944	78.6	56.7	-17.2	0.272
4-2000	4-2520	0.648	55.3	15.4	8.18	1.384	117.6	0.557	1.116	276.3	834.7	0.495	1.738	-9.97	1.047	123.4	186.3	-18.8	0.596
4-2000	4-2530	0.531	256.6	11.7	4.61	1.429	70.2	0.567	1.405	56.5	264.6	---	2.202	-6.66	1.129	59.2	40.5	4.5	0.605
4-2000	4-2530	0.180	285.5	34.9	4.61	1.289	85.9	0.217	0.914	23.4	591.5	0.715	1.112	-6.58	0.945	78.9	60.6	-7.0	0.236
4-2000	4-2540	0.478	261.8	8.0	2.77	1.432	72.7	0.552	1.418	49.8	267.5	---	2.201	-5.13	1.130	60.5	47.5	-0.6	0.577
4-2000	4-2540	0.147	298.9	25.1	2.77	1.291	87.5	0.214	0.919	14.4	592.2	0.722	1.115	-5.13	0.945	79.0	67.2	-0.5	0.222
4-2000	4-2550	0.430	267.6	5.2	1.60	1.434	75.3	0.539	1.429	42.8	270.2	---	2.200	-4.27	1.130	61.7	55.1	11.7	0.553
4-2000	4-2550	0.129	314.0	16.2	1.60	1.293	89.0	0.214	0.923	5.6	593.0	0.725	1.121	-4.27	0.946	78.9	74.8	3.9	0.216
4-2000	4-2560	0.387	276.4	2.7	0.75	1.436	77.8	0.529	1.440	35.7	272.6	---	2.201	-3.75	1.131	62.7	63.2	14.0	0.533
4-2000	4-2560	0.125	330.1	7.9	0.75	1.295	90.5	0.217	0.927	357.0	953.9	0.726	1.129	-3.75	0.946	78.6	83.1	6.9	0.215
4-2000	4-2570	0.347	282.6	0.3	0.08	1.437	80.4	0.520	1.450	28.2	274.7	---	2.204	-3.42	1.132	63.8	71.6	15.6	0.515
4-2000	4-2570	0.131	345.7	0.7	0.08	1.297	92.1	0.223	0.931	348.5	955.0	0.723	1.139	-3.42	0.947	78.2	91.7	8.7	0.218
4-2000	4-2580	0.314	292.6	-2.3	-0.51	1.439	83.1	0.513	1.459	20.4	276.5	---	2.208	-3.24	1.133	64.3	80.4	16.5	0.501
4-2000	4-2580	0.147	359.6	-4.5	-0.51	1.298	93.7	0.232	0.935	340.0	956.1	0.718	1.152	-3.24	0.948	77.5	100.5	9.6	0.225
4-2000	4-2590	0.288	304.9	-5.2	-1.05	1.440	85.9	0.509	1.468	12.3	277.8	---	2.215	-3.15	1.134	64.7	89.5	16.9	0.491
4-2000	4-2590	0.171	11.4	-8.0	-1.05	1.300	95.5	0.244	0.938	331.6	957.2	0.709	1.167	-3.15	0.949	76.7	109.5	9.6	0.235
4-2000	4-2600	0.274	319.8	-8.3	-1.57	1.441	88.8	0.508	1.478	3.5	278.6	---	2.226	-3.15	1.136	65.0	98.9	16.5	0.485
4-2000	4-2600	0.202	21.2	-10.1	-1.57	1.301	97.4	0.260	0.941	323.1	958.2	0.696	1.186	-3.15	0.951	75.4	118.6	8.9	0.250
4-2000	4-2600	0.493	68.4	-3.4	-1.57	1.185	114.4	0.414	0.741	248.1	1243.2	0.434	1.047	-3.85	0.786	101.2	224.1	-26.4	0.266
4-2010	4-2050	0.531	6.5	-4.7	-1.49	1.675	97.3	1.03	222.068	345.5	422.7	0.713	---	2.73	1.442	121.9	119.8	24.9	0.792
4-2010	4-2060	0.378	9.5	-7.9	-1.98	1.520	96.5	0.680	2.230	343.9	431.3	0.713	---	2.67	1.259	117.9	129.6	24.8	0.596
4-2010	4-2070	0.281	10.5	-12.5	-2.45	1.426	95.3	0.480	1.375	343.5	441.0	0.715	---	2.69	1.142	113.8	139.7	24.8	0.459
4-2010	4-2080	0.219	9.6	-18.6	-2.95	1.366	94.2	0.358	1.118	344.2	451.8	0.717	---	2.80	1.065	109.9	134.8	25.3	0.359
4-2010	4-2090	0.182	7.0	-26.5	-3.51	1.327	93.1	0.202	1.002	345.7	463.4	0.720	---	3.01	1.014	106.3	139.7	26.6	0.282
4-2010	4-2100	0.163	3.2	-35.6	-4.17	1.303	92.3	0.233	0.941	347.8	475.6	0.722	---	3.38	0.979	103.1	144.2	29.5	0.225
4-2010	4-2110	0.159	359.1	-45.4	-5.05	1.287	91.7	0.202	0.906	350.0	487.8	0.723	---	3.97	0.955	100.3	148.4	35.0	0.184
4-2010	4-2120	0.171	355.6	-55.4	-6.35	1.277	91.3	0.183	0.885	351.8	499.7	0.724	---	5.01	0.939	97.8	152.4	44.0	0.159
4-2010	4-2130	0.208	353.7	-66.2	-8.63	1.271	91.0	0.171	0.874	353.1	510.8	0.724	---	7.05	0.923	95.6	158.3	58.5	0.161
4-2010	4-2140	0.216	356.4	-79.7	-14.20	1.268	90.9	0.165	0.867	353.5	521.0	0.724	---	12.33	0.921	93.6	175.1	73.8	0.226
4-2010	4-2160	0.386	20.0	84.0	17.67	1.266	91.4	0.163	0.864	349.8	537.6	0.723	---	-19.95	0.912	90.5	105.6	-44.3	0.340
4-2010	4-2170	0.169	2.9	58.0	6.50	1.267	91.7	0.165	0.866	348.1	545.3	0.725	1.009	-9.00	0.910	88.9	105.4	-33.3	0.173
4-2010	4-2180	0.122	6.7	35.0	3.16	1.268	92.1	0.169	0.868	345.3	552.2	0.721	1.015	-6.90	0.910	87.6	105.7	-20.7	0.137
4-2010	4-2190	0.113	12.1	17.2	1.51	1.270	92.7	0.174	0.871	341.9	558.4	0.719	1.022	-4.49	0.910	86.2	107.3	-10.9	0.130
4-2010	4-2200	0.117	18.1	5.1	0.47	1.272	93.3	0.181	0.875	338.0	564.0	0.717	1.033	-3.70	0.911	85.0	110.5	-4.2	0.134
4-2010	4-2210	0.128	24.3	-2.7	-0.28	1.274	94.1	0.189	0.879	333.6	569.2	0.713	1.046	-3.23	0.912	83.7	114.9	0.1	0.142
4-2010	4-2220	0.144	30.5	-7.7	-0.87	1.276	95.0	0.199	0.884	328.9	574.0	0.707	1.060	-2.94	0.914	82.4	120.4	2.7	0.155
4-2010	4-2230	0.164	36.4	-10.7	-1.37	1.278	96.1	0.211	0.888	323.8	578.4	0.700	1.076	-2.76	0.917	81.1	126.6	3.8	0.169
4-2010	4-2240	0.187	42.0	-12.5	-1.83	1.280	97.3	0.226	0.893	318.2	582.4	0.691	1.094	-2.68	0.920	79.6	133.3	3.9	0.187
4-2010	4-2250	0.217	47.3	-13.4	-2.28	1.283	98.8	0.244	0.897	312.3	586.0	0.678	1.116	-2.67	0.924	78.1	140.4	3.1	0.208
4-2010	4-2260	0.252	52.4	-13.8	-2.73	1.285	100.6	0.267	0.902	305.8	589.1	0.662	1.142	-2.74	0.928	76.3	147.9	1.7	0.233
4-2010	4-2270	0.297	57.4	-13.8	-3.23	1.287	102.8	0.295	0.907	298.8	591.6	0.639	1.175	-2.89	0.933	74.2	155.7	-0.5	0.265
4-2010	4-2280	0.354	62.4	-13.5	-3.80	1.290	105.5	0.336	0.912	290.9	593.4	0.608	1.215	-3.16	0.938	71.6	163.9	-3.1	0.306
4-2010	4-2290	0.429	67.6	-12.9	-4.51	1.292	109.2	0.383	0.917	282.0	594.0	0.566	1.268	-3.59	0.944	68.2	172.6	-6.3	0.361
4-2010	4-2290	0.822	101.9	-4.3	-4.51	1.073	132.8	0.690	0.621	217.0	889.1	0.192	1.050	-3.59	0.610	112.1	277.2	-27.4	0.492
4-2010	4-2300	0.535	73.3	-12.2	-5.49	1.294	114.2	0.454	0.922	271.3	593.1	0.504	1.341	-4.31	0.950	63.5	182.2	-10.1	0.439
4-2010	4-2300	0.772	102.5	-5.7	-5.49	1.054	130.2	0.662	0.606	216.8	898.5	0.205	1.008	-4.31	0.580	92.9	261.5	-29.2	0.470
4-2010	4-2310	0.690	80.1	-11.3	-7.01	1.297	121.6	0.557	0.928	258.0	589.4	0.412	1.445	-5.58	0.956	56.5	193.2	-14.4	0.556
4-2010	4-2310	0.816	103.7	-6.6	-7.01	1.047	132.5	0.693	0.601	214.9	906.3	0.181	1.018	-5.58	0.573	74.3	248.4	-28.8	0.461
4-2010	4-2360	0.924	219.5	3.4	4.77	1.005	41.1	0.774	0.571	152.1	893.3	0.129	1.014	7.37	0.519	111.3	336.0	-3.3	0.571
4-2010	4-2370	0.615	251.5	4.3	2.30	1.302	62.3	0.507	0.939	94.2	485.4	0.463	1.415	5.14	0.979	120.3	32.1	21.6	0.539
4-2010	4-2380	0.466	259.5	2.4	0.93	1.305	69.6	0.412	0.946	78.3	479.7	0.556	1.336	4.04	0.985	114.2	45.1	25.8	0.435
4-2010	4-2390	0.364	267.4	0.1	0.02	1.307	74.7	0.351	0.952	64.3	475.8	0.618	1.285	3.41	0.990	110.4	57.8	29.0	0.368
4-2010	4-2400	0.290	275.9	-2.9	-0.66	1.310	78.6	0.310	0.958	51.2	472.8	0.661	1.255	3.03	0.994	108.0	70.5	31.2	0.324

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2010	4-2410	0.234	286.0	-6.8	-1.22	1.312	81.7	0.285	0.964	38.6	470.4	0.690	1.239	2.81	0.998	106.5	83.4	32.4	0.295
4-2010	4-2420	0.194	298.7	-11.7	-1.73	1.315	84.5	0.270	0.971	26.3	468.3	0.702	1.233	2.69	1.002	105.6	96.4	32.7	0.278
4-2010	4-2430	0.169	315.2	-17.4	-2.20	1.318	87.0	0.264	0.978	14.4	466.6	0.720	1.236	2.67	1.005	105.3	109.2	32.0	0.269
4-2010	4-2440	0.718	241.0	-3.8	-2.68	1.231	55.9	0.566	0.804	115.8	578.1	0.349	1.259	2.73	0.887	57.8	336.3	-5.9	0.550
4-2010	4-2440	0.160	335.2	-22.7	-2.68	1.321	89.4	0.265	0.986	2.8	465.1	0.725	1.247	2.73	1.008	105.4	121.6	30.4	0.268
4-2010	4-2450	0.637	244.5	-5.4	-3.20	1.241	60.1	0.508	0.819	108.5	581.0	0.403	1.236	2.88	0.899	61.6	343.7	-1.9	0.493
4-2010	4-2450	0.169	356.3	-26.0	-3.20	1.325	91.8	0.273	0.995	351.7	324.1	0.723	1.246	2.88	1.011	105.8	133.5	28.2	0.274
4-2010	4-2460	0.564	248.1	-7.6	-3.80	1.250	64.0	0.454	0.835	100.9	583.5	0.455	1.214	3.16	0.909	65.0	351.0	2.6	0.442
4-2010	4-2460	0.194	14.8	-26.9	-3.80	1.328	94.2	0.287	1.005	341.0	823.5	0.716	1.293	3.16	1.014	106.7	144.8	25.4	0.288
4-2010	4-2470	0.497	251.7	-10.1	-4.56	1.256	67.5	0.405	0.849	93.0	585.6	0.505	1.193	3.62	0.917	68.0	358.3	7.8	0.396
4-2010	4-2470	0.233	29.2	-26.8	-4.56	1.333	96.8	0.308	1.016	330.8	823.4	0.703	1.329	3.62	1.018	107.9	155.5	22.5	0.308
4-2010	4-2480	0.440	255.5	-15.3	-5.59	1.265	70.8	0.362	0.862	84.7	587.3	0.550	1.174	4.39	0.924	70.6	5.3	14.0	0.357
4-2010	4-2480	0.284	40.2	-26.9	-5.59	1.337	99.5	0.335	1.029	321.2	823.8	0.685	1.373	4.39	1.021	109.5	165.7	19.9	0.336
4-2010	4-2490	0.398	259.2	-22.7	-7.24	1.271	73.7	0.325	0.874	76.1	588.6	0.590	1.158	5.79	0.930	72.7	11.8	22.3	0.329
4-2010	4-2490	0.348	49.0	-28.4	-7.24	1.342	102.3	0.367	1.043	312.1	824.7	0.661	1.426	5.79	1.025	111.4	175.6	18.2	0.374
4-2010	4-2500	0.387	261.8	-35.8	-10.53	1.276	76.3	0.295	0.885	67.3	589.7	0.623	1.146	8.83	0.954	74.4	17.2	35.1	0.321
4-2010	4-2500	0.435	56.9	-33.1	-10.53	1.348	105.3	0.403	1.059	303.7	826.1	0.632	1.487	8.83	1.029	113.6	185.7	19.3	0.426
4-2010	4-2510	0.528	252.5	-60.2	-21.39	1.281	78.5	0.272	0.894	58.5	590.5	0.651	1.137	19.46	0.938	75.8	19.9	60.1	0.416
4-2010	4-2510	0.630	70.6	-48.0	-21.39	1.353	108.5	0.443	1.077	295.9	827.9	0.599	1.554	19.46	1.034	116.0	196.3	30.6	0.550
4-2010	4-2530	0.296	279.9	50.2	10.25	1.288	82.8	0.237	0.909	39.3	591.5	0.693	1.125	-12.63	0.942	77.7	66.5	-19.4	0.310
4-2010	4-2530	0.622	69.7	20.6	10.25	1.365	115.5	0.534	1.115	280.7	833.0	0.519	1.710	-32.63	1.044	121.9	193.5	-26.9	0.584
4-2010	4-2540	0.564	269.7	10.8	4.57	1.431	68.5	0.581	1.407	60.6	702.4	---	2.224	-7.18	1.127	58.0	50.7	7.1	0.624
4-2010	4-2540	0.199	292.8	31.0	4.57	1.291	84.5	0.229	0.918	30.3	592.2	0.706	1.125	-7.18	0.943	78.1	68.9	-5.9	0.249
4-2010	4-2550	0.509	274.5	6.0	2.26	1.434	71.1	0.565	1.420	54.0	265.4	---	2.222	-5.11	1.128	59.4	57.7	11.5	0.592
4-2010	4-2550	0.159	304.3	18.8	2.26	1.294	86.1	0.223	0.921	21.5	592.9	0.716	1.127	-5.11	0.944	78.4	75.4	1.5	0.229
4-2010	4-2560	0.461	279.7	2.9	0.96	1.436	73.6	0.552	1.432	47.2	268.2	---	2.221	-4.06	1.129	60.7	65.4	14.3	0.567
4-2010	4-2560	0.137	317.4	9.2	0.96	1.296	87.7	0.221	0.926	12.7	593.7	0.722	1.131	-4.06	0.945	78.4	83.3	6.9	0.219
4-2010	4-2570	0.417	285.7	0.3	0.09	1.438	76.1	0.539	1.443	40.3	270.9	---	2.221	-3.45	1.130	61.8	73.6	16.2	0.544
4-2010	4-2570	0.127	332.4	0.9	0.09	1.298	89.3	0.221	0.931	4.1	594.7	0.724	1.137	-3.45	0.947	78.3	91.8	8.5	0.216
4-2010	4-2580	0.375	292.8	-2.1	-0.57	1.439	78.7	0.529	1.453	33.1	273.2	---	2.223	-3.07	1.132	62.8	82.1	17.3	0.525
4-2010	4-2580	0.127	348.3	-5.8	-0.57	1.300	90.8	0.225	0.935	355.6	955.7	0.724	1.145	-3.07	0.948	78.0	100.7	9.8	0.216
4-2010	4-2590	0.339	301.4	-4.7	-1.11	1.441	81.3	0.521	1.463	25.6	275.3	---	2.226	-2.84	1.133	63.6	90.8	17.8	0.509
4-2010	4-2590	0.137	3.7	-10.6	-1.11	1.302	92.4	0.231	0.938	347.2	956.9	0.721	1.155	-2.84	0.950	77.5	109.6	10.1	0.220
4-2010	4-2600	0.308	312.0	-7.4	-1.59	1.442	84.0	0.516	1.472	17.8	277.0	---	2.231	-2.71	1.135	64.3	99.8	17.5	0.496
4-2010	4-2600	0.156	17.4	-13.4	-1.59	1.303	94.1	0.240	0.942	338.8	958.0	0.715	1.168	-2.71	0.951	76.8	118.7	9.5	0.228
4-2010	4-2610	0.286	325.1	-10.3	-2.04	1.444	86.8	0.513	1.480	9.5	278.2	---	2.240	-2.67	1.137	64.7	109.0	16.6	0.487
4-2010	4-2610	0.182	29.0	-14.7	-2.04	1.304	95.9	0.255	0.945	330.4	959.1	0.706	1.184	-2.67	0.954	76.0	127.7	8.3	0.239
4-2010	4-2610	0.527	84.5	-4.2	-2.04	1.195	116.0	0.440	0.791	248.1	1236.8	0.421	1.081	-2.67	0.797	106.2	246.5	-28.2	0.317
4-2010	4-2610	0.731	88.7	-2.7	-2.04	1.214	125.9	0.589	0.778	239.5	1228.2	0.320	1.236	-2.67	0.826	121.9	259.4	-26.7	0.524
4-2020	4-2060	0.430	9.0	-7.8	-2.09	1.598	92.8	0.849	5.765	353.9	425.2	0.721	---	2.09	1.350	119.6	128.5	22.5	0.684
4-2020	4-2070	0.301	9.5	-12.1	-2.46	1.469	92.3	0.561	1.644	353.5	435.1	0.722	---	2.01	1.193	115.3	132.8	22.1	0.510
4-2020	4-2080	0.225	7.3	-17.6	-2.81	1.390	91.5	0.399	1.202	354.6	446.3	0.722	---	1.98	1.094	111.2	137.1	21.9	0.389
4-2020	4-2090	0.180	2.6	-24.3	-3.17	1.342	90.7	0.303	1.037	356.9	458.7	0.723	---	2.03	1.030	107.4	141.2	22.2	0.301
4-2020	4-2100	0.156	356.3	-31.4	-3.55	1.311	90.0	0.244	0.957	359.9	471.8	0.723	---	2.14	0.988	104.0	144.8	23.3	0.235
4-2020	4-2110	0.146	349.7	-38.0	-3.99	1.292	89.5	0.208	0.913	3.0	124.9	---	---	2.34	0.960	101.0	147.6	25.9	0.185
4-2020	4-2120	0.145	344.2	-44.2	-4.54	1.280	89.1	0.186	0.888	5.6	137.5	---	---	2.67	0.941	98.3	149.1	30.6	0.148
4-2020	4-2130	0.152	340.6	-50.3	-5.28	1.273	88.9	0.174	0.875	7.2	149.0	---	---	3.21	0.929	96.0	149.3	38.6	0.125
4-2020	4-2140	0.169	338.8	-57.2	-6.44	1.270	88.9	0.167	0.867	7.7	159.4	---	---	4.19	0.921	94.0	148.5	50.1	0.117
4-2020	4-2150	0.209	338.2	-66.5	-8.70	1.268	89.0	0.164	0.865	7.2	168.7	---	---	6.26	0.915	92.2	150.6	64.4	0.134
4-2020	4-2160	0.345	329.6	-81.3	-15.61	1.268	89.2	0.164	0.864	5.8	177.0	---	---	13.01	0.912	90.6	175.9	77.3	0.231
4-2020	4-2180	0.187	354.9	63.3	7.55	1.270	90.1	0.167	0.869	359.6	550.5	0.723	1.014	-10.49	0.910	87.9	106.5	-35.4	0.197
4-2020	4-2190	0.111	2.2	30.8	2.57	1.272	90.6	0.171	0.872	356.2	556.7	0.723	1.021	-5.67	0.910	86.6	108.5	-18.6	0.138
4-2020	4-2200	0.101	9.9	8.5	0.67	1.274	91.2	0.176	0.876	352.2	562.2	0.722	1.030	-3.96	0.912	85.5	112.0	-7.4	0.130
4-2020	4-2210	0.106	18.2	-4.3	-0.36	1.277	91.9	0.181	0.881	347.7	567.4	0.721	1.041	-3.11	0.913	84.3	116.6	-0.9	0.133
4-2020	4-2220	0.116	26.5	-11.5	-1.04	1.279	92.7	0.189	0.885	343.0	572.1	0.718	1.052	-2.62	0.916	83.2	122.0	2.7	0.142
4-2020	4-2230	0.130	34.7	-15.4	-1.55	1.281	93.6	0.197	0.890	337.9	576.6	0.715	1.066	-2.32	0.919	82.1	128.2	4.4	0.152
4-2020	4-2240	0.147	42.4	-17.3	-1.96	1.284	94.6	0.208	0.895	332.6	580.7	0.709	1.081	-2.14	0.922	80.9	134.9	4.8	0.166
4-2020	4-2250	0.168	49.6	-18.0	-2.32	1.286	95.8	0.220	0.900	326.7	584.4	0.702	1.098	-2.03	0.926	79.6	141.9	4.2	0.181
4-2020	4-2260	0.193	56.2	-17.9	-2.66	1.288	97.2	0.235	0.905	320.6	587.9	0.692	1.118	-1.99	0.930	78.3	149.2	2.8	0.199
4-2020	4-2270	0.224	62.3	-17.3	-2.99	1.291	98.8	0.254	0.910	314.0	590.9	0.679	1.141	-2.00	0.935	76.8	156.7	0.8	0.220
4-2020	4-2280	0.262	68.0	-16.4	-3.34	1.293	100.8	0.278	0.915	306.9	593.4	0.661	1.169	-2.07	0.940	75.0	164.5	-1.7	0.247
4-2020	4-2290	0.310	73.4	-15.3	-3.73	1.295	103.2	0.308	0.920	299.2	595.3	0.636	1.203	-2.21	0.945	72.9	172.6	-4.6	0.281
4-2020	4-2300	0.373	78.9	-14.1	-4.19	1.298	106.3	0.349	0.925	290.5	596.3	0.602	1.248	-2.45	0.951	70.2	181.2	-7.9	0.325
4-2020	4-2310	0.457	84.5	-12.8	-4.78	1.300	110.4	0.405	0.930	280.5	596.1	0.553	1.307	-2.83	0.957	66.5	190.5	-11.5	0.387
4-2020	4-2310	0.753	117.1	-5.3	-4.78	1.069	129.0	0.643	0.616	218.9	894.4	0.220	1.013	-2.83	0.607	99.8	284.5	-26.9	0.416
4-2020	4-2320	0.578	90.8	-11.4	-5.62	1.302	116.2	0.486	0.936	268.6	593.9	0.481	1.390	-3.49	0.963	61.2	201.0	-15.5	0.477
4-2020	4-2320	0.758	118.0	-6.1	-5.62	1.060	129.3	0.649	0.609	217.8	903.1	0.214	1.004	-3.49	0.596	84.3	270.0	-28.5	0.411
4-2020	4-2330	0.842	119.6	-6.4	-7.04	1.056	133.8	0.700	0.606	214.8	910.0	0.178	1.035	-4.72	0.595	68.1	260.3	-28.4	0.497
4-2020	4-2380	0.855	237.6	1.2	1.44	1.020	45.3	0.725	0.580	148.8	894.1	0.159	1.000	4.64	0.550	105.0	351.9	1.8	0.509
4-2020	4-2390	0.543	271.6	0.1	1.93	1.310	65.9	0.464	0.954	85.7	481.2	0.511	1.396	3.42	0.991	117.6	55.8	26.0	0.489
4-2020	4-2400	0.418	279.6	-2.4	-0.81	1.313	72.1	0.386	0.960	70.5	476.1	0.589	1.330	2.78	0.995	112.7	69.5	28.5	0.403
4-2020	4-2410	0.330	287.9	-5.5	-1.41	1.315	76.7	0.336	0.966	56.7	472.5	0.641	1.290	2.40	0.999	109.6	82.7	29.8	0.348
4-2020	4-2420	0.266	297.2	-9.2	-1.87	1.318	80.2	0.304	0.972	43.8	469.8	0.676	1.267	2.17	1.002	107.7	95.7	30.0	0.312
4-2020	4-2430	0.219	308.6	-13.7	-2.27	1.320	83.2	0.285	0.978	31.5	467.6	0.700	1.257	2.04	1.005	106.5	108.4	29.2	0.289
4-2020	4-2440	0.186	323.2	-18.9	-2.63	1.323	85.8	0.275	0.985	19.6	465.9	0.714	1.256	1.99	1.008	106.0	120.7	27.6	0.276
4-2020	4-2450	0.778	254.9	-3.8	-2.98	1.230	52.9	0.608	0.799	120.0	576.4	0.313	1.286	2.00	0.882	54.7	346.8	-3.0	0.597
4-2020	4-2450	0.170	341.5	-23.9	-2.98	1.326	88.3	0.273	0.993	8.1	464.5	0.722	1.263	2.00	1.010	105.8	132.5	25.2	0.271
4-2020	4-2460	0.696	256.3	-5.0	-3.35	1.240	57.2	0.550	0.815	112.9	579.5	0.367	1.264	2.07	0.893	58.7	354.1	-0.7	0.538
4-2020	4-2460	0.170	2.3	-27.2	-3.35	1.329	90.7	0.277	1.001	357.0	823.6	0.723	1.278	2.07	1.012	106.1	143.7	22.2	0.274
4-2020	4-2470	0.620	263.7	-6.6	-3.75	1.249	61.2	0.495	0.831	105.6	582.2	0.420	1.242	2.22	0.903	62.3	1.5	4.6	0.483

DEPART	ARRIVE	SPEED		DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2020	4-2470	0.186	22.0	-27.9	-3.75	1.332	93.0	0.288	1.010	346.3	823.0	0.719	1.301	2.22	1.015	106.7	154.3	18.8	0.284
4-2020	4-2480	0.549	265.3	-6.8	-4.23	1.258	64.9	0.443	0.845	97.9	588.6	0.471	1.220	2.47	0.912	65.5	8.8	9.0	0.433
4-2020	4-2480	0.216	38.1	-27.0	-4.23	1.336	95.5	0.305	1.021	336.2	822.8	0.709	1.332	2.47	1.017	107.7	164.4	15.3	0.300
4-2020	4-2490	0.485	269.0	-11.3	-4.86	1.265	66.3	0.397	0.859	89.9	586.6	0.519	1.200	2.89	0.919	68.4	16.3	13.8	0.389
4-2020	4-2490	0.258	50.5	-25.8	-4.86	1.240	98.1	0.328	1.033	326.5	823.1	0.694	1.371	2.89	1.020	109.1	174.1	12.0	0.323
4-2020	4-2500	0.431	272.8	-46.3	-5.76	1.272	71.4	0.357	0.872	81.7	588.2	0.561	1.183	3.60	0.925	70.8	23.7	19.5	0.351
4-2020	4-2500	0.311	60.0	-25.2	-5.76	1.345	100.8	0.357	1.046	317.3	823.9	0.673	1.419	3.60	1.023	110.7	183.5	9.1	0.354
4-2020	4-2510	0.391	276.6	-23.6	-7.29	1.278	74.2	0.323	0.883	73.1	589.5	0.598	1.168	4.95	0.930	72.7	31.0	27.2	0.325
4-2020	4-2510	0.376	67.7	-26.3	-7.29	1.350	103.7	0.390	1.061	308.7	825.1	0.647	1.474	4.95	1.027	112.7	192.9	7.5	0.393
4-2020	4-2520	0.386	279.0	-37.3	10.80	1.283	76.7	0.295	0.893	64.4	590.5	0.630	1.157	8.29	0.934	74.3	37.4	0.3	0.376
4-2020	4-2520	0.465	75.1	-31.5	-10.80	1.355	106.8	0.427	1.077	300.6	826.7	0.617	1.537	8.29	1.031	115.0	202.6	9.4	0.447
4-2020	4-2530	0.669	253.8	-66.6	-29.07	1.287	78.9	0.274	0.902	55.9	591.4	0.655	1.149	26.39	0.937	79.5	49.6	73.6	0.507
4-2020	4-2540	0.417	282.6	59.5	16.37	1.291	81.2	0.254	0.910	46.0	592.0	0.679	1.142	-19.23	0.940	76.6	79.2	-25.8	0.401
4-2020	4-2550	0.598	283.0	9.3	4.43	1.433	60.8	0.596	1.408	64.6	260.1	---	2.247	-7.45	1.126	56.8	61.1	9.6	0.642
4-2020	4-2550	0.220	301.7	26.8	4.43	1.294	85.0	0.243	0.917	37.3	592.8	0.694	1.140	-7.45	0.942	77.2	77.0	-4.2	0.262
4-2020	4-2550	0.623	85.4	6.7	4.43	1.372	117.0	0.356	1.134	278.5	834.0	0.503	1.764	-7.45	1.047	123.3	217.7	-26.6	0.586
4-2020	4-2560	0.542	287.5	3.7	1.50	1.436	69.3	0.579	1.421	59.2	263.2	---	2.245	-4.69	1.127	58.3	68.0	14.4	0.608
4-2020	4-2560	0.175	311.4	11.1	1.50	1.297	84.7	0.234	0.923	28.6	593.6	0.707	1.140	-4.69	0.944	77.6	83.7	4.6	0.235
4-2020	4-2570	0.494	297.2	0.3	0.12	1.438	71.9	0.564	1.434	51.6	266.2	---	2.243	-3.49	1.128	57.7	75.9	16.9	0.581
4-2020	4-2570	0.151	322.4	1.0	0.12	1.299	86.3	0.230	0.928	19.9	594.5	0.715	1.152	-3.49	0.945	77.8	92.0	8.8	0.224
4-2020	4-2580	0.449	297.6	-2.2	-0.71	1.440	74.4	0.551	1.446	44.8	269.0	---	2.243	-2.85	1.130	60.9	84.3	18.3	0.557
4-2020	4-2580	0.137	335.4	-6.7	-0.71	1.301	87.9	0.228	0.933	11.4	595.5	0.721	1.186	-2.85	0.947	77.8	100.9	10.8	0.218
4-2020	4-2590	0.406	303.8	-4.5	-1.30	1.442	76.9	0.540	1.456	37.9	271.6	---	2.243	-2.46	1.132	62.0	92.8	18.8	0.536
4-2020	4-2590	0.332	350.4	-12.9	-1.30	1.303	89.5	0.229	0.938	2.9	596.6	0.723	1.152	-2.46	0.949	77.7	109.9	11.5	0.216
4-2020	4-2600	0.367	311.2	-6.8	-1.75	1.443	79.5	0.531	1.467	30.7	273.9	---	2.245	-2.22	1.134	62.9	101.6	18.7	0.518
4-2020	4-2600	0.135	6.3	-17.2	-1.75	1.305	91.0	0.232	0.942	354.6	957.8	0.723	1.160	-2.22	0.951	77.4	119.0	11.1	0.218
4-2020	4-2610	0.332	320.3	-9.2	-2.14	1.445	82.1	0.524	1.476	23.2	275.9	---	2.249	-2.08	1.136	63.7	110.4	17.9	0.502
4-2020	4-2610	0.147	21.6	-19.3	-2.14	1.307	92.6	0.239	0.945	346.2	959.0	0.719	1.171	-2.08	0.954	76.9	128.1	9.9	0.223
4-2020	4-2620	0.304	331.6	-11.8	-2.49	1.446	84.8	0.519	1.485	15.3	277.6	---	2.255	-2.00	1.136	64.3	119.3	16.4	0.491
4-2020	4-2620	0.166	35.2	-19.9	-2.49	1.308	94.4	0.249	0.949	337.9	960.1	0.713	1.184	-2.00	0.957	76.2	137.1	8.1	0.232
4-2030	4-2060	0.540	5.8	-7.6	-2.40	1.709	87.2	1.109	-6.839	5.3	60.6	---	---	1.39	1.478	122.0	131.8	20.1	0.816
4-2030	4-2070	0.352	5.1	-11.6	-2.67	1.520	87.9	0.668	2.171	5.2	70.6	---	---	1.26	1.254	117.3	135.1	19.0	0.578
4-2030	4-2080	0.252	1.1	-16.5	-2.90	1.415	87.9	0.447	1.303	6.9	82.6	---	---	1.18	1.123	112.7	138.5	19.0	0.427
4-2030	4-2090	0.199	354.3	-21.6	-3.11	1.354	87.5	0.326	1.046	10.3	96.0	---	---	1.15	1.043	108.5	141.7	18.7	0.322
4-2030	4-2100	0.172	346.3	-26.2	-3.31	1.316	87.1	0.256	0.964	14.5	110.4	---	---	1.15	0.992	104.8	144.3	18.9	0.246
4-2030	4-2110	0.159	339.2	-29.8	-3.52	1.294	86.7	0.216	0.912	18.7	124.6	---	---	1.19	0.960	101.5	145.9	19.9	0.190
4-2030	4-2120	0.155	334.0	-32.7	-3.75	1.280	86.5	0.193	0.895	22.0	137.9	---	---	1.27	0.939	98.6	145.7	22.2	0.148
4-2030	4-2130	0.154	331.1	-35.5	-4.02	1.273	86.4	0.181	0.870	23.9	149.8	---	---	1.41	0.925	96.2	143.5	26.0	0.119
4-2030	4-2140	0.155	330.1	-38.5	-4.37	1.269	86.4	0.174	0.862	24.4	160.1	---	---	1.64	0.917	94.0	138.8	31.6	0.102
4-2030	4-2150	0.159	330.7	-42.5	-4.86	1.268	86.6	0.170	0.860	23.6	169.2	---	---	2.02	0.932	92.2	132.6	38.5	0.094
4-2030	4-2160	0.168	332.5	-48.3	-5.69	1.268	86.9	0.169	0.860	21.9	177.1	---	---	2.74	0.909	90.6	127.3	46.6	0.097
4-2030	4-2170	0.195	334.7	-57.7	-7.48	1.269	87.3	0.169	0.862	19.1	184.1	---	1.908	4.43	0.908	89.2	127.3	58.0	0.115
4-2030	4-2180	0.346	323.6	-77.5	-15.44	1.271	87.7	0.171	0.866	15.9	190.5	---	1.014	12.30	0.908	87.8	162.8	76.2	0.224
4-2030	4-2190	0.266	342.5	71.8	11.43	1.273	88.3	0.173	0.870	11.5	196.0	---	1.021	-14.67	0.909	86.7	108.9	-39.8	0.262
4-2030	4-2200	0.107	357.2	16.9	1.39	1.276	88.9	0.176	0.875	7.4	201.4	---	1.029	-4.73	0.911	85.6	112.3	-12.2	0.135
4-2030	4-2210	0.103	5.8	-7.1	-0.57	1.278	89.6	0.180	0.880	2.8	206.4	---	1.039	-2.86	0.913	84.6	117.7	-0.0	0.129
4-2030	4-2220	0.108	15.4	-17.4	-1.44	1.281	90.3	0.185	0.886	357.9	571.0	0.722	1.049	-2.10	0.916	83.6	123.6	5.1	0.134
4-2030	4-2230	0.115	25.6	-22.4	-1.95	1.284	91.2	0.191	0.891	352.7	575.3	0.721	1.061	-1.69	0.919	82.6	130.0	7.1	0.143
4-2030	4-2240	0.125	35.9	-24.5	-2.31	1.286	92.1	0.198	0.896	347.2	579.4	0.719	1.073	-1.45	0.923	81.6	136.7	7.5	0.153
4-2030	4-2250	0.137	45.9	-24.9	-2.58	1.289	93.1	0.206	0.902	341.5	583.2	0.716	1.087	-1.30	0.927	80.6	143.7	6.8	0.164
4-2030	4-2260	0.154	55.0	-24.2	-2.81	1.291	94.3	0.217	0.907	335.5	586.7	0.710	1.103	-1.21	0.931	79.5	150.9	5.3	0.178
4-2030	4-2270	0.174	63.4	-22.9	-3.01	1.294	95.6	0.229	0.912	329.1	590.0	0.703	1.121	-1.16	0.936	78.4	158.3	3.2	0.193
4-2030	4-2280	0.200	70.8	-21.1	-3.20	1.296	97.1	0.245	0.917	322.4	592.9	0.693	1.142	-1.14	0.942	77.1	165.8	0.7	0.211
4-2030	4-2290	0.232	77.6	-19.2	-3.40	1.298	98.9	0.264	0.922	315.3	595.3	0.678	1.166	-1.16	0.947	75.6	173.7	-2.2	0.234
4-2030	4-2300	0.272	83.9	-17.2	-3.61	1.301	101.1	0.290	0.927	307.5	597.3	0.659	1.196	-1.22	0.953	73.9	181.8	-5.4	0.262
4-2030	4-2310	0.324	89.8	-15.2	-3.84	1.303	103.7	0.323	0.932	299.0	598.5	0.631	1.233	-1.32	0.958	71.7	190.3	-8.8	0.299
4-2030	4-2320	0.394	95.7	-13.2	-4.13	1.305	107.2	0.368	0.937	289.5	598.8	0.593	1.282	-1.48	0.964	68.8	199.5	-12.4	0.348
4-2030	4-2320	0.752	132.0	-4.7	-4.13	1.085	128.7	0.637	0.628	220.7	890.0	0.228	1.028	-1.48	0.636	106.5	305.7	-21.5	0.436
4-2030	4-2330	0.490	101.8	-11.2	-4.52	1.308	111.9	0.431	0.943	278.4	597.5	0.536	1.350	-1.75	0.971	64.6	209.6	-16.0	0.419
4-2030	4-2330	0.720	132.5	-5.4	-4.52	1.072	127.1	0.618	0.617	220.2	899.4	0.236	0.999	-1.75	0.618	91.0	292.0	-24.8	0.385
4-2030	4-2340	0.632	108.7	-9.3	-5.11	1.316	118.8	0.525	0.949	264.8	593.8	0.451	1.447	-2.23	0.977	58.5	221.3	-19.7	0.525
4-2030	4-2340	0.765	133.6	-5.5	-5.11	1.067	129.4	0.650	0.613	218.4	907.5	0.215	1.011	-2.23	0.614	76.7	279.6	-26.3	0.426
4-2030	4-2350	0.860	135.9	-5.1	-6.18	1.066	136.5	0.735	0.612	213.9	912.9	0.162	1.063	-3.20	0.617	59.9	274.3	-26.4	0.558
4-2030	4-2390	0.929	253.3	0.0	0.05	1.035	41.2	0.767	0.589	150.0	889.4	0.138	1.040	3.44	0.577	119.8	13.4	8.9	0.594
4-2030	4-2400	0.648	283.2	-2.1	-1.18	1.315	61.1	0.529	0.961	94.6	484.1	0.452	1.470	2.32	0.996	121.9	66.0	25.2	0.560
4-2030	4-2400	0.804	255.2	-1.1	-1.18	1.033	48.4	0.686	0.587	146.1	899.7	0.384	0.990	2.32	0.574	99.2	6.5	5.9	0.461
4-2030	4-2410	0.486	291.6	-4.6	-1.82	1.318	68.9	0.430	0.967	77.7	477.5	0.551	1.384	1.79	1.000	115.5	80.6	-26.8	0.448
4-2030	4-2420	0.379	299.7	-7.5	-2.23	1.320	74.3	0.367	0.973	63.1	473.0	0.616	1.331	1.50	1.003	111.5	94.2	27.1	0.377
4-2030	4-2430	0.303	308.5	-10.9	-2.54	1.323	78.4	0.327	0.979	49.7	469.0	0.659	1.300	1.32	1.006	109.1	107.1	26.3	0.332
4-2030	4-2440	0.248	318.8	-14.9	-2.79	1.325	81.6	0.302	0.986	37.1	467.4	0.688	1.283	1.22	1.008	107.6	119.4	24.6	0.303
4-2030	4-2450	0.208	331.8	-19.4	-3.00	1.328	84.5	0.288	0.992	25.1	465.5	0.707	1.278	1.16	1.010	106.7	131.2	22.2	0.286
4-2030	4-2460	0.183	348.2	-24.0	-3.21	1.330	87.0	0.282	0.999	13.6	464.2	0.718	1.281	1.14	1.012	106.4	142.3	19.1	0.277
4-2030	4-2470	0.756	272.2	-4.5	-3.41	1.240	54.2	0.592	0.811	117.1	577.8	0.331	1.291	1.16	0.887	55.7	4.6	3.6	0.583
4-2030	4-2470	0.183	7.8	-27.2	-3.41	1.333	89.4	0.283	1.007	2.5	463.2	0.722	1.292	1.16	1.013	103.4	353.0	15.5	0.276
4-2030	4-2480	0.677	275.6	-5.7	-3.63	1.249	58.3	0.536	0.827	110.0	580.7	0.384	1.270	1.22	0.897	59.5	12.0	7.1	0.526
4-2030	4-2480	0.180	28.2	-28.0	-3.63	1.336	91.8	0.291	1.016	351.9	822.6	0.720	1.311	1.22	1.015	106.9	163.1	11.7	0.282
4-2030	4-2490	0.603	279.1	-7.2	-3.87	1.258	62.2	0.485	0.842	102.7	583.3	0.435	1.248	1.33	0.906	65.0	19.5	10.7	0.472
4-2030	4-2490	0.201	46.0	-26.6	-3.87	1.342	94.2	0.304	1.026	341.7	822.3	0.714	1.338	1.33	1.017	107.6	172.9	7.8	0.295
4-2030	4-2500	0.534	282.7	-9.1	-4.17	1.266	65.8	0.434	0.856	95.0	585.5	0.484	1.228	1.51	0.914	66.0	27.3	34.4	0.423
4-2030	4-2500	0.235	60.0	-24.4	-4.17	1.344	96.7	0.324	1.037	332.0	822.5	0.701	1.372	1.51	1.019	108.8	182.3	4.1	0.314

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2030	4-2510	0.472	286.4	-11.6	-4.58	1.273	69.1	0.391	0.869	87.1	587.4	0.530	1.209	1.00	0.921	68.6	35.3	18.3	0.381
4-2030	4-2510	0.279	70.7	-22.3	-4.58	1.348	99.4	0.348	1.049	322.7	823.7	0.684	1.415	1.80	1.022	110.2	191.4	0.6	0.340
4-2030	4-2520	0.419	290.3	-15.3	-5.19	1.279	72.0	0.353	0.881	78.8	589.0	0.570	1.193	2.30	0.926	70.8	43.5	22.7	0.344
4-2030	4-2520	0.332	79.0	-21.1	-5.19	1.353	102.2	0.379	1.063	313.9	824.1	0.661	1.465	2.30	1.025	112.0	200.5	-2.3	0.373
4-2030	4-2530	0.376	294.3	-21.3	-6.33	1.284	74.7	0.322	0.892	70.4	590.3	0.605	1.179	3.34	0.951	72.7	51.8	28.6	0.315
4-2030	4-2530	0.395	85.8	-21.4	-6.33	1.358	105.1	0.412	1.079	305.6	825.6	0.634	1.523	3.34	1.029	114.1	209.6	-3.9	0.412
4-2030	4-2540	0.366	297.3	-34.3	-9.44	1.289	77.1	0.296	0.902	61.8	591.4	0.635	1.169	6.35	0.934	74.1	60.1	40.2	0.303
4-2030	4-2540	0.480	92.2	-26.3	-9.44	1.363	108.2	0.450	1.095	297.8	827.4	0.602	1.588	6.35	1.034	116.4	219.1	-1.8	0.463
4-2030	4-2560	0.245	311.8	21.7	4.05	1.297	81.3	0.260	0.918	44.3	593.3	0.680	1.156	-7.33	0.980	76.2	85.1	-1.8	0.275
4-2030	4-2560	0.581	99.0	9.7	4.05	1.374	114.9	0.534	1.133	285.1	832.1	0.528	1.737	-7.33	1.044	121.8	228.8	-30.1	0.362
4-2030	4-2570	0.577	300.7	0.5	0.22	1.438	67.6	0.594	1.423	62.4	261.0	---	2.268	-3.60	1.126	57.1	78.5	17.5	0.523
4-2030	4-2570	0.198	320.0	1.4	0.22	1.300	83.1	0.248	0.925	35.7	594.3	0.695	1.154	-3.60	0.945	76.7	92.3	9.6	0.242
4-2030	4-2580	0.529	305.0	-2.7	-1.05	1.440	70.1	0.578	1.436	56.0	264.1	---	2.266	-2.43	1.128	58.5	86.8	19.5	0.595
4-2030	4-2580	0.174	329.0	-7.9	-1.05	1.302	84.8	0.241	0.930	27.2	595.3	0.707	1.154	-2.43	0.946	77.1	101.2	13.2	0.229
4-2030	4-2590	0.483	309.8	-4.9	-1.71	1.442	72.6	0.564	1.448	49.4	267.0	---	2.264	-1.87	1.130	59.9	95.3	20.1	0.570
4-2030	4-2590	0.157	340.0	-14.4	-1.71	1.304	86.5	0.236	0.936	18.7	596.3	0.715	1.157	-1.87	0.948	77.3	110.4	14.2	0.222
4-2030	4-2600	0.439	315.3	-6.8	-2.13	1.444	75.1	0.552	1.459	42.7	269.8	---	2.264	-1.56	1.132	61.1	103.9	20.0	0.548
4-2030	4-2600	0.146	353.1	-19.5	-2.13	1.306	88.0	0.234	0.940	10.3	597.5	0.720	1.161	-1.56	0.951	77.2	119.7	13.9	0.218
4-2030	4-2610	0.398	321.8	-8.7	-2.44	1.446	77.6	0.541	1.470	35.7	272.4	---	2.265	-1.37	1.135	62.1	112.6	19.2	0.528
4-2030	4-2610	0.142	8.2	-23.2	-2.44	1.308	89.6	0.236	0.945	2.0	598.7	0.729	1.167	-1.37	0.953	77.1	128.8	12.6	0.218
4-2030	4-2620	0.360	329.7	-10.7	-2.69	1.447	80.2	0.532	1.479	28.5	274.7	---	2.267	-1.25	1.137	63.0	121.2	17.8	0.511
4-2030	4-2620	0.145	24.2	-25.0	-2.69	1.310	91.2	0.240	0.948	353.8	960.0	0.721	1.176	-1.25	0.956	76.7	137.8	10.7	0.221
4-2030	4-2630	0.327	339.3	-12.9	-2.91	1.449	82.8	0.526	1.488	20.9	276.7	---	2.271	-1.18	1.140	63.8	129.9	15.9	0.497
4-2030	4-2630	0.157	39.5	-25.0	-2.91	1.311	92.9	0.246	0.952	345.4	961.2	0.717	1.186	-1.18	0.960	76.2	146.7	8.2	0.227
4-2040	4-2070	0.468	359.5	-10.8	-3.20	1.589	81.4	0.025	4.010	19.8	68.4	---	---	0.28	1.335	120.5	136.1	17.2	0.685
4-2040	4-2080	0.322	353.9	-14.6	-3.26	1.440	82.7	0.507	1.425	21.9	81.5	---	---	0.25	1.152	115.0	138.5	16.6	0.479
4-2040	4-2090	0.252	346.3	-18.0	-3.31	1.360	83.1	0.353	1.082	26.9	96.5	---	---	0.23	1.050	110.0	140.7	16.0	0.350
4-2040	4-2100	0.219	338.8	-20.4	-3.35	1.315	82.2	0.272	0.957	32.7	112.5	---	---	0.22	0.988	105.7	142.1	15.8	0.261
4-2040	4-2110	0.203	332.1	-21.9	-3.39	1.290	82.2	0.230	0.899	38.0	127.8	---	---	0.21	0.951	102.0	142.2	15.9	0.198
4-2040	4-2120	0.194	32	-22.9	-3.42	1.275	83.2	0.208	0.870	41.7	141.5	---	---	0.22	0.929	98.8	140.5	16.8	0.154
4-2040	4-2130	0.189	327.9	-23.8	-3.46	1.267	83.3	0.195	0.856	43.5	153.2	---	---	0.23	0.915	96.1	136.4	18.4	0.123
4-2040	4-2140	0.184	327.8	-24.7	-3.51	1.264	83.5	0.188	0.850	43.5	165.1	---	---	0.25	0.907	93.8	130.2	20.5	0.104
4-2040	4-2150	0.179	328.8	-25.8	-3.56	1.263	83.8	0.185	0.848	42.1	171.6	---	---	0.28	0.903	91.9	123.1	22.6	0.095
4-2040	4-2160	0.174	330.8	-27.3	-3.64	1.265	84.2	0.182	0.850	39.6	178.9	---	---	0.33	0.902	90.2	117.2	24.3	0.094
4-2040	4-2170	0.169	333.7	-29.1	-3.74	1.267	84.6	0.181	0.854	36.4	185.4	---	1.009	0.41	0.902	88.8	113.9	25.6	0.096
4-2040	4-2180	0.165	337.3	-31.8	-3.93	1.269	85.2	0.181	0.859	32.5	191.2	---	1.015	0.59	0.903	87.5	113.4	27.0	0.102
4-2040	4-2190	0.164	341.7	-36.5	-4.42	1.272	85.8	0.182	0.865	28.3	196.6	---	1.022	1.05	0.905	86.4	115.8	30.2	0.110
4-2040	4-2200	0.233	343.1	-60.3	-9.16	1.275	86.4	0.183	0.871	23.6	201.5	---	1.030	5.77	0.908	85.4	131.5	57.1	0.350
4-2040	4-2210	0.126	355.2	-18.1	-1.76	1.279	87.1	0.185	0.877	18.7	206.1	---	1.039	-1.64	0.911	84.4	119.6	8.5	0.126
4-2040	4-2220	0.128	3.1	-28.0	-2.69	1.282	87.9	0.187	0.883	13.5	210.5	---	1.049	-0.73	0.915	83.5	126.2	14.1	0.131
4-2040	4-2230	0.127	12.4	-31.4	-2.96	1.285	88.7	0.191	0.889	8.1	214.6	---	1.059	-0.48	0.918	82.7	132.5	14.5	0.139
4-2040	4-2240	0.128	23.1	-33.0	-3.09	1.288	89.6	0.195	0.896	2.5	218.6	---	1.070	-0.36	0.922	81.8	139.2	13.5	0.147
4-2040	4-2250	0.130	34.7	-33.3	-3.18	1.291	90.6	0.201	0.902	356.7	582.3	0.721	1.082	-0.30	0.927	81.0	146.1	11.8	0.157
4-2040	4-2260	0.136	46.5	-32.5	-3.24	1.293	91.6	0.207	0.907	350.7	585.8	0.719	1.096	-0.26	0.932	80.1	153.1	9.6	0.167
4-2040	4-2270	0.146	57.8	-30.6	-3.29	1.296	92.7	0.216	0.913	344.8	589.2	0.716	1.110	-0.24	0.937	79.2	160.3	7.0	0.178
4-2040	4-2280	0.160	68.3	-28.0	-3.33	1.299	94.0	0.226	0.919	339.9	592.2	0.711	1.126	-0.22	0.942	78.3	167.7	4.1	0.191
4-2040	4-2290	0.180	77.7	-25.0	-3.37	1.301	95.5	0.239	0.924	331.0	595.0	0.703	1.145	-0.21	0.948	77.2	175.3	1.0	0.207
4-2040	4-2300	0.206	86.0	-21.9	-3.40	1.305	97.1	0.255	0.929	323.8	597.5	0.692	1.166	-0.21	0.954	76.0	183.1	-2.3	0.224
4-2040	4-2310	0.239	93.4	-18.9	-3.44	1.308	99.1	0.276	0.935	316.0	599.4	0.677	1.192	-0.22	0.960	74.6	191.2	-5.7	0.249
4-2040	4-2320	0.283	100.2	-16.0	-3.48	1.308	101.4	0.303	0.940	307.6	600.8	0.655	1.224	-0.23	0.966	72.8	199.8	-9.2	0.280
4-2040	4-2330	0.340	106.5	-13.3	-3.53	1.310	104.4	0.339	0.945	298.3	601.3	0.625	1.265	-0.25	0.972	70.4	208.9	-12.6	0.320
4-2040	4-2330	0.777	147.0	-3.9	-3.53	1.105	129.8	0.647	0.644	222.0	885.1	0.227	1.060	-0.25	0.670	113.9	324.9	-14.4	0.484
4-2040	4-2340	0.419	112.8	-10.7	-3.59	1.312	108.4	0.389	0.950	287.7	602.2	0.580	1.320	-0.29	0.978	67.2	218.9	-16.0	0.376
4-2040	4-2340	0.699	147.3	-4.5	-3.59	1.085	125.6	0.598	0.626	222.4	895.4	0.252	1.001	-0.29	0.641	96.8	312.5	-18.2	0.379
4-2040	4-2350	0.530	119.4	-8.3	-3.67	1.315	113.8	0.462	0.956	275.3	598.2	0.514	1.398	-0.35	0.984	62.5	230.1	-19.1	0.458
4-2040	4-2350	0.709	148.0	-4.5	-3.67	1.078	126.4	0.608	0.620	221.2	904.2	0.243	0.997	-0.35	0.634	83.6	299.5	-21.3	0.381
4-2040	4-2360	0.700	127.1	-6.1	-3.81	1.317	122.1	0.572	0.962	259.7	592.7	0.412	1.512	-0.47	0.990	55.1	243.7	-21.8	0.586
4-2040	4-2360	0.788	149.4	-3.9	-3.81	1.076	130.7	0.664	0.618	218.4	911.4	0.208	1.025	-0.47	0.634	69.4	290.7	-22.7	0.466
4-2040	4-2410	0.852	271.5	-2.6	-2.90	1.049	45.9	0.711	0.597	146.2	889.8	0.172	1.022	0.53	0.599	112.7	30.6	13.1	0.520
4-2040	4-2420	0.673	302.2	-6.4	-3.07	1.323	64.8	0.486	0.975	86.1	480.0	0.501	1.449	0.39	1.004	88.1	90.7	24.1	0.507
4-2040	4-2420	0.773	272.4	-3.2	-3.07	1.044	50.3	0.659	0.933	144.2	898.0	0.202	0.984	0.38	0.590	93.8	19.8	8.9	0.429
4-2040	4-2430	0.441	311.5	-9.1	-3.17	1.325	71.4	0.406	0.981	70.3	474.3	0.583	1.379	0.31	1.007	113.9	104.6	23.4	0.416
4-2040	4-2440	0.349	319.9	-12.6	-3.23	1.327	76.2	0.355	0.987	56.2	470.4	0.637	1.337	0.25	1.009	116.8	117.4	21.8	0.358
4-2040	4-2450	0.282	329.4	-15.4	-3.29	1.330	79.9	0.322	0.993	43.3	467.6	0.673	1.313	0.24	1.011	108.8	129.4	19.3	0.321
4-2040	4-2460	0.234	340.9	-19.2	-3.33	1.332	82.9	0.303	0.999	31.1	465.6	0.697	1.302	0.22	1.012	107.6	140.7	16.1	0.298
4-2040	4-2470	0.200	355.4	-23.0	-3.37	1.335	85.6	0.293	1.006	19.5	464.0	0.711	1.301	0.21	1.013	107.0	151.4	12.5	0.286
4-2040	4-2480	0.181	13.4	-26.0	-3.40	1.337	88.1	0.291	1.014	8.4	462.9	0.719	1.308	0.21	1.014	106.9	161.6	8.6	0.281
4-2040	4-2490	0.735	289.5	-4.8	-3.44	1.249	55.4	0.577	0.823	114.4	579.0	0.348	1.298	0.22	0.891	56.6	22.6	9.8	0.559
4-2040	4-2490	0.177	33.6	-27.0	-3.44	1.340	90.5	0.295	1.022	357.7	822.3	0.721	1.323	0.22	1.015	107.1	171.5	4.5	0.284
4-2040	4-2500	0.658	292.9	-5.7	-3.48	1.258	59.4	0.523	0.838	107.3	581.0	0.400	1.277	0.23	0.900	60.2	30.3	12.7	0.513
4-2040	4-2500	0.189	52.8	-25.5	-3.48	1.344	92.9	0.305	1.031	347.5	921.9	0.717	1.345	0.23	1.017	107.7	181.0	0.4	0.294
4-2040	4-2510	0.586	286.4	-6.8	-3.53	1.266	63.1	0.473	0.853	99.9	584.2	0.449	1.256	0.26	0.908	63.5	38.3	15.5	0.462
4-2040	4-2510	0.215	68.6	-22.6	-3.53	1.347	95.4	0.320	1.041	337.7	822.0	0.708	1.375	0.26	1.019	108.6	190.3	-3.6	0.310
4-2040	4-2520	0.519	300.0	-8.1	-3.59	1.273	66.5	0.427	0.866	92.3	586.4	0.496	1.257	0.30	0.915	66.3	46.6	18.1	0.415
4-2040	4-2520	0.252	80.7	-19.5	-3.59	1.351	97.9	0.342	1.053	328.3	822.4	0.693	1.413	0.30	1.021	109.8	199.5	-7.3	0.332
4-2040	4-2530	0.459	303.9	-9.7	-3.68	1.260	69.7	0.386	0.879	84.4	588.3	0.539	1.219	0.36	0.922	68.8	55.2	20.5	0.374
4-2040	4-2530	0.298	90.0	-16.7	-3.68	1.355	100.6	0.366	1.066	319.4	823.2	0.674	1.458	0.36	1.024	111.4	208.6	-10.7	0.360
4-2040	4-2540	0.404	307.9	-11.7	-3.82	1.285	72.5	0.352	0.891	76.3	589.9	0.578	1.204	0.48	0.927	70.8	64.1	22.6	0.339
4-2040	4-2540	0.351	97.4	-14.5	-3.82	1.360	103.4	0.399	1.081	310.9	824.5	0.650	1.511	0.40	1.028	113.2	217.6	-13.6	0.394
4-2040	4-2550	0.357	312.3	-14.5	-4.10	1.290	75.1	0.322	0.901	68.0	591.3	0.611	1.191	0.74	0.932	72.5	73.4	24.7	0.309

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2040	4-2550	0.411	103.5	-13.2	-4.10	1.365	106.4	0.434	1.096	302.8	826.1	0.621	1.572	0.74	1.032	115.3	226.6	-15.8	0.434
4-2040	4-2560	0.320	316.8	-20.5	-5.09	1.295	77.4	0.293	0.910	59.7	592.5	0.639	1.182	1.71	0.836	73.9	82.9	28.7	0.285
4-2040	4-2560	0.479	108.5	-13.8	-5.09	1.370	109.6	0.472	1.114	295.2	828.0	0.588	1.639	1.71	1.037	117.7	235.8	-16.4	0.478
4-2040	4-2570	0.264	323.2	7.9	1.62	1.299	79.5	0.277	0.919	51.2	593.7	0.662	1.175	-5.02	0.939	74.9	93.1	6.8	0.277
4-2040	4-2570	0.534	112.5	3.8	1.62	1.375	112.9	0.513	1.132	287.9	830.3	0.551	1.713	-5.02	1.043	120.3	241.8	-29.6	0.542
4-2040	4-2580	0.233	329.5	-13.3	-2.38	1.302	81.4	0.265	0.926	42.8	594.8	0.681	1.171	-1.03	0.943	75.7	102.0	19.2	0.249
4-2040	4-2580	0.609	116.3	-4.9	-2.38	1.381	116.3	0.555	1.151	280.9	832.9	0.512	1.790	-1.03	1.089	123.1	252.6	-24.1	0.578
4-2040	4-2590	0.567	317.9	-6.7	-2.85	1.442	68.3	0.593	1.437	60.4	261.9	---	2.289	-0.58	1.128	57.4	98.1	22.3	0.611
4-2040	4-2590	0.207	337.0	-18.1	-2.85	1.305	83.2	0.254	0.932	54.4	595.9	0.695	1.169	-0.58	0.946	76.2	121.5	19.7	0.237
4-2040	4-2600	0.520	322.5	-8.0	-3.03	1.444	70.8	0.578	1.450	54.0	265.0	---	2.287	-0.41	1.130	58.8	106.7	21.9	0.586
4-2040	4-2600	0.185	346.1	-21.9	-3.03	1.307	84.9	0.247	0.938	26.1	597.1	0.706	1.169	-0.41	0.989	78.5	120.9	18.7	0.229
4-2040	4-2610	0.475	327.5	-9.2	-3.14	1.446	73.3	0.564	1.461	47.4	268.0	---	2.286	-0.33	1.133	60.1	115.3	20.8	0.562
4-2040	4-2610	0.168	357.3	-25.3	-3.14	1.309	86.6	0.243	0.943	17.8	598.4	0.714	1.171	-0.33	0.952	78.7	130.2	16.9	0.224
4-2040	4-2620	0.432	333.1	-10.5	-3.21	1.448	75.8	0.552	1.472	40.6	270.8	---	2.286	-0.28	1.136	63.3	123.8	19.3	0.540
4-2040	4-2620	0.156	10.7	-28.1	-3.21	1.311	88.1	0.241	0.947	9.6	599.7	0.719	1.176	-0.28	0.954	79.7	139.2	14.6	0.221
4-2040	4-2630	0.391	339.9	-11.9	-3.26	1.449	76.3	0.542	1.483	33.6	273.3	---	2.26	-0.25	1.139	64.3	132.3	17.3	0.522
4-2040	4-2630	0.191	26.0	-29.6	-3.26	1.313	89.7	0.242	0.951	1.4	601.1	0.723	1.1[illegible]	-0.25	0.959	76.5	148.1	11.8	0.222
4-2040	4-2640	0.354	348.5	-13.5	-3.31	1.451	80.9	0.534	1.492	26.3	275.6	---	2.[illegible]	-0.23	1.142	65.2	140.7	14.9	0.505
4-2040	4-2640	0.154	42.2	-29.5	-3.31	1.315	91.4	0.246	0.955	353.1	962.4	0.720	1.[illegible]	-0.23	0.963	76.1	156.8	8.7	0.226
4-2050	4-2080	0.463	349.0	-12.6	-4.09	1.470	74.9	0.595	1.615	40.9	84.3	---		-1.07	1.182	119.2	136.3	14.6	0.572
4-2050	4-2090	0.354	341.9	-14.6	-3.86	1.360	76.9	0.393	1.075	48.1	101.7	---	[illegible]	-0.92	1.047	112.7	137.3	14.0	0.396
4-2050	4-2100	0.303	336.0	-15.7	-3.68	1.304	78.0	0.303	0.928	55.6	139.2	---	---	-0.82	0.972	107.2	137.4	13.6	0.288
4-2050	4-2110	0.278	332.2	-16.1	-3.53	1.276	78.6	0.260	0.868	61.2	134.9	---	---	-0.77	0.930	103.7	136.0	13.4	0.215
4-2050	4-2120	0.262	330.2	-16.2	-3.39	1.261	79.0	0.238	0.841	64.4	148.1	---	---	-0.73	0.[illegible]	[illegible]	132.7	13.5	0.167
4-2050	4-2130	0.251	329.7	-16.3	-3.27	1.255	79.4	0.225	0.830	65.2	158.8	---	---	-0.71	0.[illegible]	[illegible]	127.3	14.0	0.136
4-2050	4-2140	0.241	330.2	-16.3	-3.14	1.253	79.9	0.217	0.827	64.2	167.7	---	---	-0.76	0.889	95.4	120.8	14.8	0.118
4-2050	4-2150	0.230	331.6	-16.3	-2.99	1.254	80.4	0.211	0.828	61.8	175.2	---	---	-0.80	0.888	91.3	114.7	15.0	0.111
4-2050	4-2160	0.220	333.5	-16.2	-2.83	1.256	80.9	0.207	0.833	58.6	181.7	---	3.605	-0.88	0.888	89.6	110.6	14.9	0.110
4-2050	4-2170	0.209	335.2	-15.9	-2.63	1.260	81.6	0.204	0.839	54.6	187.5	---	1.010	-1.01	0.890	88.1	108.8	14.3	0.112
4-2050	4-2180	0.197	339.3	-15.1	-2.35	1.264	82.2	0.201	0.846	50.2	192.7	---	1.017	-1.21	0.893	86.8	109.2	12.9	0.117
4-2050	4-2190	0.184	343.0	-13.2	-1.92	1.268	82.9	0.199	0.854	45.4	197.5	---	1.024	-1.58	0.897	85.8	111.3	10.4	0.124
4-2050	4-2200	0.170	347.3	-8.1	-1.08	1.272	83.6	0.198	0.862	40.4	202.1	---	1.032	-2.35	0.901	84.8	114.2	5.2	0.132
4-2050	4-2210	0.160	352.1	12.0	1.51	1.276	84.4	0.197	0.870	35.1	206.4	---	1.041	-4.88	0.905	83.9	116.7	-9.0	0.155
4-2050	4-2230	0.208	1.7	-51.8	-7.32	1.284	86.1	0.198	0.885	23.9	214.4	---	1.061	4.08	0.915	82.4	143.0	39.9	0.159
4-2050	4-2240	0.171	11.4	-44.3	-5.34	1.288	87.0	0.200	0.892	18.2	216.1	---	1.071	2.16	0.920	81.7	148.9	27.6	0.155
4-2050	4-2250	0.156	21.5	-41.7	-4.62	1.291	87.9	0.203	0.899	12.3	221.7	---	1.082	1.50	0.925	81.0	150.2	21.3	0.159
4-2050	4-2260	0.148	32.8	-40.2	-4.22	1.294	88.9	0.206	0.906	6.2	225.2	---	1.093	1.17	0.931	80.3	156.6	16.8	0.166
4-2050	4-2270	0.144	45.2	-38.5	-3.96	1.297	90.0	0.211	0.913	359.9	588.6	0.720	1.105	0.98	0.937	79.6	163.3	12.8	0.174
4-2050	4-2280	0.145	58.2	-36.1	-3.77	1.300	91.2	0.218	0.919	353.5	591.7	0.719	1.119	0.87	0.943	78.8	170.3	9.0	0.183
4-2050	4-2290	0.152	70.8	-32.7	-3.61	1.303	92.4	0.225	0.925	346.7	594.6	0.716	1.133	0.80	0.949	78.1	177.3	5.2	0.194
4-2050	4-2300	0.164	82.4	-28.8	-3.48	1.306	93.8	0.236	0.931	339.7	597.3	0.711	1.150	0.76	0.955	77.2	185.0	1.6	0.206
4-2050	4-2310	0.183	92.7	-24.5	-3.35	1.308	95.4	0.249	0.936	332.4	599.7	0.703	1.169	0.74	0.961	76.2	192.7	-2.1	0.222
4-2050	4-2320	0.210	101.7	-20.3	-3.22	1.310	97.2	0.265	0.942	324.5	601.6	0.692	1.191	0.74	0.967	75.0	200.9	-5.7	0.242
4-2050	4-2330	0.246	109.7	-15.5	-3.09	1.313	99.4	0.287	0.947	316.1	603.1	0.675	1.219	0.77	0.973	73.6	209.4	-9.2	0.267
4-2050	4-2340	0.295	116.9	-12.9	-2.94	1.315	102.0	0.317	0.952	307.0	603.8	0.651	1.254	0.83	0.979	71.7	218.6	-12.4	0.301
4-2050	4-2350	0.360	123.6	-9.8	-2.76	1.317	105.4	0.357	0.957	296.8	603.6	0.616	1.299	0.92	0.985	69.2	228.4	-15.4	0.346
4-2050	4-2350	0.693	162.2	-3.6	-2.76	1.099	125.3	0.588	0.636	224.2	891.1	0.262	1.010	0.92	0.665	102.3	331.0	-102.2	0.390
4-2050	4-2360	0.450	130.4	-7.0	-2.53	1.319	109.9	0.415	0.963	285.1	601.9	0.564	1.362	1.08	0.990	65.6	239.4	-18.0	0.411
4-2050	4-2360	0.674	162.8	-3.4	-2.53	1.089	124.4	0.577	0.628	223.6	900.4	0.265	0.991	1.08	0.653	89.4	318.7	-13.9	0.357
4-2050	4-2370	0.583	137.6	-4.4	-2.18	1.322	116.3	0.500	0.969	271.1	598.0	0.484	1.453	1.35	0.996	60.0	251.8	-20.1	0.508
4-2050	4-2370	0.716	163.7	-2.7	-2.18	1.086	126.7	0.610	0.625	221.8	908.7	0.244	1.006	1.35	0.650	76.9	308.0	-16.7	0.402
4-2050	4-2380	0.837	165.8	-1.5	-1.57	1.085	133.3	0.695	0.624	217.5	914.5	0.191	1.058	1.89	0.653	62.0	303.5	-17.8	0.529
4-2050	4-2430	0.687	314.2	-7.8	-4.71	1.327	59.5	0.557	0.982	96.1	484.0	0.435	1.529	-1.58	1.007	123.9	99.5	20.9	0.586
4-2050	4-2430	0.796	289.2	-4.8	-4.71	1.060	49.3	0.667	0.604	143.2	891.1	0.201	1.008	-1.58	0.615	106.9	47.0	15.5	0.462
4-2050	4-2440	0.518	323.0	-13.2	-4.25	1.329	67.8	0.454	0.988	78.5	476.6	0.540	1.437	-1.20	1.010	117.0	113.9	19.3	0.466
4-2050	4-2440	0.920	284.8	-3.2	-4.25	1.025	41.8	0.763	0.579	1.05	908.6	0.137	1.020	-1.20	0.550	65.1	11.5	3.8	0.569
4-2050	4-2440	0.761	289.1	-4.6	-4.25	1.052	51.2	0.646	0.598	143.0	901.1	0.212	0.985	-1.20	0.600	88.1	31.6	11.0	0.417
4-2050	4-2450	0.404	331.3	-12.6	-3.97	1.332	73.5	0.388	0.994	63.5	471.7	0.608	1.381	-0.99	1.011	112.9	126.8	16.7	0.392
4-2050	4-2460	0.324	340.2	-15.3	-3.77	1.334	77.7	0.347	1.001	50.0	468.3	0.654	1.348	-0.87	1.012	110.3	138.5	13.5	0.345
4-2050	4-2470	0.265	350.6	-18.3	-3.61	1.336	81.1	0.321	1.007	37.5	465.9	0.684	1.330	-0.79	1.013	108.7	149.4	9.9	0.316
4-2050	4-2480	0.221	3.5	-21.3	-3.46	1.339	84.0	0.306	1.013	25.7	464.2	0.703	1.324	-0.75	1.014	107.8	159.9	5.9	0.298
4-2050	4-2490	0.192	19.6	-23.9	-3.33	1.341	86.7	0.300	1.020	14.5	462.9	0.714	1.326	-0.74	1.015	107.4	169.9	1.7	0.290
4-2050	4-2500	0.179	38.7	-24.9	-3.21	1.344	89.1	0.300	1.028	3.8	462.1	0.719	1.337	-0.75	1.015	107.4	179.6	-2.6	0.289
4-2050	4-2510	0.715	306.9	-4.5	-3.07	1.257	56.4	0.564	0.834	111.8	580.0	0.363	1.305	-0.78	0.894	57.4	41.2	14.8	0.556
4-2050	4-2510	0.181	58.5	-23.5	-3.07	1.347	91.5	0.307	1.037	353.4	821.6	0.719	1.355	-0.78	1.017	107.8	189.2	-6.7	0.296
4-2050	4-2520	0.641	310.3	-5.0	-2.92	1.265	60.3	0.513	0.849	104.7	582.7	0.414	1.285	-0.84	0.903	60.8	49.3	16.8	0.502
4-2050	4-2520	0.198	76.1	-20.3	-2.92	1.350	94.0	0.319	1.047	343.5	821.5	0.713	1.381	-0.84	1.018	108.5	198.6	-10.7	0.308
4-2050	4-2530	0.570	313.8	-5.5	-2.74	1.273	63.9	0.465	0.863	97.4	585.2	0.462	1.265	-0.93	0.910	63.9	57.8	18.4	0.452
4-2050	4-2530	0.228	90.0	-16.4	-2.74	1.354	96.5	0.337	1.057	334.0	821.8	0.701	1.414	-0.93	1.020	109.5	208.0	-14.4	0.327
4-2050	4-2540	0.505	317.4	-5.9	-2.51	1.283	67.1	0.422	0.877	89.9	587.3	0.507	1.246	-1.09	0.917	66.5	66.5	19.4	0.408
4-2050	4-2540	0.268	100.7	-12.6	-2.51	1.358	99.1	0.359	1.070	324.9	822.4	0.685	1.454	-1.09	1.023	110.8	217.3	-17.8	0.352
4-2050	4-2550	0.446	321.3	-6.9	-2.17	1.286	70.1	0.384	0.889	82.1	589.2	0.547	1.230	-1.36	0.923	68.8	75.5	19.6	0.370
4-2050	4-2550	0.316	108.9	-9.2	-2.17	1.362	101.8	0.387	1.083	316.3	823.4	0.664	1.502	-1.36	1.027	112.5	226.6	-21.0	0.383
4-2050	4-2560	0.391	325.5	-5.1	-1.60	1.291	72.9	0.351	0.900	74.2	590.9	0.584	1.216	-1.87	0.929	70.7	84.6	18.5	0.337
4-2050	4-2560	0.371	115.5	-5.7	-1.60	1.367	104.7	0.419	1.098	308.0	824.7	0.638	1.558	-1.87	1.031	114.4	235.8	-24.0	0.420
4-2050	4-2570	0.341	330.0	-1.1	-0.29	1.296	75.3	0.324	0.910	66.1	592.4	0.615	1.204	-3.11	0.934	72.3	93.7	14.5	0.312
4-2050	4-2570	0.431	121.0	-0.9	-0.29	1.372	107.7	0.455	1.114	300.2	826.5	0.608	1.621	-3.11	1.036	116.6	244.7	-27.7	0.463
4-2050	4-2580	0.332	333.6	26.8	6.76	1.300	77.6	0.302	0.918	58.0	593.8	0.641	1.196	-10.10	0.938	73.5	102.9	-5.8	0.329
4-2050	4-2580	0.518	126.7	17.0	6.76	1.377	110.9	0.493	1.132	292.7	828.5	0.674	1.690	-10.10	1.042	119.0	251.0	-39.9	0.532
4-2050	4-2590	0.352	335.6	-44.4	-11.07	1.304	79.6	0.284	0.926	49.7	595.1	0.664	1.189	7.79	0.942	74.5	120.0	45.8	0.295

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2050	4-2590	0.615	132.2	-23.2	-11.07	1.382	114.2	0.534	1.151	289.5	831.0	0.536	1.765	7.79	1.048	121.7	264.3	-11.1	0.570
4-2050	4-2600	0.262	345.4	-31.5	-6.08	1.307	81.5	0.270	0.933	41.5	596.5	0.681	1.185	2.86	0.946	75.2	124.6	30.2	0.256
4-2050	4-2610	0.562	335.0	-11.9	-4.93	1.446	68.9	0.592	1.451	58.5	262.9	---	2.310	1.78	1.131	57.6	118.7	23.7	0.609
4-2050	4-2610	0.225	353.6	-29.9	-4.93	1.309	83.3	0.260	0.939	33.4	597.8	0.695	1.183	1.78	0.950	75.7	133.0	24.6	0.242
4-2050	4-2620	0.513	339.6	-11.9	-4.41	1.448	71.4	0.577	1.463	52.0	266.1	---	2.308	1.32	1.134	59.0	127.0	21.4	0.578
4-2050	4-2620	0.198	3.1	-30.5	-4.41	1.312	85.0	0.253	0.945	25.2	599.2	0.706	1.184	1.32	0.954	76.0	141.7	20.6	0.234
4-2050	4-2630	0.467	344.9	-12.3	-4.09	1.449	73.9	0.564	1.475	45.4	269.0	---	2.307	1.07	1.137	60.3	135.2	19.0	0.555
4-2050	4-2660	0.178	14.6	-31.7	-4.09	1.314	86.6	0.249	0.950	17.1	600.7	0.713	1.186	1.07	0.958	76.1	150.3	16.8	0.229
4-2050	4-2640	0.424	351.0	-13.0	-3.87	1.451	76.4	0.553	1.485	38.7	271.8	---	2.307	0.92	1.141	61.5	143.4	16.3	0.534
4-2050	4-2640	0.164	28.4	-32.7	-3.87	1.316	88.2	0.247	0.954	8.9	602.1	-0.718	1.190	0.92	0.960	76.1	158.8	13.0	0.227
4-2050	4-2650	0.383	358.2	-13.9	-3.69	1.453	79.0	0.544	1.495	31.6	274.4	---	2.308	0.83	1.145	62.5	151.5	13.4	0.517
4-2050	4-2650	0.158	44.0	-32.5	-3.69	1.317	89.9	0.249	0.958	0.7	603.5	0.720	1.196	0.83	0.967	75.9	167.2	9.2	0.229
4-2060	4-2090	0.532	341.1	-12.1	-5.11	1.353	67.7	0.478	1.051	74.6	112.0	---	---	-2.69	1.037	118.4	231.5	-12.8	0.495
4-2060	4-2100	0.437	336.9	-12.4	-4.47	1.280	70.7	0.370	0.874	82.4	129.9	---	---	-2.21	0.937	110.5	230.4	12.4	0.343
4-2060	4-2110	0.389	334.8	-12.4	-4.02	1.248	72.4	0.322	0.817	86.9	144.4	---	---	-1.94	0.890	104.3	227.8	12.1	0.254
4-2060	4-2120	0.359	333.9	-12.1	-3.65	1.235	73.6	0.296	0.795	88.3	155.8	---	---	-1.77	0.869	99.5	223.4	12.0	0.198
4-2060	4-2130	0.338	334.3	-11.9	-3.34	1.231	74.6	0.279	0.790	87.4	164.9	---	---	-1.67	0.860	95.7	217.9	12.1	0.165
4-2060	4-2140	0.320	335.5	-11.5	-3.05	1.232	75.4	0.267	0.792	85.1	172.4	---	---	-1.63	0.859	92.7	212.3	12.2	0.147
4-2060	4-2150	0.303	337.3	-11.0	-2.77	1.237	76.3	0.256	0.798	81.6	178.8	---	---	-1.65	0.861	90.4	208.0	12.1	0.139
4-2060	4-2160	0.287	339.4	-10.5	-2.48	1.242	77.1	0.247	0.807	77.5	184.4	---	1.006	-1.71	0.866	88.5	205.7	11.8	0.137
4-2060	4-2170	0.271	341.9	-9.8	-2.16	1.248	77.9	0.240	0.817	72.9	189.5	---	1.012	-1.83	0.872	87.0	205.6	11.1	0.139
4-2060	4-2180	0.255	344.6	-8.8	-1.78	1.254	78.8	0.233	0.827	67.9	194.2	---	1.020	-2.03	0.878	85.8	207.1	9.8	0.142
4-2060	4-2190	0.239	347.7	-7.7	-1.29	1.260	79.6	0.228	0.837	62.6	198.6	---	1.028	-2.35	0.884	84.7	210.0	7.8	0.147
4-2060	4-2200	0.223	351.2	-6.3	-0.80	1.266	80.5	0.223	0.848	57.2	202.7	---	1.037	-2.89	0.890	83.8	213.8	4.5	0.153
4-2060	4-2210	0.208	354.9	-3.3	0.54	1.271	81.4	0.219	0.858	51.7	206.7	---	1.046	-3.88	0.897	83.0	217.8	-1.2	0.162
4-2060	4-2220	0.203	358.7	18.8	2.96	1.277	82.3	0.216	0.868	46.0	210.6	---	1.055	-6.16	0.903	82.3	221.5	-12.1	0.183
4-2060	4-2230	0.326	354.4	59.4	12.76	1.281	83.2	0.215	0.877	40.3	214.3	---	1.065	-15.82	0.909	81.6	224.5	-36.5	0.303
4-2060	4-2240	0.585	318.2	-76.5	-26.41	1.286	84.3	0.21	0.886	33.8	217.7	---	1.074	23.48	0.916	81.1	199.7	60.9	0.416
4-2060	4-2250	0.260	11.0	-57.7	-9.85	1.290	85.2	0.212	0.894	27.9	221.3	---	1.084	7.06	0.922	80.5	164.7	43.4	0.202
4-2060	4-2260	0.203	22.1	-49.2	-6.84	1.294	86.2	0.213	0.902	21.8	224.7	---	1.094	4.20	0.928	80.0	164.0	30.1	0.183
4-2060	4-2270	0.177	32.6	-45.0	-5.54	1.297	87.3	0.215	0.910	15.5	228.0	---	1.105	3.04	0.935	79.4	168.3	21.9	0.182
4-2060	4-2280	0.161	44.4	-42.2	-4.79	1.301	88.4	0.218	0.917	9.1	231.1	---	1.117	2.44	0.941	78.9	174.0	15.9	0.186
4-2060	4-2290	0.153	57.4	-39.5	-4.27	1.304	89.6	0.222	0.924	2.4	234.1	---	1.129	2.08	0.948	78.3	180.5	10.8	0.192
4-2060	4-2300	0.150	71.2	-36.0	-3.87	1.307	90.8	0.228	0.930	355.6	597.0	0.719	1.142	1.86	0.955	77.7	187.4	6.3	0.200
4-2060	4-2310	0.154	84.8	-31.5	-3.53	1.309	92.2	0.235	0.937	348.4	599.6	0.716	1.157	1.72	0.961	77.0	194.7	2.1	0.210
4-2060	4-2320	0.166	97.4	-26.5	-3.24	1.312	93.7	0.245	0.942	341.0	601.9	0.711	1.174	1.65	0.967	76.2	202.4	-1.9	0.223
4-2060	4-2330	0.186	108.4	-21.3	-2.95	1.314	95.4	0.259	0.948	333.1	603.8	0.703	1.194	1.63	0.974	75.3	210.5	-5.6	0.239
4-2060	4-2340	0.215	118.0	-16.4	-2.67	1.317	97.4	0.276	0.954	324.7	605.3	0.690	1.217	1.66	0.980	74.2	219.1	-9.0	0.260
4-2060	4-2350	0.255	126.5	-12.1	-2.36	1.319	99.8	0.300	0.959	315.6	606.2	0.672	1.247	1.74	0.986	72.7	228.3	-12.0	0.288
4-2060	4-2360	0.310	134.1	-8.4	-2.01	1.321	102.8	0.332	0.965	305.6	606.3	0.644	1.285	1.90	0.991	70.6	238.1	-14.6	0.325
4-2060	4-2360	0.702	177.4	-2.6	-2.01	1.114	125.6	0.588	0.648	225.8	886.4	0.267	1.030	1.90	0.691	107.9	348.2	-1.9	0.419
4-2060	4-2370	0.385	141.2	-5.2	-1.57	1.323	106.6	0.378	0.970	294.5	605.2	0.603	1.337	2.15	0.996	67.8	248.8	-16.7	0.377
4-2060	4-2370	0.653	177.7	-2.2	-1.57	1.100	123.1	0.557	0.636	225.7	896.4	0.282	0.993	2.15	0.673	94.6	336.8	-5.2	0.349
4-2060	4-2380	0.492	148.5	-2.4	-0.97	1.326	111.8	0.445	0.976	281.5	602.3	0.542	1.410	2.58	1.001	63.6	260.6	-18.0	0.453
4-2060	4-2380	0.668	178.3	-1.3	-0.97	1.095	124.0	0.570	0.632	224.5	905.3	0.272	0.992	2.58	0.667	83.1	325.3	-8.8	0.361
4-2060	4-2390	0.652	156.5	-0.1	-0.04	1.328	119.6	0.546	0.982	265.7	596.7	0.446	1.517	3.36	1.006	56.9	274.0	-18.4	0.571
4-2060	4-2390	0.744	179.7	-0.0	-0.04	1.093	128.1	0.627	0.630	221.7	912.7	0.235	1.025	3.36	0.666	70.5	318.0	-11.2	0.445
4-2060	4-2440	0.878	304.5	-6.1	-7.03	1.071	45.1	0.717	0.612	144.8	886.8	0.173	1.051	-4.37	0.630	118.4	68.3	17.5	0.549
4-2060	4-2450	0.616	334.2	-10.8	-5.56	1.333	63.2	0.515	0.996	88.0	480.1	0.483	1.508	-3.07	1.012	121.0	122.1	15.1	0.534
4-2060	4-2450	0.756	306.5	-6.2	-5.58	1.070	51.7	0.635	0.611	140.9	893.0	0.223	0.999	-3.07	0.626	101.9	62.4	16.5	0.421
4-2060	4-2460	0.472	342.7	-12.8	-4.78	1.336	70.2	0.430	1.002	71.6	473.8	0.571	1.433	-2.43	1.013	115.5	135.1	11.7	0.437
4-2060	4-2460	0.814	304.3	-4.6	-4.78	1.051	48.2	0.684	0.596	144.8	907.0	0.188	1.004	-2.43	0.589	75.5	36.0	11.2	0.471
4-2060	4-2460	0.797	304.7	-4.8	-4.78	1.054	49.2	0.672	0.598	144.0	906.2	0.196	1.000	-2.43	0.594	77.7	38.1	11.7	0.455
4-2060	4-2470	0.373	351.3	-14.8	-4.24	1.338	75.2	0.377	1.008	57.4	469.6	0.628	1.388	-2.06	1.014	112.1	146.8	7.9	0.376
4-2060	4-2480	0.301	0.8	-17.0	-3.83	1.340	79.1	0.343	1.014	44.4	466.7	0.666	1.362	-1.84	1.014	110.0	157.7	3.8	0.338
4-2060	4-2490	0.248	12.2	-19.1	-3.50	1.342	82.3	0.322	1.020	32.4	464.6	0.692	1.349	-1.71	1.015	108.7	168.0	-0.5	0.314
4-2060	4-2500	0.209	26.5	-21.0	-3.20	1.345	85.1	0.311	1.027	20.9	463.1	0.708	1.347	-1.65	1.015	108.1	178.0	-4.9	0.302
4-2060	4-2510	0.185	44.0	-21.7	-2.92	1.347	87.6	0.308	1.035	10.0	462.1	0.716	1.353	-1.63	1.016	107.8	187.8	-9.2	0.297
4-2060	4-2520	0.774	320.9	-3.4	-2.64	1.256	53.4	0.606	0.830	116.3	578.1	0.327	1.334	-1.67	0.888	54.4	52.2	16.9	0.599
4-2060	4-2520	0.177	93.6	-20.5	-2.64	1.350	90.1	0.311	1.043	359.6	821.4	0.719	1.367	-1.67	1.017	108.0	197.5	-13.3	0.300
4-2060	4-2530	0.697	324.2	-3.6	-2.33	1.265	57.4	0.554	0.845	109.5	581.0	0.377	1.314	-1.76	0.897	58.0	60.5	18.2	0.543
4-2060	4-2530	0.185	82.5	-17.3	-2.33	1.353	92.5	0.319	1.052	349.5	821.1	0.716	1.388	-1.76	1.018	108.5	207.3	-17.1	0.310
4-2060	4-2540	0.624	327.6	-3.5	-1.99	1.272	61.1	0.505	0.860	102.4	583.7	0.426	1.294	-1.91	0.905	61.2	68.9	18.9	0.492
4-2060	4-2540	0.209	98.3	-13.0	-1.99	1.357	95.0	0.334	1.062	339.9	821.1	0.708	1.417	-1.91	1.020	109.3	217.0	-20.6	0.326
4-2060	4-2550	0.556	331.1	-3.2	-1.56	1.280	64.5	0.459	0.874	95.2	586.1	0.472	1.275	-2.16	0.912	64.1	77.6	19.0	0.445
4-2060	4-2550	0.243	110.7	-8.7	-1.56	1.360	97.5	0.353	1.074	330.6	821.5	0.695	1.453	-2.16	1.023	110.4	226.7	-23.7	0.348
4-2060	4-2560	0.494	334.7	-2.4	-0.99	1.286	67.6	0.419	0.886	87.7	588.3	0.515	1.257	-2.57	0.919	66.6	86.4	18.0	0.404
4-2060	4-2560	0.288	120.2	-4.6	-0.99	1.364	100.2	0.377	1.087	321.8	822.3	0.677	1.496	-2.57	1.026	111.8	236.5	-26.6	0.376
4-2060	4-2570	0.436	338.6	-0.4	-0.14	1.292	70.5	0.383	0.898	80.1	590.2	0.554	1.242	-3.27	0.926	68.7	95.2	15.7	0.379
4-2060	4-2570	0.340	127.7	-0.5	-0.14	1.369	103.0	0.406	1.101	313.3	823.4	0.654	1.547	-3.27	1.031	113.6	246.2	-29.5	0.410
4-2060	4-2580	0.386	342.6	4.6	1.42	1.297	73.1	0.352	0.908	72.4	592.0	0.588	1.229	-4.69	0.932	70.5	103.7	10.7	0.342
4-2060	4-2580	0.399	133.9	4.7	1.42	1.373	105.9	0.439	1.116	305.3	824.9	0.626	1.606	-4.69	1.036	115.5	255.8	-32.6	0.451
4-2060	4-2590	0.358	346.1	19.8	5.53	1.301	75.5	0.327	0.918	64.6	593.7	0.618	1.218	-8.66	0.937	71.9	111.6	-1.6	0.339
4-2060	4-2590	0.477	139.7	15.3	5.53	1.378	109.0	0.475	1.133	297.7	826.8	0.595	1.671	-8.66	1.041	117.8	264.7	-39.2	0.508
4-2060	4-2610	0.397	349.6	-51.9	-14.04	1.308	79.8	0.288	0.934	48.4	596.8	0.665	1.203	11.19	0.947	74.0	148.5	48.1	0.325
4-2060	4-2630	0.285	1.4	-39.5	-8.04	1.311	81.6	0.275	0.940	60.5	598.4	0.682	1.199	5.32	0.952	74.7	148.0	32.6	0.269
4-2060	4-2630	0.555	352.2	-15.1	-6.12	1.449	69.6	0.591	1.465	56.6	264.1	---	2.331	3.54	1.135	57.9	139.2	21.8	0.598
4-2060	4-2630	0.238	10.3	-35.8	-6.12	1.314	83.3	0.265	0.946	32.5	600.0	0.695	1.197	3.54	0.957	75.2	154.4	24.7	0.251
4-2060	4-2640	0.505	357.1	-14.2	-5.14	1.451	72.1	0.577	1.477	50.2	267.2	---	2.329	2.71	1.139	59.3	146.8	18.3	0.572
4-2060	4-2640	0.206	20.3	-34.7	-5.14	1.316	85.0	0.258	0.952	24.5	601.5	0.706	1.198	2.71	0.961	75.5	162.0	19.0	0.242

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2060	4-2650	0.456	2.6	-13.9	-4.52	1.453	74.5	0.565	1.488	43.6	270.2	---	2.328	2.25	1.143	60.6	354.6	14.9	0.550
4-2060	4-2650	0.183	32.2	-34.4	-4.52	1.318	86.7	0.254	0.956	16.5	603.1	0.713	1.200	2.25	0.966	75.6	169.8	14.1	0.237
4-2060	4-2660	0.414	9.1	-14.0	-4.07	1.454	77.1	0.554	1.498	36.7	273.0	---	2.328	1.96	1.147	61.7	162.4	11.5	0.530
4-2060	4-2660	0.166	46.4	-33.9	-4.07	1.319	88.3	0.253	0.961	8.3	604.6	0.717	1.204	1.96	0.971	75.6	177.8	9.5	0.235
4-2060	4-2100	0.651	339.5	-10.5	-6.35	1.242	59.6	0.514	0.805	110.0	141.3	---	---	-4.62	0.883	118.2	122.8	12.2	0.472
4-2070	4-2110	0.550	338.6	-10.1	-5.13	1.202	63.9	0.442	0.747	111.7	153.1	---	---	-3.63	0.823	108.3	119.8	12.0	0.337
4-2070	4-2120	0.493	339.1	-9.6	-4.32	1.191	60.5	0.399	0.733	110.9	162.2	---	---	-3.07	0.805	101.1	115.5	11.9	0.262
4-2070	4-2130	0.453	340.4	-9.1	-3.72	1.193	68.4	0.369	0.735	108.3	169.6	---	---	-2.74	0.804	96.0	110.8	11.9	0.219
4-2070	4-2140	0.423	342.2	-8.6	-3.22	1.200	69.9	0.345	0.744	104.7	175.9	---	---	-2.54	0.810	92.2	106.6	11.9	0.195
4-2070	4-2150	0.397	344.3	-8.1	-2.78	1.209	71.2	0.326	0.756	100.4	181.4	---	1.003	-2.43	0.820	89.3	104.0	11.8	0.183
4-2070	4-2160	0.373	346.7	-7.4	-2.37	1.219	72.4	0.309	0.770	95.6	186.3	---	1.008	-2.40	0.831	87.2	103.2	11.6	0.178
4-2070	4-2170	0.351	349.3	-6.6	-1.96	1.229	73.6	0.294	0.785	90.4	190.8	---	1.015	-2.44	0.843	85.6	104.1	11.0	0.176
4-2070	4-2180	0.329	352.0	-5.5	-1.52	1.238	74.7	0.281	0.799	85.0	195.1	---	1.024	-2.55	0.853	84.3	106.4	10.1	0.176
4-2070	4-2190	0.309	354.9	-4.0	-1.03	1.247	75.8	0.270	0.813	79.4	199.1	---	1.033	-2.76	0.864	83.2	109.9	8.6	0.178
4-2070	4-2200	0.289	357.9	-1.8	-0.44	1.255	76.9	0.260	0.827	73.7	203.0	---	1.042	-3.10	0.874	82.4	114.1	6.3	0.180
4-2070	4-2210	0.270	1.1	1.6	0.35	1.262	78.0	0.252	0.840	67.6	206.7	---	1.052	-3.65	0.883	81.7	118.8	2.9	0.184
4-2070	4-2220	0.253	4.5	7.4	1.50	1.269	79.0	0.245	0.853	62.0	210.4	---	1.062	-4.38	0.892	81.1	123.5	-2.3	0.191
4-2070	4-2230	0.245	7.8	18.3	3.51	1.275	80.1	0.239	0.864	56.0	213.9	---	1.071	-6.38	0.900	80.5	127.9	-10.8	0.205
4-2070	4-2240	0.279	9.2	41.0	8.32	1.281	81.1	0.235	0.875	50.1	217.4	---	1.081	-10.99	0.908	80.0	131.2	-26.1	0.253
4-2070	4-2260	0.507	351.7	-72.9	-22.20	1.291	83.4	0.227	0.895	36.8	223.9	---	1.098	19.93	0.924	79.3	201.1	54.1	0.374
4-2070	4-2270	0.281	23.7	-57.4	-10.59	1.295	84.5	0.226	0.904	30.8	227.2	---	1.109	9.53	0.931	78.9	181.5	38.9	0.232
4-2070	4-2280	0.219	35.0	-49.1	-7.35	1.299	85.6	0.226	0.913	24.5	230.4	---	1.119	5.49	0.939	78.5	181.1	26.8	0.209
4-2070	4-2290	0.187	45.7	-44.2	-5.76	1.303	86.7	0.227	0.921	17.9	233.5	---	1.129	4.13	0.946	78.1	185.1	18.6	0.204
4-2070	4-2300	0.167	57.7	-40.6	-4.79	1.306	87.9	0.229	0.928	11.2	236.4	---	1.140	3.38	0.953	77.7	190.8	12.2	0.206
4-2070	4-2310	0.155	71.1	-37.0	-4.09	1.309	89.2	0.232	0.935	4.2	239.2	---	1.152	2.93	0.960	77.2	197.3	6.9	0.210
4-2070	4-2320	0.150	85.6	-32.6	-3.54	1.312	90.6	0.237	0.942	357.0	601.7	0.718	1.166	2.65	0.967	76.7	204.4	2.3	0.218
4-2070	4-2330	0.154	100.0	-27.2	-3.06	1.315	92.1	0.245	0.948	349.5	604.0	0.716	1.181	2.49	0.974	76.1	212.0	-1.9	0.228
4-2070	4-2340	0.166	113.3	-21.3	-2.63	1.318	93.7	0.255	0.955	341.5	606.0	0.711	1.198	2.41	0.980	75.4	220.1	-5.6	0.241
4-2070	4-2350	0.189	125.0	-15.6	-2.22	1.320	95.6	0.269	0.960	333.1	607.5	0.702	1.219	2.41	0.986	74.5	228.7	-8.8	0.258
4-2070	4-2360	0.232	135.0	-10.6	-1.78	1.322	97.8	0.288	0.966	324.1	608.5	0.688	1.244	2.48	0.992	73.3	237.9	-11.5	0.280
4-2070	4-2370	0.268	143.8	-6.4	-1.31	1.325	100.4	0.314	0.972	314.3	608.8	0.667	1.277	2.64	0.997	71.7	247.7	-13.7	0.311
4-2070	4-2370	0.740	192.8	-1.6	-1.31	1.132	127.2	0.609	0.665	226.7	881.2	0.260	1.070	2.79	0.721	114.8	5.1	6.2	0.477
4-2070	4-2380	0.332	151.8	-2.9	-0.75	1.327	103.8	0.350	0.977	303.5	608.1	0.635	1.319	2.91	1.002	69.5	258.2	-15.2	0.353
4-2070	4-2380	0.644	192.7	-1.1	-0.75	1.111	122.5	0.545	0.646	227.5	892.1	0.294	0.998	2.91	0.692	99.3	354.1	3.6	0.355
4-2070	4-2390	0.420	159.4	-0.1	-0.02	1.329	108.1	0.403	0.983	291.3	606.0	0.587	1.379	3.38	1.007	66.2	269.5	-15.9	0.413
4-2070	4-2390	0.635	193.2	-0.0	-0.02	1.104	122.1	0.541	0.639	226.7	901.5	0.293	0.985	3.38	0.683	88.3	342.5	-0.0	0.336
4-2070	4-2400	0.548	167.2	2.2	1.01	1.331	114.3	0.481	0.989	276.9	601.8	0.513	1.464	4.17	1.011	61.3	281.9	-15.6	0.503
4-2070	4-2400	0.681	194.2	1.3	1.01	1.101	124.5	0.576	0.637	224.9	909.8	0.270	1.003	4.17	0.680	77.2	333.2	-3.4	0.387
4-2070	4-2410	0.797	196.2	2.9	2.76	1.101	130.6	0.658	0.637	220.9	915.9	0.218	1.056	5.69	0.681	63.9	330.0	-5.0	0.510
4-2070	4-2460	0.815	322.4	-7.3	-7.32	1.081	48.7	0.670	0.619	141.6	887.6	0.204	1.035	-5.47	0.640	112.6	86.0	16.7	0.487
4-2070	4-2470	0.558	353.9	-12.6	-5.70	1.339	66.1	0.483	1.009	80.8	476.9	0.522	1.498	-4.08	1.014	118.9	142.7	7.0	0.496
4-2070	4-2470	0.729	323.7	-6.8	-5.70	1.079	53.2	0.613	0.617	139.1	895.2	0.239	0.996	-4.08	0.633	97.5	77.0	16.4	0.393
4-2070	4-2480	0.434	2.4	-14.0	-4.71	1.341	72.2	0.413	1.015	65.5	471.6	0.595	1.435	+3.33	1.015	114.4	159.6	2.6	0.416
4-2070	4-2490	0.346	11.4	-15.4	-4.02	1.343	76.7	0.369	1.021	51.9	467.9	0.644	1.399	-2.89	1.015	111.6	165.5	-1.9	0.366
4-2070	4-2500	0.280	21.7	-16.7	-3.47	1.346	80.3	0.341	1.028	39.4	465.4	0.677	1.379	-2.63	1.015	109.9	176.0	-6.4	0.335
4-2070	4-2510	0.231	34.3	-17.7	-3.01	1.348	83.3	0.325	1.034	27.7	463.5	0.698	1.371	-2.47	1.015	108.9	186.2	-10.9	0.317
4-2070	4-2520	0.197	49.9	-17.9	-2.59	1.350	86.0	0.317	1.042	16.6	462.2	0.711	1.372	-2.41	1.016	108.4	196.2	-15.1	0.308
4-2070	4-2530	0.179	68.5	-16.7	-2.18	1.353	88.6	0.316	1.049	5.9	461.3	0.718	1.381	-2.41	1.017	108.3	206.3	-19.0	0.308
4-2070	4-2540	0.755	338.2	-2.4	-1.76	1.263	54.3	0.595	0.842	114.1	579.2	0.341	1.343	-2.48	0.891	55.1	71.8	19.3	0.586
4-2070	4-2540	0.178	88.0	-13.5	-1.76	1.356	91.0	0.321	1.058	355.7	820.7	0.718	1.398	-2.48	1.018	108.6	216.5	-22.5	0.314
4-2070	4-2550	0.681	341.4	-2.1	-1.30	1.271	58.1	0.545	0.856	107.3	582.0	0.389	1.323	-2.64	0.900	58.5	80.2	19.3	0.533
4-2070	4-2550	0.193	105.6	-9.2	-1.30	1.359	93.5	0.332	1.068	345.9	820.5	0.713	1.422	-2.64	1.020	109.2	226.7	-25.6	0.527
4-2070	4-2560	0.611	344.8	-1.4	-0.77	1.278	61.7	0.498	0.870	100.4	584.6	0.436	1.304	-2.90	0.908	61.5	88.7	18.6	0.484
4-2070	4-2560	0.223	119.9	-4.7	-0.77	1.363	96.0	0.348	1.078	336.4	820.7	0.703	1.454	-2.90	1.023	110.1	237.0	-28.3	0.346
4-2070	4-2570	0.545	348.2	-0.2	-0.10	1.285	65.0	0.456	0.883	93.2	587.1	0.481	1.286	-3.33	0.916	64.2	97.2	17.0	0.440
4-2070	4-2570	0.263	130.9	-0.5	-0.10	1.366	98.6	0.369	1.090	327.4	821.2	0.688	1.493	-3.33	1.027	111.3	247.3	-30.5	0.371
4-2070	4-2580	0.486	351.8	2.0	0.83	1.291	68.0	0.417	0.896	85.9	589.3	0.522	1.269	-4.02	0.923	66.5	105.6	14.1	0.403
4-2070	4-2580	0.313	139.5	3.6	0.83	1.370	101.4	0.395	1.104	318.7	822.1	0.668	1.539	-4.02	1.031	112.8	257.6	-32.5	0.402
4-2070	4-2590	0.433	355.5	6.5	2.29	1.296	70.8	0.383	0.907	78.5	591.4	0.559	1.254	-5.27	0.930	68.5	113.6	9.2	0.373
4-2070	4-2590	0.371	146.5	8.3	2.29	1.375	104.2	0.425	1.118	310.5	823.4	0.643	1.593	-5.27	1.036	114.6	267.8	-34.8	0.440
4-2070	4-2600	0.396	358.9	16.5	5.17	1.301	73.3	0.355	0.917	71.0	593.3	0.592	1.242	-7.94	0.936	70.2	120.9	0.1	0.358
4-2070	4-2600	0.442	152.7	15.6	5.17	1.379	107.2	0.458	1.134	302.6	825.0	0.615	1.654	-7.94	1.042	116.7	277.8	-38.5	0.403
4-2070	4-2610	0.454	357.4	43.4	14.31	1.305	75.5	0.331	0.926	63.5	595.2	0.620	1.232	-16.88	0.942	71.5	127.6	-21.3	0.414
4-2070	4-2610	0.580	161.4	33.6	14.31	1.384	110.3	0.494	1.151	295.2	827.0	0.582	1.720	-16.88	1.048	118.9	286.2	-49.9	0.585
4-2070	4-2630	0.402	6.3	-52.9	-14.37	1.312	79.8	0.292	0.941	47.3	598.8	0.666	1.216	12.20	0.953	73.6	170.0	42.8	0.337
4-2070	4-2640	0.293	18.2	-42.1	-8.70	1.315	81.6	0.280	0.943	39.6	600.5	0.682	1.213	6.74	0.959	74.2	169.0	29.4	0.282
4-2070	4-2650	0.546	9.6	-16.4	-6.48	1.452	70.2	0.591	1.472	54.9	265.4	---	2.351	4.73	1.141	58.3	158.6	17.3	0.593
4-2070	4-2650	0.242	27.5	-37.6	-6.48	1.317	83.4	0.270	0.953	31.8	602.3	0.696	1.211	4.73	0.964	74.7	174.3	21.1	0.261
4-2070	4-2660	0.494	14.7	-14.9	-5.25	1.453	72.7	0.577	1.490	48.4	268.5	---	2.349	3.72	1.145	59.7	165.8	13.1	0.568
4-2070	4-2660	0.208	37.9	-35.4	-5.25	1.319	85.1	0.264	0.958	23.8	604.0	0.706	1.211	3.72	0.969	75.0	181.0	14.9	0.251
4-2070	4-2670	0.446	20.6	-14.1	-4.43	1.455	75.2	0.565	1.500	41.7	271.6	---	2.348	3.14	1.150	60.9	173.2	9.2	0.546
4-2070	4-2670	0.183	50.2	-33.9	-4.43	1.321	86.8	0.260	0.963	15.8	605.6	0.713	1.213	3.14	0.975	75.2	188.4	9.6	0.246
4-2080	4-2110	0.800	343.0	-8.8	-7.97	1.139	50.4	0.640	0.673	134.3	159.5	---	---	-7.00	0.728	119.2	165.0	12.7	0.514
4-2080	4-2120	0.679	344.6	-8.1	-6.87	1.127	56.3	0.559	0.661	131.1	186.3	---	---	-5.17	0.708	106.2	111.5	12.7	0.382
4-2080	4-2130	0.606	346.8	-7.5	-4.61	1.136	60.1	0.503	0.670	127.1	172.2	---	---	-4.20	0.716	97.7	107.8	12.7	0.310
4-2080	4-2140	0.554	349.3	-6.9	-3.73	1.151	62.8	0.460	0.686	122.6	177.5	---	---	-3.64	0.736	92.3	104.8	12.8	0.270
4-2080	4-2150	0.514	352.0	-6.3	-3.04	1.168	64.9	0.424	0.704	117.6	182.3	---	1.003	-3.29	0.758	88.3	103.2	12.7	0.248
4-2080	4-2160	0.479	354.8	-5.6	-2.46	1.184	66.7	0.395	0.724	112.2	186.7	---	1.010	-3.09	0.780	85.6	103.1	12.6	0.234
4-2080	4-2170	0.448	357.6	-4.8	-1.94	1.200	68.4	0.370	0.744	106.7	190.9	---	1.019	-2.99	0.800	83.7	104.6	12.2	0.227
4-2080	4-2180	0.420	0.4	-3.9	-1.43	1.214	69.9	0.348	0.763	101.0	194.9	---	1.028	-2.98	0.838	82.3	107.3	11.5	0.222

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2080	4-2190	0.393	3.3	-2.7	-0.92	1.226	71.3	0.329	0.782	95.2	198.7	---	1.039	-3.06	0.834	81.3	111.0	10.3	0.219
4-2080	4-2200	0.367	6.2	-1.2	-0.37	1.238	72.7	0.313	0.799	89.3	202.4	---	1.049	-3.23	0.849	80.5	115.4	8.6	0.217
4-2080	4-2210	0.343	9.2	0.9	0.27	1.248	74.0	0.298	0.816	83.4	206.0	---	1.059	-3.53	0.862	79.9	120.3	6.2	0.216
4-2080	4-2220	0.321	12.3	4.0	1.06	1.257	75.3	0.286	0.831	77.4	209.5	---	1.069	-4.01	0.875	79.4	125.5	2.8	0.216
4-2080	4-2230	0.301	15.4	8.7	2.13	1.266	76.5	0.275	0.846	71.3	213.0	---	1.079	-4.80	0.886	79.0	130.7	-1.9	0.219
4-2080	4-2240	0.288	18.5	16.6	3.78	1.273	77.7	0.266	0.860	65.2	216.4	---	1.089	-6.17	0.897	78.6	135.5	-8.9	0.227
4-2080	4-2250	0.294	20.9	30.6	6.86	1.280	78.9	0.259	0.872	59.1	219.7	---	1.098	-8.99	0.907	78.3	139.5	-19.8	0.250
4-2080	4-2260	0.404	16.0	56.2	15.40	1.286	80.0	0.253	0.884	53.1	223.1	---	1.108	-17.28	0.916	78.0	142.4	-38.9	0.348
4-2080	4-2280	0.446	18.0	-67.9	-18.74	1.296	82.7	0.241	0.905	39.3	229.3	---	1.124	17.35	0.934	77.8	205.7	45.8	0.350
4-2080	4-2290	0.281	39.0	-53.9	-10.10	1.300	83.8	0.239	0.915	35.0	232.5	---	1.134	8.97	0.942	77.5	195.3	31.5	0.252
4-2080	4-2300	0.221	49.7	-45.7	-7.00	1.304	85.0	0.238	0.924	26.5	235.5	---	1.143	6.13	0.950	77.2	196.5	20.8	0.230
4-2080	4-2310	0.188	60.4	-40.3	-5.35	1.306	86.3	0.238	0.932	19.7	238.4	---	1.154	4.76	0.958	77.0	201.0	13.0	0.224
4-2080	4-2320	0.166	72.5	-36.0	-4.27	1.311	87.6	0.239	0.940	12.6	241.2	---	1.164	3.97	0.966	76.7	207.0	7.0	0.224
4-2080	4-2330	0.153	86.3	-31.4	-3.47	1.315	89.0	0.242	0.947	5.4	243.7	---	1.176	3.50	0.973	76.3	213.8	2.0	0.228
4-2080	4-2340	0.148	101.3	-26.1	-2.82	1.317	90.4	0.247	0.954	357.8	606.0	0.718	1.190	3.20	0.980	75.9	221.4	-2.3	0.235
4-2080	4-2350	0.152	116.3	-20.0	-2.26	1.320	92.1	0.254	0.961	349.8	608.0	0.716	1.205	3.04	0.986	75.4	229.5	-5.9	0.245
4-2080	4-2360	0.167	130.2	-13.8	-1.75	1.323	93.9	0.265	0.967	341.4	609.6	0.711	1.223	2.98	0.992	74.7	238.1	-8.9	0.259
4-2080	4-2370	0.194	142.3	-8.2	-1.20	1.325	95.9	0.280	0.973	332.4	610.6	0.701	1.245	3.01	0.998	73.8	247.4	-11.2	0.277
4-2080	4-2380	0.234	152.8	-3.6	-0.85	1.327	98.4	0.300	0.979	322.7	611.1	0.685	1.273	3.13	1.003	72.5	257.1	-12.9	0.302
4-2080	4-2390	0.288	161.8	-0.1	-0.02	1.330	101.3	0.329	0.984	312.2	610.7	0.660	1.309	3.38	1.007	70.8	267.5	-13.8	0.336
4-2080	4-2390	0.648	207.9	-0.0	-0.02	1.123	122.5	0.543	0.656	229.1	887.5	0.300	1.013	3.38	0.712	104.0	11.3	11.6	0.374
4-2080	4-2400	0.362	170.1	2.6	0.74	1.332	105.1	0.371	0.990	300.5	609.1	0.623	1.357	3.81	1.011	68.2	278.4	-13.9	0.384
4-2080	4-2400	0.616	208.3	1.2	0.74	1.113	120.9	0.522	0.647	228.7	897.3	0.309	0.985	3.81	0.698	92.9	359.8	8.8	0.326
4-2080	4-2410	0.467	178.1	4.7	1.77	1.334	110.1	0.432	0.996	287.1	605.9	0.565	1.426	4.52	1.015	64.4	290.1	-12.9	0.455
4-2080	4-2410	0.637	209.0	2.6	1.77	1.109	122.0	0.538	0.644	227.5	906.3	0.297	0.990	4.52	0.693	82.8	349.1	5.1	0.346
4-2080	4-2420	0.620	186.5	6.3	3.31	1.336	117.4	0.525	1.002	271.2	600.1	0.476	1.528	5.77	1.018	58.4	302.9	-10.9	0.564
4-2080	4-2420	0.714	210.4	4.2	3.31	1.108	125.9	0.594	0.643	224.8	913.8	0.291	1.025	5.77	0.691	71.5	343.2	2.4	0.431
4-2080	4-2430	0.876	213.5	5.6	6.17	1.109	134.4	0.704	0.644	218.9	917.9	0.190	1.097	8.35	0.693	56.7	343.8	1.9	0.593
4-2080	4-2470	0.923	336.9	-7.9	-9.85	1.089	43.0	0.738	0.626	144.8	884.8	0.164	1.088	-0.74	0.650	123.9	103.8	14.9	0.596
4-2080	4-2480	0.667	4.7	-12.0	-8.82	1.341	60.9	0.550	1.016	91.4	481.4	0.457	1.575	-5.97	1.015	123.4	149.5	3.0	0.574
4-2080	4-2480	0.766	340.0	-7.6	-6.02	1.090	51.3	0.635	0.627	139.0	889.0	0.229	1.025	-5.97	0.647	107.9	102.6	14.5	0.440
4-2080	4-2490	0.509	13.6	-12.9	-5.20	1.344	68.5	0.460	1.023	74.5	474.4	0.553	1.493	-4.65	1.016	117.3	161.9	-2.0	0.468
4-2080	4-2490	0.710	340.7	-6.5	-5.20	1.086	54.7	0.599	0.623	137.8	997.6	0.250	0.997	-4.65	0.637	93.6	90.9	15.6	0.375
4-2080	4-2500	0.400	22.3	-13.6	-4.16	1.346	73.8	0.402	1.029	60.0	469.7	0.616	1.442	-3.90	1.016	113.6	173.2	-6.9	0.402
4-2080	4-2510	0.320	31.8	-14.1	-3.38	1.348	78.0	0.365	1.035	46.9	466.5	0.658	1.413	-3.45	1.016	111.3	184.0	-11.6	0.361
4-2080	4-2520	0.260	43.0	-14.3	-2.76	1.351	81.3	0.342	1.042	34.8	464.2	0.686	1.398	-3.18	1.016	109.9	194.5	-16.0	0.336
4-2080	4-2530	0.216	56.8	-13.9	-2.21	1.353	84.3	0.329	1.049	23.3	462.4	0.704	1.393	-3.03	1.016	109.1	205.0	-20.1	0.323
4-2080	4-2540	0.188	73.8	-12.3	-1.70	1.355	87.0	0.324	1.056	12.4	461.2	0.714	1.398	-2.98	1.017	108.7	215.6	-23.7	0.318
4-2080	4-2550	0.177	93.0	-9.2	-1.19	1.358	89.5	0.325	1.064	2.0	460.4	0.718	1.410	-3.01	1.019	108.8	226.3	-26.9	0.321
4-2080	4-2560	0.739	355.4	-0.9	-0.67	1.269	55.1	0.586	0.853	112.2	580.2	0.353	1.352	-3.13	0.895	55.6	91.5	19.4	0.574
4-2060	4-2560	0.184	111.9	-4.9	-0.67	1.361	92.0	0.332	1.074	351.9	820.0	0.717	1.430	-3.13	1.021	109.2	237.1	-29.4	0.330
4-2080	4-2570	0.667	358.6	-0.1	-0.08	1.277	58.8	0.538	0.867	105.4	583.0	0.400	1.333	-3.36	0.904	58.8	99.8	18.2	0.524
4-2080	4-2570	0.207	128.1	-0.5	-0.08	1.364	94.5	0.345	1.084	342.3	819.9	0.710	1.457	-3.36	1.024	109.9	248.0	-31.4	0.346
4-2080	4-2580	0.600	1.9	1.2	0.62	1.284	62.2	0.494	0.880	98.6	585.7	0.446	1.315	-3.73	0.912	61.7	108.0	16.1	0.478
4-2080	4-2580	0.243	140.9	3.5	0.62	1.368	97.1	0.363	1.095	333.0	820.2	0.698	1.492	-3.73	1.027	110.9	258.9	-32.9	0.368
4-2080	4-2590	0.537	5.3	3.3	1.52	1.290	65.4	0.453	0.893	91.5	588.2	0.489	1.297	-4.34	0.921	64.2	116.0	12.9	0.437
4-2080	4-2590	0.289	150.8	7.1	1.52	1.371	99.8	0.385	1.107	324.2	820.8	0.681	1.534	-4.34	1.032	112.2	269.6	-34.0	0.395
4-2080	4-2600	0.482	8.7	7.0	2.81	1.295	68.3	0.416	0.905	84.4	590.5	0.528	1.281	-5.35	0.928	66.4	123.6	8.2	0.404
4-2080	4-2600	0.345	158.8	11.0	2.81	1.375	102.5	0.482	1.121	315.7	821.9	0.659	1.583	-5.35	1.037	115.8	280.2	-35.0	0.430
4-2080	4-2610	0.438	12.0	14.0	4.96	1.300	71.0	0.384	0.915	77.1	592.8	0.563	1.267	-7.23	0.935	68.3	130.7	0.9	0.380
4-2080	4-2610	0.411	165.5	16.2	4.96	1.380	105.4	0.443	1.136	307.6	823.3	0.633	1.640	-7.23	1.043	115.7	290.6	-36.7	0.473
4-2080	4-2620	0.429	14.0	29.1	9.60	1.305	73.4	0.357	0.925	69.8	594.9	0.595	1.255	-11.62	0.942	69.8	136.6	-12.4	0.384
4-2080	4-2620	0.503	172.3	25.8	9.60	1.384	108.5	0.477	1.152	300.0	825.0	0.602	1.702	-11.62	1.050	117.8	300.9	-41.4	0.534
4-2080	4-2630	0.694	354.1	61.2	28.67	1.309	75.5	0.335	0.934	62.8	596.9	0.621	1.247	-30.44	0.949	71.0	144.8	-41.3	0.585
4-2080	4-2650	0.383	24.8	-50.8	-13.27	1.315	79.9	0.296	0.948	46.4	600.9	0.667	1.229	12.01	0.961	73.2	186.7	35.0	0.339
4-2080	4-2660	0.590	22.2	-19.4	-8.34	1.452	68.3	0.604	1.479	59.5	263.5	---	2.373	7.33	1.143	57.2	170.7	16.4	0.619
4-2080	4-2660	0.288	35.8	-41.1	-8.34	1.318	81.7	0.284	0.954	38.8	602.8	0.683	1.226	7.33	0.967	73.8	187.2	23.3	0.290
4-2080	4-2670	0.531	27.3	-16.0	-6.11	1.454	70.8	0.590	1.491	53.1	266.8	---	2.371	5.37	1.148	58.7	177.0	11.1	0.589
4-2080	4-2670	0.237	45.3	-36.1	-6.11	1.320	83.5	0.275	0.960	31.0	604.7	0.696	1.224	5.37	0.973	74.3	192.3	15.4	0.270
4-2080	4-2680	0.480	32.7	-14.0	-4.79	1.455	73.3	0.577	1.503	46.6	270.0	---	2.369	4.33	1.153	60.0	183.9	6.7	0.564
4-2080	4-2680	0.202	56.0	-33.0	-4.79	1.322	85.2	0.268	0.965	23.1	606.5	0.706	1.224	4.33	0.979	74.6	198.9	9.3	0.260
4-2090	4-2130	0.816	353.0	-6.5	-6.76	1.058	48.0	0.684	0.601	144.3	173.2	---	---	-6.87	0.585	104.3	109.1	13.8	0.463
4-2090	4-2140	0.725	356.4	-5.8	-4.88	1.082	53.1	0.613	0.621	138.7	177.5	---	---	-5.30	0.624	94.0	106.7	13.9	0.385
4-2090	4-2150	0.660	359.7	-5.2	-3.67	1.110	56.8	0.556	0.645	133.2	181.7	---	1.003	-4.42	0.666	87.9	105.4	14.0	0.340
4-2090	4-2160	0.608	3.0	-4.5	-2.79	1.135	59.6	0.510	0.670	127.5	185.8	---	1.011	-3.90	0.704	84.0	105.6	13.9	0.313
4-2090	4-2170	0.565	6.2	-3.8	-2.08	1.159	62.0	0.470	0.694	121.8	189.7	---	1.021	-3.57	0.738	81.6	107.1	13.6	0.294
4-2090	4-2180	0.527	9.3	-3.0	-1.46	1.179	64.1	0.436	0.719	115.9	193.5	---	1.032	-3.39	0.767	79.9	109.7	13.0	0.282
4-2090	4-2190	0.492	12.3	-2.0	-0.90	1.198	66.0	0.407	0.742	110.0	197.2	---	1.044	-3.32	0.792	78.8	113.4	12.1	0.272
4-2090	4-2200	0.460	15.3	-0.8	-0.34	1.214	67.8	0.382	0.764	104.0	200.9	---	1.055	-3.34	0.814	78.1	117.8	10.7	0.265
4-2090	4-2210	0.429	18.2	0.6	0.24	1.228	69.4	0.360	0.784	98.0	204.4	---	1.066	-3.45	0.833	77.5	122.8	8.8	0.258
4-2090	4-2220	0.401	21.2	2.6	0.24	1.240	71.0	0.340	0.804	92.0	207.9	---	1.077	-3.60	0.851	77.2	128.0	6.3	0.254
4-2090	4-2230	0.375	24.2	5.2	1.62	1.251	72.5	0.324	0.822	85.9	211.3	---	1.088	-4.07	0.866	76.9	133.5	3.1	0.250
4-2090	4-2240	0.352	27.2	8.9	2.57	1.261	73.9	0.309	0.838	79.8	214.7	---	1.098	-4.68	0.880	76.7	138.9	-1.2	0.249
4-2090	4-2250	0.333	30.2	14.6	3.91	1.269	75.3	0.296	0.854	73.6	218.1	---	1.107	-5.70	0.893	76.6	144.1	-7.1	0.251
4-2090	4-2260	0.325	32.9	23.8	6.06	1.277	76.6	0.286	0.868	67.4	221.4	---	1.116	-7.56	0.905	76.5	148.7	-15.5	0.260
4-2090	4-2270	0.354	33.7	40.1	10.45	1.284	77.9	0.277	0.882	61.3	224.7	---	1.125	-11.66	0.916	76.4	152.0	-28.9	0.296
4-2090	4-2280	0.598	13.3	65.9	25.52	1.290	79.1	0.270	0.894	55.4	228.0	---	1.135	-26.46	0.926	76.2	155.9	-51.9	0.497
4-2090	4-2300	0.385	41.3	-60.9	-15.17	1.300	82.0	0.254	0.916	41.0	234.1	---	1.149	14.80	0.946	76.4	212.0	36.1	0.350
4-2090	4-2310	0.266	55.8	-47.7	-8.72	1.305	83.3	0.251	0.926	34.5	237.2	---	1.159	8.64	0.955	76.3	208.0	22.7	0.264
4-2090	4-2320	0.214	65.8	-39.8	-5.98	1.309	84.6	0.249	0.935	27.7	240.1	---	1.168	6.20	0.963	76.2	211.0	18.3	0.246

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2090	4-2330	0.182	76.3	-33.5	-4.40	1.313	85.9	0.248	0.944	20.7	242.8	---	1.178	4.94	0.971	76.0	216.4	6.4	0.241
4-2090	4-2340	0.161	88.6	-28.3	-3.33	1.316	87.3	0.249	0.952	13.4	245.4	---	1.188	4.20	0.979	75.8	223.0	1.1	0.241
4-2090	4-2350	0.168	102.8	-22.9	-2.50	1.319	88.8	0.251	0.959	5.8	247.7	---	1.200	3.75	0.986	75.6	230.6	-3.2	0.244
4-2090	4-2360	0.145	118.3	-16.8	-1.82	1.322	90.5	0.256	0.966	357.8	609.8	0.719	1.214	3.48	0.992	75.2	238.7	-6.6	0.251
4-2090	4-2370	0.153	133.9	-10.5	-1.20	1.325	92.2	0.264	0.973	349.4	611.4	0.716	1.229	3.35	0.998	74.7	247.5	-9.3	0.262
4-2090	4-2380	0.173	148.2	-4.7	-0.62	1.327	94.2	0.275	0.979	340.4	612.6	0.710	1.248	3.32	1.003	74.0	256.7	-11.2	0.276
4-2090	4-2390	0.205	160.6	-0.1	-0.02	1.329	96.4	0.291	0.985	330.9	613.1	0.698	1.272	3.39	1.008	73.1	266.5	-12.3	0.296
4-2090	4-2400	0.252	171.2	3.3	0.63	1.332	99.1	0.314	0.991	320.6	613.0	0.680	1.303	3.58	1.012	71.7	276.7	-12.6	0.324
4-2090	4-2400	0.669	223.3	0.9	0.63	1.135	123.3	0.552	0.669	230.3	882.7	0.300	1.039	3.58	0.734	109.2	29.0	18.3	0.409
4-2090	4-2410	0.315	180.4	5.7	1.38	1.334	102.4	0.347	0.997	309.3	611.8	0.651	1.343	3.93	1.015	69.7	287.3	-12.1	0.363
4-2090	4-2410	0.608	223.4	2.2	1.38	1.122	120.3	0.511	0.656	230.4	893.0	0.321	0.991	3.93	0.714	97.2	17.8	16.8	0.327
4-2090	4-2420	0.402	188.9	7.4	2.33	1.356	106.7	0.395	1.003	296.6	609.3	0.606	1.399	4.51	1.018	66.7	298.4	-10.6	0.419
4-2090	4-2420	0.608	223.9	3.7	2.33	1.116	120.3	0.512	0.651	229.6	902.3	0.311	0.984	4.61	0.706	87.5	6.0	13.5	0.320
4-2090	4-2430	0.526	197.2	8.6	3.65	1.338	112.6	0.467	1.009	282.0	604.9	0.538	1.480	5.49	1.021	62.2	310.3	-8.0	0.502
4-2090	4-2430	0.650	224.9	5.2	3.65	1.114	122.7	0.547	0.649	227.8	910.7	0.294	1.004	5.49	0.702	77.6	357.7	10.0	0.374
4-2090	4-2440	0.768	227.0	6.6	5.78	1.115	128.4	0.627	0.649	223.9	916.9	0.243	1.056	7.31	0.701	65.5	355.4	8.4	0.491
4-2090	4-2490	0.850	355.2	-7.8	-8.31	1.098	46.9	0.690	0.634	141.2	885.0	0.197	1.071	-8.26	0.657	118.2	121.8	11.0	0.529
4-2090	4-2500	0.604	24.5	-11.5	-5.74	1.346	63.8	0.516	1.030	84.7	478.3	0.496	1.563	-6.00	1.016	121.2	168.9	-5.9	0.535
4-2090	4-2500	0.729	357.5	-6.9	-5.74	1.098	53.2	0.608	0.634	136.9	890.5	0.248	1.019	-6.00	0.653	109.1	118.3	11.3	0.404
4-2090	4-2510	0.466	33.3	-11.6	-4.25	1.348	70.4	0.442	1.036	68.9	472.2	0.578	1.494	-4.83	1.016	116.2	180.9	11.1	0.448
4-2090	4-2510	0.908	351.7	-3.4	-4.23	1.060	42.6	0.747	0.603	147.4	910.8	0.153	1.053	-4.83	0.582	62.3	75.7	18.4	0.565
4-2090	4-2510	0.699	357.6	-5.4	-4.25	1.092	54.6	0.591	0.629	136.7	900.1	0.257	1.001	-4.83	0.659	89.8	104.4	14.3	0.366
4-2090	4-2520	0.368	42.3	-11.5	-3.22	1.350	75.3	0.393	1.043	54.9	468.1	0.632	1.453	-4.14	1.016	113.1	192.2	-16.0	0.393
4-2090	4-2530	0.296	52.5	-11.0	-2.44	1.352	79.1	0.362	1.049	42.2	465.1	0.669	1.429	-3.72	1.017	111.1	203.3	-20.3	0.359
4-2090	4-2540	0.241	64.7	-9.9	-1.78	1.355	82.4	0.343	1.056	30.4	463.0	0.694	1.418	-3.47	1.017	109.9	214.3	-24.2	0.340
4-2090	4-2550	0.203	79.0	-8.0	-1.14	1.357	85.2	0.333	1.063	19.1	461.4	0.709	1.417	-3.34	1.018	109.3	225.5	-27.4	0.330
4-2090	4-2560	0.182	97.9	-4.7	-0.63	1.360	87.9	0.331	1.071	8.4	460.2	0.717	1.425	-3.31	1.020	109.1	236.8	-30.0	0.329
4-2090	4-2570	0.180	117.3	-0.5	-0.07	1.362	90.5	0.334	1.080	358.1	819.5	0.719	1.441	-3.38	1.022	109.2	248.2	-31.8	0.335
4-2090	4-2580	0.725	12.5	0.8	0.53	1.274	55.8	0.579	0.863	110.4	581.3	0.364	1.363	-3.55	0.900	56.0	110.9	17.3	0.564
4-2090	4-2580	0.196	135.2	3.7	0.53	1.365	93.0	0.344	1.089	348.2	819.1	0.715	1.464	-3.55	1.025	109.7	259.6	-33.0	0.347
4-2090	4-2590	0.655	15.6	2.0	1.21	1.281	59.4	0.553	0.877	103.7	584.1	0.410	1.344	-3.84	0.909	59.0	118.8	14.9	0.516
4-2090	4-2590	0.226	150.0	7.3	1.21	1.369	95.6	0.358	1.100	338.7	819.1	0.706	1.494	-3.84	1.029	110.6	270.8	-33.6	0.365
4-2090	4-2600	0.591	18.9	4.0	2.04	1.288	62.7	0.490	0.890	96.9	586.9	0.454	1.326	-4.32	0.918	61.7	126.5	11.6	0.473
4-2090	4-2600	0.269	161.5	10.4	2.04	1.372	98.2	0.378	1.112	329.6	819.6	0.692	1.531	-4.32	1.033	111.7	281.7	-33.7	0.390
4-2090	4-2610	0.533	22.1	7.0	3.14	1.294	65.7	0.457	0.902	90.0	589.5	0.495	1.309	-5.10	0.927	64.1	133.8	7.2	0.436
4-2090	4-2610	0.320	170.6	13.4	3.14	1.376	100.9	0.402	1.125	320.9	820.4	0.673	1.576	-5.10	1.038	113.1	292.4	-33.7	0.420
4-2090	4-2620	0.483	25.4	12.0	4.78	1.299	68.5	0.416	0.913	83.0	591.9	0.533	1.293	-6.43	0.935	66.2	140.7	1.0	0.406
4-2090	4-2620	0.382	178.0	17.0	4.78	1.380	103.8	0.430	1.139	312.6	821.6	0.649	1.628	-6.43	1.045	114.8	302.7	-33.8	0.458
4-2090	4-2630	0.451	28.1	21.4	7.68	1.304	71.1	0.385	0.924	75.9	594.3	0.568	1.279	-9.04	0.943	68.0	146.7	-8.5	0.391
4-2090	4-2630	0.458	184.7	22.8	7.68	1.384	106.7	0.462	1.154	304.7	823.1	0.621	1.687	-9.04	1.051	116.7	312.0	-35.3	0.506
4-2090	4-2640	0.489	32.2	40.9	14.81	1.308	73.5	0.359	0.933	68.8	596.6	0.598	1.268	-15.89	0.950	69.5	151.2	-26.0	0.426
4-2090	4-2640	0.585	193.1	34.8	14.81	1.389	109.8	0.496	1.171	297.2	825.1	0.590	1.752	-15.89	1.059	118.8	323.4	-41.6	0.588
4-2090	4-2660	0.593	20.5	-63.2	-24.27	1.315	78.1	0.314	0.949	52.8	601.0	0.651	1.246	23.75	0.964	72.1	211.8	40.5	0.489
4-2090	4-2670	0.351	44.2	-46.2	-11.27	1.317	80.0	0.300	0.955	45.5	603.1	0.669	1.242	11.03	0.970	72.8	201.1	26.0	0.335
4-2090	4-2680	0.571	40.0	-17.3	-7.20	1.453	68.9	0.603	1.493	57.7	265.0	---	2.392	7.26	1.151	57.6	188.2	9.0	0.613
4-2090	4-2680	0.272	54.1	-37.0	-7.20	1.320	81.8	0.288	0.951	37.9	605.2	0.685	1.238	7.26	0.977	73.5	203.4	15.7	0.295
4-2090	4-2690	0.514	45.2	-13.9	-5.14	1.455	71.4	0.589	1.504	51.3	268.3	---	2.390	5.51	1.155	59.1	194.6	3.9	0.585
4-2090	4-2690	0.225	63.6	-31.6	-5.14	1.322	83.6	0.278	0.967	30.1	605.1	0.698	1.236	5.51	0.983	74.0	209.1	8.5	0.277
4-2100	4-2140	0.958	2.8	-5.2	-7.95	0.996	38.9	0.799	0.559	154.1	176.7	---	---	-8.84	0.461	102.7	111.7	14.9	0.566
4-2100	4-2150	0.847	7.0	-4.5	-5.14	1.032	45.7	0.719	0.583	147.8	180.1	---	1.003	-6.34	0.530	89.7	110.4	15.0	0.475
4-2100	4-2160	0.768	10.9	-3.8	-3.54	1.069	50.4	0.652	0.611	141.7	183.8	---	1.010	-5.06	0.594	83.0	110.3	15.0	0.420
4-2100	4-2170	0.706	14.6	-3.1	-2.45	1.103	54.1	0.596	0.640	135.7	187.5	---	1.021	-4.31	0.649	79.3	111.5	14.7	0.384
4-2100	4-2180	0.654	18.1	-2.4	-1.63	1.132	57.1	0.547	0.668	129.7	191.2	---	1.034	-3.86	0.694	77.1	113.8	14.3	0.359
4-2100	4-2190	0.608	21.5	-1.6	-0.95	1.158	59.7	0.506	0.695	123.7	194.8	---	1.047	-3.58	0.733	75.8	117.2	13.5	0.341
4-2100	4-2200	0.567	24.6	-0.6	-0.34	1.180	62.0	0.470	0.721	117.8	198.4	---	1.060	-3.43	0.765	75.0	121.3	12.3	0.326
4-2100	4-2210	0.529	27.7	0.5	0.23	1.200	64.1	0.438	0.746	111.7	201.9	---	1.073	-3.39	0.795	74.6	126.1	10.8	0.313
4-2100	4-2220	0.494	30.7	1.8	0.80	1.216	66.0	0.410	0.769	105.7	205.4	---	1.085	-3.44	0.817	74.4	131.3	8.8	0.303
4-2100	4-2230	0.462	33.7	3.5	1.40	1.231	67.9	0.386	0.791	99.6	208.9	---	1.096	-3.59	0.838	74.3	136.7	6.2	0.294
4-2100	4-2240	0.431	36.6	5.6	2.08	1.244	69.7	0.365	0.811	93.5	212.3	---	1.107	-3.86	0.857	74.3	142.3	3.0	0.286
4-2100	4-2250	0.404	39.6	8.5	2.99	1.255	71.2	0.346	0.830	87.4	215.7	---	1.117	-4.32	0.874	74.3	148.0	-0.9	0.280
4-2100	4-2260	0.379	42.5	12.7	3.96	1.265	72.8	0.329	0.847	81.3	219.0	---	1.126	-5.04	0.889	74.4	153.5	-5.9	0.277
4-2100	4-2270	0.362	45.3	19.0	5.51	1.273	74.3	0.315	0.863	75.1	222.4	---	1.135	-6.28	0.903	74.5	158.6	-12.6	0.278
4-2100	4-2280	0.361	47.5	29.3	8.17	1.281	75.7	0.303	0.878	68.9	225.7	---	1.144	-8.64	0.916	74.6	162.9	-22.4	0.290
4-2100	4-2290	0.421	45.9	47.4	14.28	1.288	77.1	0.292	0.892	62.7	229.0	---	1.153	-14.46	0.928	74.7	165.4	-38.5	0.344
4-2100	4-2310	0.649	24.3	-70.0	-28.46	1.300	80.3	0.271	0.917	48.2	235.3	---	1.165	28.86	0.949	75.2	234.9	39.1	0.533
4-2100	4-2320	0.328	62.7	-51.4	-11.45	1.304	81.5	0.266	0.928	42.1	238.4	---	1.175	12.15	0.959	75.2	220.2	25.1	0.314
4-2100	4-2330	0.244	73.4	-38.7	-6.75	1.309	82.9	0.262	0.938	35.3	241.4	---	1.183	7.74	0.968	75.3	220.8	13.3	0.272
4-2100	4-2340	0.202	82.7	-30.4	-4.48	1.313	84.3	0.259	0.947	28.3	244.2	---	1.192	5.79	0.976	75.3	225.5	5.3	0.259
4-2100	4-2350	0.174	93.2	-24.0	-3.08	1.317	85.7	0.257	0.956	21.0	246.8	---	1.202	4.73	0.984	75.2	232.1	-0.4	0.255
4-2100	4-2360	0.155	105.8	-18.1	-2.09	1.320	87.3	0.258	0.964	13.4	249.2	---	1.212	4.10	0.991	75.2	239.6	-4.6	0.255
4-2100	4-2370	0.145	120.5	-12.0	-1.31	1.323	88.9	0.260	0.971	5.4	251.3	---	1.224	3.71	0.997	75.0	247.9	-7.8	0.259
4-2100	4-2380	0.146	136.6	-5.8	-0.63	1.326	90.6	0.265	0.979	357.1	613.0	0.719	1.238	3.49	1.003	74.6	256.7	-10.1	0.267
4-2100	4-2390	0.158	152.6	-0.1	-0.02	1.328	92.5	0.273	0.985	348.2	614.2	0.716	1.254	3.40	1.008	74.2	266.1	-11.5	0.278
4-2100	4-2400	0.184	167.1	4.2	0.58	1.331	94.7	0.285	0.992	338.8	614.9	0.709	1.275	3.41	1.012	73.4	275.8	-12.0	0.294
4-2100	4-2410	0.223	179.5	7.2	1.21	1.333	97.2	0.304	0.998	328.6	615.0	0.695	1.301	3.53	1.016	72.3	285.8	-11.7	0.316
4-2100	4-2410	0.729	239.0	1.6	1.21	1.153	126.1	0.590	0.690	230.6	876.9	0.283	1.097	3.53	0.764	116.8	48.5	23.1	0.485
4-2100	4-2420	0.277	190.1	9.1	1.91	1.336	100.1	0.330	1.004	317.6	614.2	0.673	1.335	3.79	1.019	70.8	296.2	-10.6	0.347
4-2100	4-2420	0.610	238.6	3.1	1.91	1.131	120.2	0.507	0.666	231.9	888.5	0.528	1.004	3.79	0.730	101.4	56.7	23.0	0.339
4-2100	4-2430	0.351	199.4	10.2	2.74	1.338	103.9	0.368	1.010	305.5	612.2	0.638	1.381	4.23	1.021	68.5	306.9	-8.5	0.391
4-2100	4-2430	0.590	239.0	1.6	2.74	1.123	119.2	0.494	0.659	231.5	898.2	0.333	0.984	4.23	0.718	91.8	24.4	20.9	0.306

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2100	4-2440	0.452	208.0	10.8	3.83	1.340	108.8	0.424	1.016	291.9	608.7	0.585	1.447	4.95	1.023	65.0	318.0	-5.6	0.456
4-2100	4-2440	0.616	239.8	6.0	3.83	1.120	120.4	0.513	0.656	230.2	907.1	0.319	0.993	4.95	0.712	82.7	13.9	17.4	0.333
4-2100	4-2450	0.598	216.8	11.0	5.43	1.342	115.7	0.509	1.022	276.0	602.9	0.502	1.542	6.22	1.025	59.5	330.0	-1.7	0.556
4-2100	4-2450	0.691	241.2	7.3	5.43	1.120	124.2	0.568	0.655	227.6	914.5	0.283	1.028	6.22	0.709	72.4	8.8	14.8	0.415
4-2100	4-2460	0.842	244.2	8.1	8.22	1.121	131.9	0.672	0.657	222.0	919.0	0.216	1.098	8.68	0.708	59.1	9.9	14.4	0.564
4-2100	4-2510	0.792	13.1	-6.8	-6.38	1.105	49.8	0.652	0.642	138.4	885.6	0.223	1.060	-7.42	0.663	113.7	138.7	6.0	0.476
4-2100	4-2520	0.550	44.1	-9.7	-4.29	1.350	66.2	0.494	1.043	78.7	475.7	0.528	1.559	-5.64	1.017	119.5	188.4	-14.4	0.506
4-2100	4-2520	0.698	14.8	-5.5	-4.29	1.104	54.6	0.587	0.641	135.1	892.1	0.265	1.017	-5.64	0.657	100.9	133.5	7.3	0.375
4-2100	4-2530	0.428	53.0	-9.0	-2.98	1.352	72.1	0.429	1.050	63.6	470.3	0.599	1.500	-4.66	1.017	115.3	200.5	-19.4	0.433
4-2100	4-2540	0.852	9.9	-2.7	-2.98	1.074	45.8	0.708	0.615	144.1	910.8	0.379	1.050	-4.66	0.600	66.4	97.1	18.3	0.515
4-2100	4-2530	0.694	14.5	-3.8	-2.98	1.097	54.7	0.589	0.635	136.0	902.7	0.261	1.008	-4.66	0.641	86.1	117.7	12.7	0.364
4-2100	4-2540	0.340	62.4	-7.9	-2.04	1.354	76.6	0.387	1.056	50.1	466.5	0.647	1.466	-4.07	1.018	112.6	212.3	-23.6	0.368
4-2100	4-2550	0.274	73.4	-6.3	-1.29	1.356	80.3	0.361	1.063	37.7	463.7	0.680	1.447	-3.71	1.018	111.0	224.1	-27.1	0.360
4-2100	4-2560	0.226	86.8	-3.9	-0.65	1.358	83.4	0.345	1.070	26.0	461.6	0.701	1.440	-3.50	1.020	110.0	236.0	-29.8	0.345
4-2100	4-2570	0.195	103.3	-0.5	-0.07	1.361	86.2	0.338	1.078	14.9	460.1	0.713	1.442	-3.40	1.021	109.5	247.9	-31.7	0.339
4-2100	4-2580	0.183	122.6	3.7	0.50	1.363	88.9	0.338	1.086	4.3	459.0	0.719	1.453	-3.40	1.024	109.4	259.7	-32.8	0.341
4-2100	4-2590	0.190	141.4	7.8	1.08	1.366	91.5	0.344	1.095	354.1	818.4	0.719	1.472	-3.49	1.027	109.7	271.4	-33.1	0.349
4-2100	4-2600	0.212	29.5	2.6	1.71	1.279	56.4	0.372	0.873	108.7	582.4	0.374	1.373	-3.70	0.907	56.3	129.5	13.3	0.556
4-2100	4-2600	0.214	158.1	11.0	1.71	1.369	94.1	0.355	1.105	344.4	818.1	0.713	1.488	-3.70	1.031	110.3	282.7	-32.8	0.364
4-2100	4-2610	0.646	32.6	4.2	2.44	1.285	59.9	0.528	0.887	102.1	585.4	0.419	1.354	-4.05	0.916	59.2	137.0	9.4	0.510
4-2100	4-2610	0.251	171.5	13.4	2.44	1.373	96.7	0.372	1.116	335.0	818.3	0.701	1.531	-4.05	1.035	111.2	293.6	-32.0	0.385
4-2100	4-2620	0.584	35.7	6.6	3.36	1.291	63.1	0.486	0.899	95.4	586.2	0.462	1.337	-4.62	0.926	61.8	144.1	5.8	0.469
4-2100	4-2620	0.298	181.9	15.5	3.36	1.378	99.4	0.393	1.128	326.1	818.9	0.685	1.572	-4.62	1.041	112.5	304.0	-30.9	0.412
4-2100	4-2630	0.550	38.9	10.4	4.61	1.297	66.1	0.449	0.911	88.6	590.9	0.502	1.320	-5.55	0.935	64.1	150.9	0.4	0.535
4-2100	4-2630	0.355	190.2	17.8	4.61	1.380	102.2	0.419	1.142	317.5	819.9	0.664	1.620	-5.55	1.047	114.0	314.0	-29.8	0.444
4-2100	4-2640	0.486	41.9	16.6	6.57	1.302	68.8	0.465	0.922	81.7	593.5	0.539	1.305	-7.19	0.943	66.1	157.2	-6.9	0.459
4-2100	4-2640	0.422	197.2	21.2	6.57	1.384	105.1	0.448	1.156	309.4	821.3	0.638	1.675	-7.19	1.054	115.7	323.8	-29.4	0.485
4-2100	4-2650	0.470	43.8	28.1	10.32	1.306	71.3	0.386	0.932	74.7	596.0	0.572	1.291	-10.65	0.952	67.8	162.3	-18.3	0.403
4-2100	4-2650	0.509	204.6	27.6	10.32	1.388	108.1	0.481	1.172	301.7	823.0	0.609	1.736	-10.65	1.061	117.7	333.7	-31.0	0.539
4-2100	4-2660	0.586	37.1	51.5	21.38	1.310	73.6	0.361	0.941	67.8	568.5	0.601	1.280	-21.42	0.959	69.2	165.9	-40.7	0.488
4-2100	4-2680	0.463	49.8	-54.5	-16.98	1.317	78.2	0.317	0.956	51.9	603.2	0.653	1.259	17.52	0.974	71.7	217.5	29.9	0.417
4-2100	4-2690	0.314	93.8	-38.8	-8.70	1.319	80.1	0.302	0.962	44.5	605.4	0.672	1.253	9.54	0.980	72	214.7	16.2	0.327
4-2100	4-2700	0.548	58.1	-13.8	-5.51	1.455	69.6	0.601	1.506	55.9	266.6	---	2.411	6.65	1.158	58.1	205.3	1.1	0.607
4-2100	4-2700	0.250	72.8	-30.1	-5.51	1.322	82.0	0.290	0.968	36.9	607.5	0.687	1.249	6.65	0.986	73.2	219.0	7.5	0.297
4-2110	4-2160	0.971	18.3	-3.4	-5.42	0.987	37.6	0.813	0.555	155.3	181.3	---	1.006	-7.31	0.434	84.5	117.1	15.5	0.572
4-2110	4-2170	0.878	22.7	-2.7	-3.31	1.031	43.6	0.742	0.584	148.9	184.6	---	1.017	-5.49	0.522	77.3	117.7	15.4	0.505
4-2110	4-2180	0.805	26.7	-2.0	-2.01	1.071	48.2	0.679	0.614	142.8	188.0	---	1.031	-4.50	0.593	73.9	119.5	15.0	0.460
4-2110	4-2190	0.744	30.5	-1.3	-1.09	1.106	51.9	0.624	0.644	136.7	191.6	---	1.047	-3.90	0.651	72.1	122.3	14.3	0.427
4-2110	4-2200	0.692	34.0	-0.5	-0.37	1.136	55.0	0.576	0.674	130.7	195.1	---	1.062	-3.54	0.698	71.3	126.0	13.3	0.402
4-2110	4-2210	0.644	37.3	0.4	0.24	1.162	57.8	0.534	0.702	124.6	198.6	---	1.076	-3.32	0.738	70.9	130.4	12.0	0.382
4-2110	4-2220	0.601	40.5	1.4	0.79	1.185	60.2	0.496	0.729	118.6	202.2	---	1.090	-3.21	0.772	70.9	135.2	10.3	0.365
4-2110	4-2230	0.561	43.5	2.5	1.32	1.204	62.5	0.463	0.754	112.6	205.7	---	1.103	-3.20	0.801	71.0	140.5	8.1	0.349
4-2110	4-2240	0.524	46.5	3.9	1.87	1.221	64.6	0.434	0.778	106.6	209.1	---	1.115	-3.27	0.826	71.2	146.0	5.5	0.336
4-2110	4-2250	0.489	49.5	5.7	2.45	1.235	66.6	0.408	0.800	100.5	212.6	---	1.126	-3.45	0.848	71.5	151.7	2.5	0.329
4-2110	4-2260	0.457	52.4	7.9	3.12	1.248	68.4	0.385	0.821	94.4	216.0	---	1.137	-3.75	0.867	71.8	157.5	-1.2	0.315
4-2110	4-2270	0.428	55.6	11.0	3.95	1.259	70.2	0.364	0.840	88.3	219.5	---	1.146	-4.24	0.885	72.1	163.3	-5.6	0.307
4-2110	4-2280	0.403	58.2	15.3	5.07	1.269	71.9	0.346	0.858	82.1	222.9	---	1.155	-5.05	0.901	72.5	168.9	-11.0	0.301
4-2110	4-2290	0.387	60.8	22.0	6.78	1.278	73.5	0.331	0.874	75.9	226.2	---	1.163	-6.47	0.915	72.8	174.1	-18.3	0.301
4-2110	4-2300	0.392	62.5	33.2	9.96	1.285	75.0	0.317	0.890	69.6	229.6	---	1.171	-9.36	0.928	73.1	178.2	-29.2	0.315
4-2110	4-2310	0.498	57.0	53.6	18.63	1.292	76.5	0.306	0.904	63.4	232.9	---	1.180	-17.76	0.941	73.4	180.2	-48.9	0.398
4-2110	4-2330	0.441	66.7	-58.6	-17.04	1.303	79.8	0.263	0.929	49.1	239.2	---	1.191	18.46	0.962	74.1	234.7	29.0	0.402
4-2110	4-2340	0.280	82.5	-38.6	-7.77	1.308	81.2	0.277	0.940	42.5	242.3	---	1.200	9.47	0.972	74.3	230.5	13.3	0.302
4-2110	4-2350	0.224	91.1	-26.9	-4.47	1.313	82.6	0.271	0.950	35.5	245.1	---	1.208	6.46	0.980	74.5	234.5	3.7	0.278
4-2110	4-2360	0.191	100.2	-18.9	-2.71	1.317	84.2	0.268	0.959	28.2	247.8	---	1.216	5.01	0.988	74.6	241.0	-2.4	0.269
4-2110	4-2370	0.168	110.9	-12.3	-1.56	1.320	85.7	0.266	0.968	20.6	250.5	---	1.225	4.19	0.995	74.6	248.7	-6.6	0.267
4-2110	4-2380	0.153	123.9	-6.2	-0.71	1.324	87.3	0.266	0.976	12.7	252.4	---	1.236	3.70	1.002	74.6	257.1	-9.4	0.268
4-2110	4-2390	0.147	139.3	-0.2	-0.02	1.327	89.1	0.268	0.984	4.4	254.2	---	1.248	3.40	1.007	74.4	266.1	-11.2	0.273
4-2110	4-2400	0.152	155.9	5.2	0.59	1.329	90.9	0.274	0.991	355.6	615.6	0.720	1.262	3.24	1.012	74.1	275.5	-12.1	0.281
4-2110	4-2410	0.170	172.2	9.1	1.16	1.332	93.0	0.283	0.998	346.3	616.5	0.716	1.280	3.19	1.016	73.6	285.2	-12.0	0.293
4-2110	4-2420	0.201	186.7	11.5	1.74	1.334	95.3	0.297	1.005	336.3	616.7	0.707	1.302	3.25	1.019	72.8	295.1	-11.1	0.311
4-2110	4-2430	0.247	199.0	12.7	2.35	1.337	98.1	0.317	1.011	325.6	616.2	0.690	1.331	3.41	1.022	71.6	305.2	-9.9	0.336
4-2110	4-2430	0.623	254.0	3.7	2.35	1.140	120.7	0.514	0.677	233.2	883.7	0.330	1.025	3.41	0.746	105.9	56.7	26.9	0.363
4-2110	4-2440	0.309	209.4	13.1	3.05	1.339	101.4	0.347	1.017	314.0	614.7	0.654	1.370	3.71	1.024	69.8	315.5	-6.8	0.371
4-2110	4-2440	0.582	254.2	5.2	3.05	1.130	118.6	0.484	0.667	233.1	893.8	0.345	0.990	3.71	0.730	95.8	44.6	26.3	0.302
4-2110	4-2450	0.393	218.7	13.0	3.91	1.341	105.6	0.392	1.023	301.1	611.9	0.622	1.424	4.22	1.025	67.0	326.1	-3.5	0.422
4-2110	4-2450	0.588	254.8	6.6	3.91	1.126	118.9	0.489	0.663	232.2	903.1	0.339	0.987	4.22	0.721	87.1	32.3	23.7	0.304
4-2110	4-2460	0.510	227.4	12.6	5.09	1.343	111.2	0.457	1.029	286.4	607.3	0.558	1.500	5.07	1.026	62.9	337.4	0.6	0.497
4-2110	4-2460	0.637	255.8	7.7	5.09	1.125	121.3	0.525	0.662	230.4	911.3	0.315	1.009	5.07	0.717	78.0	24.3	20.8	0.358
4-2110	4-2470	0.742	257.8	8.4	6.91	1.125	126.6	0.600	0.662	226.7	917.6	0.265	1.060	6.58	0.714	67.0	22.4	19.4	0.467
4-2110	4-2520	0.901	27.4	-6.2	-7.25	1.110	43.9	0.725	0.648	142.2	883.1	0.179	1.118	-8.99	0.670	124.5	154.5	1.5	0.585
4-2110	4-2530	0.658	54.7	-7.7	-4.27	1.351	60.8	0.560	1.051	89.8	480.4	0.463	1.638	-6.29	1.017	124.0	195.8	-16.7	0.581
4-2110	4-2530	0.765	30.8	-5.0	-4.27	1.112	52.1	0.620	0.650	135.9	886.4	0.247	1.052	-6.29	0.669	110.1	155.2	5.5	0.432
4-2110	4-2540	0.503	63.7	-6.6	-2.63	1.353	68.3	0.474	1.057	73.1	473.3	0.556	1.559	-4.95	1.018	118.2	209.0	-21.7	0.483
4-2110	4-2540	0.672	32.1	-3.6	-2.63	1.111	55.8	0.569	0.648	133.5	893.7	0.279	1.017	-4.95	0.663	98.2	148.6	2.9	0.351
4-2110	4-2550	0.395	72.8	-5.1	-1.54	1.355	73.7	0.418	1.064	58.6	468.4	0.619	1.509	-4.18	1.019	114.6	221.7	-25.7	0.422
4-2110	4-2550	0.792	28.1	-1.6	-1.54	1.087	49.1	0.665	0.628	140.6	910.5	0.210	1.045	-4.18	0.620	70.8	118.9	15.4	0.461
4-2110	4-2550	0.698	30.8	-2.0	-1.54	1.101	54.3	0.593	0.639	135.7	905.6	0.260	1.018	-4.18	0.643	82.0	130.5	10.8	0.371
4-2110	4-2560	0.315	82.8	-3.1	-0.73	1.357	77.9	0.382	1.071	45.4	464.9	0.661	1.480	-3.71	1.020	112.3	234.2	-28.8	0.384
4-2110	4-2570	0.256	94.8	-0.4	-0.07	1.359	81.4	0.360	1.078	33.2	462.2	0.689	1.466	-3.42	1.021	110.9	246.7	-30.5	0.362
4-2110	4-2580	0.215	109.6	3.2	0.51	1.362	84.5	0.348	1.085	21.6	460.2	0.707	1.463	-3.26	1.023	110.0	259.1	-32.0	0.351

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2110	4-2590	0.193	127.4	[illegible]	1.05	1.364	87.3	0.344	1.003	10.6	458.7	0.717	1.468	-3.19	1.026	109.7	271.2	-32.3	0.348
4-2110	4-2600	0.190	146.9	11.4	1.58	1.367	90.0	0.346	1.101	0.1	457.7	0.721	1.482	-3.22	1.029	109.8	282.9	-31.8	0.353
4-2110	4-2610	0.770	43.4	2.8	2.14	1.275	53.5	0.611	0.870	113.5	580.6	0.338	1.401	-3.34	0.904	53.4	140.2	11.2	0.597
4-2110	4-2610	0.206	165.3	14.4	2.14	1.370	92.6	0.554	1.111	350.0	817.1	0.718	1.504	-3.34	1.043	110.2	294.1	-30.6	0.364
4-2110	4-2620	0.701	46.4	4.2	2.76	1.282	57.0	0.566	0.882	107.1	583.7	0.384	1.383	-3.57	0.915	56.5	147.5	7.9	0.549
4-2110	4-2620	0.236	180.6	16.1	2.76	1.373	95.2	0.367	1.121	340.4	817.0	0.709	1.533	-3.57	1.038	110.9	304.8	-29.0	0.381
4-2110	4-2630	0.637	49.4	6.1	3.49	1.288	60.4	0.523	0.896	100.6	586.8	0.428	1.365	-3.96	0.925	59.3	154.5	3.9	0.505
4-2110	4-2630	0.279	192.5	17.3	3.49	1.376	97.9	0.386	1.133	331.2	817.4	0.696	1.570	-3.96	1.044	111.9	314.8	-27.0	0.404
4-2110	4-2640	0.578	52.5	8.9	4.43	1.294	63.5	0.407	0.908	94.0	589.7	0.470	1.347	-4.58	0.935	61.8	161.3	-0.9	0.466
4-2110	4-2640	0.330	201.9	18.5	4.43	1.379	100.7	0.409	1.145	322.4	818.2	0.677	1.614	-4.58	1.050	113.3	324.5	-25.0	0.433
4-2110	4-2650	0.527	55.6	11.1	5.78	1.299	66.4	0.447	0.920	87.2	592.5	0.509	1.330	-5.62	0.944	64.0	167.8	-6.8	0.434
4-2110	4-2650	0.390	209.6	20.3	5.78	1.383	103.0	0.426	1.159	314.1	819.4	0.654	0.665	-5.62	1.057	114.8	333.8	-23.3	0.468
4-2110	4-2660	0.450	58.4	20.3	8.00	1.304	69.1	0.474	0.900	80.3	595.3	0.545	1.315	-7.55	0.953	66.0	173.7	-14.9	0.411
4-2110	4-2660	0.462	216.2	23.6	8.00	1.387	106.5	0.467	1.174	306.1	821.0	0.626	1.722	-7.55	1.064	116.7	343.0	-22.6	0.510
4-2110	4-2670	0.492	59.4	33.9	12.77	1.308	71.6	0.386	0.940	73.4	597.9	0.377	1.302	-12.04	0.961	67.7	178.3	-28.4	0.415
4-2110	4-2670	0.562	223.6	34.0	12.77	1.391	109.5	0.500	1.190	298.5	823.0	0.595	1.786	-12.04	1.072	118.8	352.6	-25.1	0.571
4-2110	4-2700	0.370	73.6	-82.5	-11.16	1.318	78.4	0.418	0.955	50.8	605.5	0.656	1.270	12.72	0.983	71.5	226.4	17.7	0.371
4-2110	4-2710	0.382	77.3	73.7	-5.90	1.453	67.7	0.674	1.507	60.4	264.8	---	2.432	7.73	1.161	57.1	215.9	-1.6	0.630
[illegible]	4-2710	0.276	85.1	-28.7	-5.90	1.321	60.3	0.504	0.970	43.3	607.7	0.475	1.264	7.73	0.990	72.4	228.8	6.3	0.319
4-2120	4-2180	0.988	34.8	-1.8	-2.94	0.997	36.5	0.302	0.563	155.3	184.5	---	1.025	-5.64	0.449	70.3	126.6	15.1	0.593
4-2120	4-2190	0.905	39.1	-1.1	-1.43	1.041	42.0	0.757	0.593	149.0	187.8	---	1.042	-4.39	0.537	67.6	128.7	14.5	0.538
4-2120	4-2200	0.836	43.0	-0.4	-0.45	1.081	46.5	0.678	0.624	142.9	191.3	---	1.059	-3.68	0.607	66.6	131.7	13.7	0.498
4-2120	4-2210	0.777	46.7	0.3	0.27	1.115	50.2	0.645	0.654	136.9	194.8	---	1.076	-3.24	0.664	66.4	135.6	12.5	0.467
4-2120	4-2220	0.728	50.1	1.1	0.85	1.144	53.4	0.598	0.685	130.9	198.3	---	1.093	-2.97	0.711	66.5	140.0	10.9	0.440
4-2120	4-2230	0.674	53.4	2.0	1.36	1.169	56.3	0.559	0.732	124.9	201.8	---	1.108	-2.82	0.750	66.9	144.9	9.1	0.418
4-2120	4-2240	0.629	56.5	3.0	1.83	1.191	58.9	0.517	0.739	118.9	205.4	---	1.122	-2.75	0.784	67.4	150.2	6.8	0.398
4-2120	4-2250	0.588	59.6	4.1	2.28	1.210	61.3	0.483	0.765	112.9	208.9	---	1.134	-2.76	0.813	68.0	155.7	4.2	0.381
4-2120	4-2260	0.549	62.5	5.5	2.76	1.226	63.5	0.453	0.789	106.9	212.4	---	1.146	-2.85	0.838	68.6	161.5	1.3	0.365
4-2120	4-2270	0.512	65.5	7.3	3.28	1.240	65.6	0.426	0.811	100.8	215.9	---	1.156	-3.03	0.860	69.1	167.4	-2.1	0.351
4-2120	4-2280	0.478	68.4	9.3	3.90	1.253	67.5	0.401	0.832	94.7	219.4	---	1.166	-3.34	0.880	69.7	173.4	-6.0	0.339
4-2120	4-2290	0.448	71.3	12.5	4.68	1.264	69.4	0.380	0.851	88.5	222.9	---	1.175	-3.84	0.898	70.3	179.4	-10.5	0.329
4-2120	4-2300	0.422	74.1	16.7	5.78	1.273	71.2	0.361	0.869	82.3	226.3	---	1.183	-4.68	0.914	70.8	185.3	-16.1	0.322
4-2120	4-2310	0.405	76.8	23.5	7.57	1.282	72.9	0.344	0.886	76.1	229.8	---	1.191	-6.21	0.929	71.4	190.9	-23.5	0.320
4-2120	4-2320	0.417	78.0	35.6	11.26	1.289	74.5	0.329	0.901	69.7	233.1	---	1.198	-9.66	0.942	71.8	195.4	-35.5	0.336
4-2120	4-2330	0.610	64.4	59.7	24.75	1.296	76.0	0.317	0.916	63.5	236.4	---	1.206	-22.91	0.950	72.2	198.4	-61.9	0.477
4-2120	4-2350	0.325	92.3	-40.3	-9.42	1.307	79.5	0.293	0.941	49.2	242.8	---	1.217	11.73	0.975	73.2	240.6	14.1	0.340
4-2120	4-2360	0.248	101.1	-23.2	-4.33	1.312	81.0	0.286	0.952	42.2	245.7	---	1.224	6.90	0.984	73.6	243.4	1.7	0.297
4-2120	4-2370	0.211	108.9	-13.4	-2.16	1.316	82.6	0.280	0.962	35.0	248.5	---	1.232	4.98	0.992	73.8	249.9	-5.1	0.284
4-2120	4-2380	0.186	118.0	-6.3	-0.89	1.320	84.2	0.275	0.972	27.4	251.1	---	1.240	3.98	0.999	74.0	257.9	-9.1	0.279
4-2120	4-2390	0.167	129.2	-0.2	-0.02	1.324	85.8	0.273	0.981	19.6	253.3	---	1.249	3.41	1.006	74.1	266.6	-11.5	0.278
4-2120	4-2400	0.156	143.3	5.5	0.55	1.327	87.6	0.273	0.989	11.3	255.2	---	1.259	3.06	1.011	74.1	275.7	-12.7	0.280
4-2120	4-2410	0.154	159.1	10.5	1.21	1.330	89.4	0.276	0.997	2.6	256.7	---	1.272	2.86	1.015	73.9	285.2	-12.9	0.286
4-2120	4-2420	0.163	176.3	14.1	1.72	1.332	91.4	0.282	1.004	353.4	617.7	0.721	1.287	2.76	1.019	73.6	294.8	-12.2	0.295
4-2120	4-2430	0.186	192.6	16.0	2.21	1.335	93.7	0.293	1.011	343.7	618.1	0.715	1.307	2.75	1.022	73.1	304.6	-10.7	0.308
4-2120	4-2440	0.223	206.8	16.4	2.71	1.337	95.2	0.309	1.018	333.2	617.8	0.704	1.332	2.84	1.024	72.1	314.4	-8.4	0.328
4-2120	4-2440	0.657	269.5	4.0	2.71	1.452	122.3	0.535	0.698	233.9	878.5	0.322	1.063	2.84	0.766	111.3	77.5	27.9	0.408
4-2120	4-2450	0.274	218.7	13.9	3.26	1.340	99.2	0.342	1.024	322.0	616.7	0.684	1.364	3.02	1.025	70.7	324.4	-5.4	0.355
4-2120	4-2450	0.382	269.4	5.6	3.26	1.137	118.5	0.481	0.677	234.5	889.3	0.352	1.002	3.02	0.742	99.6	66.2	28.9	0.308
4-2120	4-2460	0.344	228.6	15.0	3.91	1.342	102.9	0.367	1.036	309.7	614.5	0.652	1.408	3.35	1.026	68.6	334.6	-1.8	0.395
4-2120	4-2460	0.571	269.8	6.9	3.91	1.132	117.9	0.472	0.671	234.0	898.8	0.354	0.988	3.35	0.731	91.1	53.1	28.0	0.286
4-2120	4-2470	0.439	237.9	13.9	4.73	1.344	107.6	0.418	1.036	296.0	610.9	0.602	1.470	3.88	1.027	65.8	345.2	2.4	0.453
4-2120	4-2470	0.598	270.5	7.8	4.73	1.130	119.2	0.493	0.669	232.7	907.6	0.339	0.999	3.88	0.724	82.7	42.3	25.6	0.315
4-2120	4-2480	0.574	246.8	12.7	5.90	1.346	114.2	0.496	1.043	280.3	605.2	0.525	1.560	4.78	1.027	60.4	356.8	7.2	0.542
4-2120	4-2480	0.669	271.9	8.4	5.90	1.129	122.8	0.546	0.668	230.2	915.0	0.304	1.033	4.78	0.720	73.3	37.3	23.6	0.393
4-2120	4-2490	0.806	274.7	8.5	7.85	1.131	129.8	0.643	0.670	224.9	919.7	0.239	1.100	6.46	0.718	61.3	38.6	23.3	0.528
4-2120	4-2540	0.834	45.6	-4.1	-4.16	1.177	47.3	0.602	0.657	138.8	883.0	0.209	1.104	-6.73	0.677	119.9	172.2	-4.8	0.525
4-2120	4-2550	0.599	74.3	-4.3	-2.13	1.353	63.5	0.532	1.065	83.7	477.4	0.499	1.630	-4.95	1.019	122.0	217.3	-23.0	0.548
4-2120	4-2550	0.705	48.3	-2.7	-2.13	1.118	54.0	0.593	0.657	133.6	887.4	0.268	1.047	-4.95	0.675	107.1	171.6	-5.2	0.396
4-2120	4-2560	0.463	83.5	-2.5	-0.92	1.356	70.2	0.458	1.071	67.7	471.0	0.581	1.562	-4.01	1.020	117.1	231.1	-26.7	0.466
4-2120	4-2560	0.649	49.2	-1.3	-0.92	1.116	56.9	0.552	0.656	131.8	895.2	0.294	1.038	-4.01	0.670	95.9	163.9	-1.9	0.331
4-2120	4-2570	0.366	92.7	-0.3	-0.09	1.356	75.2	0.409	1.078	53.6	466.4	0.637	1.520	-3.45	1.021	114.0	244.4	-29.3	0.414
4-2120	4-2580	0.294	103.8	2.5	0.56	1.360	79.2	0.379	1.085	40.6	463.0	0.674	1.496	-3.10	1.025	112.0	257.5	-30.7	0.383
4-2120	4-2590	0.242	116.8	6.1	1.10	1.362	82.6	0.360	1.092	28.5	460.4	0.699	1.485	-2.89	1.026	110.8	270.2	-31.0	0.365
4-2120	4-2600	0.209	133.1	10.3	1.58	1.365	85.6	0.351	1.100	17.0	458.5	0.714	1.486	-2.78	1.028	110.1	282.4	-30.5	0.358
4-2120	4-2610	0.196	152.1	14.4	2.04	1.367	88.4	0.350	1.108	6.1	457.1	0.721	1.495	-2.75	1.032	109.9	294.0	-29.2	0.358
4-2120	4-2620	0.202	171.6	17.2	2.51	1.370	91.1	0.354	1.117	355.7	816.2	0.721	1.513	-2.79	1.036	110.1	304.9	-27.2	0.366
4-2120	4-2630	0.757	60.3	4.3	3.00	1.279	54.1	0.424	0.880	111.9	582.0	0.349	1.411	-2.92	0.934	53.8	167.2	5.3	0.588
4-2120	4-2630	0.225	188.7	10.6	3.00	1.372	93.8	0.365	1.127	345.7	815.8	0.716	1.538	-2.92	1.043	110.6	315.3	-28.0	0.379
4-2120	4-2640	0.690	63.3	5.6	3.56	1.285	57.6	0.559	0.893	105.5	585.2	0.393	1.392	-3.16	0.925	56.0	164.9	1.6	0.542
4-2120	4-2640	0.261	202.5	19.0	3.56	1.376	96.5	0.380	1.136	336.3	815.9	0.705	1.570	-3.16	1.047	111.5	324.9	-22.2	0.398
4-2120	4-2650	0.628	66.3	7.6	4.24	1.291	60.9	0.516	0.905	99.1	588.3	0.437	1.374	-3.55	0.935	59.5	171.8	-2.7	0.500
4-2120	4-2650	0.307	213.1	19.1	4.24	1.379	99.2	0.401	1.150	327.2	816.5	0.689	1.610	-3.55	1.053	112.6	334.2	-19.5	0.423
4-2120	4-2660	0.571	69.4	10.4	5.15	1.297	64.0	0.474	0.917	92.4	591.4	0.478	1.356	-4.18	0.945	61.9	178.6	-7.6	0.463
4-2120	4-2660	0.361	221.6	19.8	5.15	1.382	102.0	0.425	1.163	318.8	817.5	0.648	1.657	-4.18	1.060	114.1	343.1	-16.9	0.453
4-2120	4-2670	0.523	72.4	15.0	6.50	1.301	66.8	0.444	0.928	85.7	594.3	0.517	1.340	-5.28	0.955	64.1	185.1	-13.7	0.432
4-2120	4-2670	0.424	228.6	21.0	6.50	1.380	106.9	0.454	1.177	310.4	819.0	0.643	1.711	-5.28	1.067	115.8	351.9	-14.9	0.489
4-2120	4-2680	0.490	75.0	22.8	8.92	1.306	69.5	0.412	0.938	78.9	597.2	0.552	1.325	-7.45	0.963	66.0	191.1	-22.3	0.412
4-2120	4-2680	0.499	234.9	24.3	8.92	1.390	108.0	0.486	1.192	302.6	820.9	0.613	1.771	-7.45	1.075	117.7	0.8	-14.3	0.533
4-2120	4-2690	0.514	74.7	38.9	15.02	1.310	71.9	0.384	0.948	71.9	599.9	0.583	1.315	-13.31	0.972	67.6	195.6	-38.2	0.428
4-2120	4-2710	0.473	80.7	-56.6	-16.59	1.317	76.7	0.336	0.964	56.7	605.3	0.480	1.287	18.78	0.987	70.5	240.2	21.9	0.452

DEPART	ARRIVE	SPEED	R A	DEC	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2120	4-2720	0.309	94.3	-27.6	-6.55	1.319	78.7	0.319	0.970	49.4	607.7	0.661	1.280	8.78	0.993	71.4	238.4	5.1	0.343
4-2130	4-2210	0.928	55.8	0.3	0.36	1.057	40.8	0.767	0.606	148.6	190.5	---	1.071	-3.13	0.565	60.4	141.7	12.2	0.571
4-2130	4-2220	0.862	59.6	0.9	1.01	1.096	45.2	0.711	0.637	142.6	193.9	---	1.090	-2.67	0.631	61.0	145.6	10.8	0.552
4-2130	4-2230	0.803	63.1	1.6	1.61	1.126	46.9	0.660	0.667	136.6	197.5	---	1.108	-2.39	0.684	61.8	150.0	9.2	0.501
4-2130	4-2240	0.749	66.5	2.4	1.93	1.154	52.2	0.614	0.697	130.6	201.0	---	1.124	-2.22	0.729	62.7	154.9	7.2	0.473
4-2130	4-2250	0.699	69.7	3.2	2.31	1.177	55.1	0.572	0.725	124.7	204.6	---	1.139	-2.12	0.767	63.6	160.1	4.9	0.449
4-2130	4-2260	0.652	72.8	4.1	2.66	1.198	57.8	0.533	0.752	118.7	208.2	---	1.153	-2.09	0.800	64.6	165.7	2.3	0.428
4-2130	4-2270	0.609	75.8	5.2	3.01	1.216	60.3	0.499	0.777	112.7	211.8	---	1.165	-2.11	0.829	65.5	171.5	-0.6	0.408
4-2130	4-2280	0.568	78.7	6.5	3.38	1.232	62.6	0.468	0.801	106.7	215.4	---	1.176	-2.20	0.854	66.4	177.5	-3.7	0.391
4-2130	4-2290	0.530	81.7	8.1	3.80	1.246	64.8	0.440	0.824	100.6	218.9	---	1.186	-2.31	0.876	67.2	183.6	-7.1	0.375
4-2130	4-2300	0.494	84.6	10.1	4.31	1.258	66.9	0.414	0.844	94.5	222.5	---	1.194	-2.65	0.895	68.0	190.0	-10.9	0.361
4-2130	4-2310	0.462	87.5	12.8	4.98	1.268	68.8	0.392	0.864	88.3	226.1	---	1.202	-3.10	0.913	68.8	196.5	-15.2	0.349
4-2130	4-2320	0.433	90.5	16.8	5.96	1.278	70.7	0.372	0.882	82.1	229.6	---	1.210	-3.89	0.929	69.6	203.0	-20.4	0.339
4-2130	4-2330	0.415	93.2	23.3	7.68	1.286	72.5	0.354	0.899	75.7	233.0	---	1.217	-5.42	0.943	70.2	209.4	-27.5	0.335
4-2130	4-2340	0.431	94.2	36.5	11.88	1.293	74.2	0.338	0.914	69.3	236.4	---	1.223	-9.43	0.956	70.9	214.9	-40.5	0.350
4-2130	4-2360	0.402	101.0	-46.4	-13.18	1.305	77.7	0.311	0.942	55.4	243.0	---	1.234	15.99	0.978	72.1	252.0	17.7	0.401
4-2130	4-2370	0.273	112.2	-19.0	-3.96	1.311	79.4	0.301	0.954	48.5	246.0	---	1.241	6.96	0.988	72.6	252.2	-1.0	0.315
4-2130	4-2380	0.235	119.0	-7.4	-1.33	1.315	81.0	0.293	0.965	41.3	248.9	---	1.248	4.52	0.996	73.0	259.0	-8.4	0.298
4-2130	4-2390	0.208	126.8	-0.2	-0.03	1.319	82.7	0.287	0.975	33.8	251.5	---	1.255	3.42	1.003	73.4	267.4	-12.1	0.291
4-2130	4-2400	0.187	136.3	5.5	0.78	1.323	84.4	0.282	0.985	26.0	253.8	---	1.263	2.82	1.009	73.6	276.4	-13.8	0.288
4-2130	4-2410	0.171	148.3	10.7	1.37	1.327	86.1	0.280	0.994	17.8	255.8	---	1.272	2.46	1.014	73.7	285.7	-14.3	0.289
4-2130	4-2420	0.163	162.9	15.2	1.84	1.330	88.0	0.280	1.002	9.2	257.4	---	1.283	2.25	1.018	73.7	295.2	-13.8	0.292
4-2130	4-2430	0.164	179.8	18.6	2.25	1.333	90.0	0.284	1.010	0.2	258.6	---	1.297	2.13	1.021	73.6	304.7	-12.4	0.298
4-2130	4-2440	0.178	197.3	20.1	2.62	1.335	92.1	0.291	1.017	350.6	619.2	0.721	1.313	2.09	1.024	73.2	314.3	-10.3	0.308
4-2130	4-2450	0.205	213.3	19.9	3.00	1.338	94.5	0.303	1.024	340.5	619.1	0.713	1.335	2.11	1.025	72.5	323.9	-7.6	0.323
4-2130	4-2460	0.246	227.0	18.6	3.39	1.340	97.3	0.322	1.031	329.6	618.4	0.699	1.363	2.21	1.027	71.4	333.5	-4.3	0.344
4-2130	4-2460	0.591	284.6	5.7	3.39	1.145	118.9	0.486	0.688	235.8	884.6	0.354	1.022	2.21	0.755	103.7	87.8	28.4	0.326
4-2130	4-2470	0.303	238.4	16.9	3.83	1.342	100.6	0.350	1.037	317.8	616.7	0.675	1.400	2.38	1.027	69.7	343.4	-0.4	0.375
4-2130	4-2470	0.561	284.8	6.9	3.83	1.138	117.4	0.463	0.680	235.6	894.4	0.365	0.994	2.38	0.740	94.8	75.4	29.1	0.278
4-2130	4-2480	0.382	248.2	15.0	4.36	1.344	104.7	0.390	1.043	304.9	613.8	0.646	1.450	2.68	1.028	67.2	353.6	3.8	0.420
4-2130	4-2480	0.571	285.4	7.7	4.36	1.134	117.8	0.471	0.676	234.7	903.6	0.358	0.994	2.68	0.732	86.9	62.8	28.1	0.285
4-2130	4-2490	0.490	257.1	13.2	5.07	1.347	110.0	0.450	1.050	290.5	609.3	0.577	1.523	3.17	1.028	65.4	4.6	8.5	0.487
4-2130	4-2490	0.617	286.4	8.1	5.07	1.133	120.1	0.506	0.675	232.9	911.7	0.334	1.017	3.17	0.727	78.5	54.7	26.4	0.337
4-2130	4-2500	0.645	266.1	11.4	6.12	1.349	117.6	0.543	1.056	273.6	602.3	0.485	1.628	4.02	1.028	57.4	16.9	13.6	0.590
4-2130	4-2500	0.712	288.3	8.0	6.12	1.134	125.0	0.576	0.676	229.3	918.0	0.286	1.065	4.02	0.723	68.5	52.8	25.5	0.437
4-2130	4-2510	0.882	291.9	7.4	8.00	1.136	133.8	0.694	0.678	222.2	920.7	0.207	1.148	5.72	0.723	55.0	57.1	25.8	0.598
4-2130	4-2560	0.777	63.5	-1.5	-1.38	1.123	50.2	0.644	0.665	135.8	883.1	0.237	1.003	-4.56	0.685	116.0	190.1	-10.8	0.475
4-2130	4-2570	0.549	93.7	-0.3	-0.12	1.356	65.9	0.507	1.079	77.7	474.5	0.532	1.626	-3.49	1.022	120.3	240.2	-26.6	0.522
4-2130	4-2570	0.671	65.7	-0.2	-0.12	1.124	55.8	0.567	0.665	131.5	888.3	0.288	1.042	-3.49	0.684	104.5	188.5	-10.5	0.365
4-2130	4-2580	0.428	102.9	2.1	0.68	1.358	72.0	0.443	1.086	62.2	468.6	0.604	1.567	-2.89	1.023	116.1	254.4	-28.6	0.452
4-2130	4-2580	0.928	57.2	0.5	0.68	1.079	41.2	0.759	0.624	146.7	913.0	0.150	1.098	-2.89	0.606	56.7	141.2	12.6	0.566
4-2130	4-2580	0.627	66.3	1.0	0.68	1.122	58.1	0.535	0.663	130.1	896.5	0.309	1.018	-2.89	0.679	94.0	179.8	-6.8	0.312
4-2130	4-2590	0.341	113.0	4.9	1.26	1.360	76.7	0.402	1.092	48.4	464.2	0.654	1.531	-2.52	1.026	113.4	268.0	-29.2	0.409
4-2130	4-2600	0.277	124.9	8.4	1.72	1.363	80.5	0.376	1.099	35.5	460.9	0.686	1.512	-2.30	1.028	111.7	280.8	-28.9	0.363
4-2130	4-2610	0.233	139.6	12.4	2.11	1.365	83.8	0.361	1.107	23.5	458.5	0.707	1.506	-2.16	1.032	110.7	293.0	-27.5	0.370
4-2130	4-2620	0.208	157.4	16.5	2.47	1.367	86.8	0.355	1.115	12.1	456.6	0.719	1.510	-2.10	1.035	110.2	304.3	-25.4	0.385
4-2130	4-2630	0.203	177.2	19.4	2.82	1.370	89.7	0.356	1.123	1.3	455.4	0.723	1.523	-2.09	1.040	110.2	315.0	-22.8	0.368
4-2130	4-2640	0.217	195.9	20.5	3.18	1.372	92.4	0.364	1.133	351.0	814.7	0.721	1.544	-2.15	1.045	110.5	324.9	-19.9	0.378
4-2130	4-2650	0.744	77.2	5.0	3.57	1.281	54.9	0.596	0.890	110.3	583.5	0.360	1.420	-2.27	0.925	54.2	176.5	-1.1	0.581
4-2130	4-2650	0.246	211.6	20.3	3.57	1.375	95.1	0.376	1.143	341.3	814.5	0.713	1.573	-2.27	1.051	111.1	334.3	-16.7	0.394
4-2130	4-2660	0.679	80.2	6.5	4.03	1.288	58.3	0.552	0.902	103.9	586.8	0.404	1.401	-2.49	0.936	57.1	182.3	-5.8	0.537
4-2130	4-2660	0.206	223.8	19.6	4.03	1.378	97.8	0.394	1.154	332.0	814.9	0.699	1.609	-2.49	1.057	112.1	343.3	-13.5	0.415
4-2130	4-2670	0.618	83.2	8.5	4.60	1.293	61.5	0.512	0.915	97.4	590.0	0.447	1.383	-2.84	0.946	59.7	189.3	-9.1	0.496
4-2130	4-2670	0.335	233.3	19.0	4.60	1.382	100.6	0.416	1.166	323.1	815.7	0.681	1.652	-2.84	1.064	113.4	352.0	-10.3	0.447
4-2130	4-2680	0.562	86.3	11.3	5.39	1.299	64.5	0.474	0.926	90.8	593.2	0.487	1.365	-3.42	0.955	62.1	196.4	-13.8	0.460
4-2130	4-2680	0.301	240.8	18.9	5.39	1.185	103.5	0.443	1.180	314.7	817.1	0.657	1.702	-3.42	1.071	134.9	0.5	-7.5	0.472
4-2130	4-2690	0.514	89.4	15.7	6.63	1.303	67.3	0.439	0.938	84.1	596.2	0.525	1.348	-4.47	0.965	64.2	203.5	-19.5	0.430
4-2130	4-2690	0.454	247.2	19.8	6.63	1.389	106.5	0.473	1.196	306.7	818.9	0.630	1.758	-4.47	1.078	116.7	9.0	-2.4	0.509
4-2130	4-2700	0.488	92.0	23.8	9.12	1.308	69.9	0.408	0.947	77.2	599.2	0.560	1.333	-6.77	0.974	66.1	210.1	-28.1	0.410
4-2130	4-2700	0.531	253.1	23.1	9.12	1.393	109.5	0.505	1.210	299.1	821.1	0.598	1.821	-6.77	1.086	118.8	17.8	-5.1	0.554
4-2130	4-2710	0.538	89.8	43.6	17.29	1.311	72.4	0.381	0.956	70.2	602.0	0.591	1.320	-14.76	0.982	67.7	215.6	-47.6	0.444
4-2130	4-2730	0.342	106.1	-27.1	-6.98	1.318	77.0	0.335	0.971	55.1	607.4	0.645	1.297	9.88	0.996	70.4	248.1	4.3	0.369
4-2140	4-2230	0.948	72.6	1.4	1.87	1.074	40.0	0.773	0.622	147.9	192.8	---	1.102	-1.80	0.599	55.2	155.7	5.5	0.600
4-2140	4-2240	0.883	76.2	2.0	2.24	1.108	44.2	0.720	0.652	141.9	196.3	---	1.122	-1.56	0.659	56.8	160.1	6.7	0.563
4-2140	4-2250	0.824	79.7	2.6	2.53	1.138	48.0	0.671	0.682	135.9	199.9	---	1.140	-1.41	0.709	58.2	165.0	4.7	0.531
4-2140	4-2260	0.769	83.0	3.3	2.77	1.164	51.3	0.625	0.711	130.0	203.5	---	1.156	-1.32	0.751	59.7	170.2	2.4	0.502
4-2140	4-2270	0.718	86.1	4.0	2.99	1.187	54.3	0.584	0.739	124.1	207.2	---	1.170	-1.28	0.788	61.0	175.7	-0.2	0.477
4-2140	4-2280	0.670	89.2	4.8	3.21	1.206	57.1	0.545	0.766	118.1	210.8	---	1.183	-1.27	0.819	62.3	181.6	-2.9	0.454
4-2140	4-2290	0.625	92.2	5.6	3.43	1.223	59.7	0.510	0.791	112.2	214.5	---	1.195	-1.30	0.847	63.5	187.7	-5.8	0.433
4-2140	4-2300	0.583	95.1	6.9	3.66	1.238	62.1	0.479	0.815	106.1	218.2	---	1.205	-1.37	0.871	64.6	194.0	-8.8	0.414
4-2140	4-2310	0.543	98.1	8.2	3.93	1.252	64.3	0.450	0.837	100.1	221.8	---	1.214	-1.49	0.893	65.7	200.7	-12.0	0.396
4-2140	4-2320	0.505	101.1	9.8	4.27	1.263	66.4	0.424	0.858	93.9	225.5	---	1.222	-1.70	0.912	66.7	207.6	-15.4	0.381
4-2140	4-2330	0.470	104.1	12.0	4.74	1.273	68.5	0.401	0.877	87.7	229.1	---	1.229	-2.04	0.929	67.7	214.8	-19.9	0.367
4-2140	4-2340	0.438	107.2	15.2	5.47	1.282	70.4	0.380	0.895	81.3	232.6	---	1.236	-2.65	0.944	68.6	222.2	-23.1	0.355
4-2140	4-2350	0.414	110.2	20.9	6.89	1.290	72.3	0.362	0.912	74.8	236.1	---	1.242	-3.35	0.958	69.4	229.8	-29.0	0.346
4-2140	4-2360	0.429	111.3	35.1	11.41	1.297	73.1	0.345	0.928	68.3	239.5	---	1.248	-8.35	0.970	70.2	237.1	-42.3	0.358
4-2140	4-2380	0.298	124.2	-13.3	-3.07	1.309	77.7	0.318	0.955	54.4	245.9	---	1.259	6.34	0.990	71.6	261.1	-4.8	0.330
4-2140	4-2390	0.261	130.1	-0.2	-0.05	1.314	79.4	0.307	0.967	47.2	248.9	---	1.265	3.44	0.998	72.1	268.6	-12.9	0.312
4-2140	4-2400	0.235	136.8	6.1	1.10	1.319	81.2	0.299	0.978	39.7	251.6	---	1.271	2.41	1.005	72.6	277.5	-15.6	0.304
4-2140	4-2410	0.212	144.9	10.9	1.79	1.323	82.9	0.293	0.989	32.0	254.0	---	1.278	1.90	1.011	73.0	286.7	-16.4	0.300

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2140	4-2420	0.192	155.2	15.1	2.16	1.326	84.7	0.288	0.998	23.9	256.1	---	1.286	1.61	1.016	73.3	296.1	-15.9	0.298
4-2140	4-2430	0.178	160.0	18.9	2.48	1.330	86.6	0.287	1.007	15.5	257.9	---	1.296	1.43	1.020	73.4	305.5	-14.6	0.299
4-2140	4-2440	0.171	183.7	21.9	2.75	1.333	88.5	0.288	1.016	6.6	259.2	---	1.308	1.33	1.023	73.4	314.9	-12.6	0.303
4-2140	4-2450	0.176	201.2	23.3	2.99	1.336	90.6	0.292	1.023	357.2	619.9	0.724	1.322	1.28	1.025	73.1	324.2	-9.9	0.310
4-2140	4-2460	0.192	218.6	22.9	3.21	1.338	92.9	0.301	1.031	347.3	620.2	0.720	1.341	1.27	1.027	72.6	333.6	-6.8	0.321
4-2140	4-2470	0.223	234.1	21.0	3.44	1.341	95.5	0.315	1.037	336.8	619.7	0.710	1.364	1.30	1.028	71.8	342.9	-5.2	0.337
4-2140	4-2480	0.615	300.0	5.6	3.44	1.155	120.1	0.502	0.701	236.7	879.6	0.349	1.053	1.30	0.771	108.3	108.4	25.0	0.360
4-2140	4-2480	0.270	247.0	18.5	3.68	1.343	98.5	0.337	1.044	325.5	618.4	0.692	1.396	1.38	1.028	70.5	352.5	0.8	0.761
4-2140	4-2480	0.559	299.9	6.7	3.68	1.144	117.3	0.460	0.689	237.0	889.9	0.372	1.006	1.38	0.750	98.4	97.7	26.9	0.282
4-2140	4-2490	0.333	257.8	15.8	3.97	1.345	102.1	0.369	1.051	315.3	616.2	0.663	1.438	1.51	1.028	68.6	2.4	5.0	0.396
4-2140	4-2490	0.552	300.5	7.3	3.97	1.140	116.9	0.456	0.684	236.4	899.3	0.372	0.995	1.51	0.740	90.6	84.8	27.6	0.266
4-2140	4-2500	0.421	287.3	13.4	4.32	1.347	106.6	0.416	1.057	299.8	612.6	0.618	1.476	1.73	1.028	65.6	13.0	9.5	0.447
4-2140	4-2500	0.578	301.0	7.5	4.32	1.138	118.2	0.476	0.682	235.1	907.9	0.357	1.007	1.73	0.735	82.9	74.1	26.9	0.296
4-2140	4-2510	0.543	276.2	11.1	4.81	1.349	112.7	0.485	1.063	284.6	607.2	0.547	1.580	2.09	1.028	61.1	24.6	14.1	0.524
4-2140	4-2510	0.643	302.3	7.3	4.81	1.138	121.5	0.526	0.682	232.6	915.3	0.323	1.040	2.09	0.729	74.3	69.2	26.1	0.368
4-2140	4-2520	0.763	304.8	6.6	5.58	1.139	127.7	0.614	0.683	227.8	920.2	0.264	1.102	2.74	0.727	63.4	70.3	25.9	0.498
4-2140	4-2570	0.893	77.3	-0.2	-0.19	1.127	44.0	0.721	0.671	190.4	881.2	0.187	1.155	-3.58	0.693	126.3	205.2	-14.1	0.588
4-2140	4-2580	0.660	103.9	1.9	0.58	1.356	60.5	0.571	1.086	89.0	479.3	0.466	1.706	-2.51	1.024	124.6	243.7	-25.6	0.595
4-2140	4-2580	0.729	81.1	1.2	0.98	1.129	52.8	0.608	0.673	132.9	883.3	0.264	1.082	-2.51	0.695	112.7	208.7	-15.7	0.434
4-2140	4-2590	0.506	1.7.2	4.1	1.63	1.359	69.2	0.486	1.093	71.7	471.6	0.562	1.624	-1.98	1.026	118.8	263.8	-26.9	0.500
4-2140	4-2590	0.640	83.0	2.4	1.63	1.130	57.5	0.541	0.613	129.3	889.2	0.309	1.058	-1.98	0.695	102.3	206.2	-15.1	0.339
4-2140	4-2600	0.397	122.8	6.8	2.06	1.361	73.8	0.430	1.100	56.6	466.0	0.627	1.573	-1.67	1.029	115.1	277.7	-26.8	0.441
4-2140	4-2600	0.895	74.6	1.7	2.06	1.087	43.1	0.736	0.634	144.5	913.9	0.167	1.100	-1.67	0.624	58.2	159.0	7.1	0.560
4-2140	4-2600	0.606	83.4	3.3	2.06	1.127	59.2	0.516	0.671	128.3	897.7	0.325	1.038	-1.67	0.691	92.4	196.5	-11.2	0.296
4-2140	4-2610	0.319	133.7	10.0	2.38	1.363	78.2	0.395	1.107	42.9	461.8	0.670	1.544	-1.48	1.032	112.8	290.7	-25.6	0.405
4-2140	4-2620	0.262	147.0	13.8	2.65	1.365	81.9	0.374	1.114	30.2	458.7	0.698	1.530	-1.36	1.035	111.4	302.7	-23.5	0.384
4-2140	4-2630	0.226	163.4	17.6	2.88	1.367	85.2	0.363	1.121	18.3	456.3	0.715	1.528	-1.30	1.039	110.6	315.9	-20.9	0.375
4-2140	4-2640	0.210	182.6	20.6	3.10	1.370	88.1	0.360	1.130	7.0	454.6	0.723	1.536	1.27	1.044	110.3	324.3	-17.7	0.373
4-2140	4-2650	0.213	202.3	21.8	3.31	1.372	91.0	0.364	1.138	356.3	813.6	0.724	1.555	-1.28	1.049	110.4	334.0	-14.3	0.379
4-2140	4-2660	0.234	219.8	21.2	3.53	1.375	93.7	0.374	1.148	346.2	813.2	0.719	1.577	-1.33	1.055	110.9	343.2	-10.8	0.391
4-2140	4-2670	0.730	94.1	5.5	3.79	1.284	5[illegible]6	0.587	0.899	108.5	585.2	0.371	1.427	-1.42	.936	54.6	192.8	-.5	0.575
4-2140	4-2670	0.268	233.7	19.7	3.79	1.378	9[illegible]5	0.339	1.159	336.7	813.3	0.708	1.610	-1.42	1.061	111.7	352.0	-7.2	0.408
4-2140	4-2680	0.666	97.1	6.[illegible]	[illegible]	1.290	59.0	0.545	0.912	102.1	588.5	0.415	1.409	-1.58	0.947	57.5	200.2	-11.0	0.532
4-2140	4-2680	0.311	244.4	18.[illegible]	[illegible]	1.381	99.3	0.409	1.170	327.6	814.0	0.692	1.649	-1.58	1.067	112.8	0.6	-3.7	0.437
4-2140	4-2690	0.605	100.2		7	1.296	62.1	0.505	0.924	95.6	591.9	0.458	1.390	-1.8[illegible]	0.958	60.0	207.7	-14.7	0.493
4-2140	4-2690	0.361	252.8	[illegible]	4.47	1.384	102.1	0.433	1.183	319.0	815.2	0.671	1.695	-1.84	1.074	114.2	9.0	-0.[illegible]	0.458
4-2140	4-2700	0.549	103.4	10.9	5.04	1.300	65.1	0.468	0.935	89.0	595.1	0.498	1.372	-2.28	0.967	62.4	215.4	-18.6	0.458
4-2140	4-2700	0.418	259.6	16.4	5.04	1.[illegible]88	105.0	0.461	1.197	310.8	816.9	0.645	1.748	-2.28	1.082	115.8	17.4	2.5	0.490
4-2140	4-271C	0.500	106.7	14.6	6.00	1.3[illegible]	67.9	0.434	0.945	82.2	598.[illegible]	0.535	1.355	-3.13	0.976	64.4	223.3	-23.3	0.427
4-2140	4-2710	0.481	265.4	16.7	6.00	1.391	108.0	0.492	1.211	302.9	819.0	0.616	1.807	-3.13	1.089	117.8	25.9	[illegible].6	0.527
4-2140	4-2720	0.467	109.6	22.3	8.24	1.309	70.5	0.404	0.955	75.2	601.2	0.569	1.340	-5.25	0.984	66.3	231.2	-30.8	0.405
4-2140	4-2720	0.556	270.8	19.6	8.24	1.395	111.2	0.526	1.227	295.5	821.5	0.582	1.872	-5.25	1.0[illegible]	119.9	34.9	4.7	0.571
4-2140	4-2730	0.589	102.8	50.1	21.11	1.313	72.9	0.378	0.963	68.2	604.1	0.600	1.327	-18.00	0.992	67.9	240.9	-57.9	0.479
4-2140	4-2740	0.385	117.9	-29.0	-8.42	1.318	75.6	0.353	0.971	60.5	606.8	0.628	1.314	11.63	0.998	69.3	258.1	5.1	0.402
4-2150	4-2260	0.[illegible]9	93.0	2.7	3.15	1.123	43.7	0.725	0.669	140.9	198.5	---	1.154	-0.42	0.690	53.5	175.1	1.7	0.589
4-2150	4-[illegible]270	0.[illegible]4	[illegible]3	3.3	3.23	1.151	47.4	0.678	0.698	15.0	492.2	---	1.172	-0.39	0.736	55.5	180.3	-0.6	0.557
4-2150	4-2280	[illegible]5	[illegible]5	3.8	3.29	1.175	50.7	0.633	0.727	129.1	205.9	---	1.187	-0.37	0.775	57.3	185.9	-3.0	0.528
4-2150	4-22[illegible]	[illegible]	[illegible]	4.4	3.35	1.196	53.8	0.592	0.755	123.2	209.6	---	1.201	-0.36	0.810	58.9	191.8	-5.6	0.501
4-2150	4-2300	0	105.7	5.1	3.41	1.215	56.6	0.553	0.781	117.3	213.4	---	1.213	-0.36	0.840	60.5	198.0	-8.2	0.477
4-2150	4-2310	0	108.7	5.8	3.48	1.231	59.2	0.519	0.806	111.3	217.1	---	1.224	-0.37	0.866	61.9	204.6	-10.9	0.455
4-2150	4-2320	0.592	111.6	6.6	3.55	1.245	61.7	0.487	0.629	105.2	220.9	---	1.233	-0.40	0.890	63.3	211.5	-13.5	0.435
4-2150	4-2330	0.550	114.7	7.5	3.73	1.258	64.0	0.458	0.852	99.1	224.6	---	1.241	-0.44	0.910	64.5	218.7	-16.1	0.416
4-2150	4-2340	0.510	117.7	8.5	3.74	1.269	66.2	0.431	0.872	92.9	228.3	---	1.249	-0.51	0.928	65.7	226.3	-18.5	0.399
4-2150	4-2350	0.472	120.9	9.8	3.89	1.278	68.3	0.408	0.892	86.5	231.9	---	1.255	-0.63	0.945	66.8	234.3	-20.9	0.383
4-2150	4-2360	0.436	124.2	11.6	4.15	1.287	70.4	0.386	0.910	80.1	235.5	---	1.261	-0.86	0.959	67.8	242.6	-23.2	0.369
4-2150	4-2370	0.404	127.7	14.7	4.75	1.295	72.5	0.367	0.926	73.5	239.0	---	1.266	-1.42	0.972	68.8	251.2	-26.0	0.356
4-2150	4-2380	0.394	130.4	26.1	7.97	1.302	74.2	0.350	0.942	66.8	242.3	---	1.277	-4.61	0.983	69.7	260.3	-35.3	0.353
4-2150	4-2390	0.323	136.7	-0.7	-0.18	1.308	76.1	0.336	0.956	59.8	245.5	---	1.276	3.57	0.992	70.5	270.2	-13.6	0.340
4-2150	4-2400	0.295	141.7	9.3	2.12	1.313	77.9	0.323	0.969	52.7	248.6	---	1.281	1.30	1.000	71.2	279.1	-19.4	0.326
4-2150	4-2410	0.257	147.5	13.0	2.65	1.318	79.7	0.312	0.981	45.3	251.4	---	1.287	0.81	1.007	71.8	288.4	-19.9	0.319
4-2150	4-2420	0.241	154.6	15.9	2.89	1.322	81.5	0.304	0.992	37.6	253.9	---	1.294	0.60	1.013	72.3	297.7	-19.1	0.314
4-2150	4-2430	0.217	163.5	18.6	3.04	1.326	83.3	0.298	1.002	29.7	256.1	---	1.301	0.49	1.018	72.7	307.1	-17.5	0.310
4-2150	4-2440	0.197	174.6	21.6	3.14	1.330	85.2	0.294	1.012	21.3	258.0	---	1.309	0.43	1.021	73.0	316.3	-15.3	0.309
4-2150	4-2450	0.184	188.5	24.0	3.22	1.333	87.1	0.293	1.021	12.6	259.4	---	1.320	0.39	1.024	73.1	325.4	-12.5	0.310
4-2150	4-2460	0.179	205.1	25.3	3.29	1.336	89.2	0.295	1.029	3.5	260.4	---	1.333	0.37	1.026	73.0	334.4	-9.4	0.314
4-2150	4-2470	0.186	222.9	24.9	3.26	1.338	91.4	0.301	1.037	353.9	620.9	0.725	1.349	0.36	1.028	72.7	343.4	-5.9	0.321
4-2150	4-2480	0.206	239.9	22.8	3.42	1.341	93.9	0.311	1.044	343.7	620.7	0.719	1.369	0.36	1.028	72.1	352.5	-2.1	0.333
4-2150	4-2480	0.680	315.8	4.9	3.42	1.172	123.2	0.548	0.723	236.5	873.5	0.327	1.119	0.36	0.795	115.6	128.4	19.4	0.439
4-2150	4-2480	0.813	317.5	3.9	3.42	1.194	129.7	0.640	0.752	232.7	869.7	0.271	1.233	0.36	0.828	125.8	134.3	17.7	0.577
4-2150	4-2490	0.241	254.5	19.5	3.48	1.343	96.6	0.328	1.051	332.9	619.8	0.706	1.396	0.37	1.028	71.1	1.8	1.9	0.351
4-2150	4-2490	0.565	315.1	4.3	3.48	1.131	117.6	0.464	0.699	238.3	885.2	0.375	1.024	0.37	0.761	102.1	118.3	21.8	0.297
4-2150	4-2500	0.293	266.7	16.3	3.56	1.346	99.8	0.353	1.058	321.2	618.1	0.684	1.431	0.40	1.029	69.6	11.5	6.1	0.378
4-2150	4-2500	0.541	315.2	6.6	3.56	1.145	116.4	0.447	0.692	238.1	894.9	0.383	1.001	0.40	0.748	94.1	108.7	23.7	0.258
4-2150	4-2510	0.364	277.0	15.2	3.64	1.349	103.8	0.390	1.046	308.6	615.3	0.649	1.479	0.44	1.029	67.3	21.8	10.2	0.417
4-2150	4-2510	0.550	315.7	6.7	3.64	1.142	116.9	0.455	0.689	237.2	903.9	0.576	1.003	0.44	0.740	86.8	94.9	24.6	0.267
4-2150	4-2520	0.462	286.1	80.4	3.75	1.350	108.8	0.444	1.071	294.6	611.1	0.595	1.546	0.52	1.029	65.9	33.0	14.4	0.475
4-2150	4-2520	0.552	316.7	6.[illegible]	3.75	1.142	119.1	0.488	0.688	235.4	911.9	0.352	1.025	0.52	0.735	79.1	87.1	24.6	0.316
4-2150	4-2530	0.601	295.1	7.9	3.91	1.352	115.7	0.524	1.077	278.4	604.7	0.513	1.642	0.64	1.029	58.6	45.7	18.3	0.563
4-2150	4-2530	0.676	318.4	5.5	3.91	1.[illegible]2	123.4	0.552	0.689	232.0	918.3	0.309	1.069	0.64	0.732	70.0	85.2	24.5	0.405
4-2150	4-2540	0.823	321.6	4.4	4.18	1.[illegible]4	131.1	0.678	0.691	225.6	921.6	0.234	1.146	0.88	0.731	58.0	89.0	24.4	0.546

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECC [illegible]	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2150	4-2590	0.826	95.4	2.6	2.57	1.134	47.8	0.674	0.680	136.5	880.4	0.222	1.138	-0.88	0.704	121.7	225.3	-18.2	0.532
4-2150	4-2600	0.603	123.3	5.7	2.84	1.359	63.5	0.540	1.100	82.1	475.6	0.506	1.694	-0.65	1.029	122.4	272.2	-24.4	0.564
4-2150	4-2600	0.686	98.6	3.9	2.84	1.135	55.2	0.573	0.681	130.1	883.6	0.291	1.072	-0.65	0.707	109.8	228.0	-19.0	0.398
4-2150	4-2610	0.467	132.9	8.3	2.99	1.361	70.4	0.466	1.107	65.4	468.5	0.591	1.623	-0.52	1.032	117.4	286.7	-23.6	0.483
4-2150	4-2610	0.610	100.2	4.6	2.99	1.135	59.2	0.515	0.682	127.0	890.0	0.331	1.033	-0.52	0.708	100.3	224.8	-18.2	0.315
4-2150	4-2620	0.365	143.2	11.2	3.10	1.363	75.7	0.419	1.114	50.6	463.2	0.647	1.580	-0.45	1.035	114.3	299.8	-21.6	0.433
4-2150	4-2620	0.866	91.8	2.8	3.10	1.095	45.0	0.713	0.643	142.4	914.9	0.184	1.101	-0.45	0.643	59.4	176.3	1.1	0.538
4-2150	4-2620	0.584	100.5	5.2	3.10	1.133	60.5	0.495	0.679	126.4	898.9	0.343	1.016	-0.45	0.705	91.1	214.0	-14.8	0.280
4-2150	4-2630	0.299	155.2	14.5	3.19	1.365	79.8	0.389	1.121	37.1	459.2	0.685	1.557	-0.40	1.039	112.3	311.7	-18.9	0.403
4-2150	4-2640	0.250	170.1	18.0	3.26	1.367	83.4	0.373	1.128	24.5	456.2	0.708	1.549	-0.38	1.043	111.1	322.7	-15.7	0.387
4-2150	4-2650	0.221	188.2	21.0	3.32	1.370	86.6	0.365	1.136	12.7	454.1	0.721	1.551	-0.36	1.048	110.5	332.9	-12.2	0.380
4-2150	4-2660	0.214	208.2	22.3	3.36	1.372	89.6	0.366	1.145	1.6	452.7	0.726	1.563	-0.36	1.053	110.4	342.5	-8.4	0.382
4-2150	4-2670	0.225	228.1	21.5	3.44	1.374	92.4	0.373	1.154	351.2	815.9	0.723	1.584	-0.36	1.059	110.7	351.7	-5.6	0.390
4-2150	4-2680	0.251	242.8	19.5	3.51	1.377	95.2	0.385	1.164	341.3	811.8	0.715	1.612	-0.38	1.065	111.3	0.5	-0.8	0.404
4-2150	4-2690	0.715	111.0	5.4	3.58	1.287	56.5	0.578	0.909	106.6	586.9	0.384	1.434	-0.41	0.948	55.1	211.1	-13.2	0.570
4-2150	4-2690	0.289	255.0	17.2	3.58	1.380	97.9	0.403	1.175	332.0	812.3	0.701	1.648	-0.41	1.072	112.3	9.2	2.9	0.423
4-2150	4-2700	0.650	114.1	6.3	3.68	1.293	59.8	0.536	0.921	100.2	590.4	0.428	1.415	-0.47	0.959	57.9	218.9	-16.0	0.528
4-2150	4-2700	0.334	264.5	15.1	3.68	1.383	100.8	0.425	1.186	323.2	813.4	0.683	1.690	-0.47	1.078	113.5	17.7	6.4	0.447
4-2150	4-2710	0.590	117.3	7.5	3.80	1.298	62.9	0.497	0.933	93.6	593.8	0.470	1.396	-0.56	0.969	60.4	227.1	-18.6	0.490
4-2150	4-2710	0.386	271.9	13.4	3.80	1.386	103.6	0.450	1.199	314.8	814.9	0.659	1.740	-0.56	1.085	115.0	26.2	9.6	0.476
4-2150	4-2720	0.533	120.7	8.9	4.00	1.302	65.8	0.461	0.944	86.9	597.1	0.509	1.378	-0.72	0.978	62.7	235.6	-21.1	0.455
4-2150	4-2720	0.443	278.0	12.1	4.00	1.390	106.6	0.480	1.213	306.8	817.0	0.621	1.795	-0.72	1.092	116.8	34.8	12.4	0.509
4-2150	4-2730	0.481	124.2	11.1	4.36	1.307	68.6	0.428	0.954	80.0	600.2	0.546	1.362	-1.05	0.986	64.8	244.4	-23.6	0.425
4-2150	4-2730	0.505	283.2	11.4	4.36	1.394	109.7	0.512	1.228	299.2	819.4	0.600	1.857	-1.05	1.099	118.8	43.5	14.7	0.546
4-2150	4-2740	0.437	127.8	15.6	5.45	1.311	71.2	0.398	0.963	73.0	603.2	0.580	1.347	-2.10	0.994	66.6	253.6	-27.4	0.399
4-2150	4-2740	0.573	287.9	12.3	5.45	1.397	112.8	0.546	1.245	291.9	822.2	0.585	1.924	-2.10	1.105	121.1	52.5	15.5	0.587
4-2160	4-2290	0.851	113.0	3.6	3.55	1.164	47.1	0.681	0.716	133.9	204.4	---	1.203	0.62	0.764	53.4	196.1	-6.2	0.581
4-2160	4-2300	0.795	116.2	4.0	3.44	1.186	50.4	0.637	0.744	128.0	208.2	---	1.218	0.59	0.801	55.5	202.1	-8.5	0.551
4-2160	4-2310	0.742	119.3	4.4	3.34	1.206	53.5	0.596	0.771	122.1	212.1	---	1.231	0.58	0.833	57.4	208.5	-10.9	0.523
4-2160	4-2320	0.691	122.3	4.8	3.24	1.224	56.4	0.558	0.797	116.1	215.9	---	1.242	0.59	0.861	59.1	215.3	-13.1	0.498
4-2160	4-2330	0.643	125.3	5.2	3.14	1.239	59.1	0.524	0.822	110.0	219.7	---	1.252	0.62	0.886	60.7	222.4	-15.2	0.475
4-2160	4-2340	0.597	128.3	5.6	3.01	1.252	61.6	0.492	0.845	103.9	223.5	---	1.26	0.67	0.908	62.3	229.9	-17.1	0.453
4-2160	4-2350	0.553	131.4	5.9	2.86	1.264	64.0	0.462	0.867	97.7	227.3	---	1.268	0.75	0.928	63.7	237.7	-18.7	0.433
4-2160	4-2360	0.511	134.6	6.1	2.66	1.275	66.2	0.436	0.887	91.4	231.0	---	1.274	0.90	0.945	65.0	246.0	-19.7	0.415
4-2160	4-2370	0.470	137.9	6.0	2.35	1.284	68.4	0.412	0.907	85.0	234.6	---	1.280	1.15	0.959	66.2	254.5	-20.1	0.399
4-2160	4-2380	0.431	141.4	5.0	1.77	1.292	70.5	0.390	0.924	78.5	238.2	---	1.285	1.68	0.972	67.3	263.3	-19.4	0.384
4-2160	4-2390	0.392	145.3	0.3	0.10	1.300	72.5	0.371	0.941	71.8	241.6	---	1.290	3.30	0.984	68.4	272.1	-15.3	0.373
4-2160	4-2410	0.351	152.7	24.5	6.57	1.312	76.3	0.339	0.970	57.8	248.0	---	1.299	-3.27	1.002	70.2	292.1	-30.8	0.351
4-2160	4-2420	0.308	158.6	21.0	4.91	1.317	78.2	0.327	0.983	50.5	250.9	---	1.305	-1.67	1.008	70.9	300.7	-25.3	0.338
4-2160	4-2430	0.275	165.1	21.0	4.33	1.322	80.1	0.317	0.995	42.7	253.5	---	1.310	-1.14	1.014	71.6	309.6	-21.9	0.330
4-2160	4-2440	0.244	172.9	22.0	4.02	1.326	81.9	0.309	1.000	35.1	255.8	---	1.317	-0.89	1.018	72.1	318.5	-18.8	0.324
4-2160	4-2450	0.221	182.5	23.5	3.62	1.330	83.8	0.303	1.016	26.9	257.8	---	1.324	-0.75	1.022	72.4	327.3	-15.6	0.320
4-2160	4-2460	0.201	194.6	25.1	3.67	1.333	-85.8	0.300	1.026	18.4	259.4	---	1.333	-0.66	1.024	72.7	336.0	-12.2	0.319
4-2160	4-2470	0.188	209.6	26.1	3.54	1.336	87.8	0.300	1.035	9.5	260.6	---	1.345	-0.61	1.026	72.7	344.7	-8.6	0.320
4-2160	4-2480	0.185	226.8	25.7	3.43	1.339	90.0	0.303	1.043	0.1	261.3	---	1.359	-0.59	1.027	72.6	353.4	-4.8	0.324
4-2160	4-2490	0.195	244.6	23.6	3.33	1.342	92.3	0.310	1.050	350.3	621.4	0.724	1.376	-0.58	1.028	72.2	2.3	-0.9	0.334
4-2160	4-2500	0.219	260.8	20.2	3.23	1.344	94.9	0.323	1.058	339.9	620.9	0.716	1.399	-0.59	1.029	71.4	11.3	3.1	0.346
4-2160	4-2500	0.502	330.3	5.7	3.23	1.161	118.5	0.477	0.712	239.3	880.3	0.372	1.051	-0.59	0.774	106.3	137.0	15.1	0.327
4-2160	4-2510	0.259	274.5	16.3	3.12	1.346	97.8	0.342	1.065	328.8	619.7	0.700	1.429	-0.62	1.029	70.3	20.8	7.0	0.366
4-2160	4-2510	0.536	330.2	6.0	3.12	1.152	116.2	0.443	0.701	239.6	890.4	0.391	1.012	-0.62	0.756	97.5	127.1	17.3	0.262
4-2160	4-2520	0.316	286.0	12.6	3.00	1.348	101.3	0.371	1.071	316.9	617.6	0.674	1.469	-0.68	1.029	68.5	30.9	10.8	0.395
4-2160	4-2520	0.521	330.6	5.8	3.00	1.148	116.0	0.440	0.697	239.6	895.7	0.390	1.004	-0.68	0.747	90.3	115.4	19.3	0.250
4-2160	4-2530	0.396	295.8	9.4	2.85	1.351	105.6	0.413	1.078	303.8	614.3	0.633	1.523	-0.76	1.029	65.9	41.7	14.4	0.439
4-2160	4-2530	0.555	331.2	5.2	2.85	1.146	117.3	0.460	0.695	237.7	908.2	0.375	1.015	-0.76	0.741	83.2	105.8	20.6	0.278
4-2160	4-2540	0.300	304.8	6.6	2.65	1.353	111.2	0.474	1.084	289.2	609.3	0.570	1.599	-0.91	1.029	61.9	53.8	17.6	0.305
4-2160	4-2540	0.612	332.4	4.3	2.65	1.146	120.2	0.505	0.695	235.3	915.5	0.344	1.046	-0.91	0.737	75.3	101.2	21.2	0.343
4-2160	4-2550	0.716	334.6	3.1	2.35	1.147	125.6	0.583	0.697	230.9	920.7	0.290	1.103	-1.15	0.736	65.6	102.0	21.3	0.449
4-2160	4-2610	0.767	113.2	5.2	4.48	1.140	51.2	0.628	0.688	132.8	879.9	0.256	1.121	1.27	0.718	117.7	245.8	-19.9	0.485
4-2160	4-2620	0.552	143.0	9.3	4.12	1.362	66.4	0.512	1.114	75.1	471.8	0.544	1.685	0.97	1.035	120.4	294.6	-19.9	0.538
4-2160	4-2620	0.646	116.0	6.1	4.12	1.141	57.5	0.539	0.690	127.3	884.0	0.318	1.062	0.97	0.721	107.1	247.9	-20.0	0.368
4-2160	4-2630	0.430	152.9	11.9	3.90	1.364	72.7	0.449	1.121	58.9	465.2	0.618	1.624	0.80	1.039	116.1	307.9	-17.2	0.369
4-2160	4-2630	0.580	117.4	6.7	3.90	1.141	60.9	0.488	0.690	124.6	890.9	0.353	1.027	0.80	0.723	98.5	244.6	-19.3	0.295
4-2160	4-2640	0.342	164.2	14.7	3.74	1.366	77.5	0.409	1.128	44.3	460.2	0.667	1.589	0.70	1.043	113.5	319.9	-14.0	0.427
4-2160	4-2640	0.837	109.0	3.6	3.74	1.103	46.8	0.690	0.652	140.2	916.1	0.202	1.101	0.70	0.665	60.4	193.5	-4.9	0.519
4-2160	4-2640	0.560	117.6	6.7	3.74	1.139	61.9	0.473	0.687	124.2	900.1	0.362	1.013	0.70	0.721	89.5	232.3	-17.0	0.267
4-2160	4-2650	0.280	177.7	17.7	3.61	1.368	81.5	0.385	1.135	31.0	456.5	0.698	1.573	0.64	1.048	111.8	330.9	-10.3	0.402
4-2160	4-2660	0.238	194.4	20.4	3.58	1.370	85.0	0.373	1.147	18.6	453.8	0.717	1.569	0.60	1.053	110.9	341.3	-6.4	0.390
4-2160	4-2670	0.218	213.8	21.8	3.40	1.372	88.7	0.370	1.161	7.0	451.9	0.725	1.576	0.58	1.058	110.5	350.8	-2.4	0.386
4-2160	4-2680	0.219	233.7	21.2	3.30	1.375	91.0	0.374	1.169	356.2	810.8	0.726	1.593	0.58	1.064	110.6	0.0	1.6	0.390
4-2160	4-2690	0.237	251.2	18.8	3.19	1.377	93.9	0.383	1.169	346.0	810.5	0.721	1.617	0.66	1.070	111.0	9.0	5.5	0.401
4-2160	4-2700	0.264	265.0	15.9	3.08	1.390	96.7	0.398	1.179	336.4	810.8	0.710	1.649	0.68	1.076	111.8	17.9	9.2	0.417
4-2160	4-2710	0.697	128.1	4.6	2.95	1.290	57.4	0.567	0.919	104.6	580.8	0.398	1.440	0.70	0.960	55.7	230.3	-17.4	0.566
4-2160	4-2710	0.310	275.6	13.1	2.95	1.383	99.5	0.418	1.190	327.4	811.7	0.693	1.688	0.70	1.082	112.9	26.7	12.7	0.438
4-2160	4-2720	0.633	131.2	5.0	2.78	1.295	60.6	0.526	0.931	98.1	592.3	0.441	1.420	0.81	0.971	98.5	238.7	-19.9	0.525
4-2160	4-2720	0.358	283.9	10.6	2.78	1.386	102.3	0.441	1.203	318.8	813.1	0.672	1.733	0.81	1.089	114.3	35.5	16.0	0.463
4-2160	4-2730	0.572	134.6	5.2	2.54	1.300	63.7	0.488	0.942	91.4	595.7	0.483	1.401	1.00	0.980	60.9	247.5	-20.1	0.488
4-2160	4-2730	0.411	290.6	8.3	2.54	1.389	105.2	0.469	1.216	310.7	815.0	0.646	1.785	1.00	1.095	116.0	44.4	19.0	0.493
4-2160	4-2740	0.515	138.1	5.0	2.13	1.305	66.6	0.452	0.953	84.6	599.0	0.522	1.384	1.34	0.988	63.2	256.6	-20.3	0.455
4-2160	4-2740	0.469	296.1	6.0	2.13	1.392	108.2	0.499	1.230	303.0	817.4	0.617	1.844	1.34	1.101	117.9	53.4	21.7	0.528
4-2160	4-2750	0.460	141.9	3.3	1.25	1.309	69.3	0.421	0.962	77.7	602.2	0.558	1.367	2.18	0.995	65.2	265.8	-18.8	0.426

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2160	4-2750	0.530	300.9	3.1	1.25	1.396	111.3	0.531	1.245	295.6	820.1	0.534	1.907	2.18	1.107	120.0	62.3	24.8	0.566
4-2160	4-2760	0.414	145.8	-8.7	-2.87	1.312	71.9	0.392	0.971	70.5	605.1	0.591	1.352	6.24	1.001	66.9	275.3	-9.3	0.411
4-2160	4-2760	0.598	305.2	-6.1	-2.87	1.400	119.5	0.566	1.262	288.5	823.2	0.548	1.976	6.24	1.113	122.3	70.4	31.9	0.615
4-2170	4-2320	0.801	132.9	9.7	3.21	1.198	50.4	0.639	0.761	126.6	210.5	---	1.247	1.48	0.827	54.2	219.2	-13.5	0.571
4-2170	4-2330	0.747	136.0	3.9	2.96	1.216	53.5	0.598	0.738	120.6	214.4	---	1.259	1.48	0.856	56.3	226.1	-15.3	0.543
4-2170	4-2340	0.696	139.0	4.0	2.70	1.233	56.4	0.561	0.814	114.6	218.3	---	1.270	1.52	0.883	58.2	233.5	-16.9	0.517
4-2170	4-2350	0.646	142.1	4.0	2.41	1.247	59.1	0.526	0.830	108.5	222.2	---	1.279	1.61	0.906	59.9	241.1	-18.2	0.493
4-2170	4-2360	0.599	145.1	3.8	2.08	1.260	61.6	0.494	0.861	102.3	226.0	---	1.286	1.77	0.926	61.6	249.2	-19.0	0.470
4-2170	4-2370	0.554	148.3	3.4	1.65	1.271	64.1	0.465	0.883	96.1	229.8	---	1.293	2.04	0.944	63.1	257.5	-19.1	0.450
4-2170	4-2380	0.510	151.5	2.4	1.04	1.281	66.4	0.438	0.903	89.7	233.5	---	1.299	2.50	0.959	64.5	265.9	-18.4	0.431
4-2170	4-2390	0.468	154.9	0.1	0.04	1.290	68.6	0.415	0.922	83.2	237.2	---	1.304	3.36	0.973	65.8	274.5	-16.2	0.415
4-2170	4-2400	0.431	158.4	-6.1	-2.13	1.298	70.7	0.393	0.940	76.5	240.6	---	1.309	5.39	0.984	67.0	282.9	-10.8	0.406
4-2170	4-2410	0.401	158.6	-32.9	-11.58	1.305	72.7	0.374	0.956	69.8	244.0	---	1.314	14.72	0.994	68.1	291.6	9.4	0.455
4-2170	4-2420	0.566	153.3	53.0	20.84	1.311	74.8	0.356	0.971	62.4	247.2	---	1.317	-17.84	1.002	69.1	323.0	-54.1	0.476
4-2170	4-2430	0.368	169.2	31.5	8.62	1.317	76.7	0.342	0.985	55.3	250.1	---	1.322	-5.76	1.009	70.1	315.6	-32.4	0.370
4-2170	4-2440	0.315	176.0	26.4	6.22	1.322	78.7	0.330	0.998	47.9	252.8	---	1.327	-3.49	1.014	70.7	322.5	-24.8	0.352
4-2170	4-2450	0.278	183.1	25.0	5.15	1.326	80.6	0.320	1.010	40.2	255.3	---	1.333	-2.56	1.019	71.4	330.4	-19.8	0.342
4-2170	4-2460	0.247	191.6	24.9	4.52	1.330	82.5	0.313	1.020	32.2	257.6	---	1.340	-2.07	1.022	71.8	338.5	-15.5	0.335
4-2170	4-2470	0.220	202.1	25.4	4.08	1.334	84.5	0.308	1.031	23.8	259.1	---	1.348	-1.79	1.024	72.2	346.8	-11.4	0.330
4-2170	4-2480	0.200	215.2	25.7	3.74	1.337	86.5	0.306	1.040	15.2	260.5	---	1.358	-1.62	1.026	72.4	355.0	-7.4	0.329
4-2170	4-2490	0.189	231.0	25.2	3.45	1.340	88.6	0.307	1.049	6.1	261.4	---	1.370	-1.52	1.027	72.4	3.4	-3.4	0.330
4-2170	4-2500	0.188	248.5	23.3	3.18	1.343	90.8	0.312	1.057	356.6	621.8	0.727	1.386	-1.48	1.028	72.1	12.0	0.5	0.334
4-2170	4-2510	0.202	265.8	19.9	2.93	1.345	93.2	0.321	1.064	346.6	621.7	0.723	1.405	-1.48	1.029	71.6	20.9	4.3	0.343
4-2170	4-2510	0.623	345.8	4.8	2.93	1.174	120.5	0.508	0.729	239.7	874.7	0.359	1.100	-1.48	0.792	111.9	154.4	7.6	0.384
4-2170	4-2520	0.231	281.2	15.7	2.67	1.347	95.9	0.335	1.071	336.1	620.9	0.712	1.431	-1.52	1.029	70.7	30.2	7.9	0.358
4-2170	4-2520	0.539	345.2	5.1	2.67	1.159	116.4	0.446	0.712	241.0	885.8	0.394	1.029	-1.52	0.766	100.9	145.5	7.4	0.277
4-2170	4-2530	0.277	294.1	11.6	2.38	1.350	99.1	0.358	1.078	324.8	619.5	0.693	1.464	-1.62	1.029	69.4	40.1	11.3	0.380
4-2170	4-2530	0.518	345.4	4.8	2.38	1.154	115.5	0.431	0.705	240.7	895.3	0.407	1.009	-1.62	0.754	93.5	134.9	11.8	0.244
4-2170	4-2540	0.341	304.9	8.0	2.05	1.352	102.8	0.390	1.085	312.6	616.9	0.662	1.508	-1.78	1.030	67.4	50.7	14.3	0.413
4-2170	4-2540	0.527	345.8	4.0	2.05	1.151	118.0	0.439	0.703	239.9	904.2	0.394	1.011	-1.78	0.747	86.8	124.5	14.3	0.252
4-2170	4-2550	0.430	314.5	4.9	1.64	1.354	107.5	0.437	1.091	299.1	613.1	0.614	1.569	-2.04	1.030	64.4	62.3	16.8	0.463
4-2170	4-2550	0.564	346.7	3.0	1.64	1.151	117.9	0.469	0.702	238.1	912.1	0.373	1.031	-2.04	0.744	79.7	117.6	15.9	0.297
4-2170	4-2560	0.554	325.5	2.4	1.07	1.354	113.7	0.507	1.098	283.8	607.4	0.941	1.655	-2.48	1.031	59.8	75.3	18.6	0.538
4-2170	4-2560	0.637	348.3	1.6	1.07	1.151	121.7	0.526	0.703	235.0	918.6	0.333	1.072	-2.48	0.742	71.5	115.9	16.6	0.376
4-2170	4-2570	0.764	351.1	0.2	0.15	1.153	128.2	0.619	0.704	229.4	922.5	0.268	1.140	-3.26	0.742	61.0	118.9	16.5	0.500
4-2170	4-2570	1.005	7.9	0.1	0.15	0.979	144.8	0.836	0.559	203.2	1256.3	0.092	1.026	-3.26	0.426	108.1	176.6	-0.9	0.595
4-2170	4-2630	0.712	131.0	7.3	5.56	1.146	54.4	0.583	0.697	129.1	879.6	0.290	1.103	2.90	0.732	114.2	266.3	-19.0	0.444
4-2170	4-2640	0.504	162.9	12.2	4.81	1.365	69.1	0.487	1.128	87.9	867.9	0.579	1.677	2.29	1.043	118.6	315.3	-12.7	0.516
4-2170	4-2640	0.608	133.5	7.9	4.81	1.147	59.8	0.505	0.698	124.4	884.4	0.346	1.051	2.29	0.756	104.8	267.7	-18.6	0.541
4-2170	4-2650	0.394	173.6	14.6	4.33	1.367	74.9	0.434	1.135	52.0	461.7	0.643	1.627	1.93	1.048	115.8	327.5	-8.9	0.458
4-2170	4-2650	0.550	134.7	8.0	4.31	1.147	62.7	0.461	0.698	122.0	891.7	0.376	1.020	1.93	0.739	97.0	243.1	-18.2	0.277
4-2170	4-2660	0.316	186.0	17.0	3.93	1.369	79.4	0.401	1.142	37.8	457.1	0.688	1.600	1.71	1.053	112.7	338.6	-4.7	0.423
4-2170	4-2660	0.808	126.2	4.0	3.93	1.111	48.5	0.667	0.660	138.0	917.4	0.220	1.100	1.71	0.685	61.3	211.1	-10.4	0.502
4-2170	4-2660	0.535	138.8	7.5	3.93	1.145	63.4	0.450	0.695	121.9	901.2	0.382	1.009	1.71	0.739	89.0	250.8	-17.3	0.254
4-2170	4-2670	0.261	201.3	19.2	3.62	1.371	83.2	0.383	1.149	24.7	453.7	0.709	1.590	1.58	1.058	111.4	349.0	-0.5	0.403
4-2170	4-2680	0.228	219.6	20.5	3.35	1.373	86.6	0.375	1.157	12.5	451.4	0.723	1.591	1.50	1.063	110.7	358.8	3.6	0.394
4-2170	4-2690	0.217	239.8	20.0	3.09	1.375	89.7	0.376	1.165	1.3	449.9	0.726	1.603	1.47	1.068	110.6	8.3	7.7	0.393
4-2170	4-2700	0.226	258.6	17.5	2.84	1.377	92.6	0.383	1.174	350.7	809.2	0.725	1.624	1.49	1.074	110.8	17.7	11.5	0.400
4-2170	4-2710	0.251	274.2	14.2	2.57	1.380	95.4	0.395	1.184	340.9	809.3	0.716	1.652	1.55	1.080	111.5	26.9	15.1	0.412
4-2170	4-2720	0.287	286.3	10.8	2.26	1.383	98.2	0.412	1.195	331.6	810.1	0.702	1.687	1.67	1.086	113.4	36.1	18.5	0.430
4-2170	4-2730	0.679	145.2	3.1	1.89	1.293	58.4	0.556	0.928	102.3	590.8	0.412	1.444	1.88	0.972	56.4	250.4	-19.5	0.562
4-2170	4-2730	0.332	295.6	7.8	1.89	1.386	101.0	0.434	1.206	322.9	811.4	0.683	1.729	1.88	1.092	113.7	45.4	21.5	0.453
4-2170	4-2740	0.615	148.4	2.6	1.39	1.298	61.6	0.516	0.940	95.7	594.3	0.455	1.425	2.22	0.981	59.1	259.2	-19.5	0.523
4-2170	4-2740	0.383	303.0	4.9	1.39	1.389	103.9	0.459	1.219	314.6	813.2	0.660	1.778	2.22	1.098	115.2	54.8	24.2	0.480
4-2170	4-2750	0.555	151.8	1.4	0.64	1.303	64.6	0.478	0.951	89.0	597.7	0.496	1.406	2.83	0.989	61.5	268.2	-18.4	0.488
4-2170	4-2750	0.438	309.0	1.9	0.64	1.392	106.8	0.487	1.232	306.8	815.5	0.632	1.832	2.83	1.103	116.9	64.3	26.9	0.512
4-2170	4-2760	0.498	155.4	-1.8	-0.74	1.307	67.5	0.444	0.961	82.1	600.9	0.535	1.388	4.07	0.996	63.7	277.1	-15.3	0.458
4-2170	4-2760	0.498	314.2	-2.0	-0.74	1.395	109.8	0.518	1.247	299.3	818.1	0.601	1.892	4.07	1.109	119.0	73.7	29.9	0.549
4-2170	4-2770	0.455	158.8	-12.2	-4.49	1.311	70.2	0.413	0.971	75.0	604.0	0.570	1.372	7.69	1.002	65.6	285.8	-6.5	0.443
4-2170	4-2770	0.569	319.0	-10.2	-4.49	1.399	112.9	0.551	1.262	292.2	821.1	0.567	1.958	7.69	1.114	121.2	82.8	35.6	0.598
4-2180	4-2340	0.804	149.8	3.0	2.62	1.210	50.5	0.638	0.779	124.9	212.8	---	1.276	2.25	0.851	53.3	237.3	-17.4	0.589
4-2180	4-2350	0.749	152.8	2.9	2.23	1.227	53.6	0.598	0.806	118.9	216.8	---	1.287	2.27	0.879	55.5	244.7	-18.4	0.560
4-2180	4-2360	0.696	155.9	2.7	1.92	1.242	56.5	0.561	0.831	112.8	220.7	---	1.297	2.36	0.903	57.5	252.5	-19.1	0.533
4-2180	4-2370	0.646	158.9	2.3	1.35	1.256	59.3	0.526	0.855	106.7	224.6	---	1.305	2.55	0.924	59.4	260.6	-19.2	0.508
4-2180	4-2380	0.598	162.0	1.5	0.78	1.268	61.9	0.495	0.878	100.4	228.5	---	1.312	2.86	0.942	61.1	268.9	-18.6	0.485
4-2180	4-2390	0.552	165.2	0.1	0.03	1.279	64.3	0.466	0.899	94.1	232.2	---	1.318	3.37	0.958	62.7	277.2	-17.1	0.465
4-2180	4-2400	0.509	168.4	-2.6	-1.11	1.288	66.7	0.440	0.919	87.6	235.9	---	1.323	4.29	0.972	64.2	285.5	-15.2	0.447
4-2180	4-2410	0.471	171.7	-8.2	-3.17	1.296	68.9	0.416	0.938	81.0	239.5	---	1.328	5.14	0.984	65.6	293.4	-8.8	0.435
4-2180	4-2420	0.464	173.7	-23.5	-8.64	1.304	71.0	0.395	0.955	74.3	242.8	---	1.333	11.40	0.993	66.8	300.7	3.8	0.449
4-2180	4-2440	0.491	176.1	46.6	16.27	1.316	75.3	0.358	0.986	59.8	249.2	---	1.340	-13.91	1.006	69.0	337.7	-42.6	0.444
4-2180	4-2450	0.368	186.7	33.0	8.95	1.322	77.2	0.345	1.000	52.6	252.0	---	1.345	-6.79	1.014	69.8	336.7	-28.1	0.384
4-2180	4-2460	0.314	193.9	28.1	6.53	1.326	79.2	0.334	1.012	45.0	254.5	---	1.350	-4.58	1.018	70.6	342.7	-20.6	0.363
4-2180	4-2470	0.275	201.6	26.0	5.27	1.331	81.1	0.324	1.024	37.2	256.7	---	1.356	-3.54	1.021	71.2	349.8	-15.0	0.352
4-2180	4-2480	0.243	210.8	25.1	4.46	1.334	83.1	0.318	1.035	29.1	258.6	---	1.364	-2.96	1.024	71.6	357.4	-10.3	0.344
4-2180	4-2490	0.217	222.1	24.5	3.87	1.338	85.1	0.314	1.045	20.6	260.1	---	1.373	-2.61	1.026	71.9	5.3	-5.9	0.339
4-2180	4-2500	0.197	236.0	23.7	3.39	1.341	87.2	0.313	1.054	11.9	261.3	---	1.388	-2.40	1.027	72.0	13.4	-1.8	0.337
4-2180	4-2510	0.188	252.3	21.8	2.97	1.344	89.3	0.315	1.063	2.7	262.0	---	1.397	-2.29	1.028	71.9	21.8	2.0	0.338
4-2180	4-2520	0.191	269.9	18.5	2.58	1.346	91.7	0.321	1.070	353.1	622.2	0.727	1.414	-2.25	1.029	71.6	30.5	5.6	0.344
4-2180	4-2530	0.209	286.5	14.2	2.19	1.349	94.2	0.332	1.078	343.1	621.8	0.720	1.436	-2.28	1.029	71.0	39.6	8.9	0.353
4-2180	4-2530	0.550	0.4	4.1	2.19	1.168	117.1	0.455	0.723	242.2	881.0	0.394	1.053	-2.28	0.777	104.6	162.6	1.3	0.303

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2180	4-2540	0.244	301.0	9.9	1.79	1.351	97.1	0.349	1.085	332.3	620.8	0.707	1.463	-2.37	1.030	70.0	49.4	11.8	0.370
4-2180	4-2540	0.511	0.2	3.7	1.79	1.160	115.2	0.426	0.714	242.4	890.9	0.410	1.019	-2.37	0.763	95.6	153.2	3.3	0.247
4-2180	4-2550	0.296	313.2	6.0	1.34	1.353	100.4	0.374	1.092	320.9	619.0	0.684	1.500	-2.55	1.030	68.4	59.7	14.2	0.394
4-2180	4-2550	0.507	0.5	2.8	1.34	1.157	115.0	0.424	0.710	241.9	900.0	0.409	1.011	-2.55	0.755	90.0	142.7	6.2	0.237
4-2180	4-2560	0.368	323.7	2.9	0.80	1.355	104.4	0.410	1.098	308.4	616.1	0.648	1.549	-2.85	1.031	66.2	70.9	16.0	0.432
4-2180	4-2560	0.528	1.1	1.6	0.80	1.156	116.2	0.442	0.709	240.7	908.4	0.396	1.022	-2.85	0.750	83.5	134.2	8.8	0.263
4-2180	4-2570	0.468	333.0	0.3	0.10	1.357	109.5	0.463	1.105	294.5	611.8	0.593	1.617	-3.32	1.032	62.8	83.1	17.0	0.488
4-2180	4-2570	0.579	2.3	0.2	0.10	1.156	118.7	0.481	0.709	238.4	915.7	0.368	1.050	-3.32	0.748	76.5	130.2	10.5	0.321
4-2180	4-2580	0.608	342.1	-1.8	-0.90	1.359	116.4	0.541	1.112	278.5	605.3	0.510	1.714	-4.12	1.034	57.6	96.5	17.0	0.575
4-2180	4-2580	0.669	4.4	-1.3	-0.90	1.157	123.4	0.550	0.710	234.4	921.3	0.319	1.100	-4.12	0.748	67.7	130.8	11.0	0.415
4-2180	4-2590	0.822	8.0	-2.8	-2.60	1.159	131.2	0.659	0.712	227.3	923.6	0.242	1.182	-5.62	0.750	56.3	135.7	10.3	0.557
4-2180	4-2590	0.979	23.5	-1.6	-2.60	0.977	148.3	0.822	0.558	203.9	260.3	0.099	1.017	-5.62	0.419	88.8	181.2	-5.0	0.569
4-2180	4-2640	0.811	144.9	6.1	7.53	1.151	49.5	0.650	0.703	132.9	871.2	0.246	1.159	5.67	0.743	112.1	280.8	-16.7	0.546
4-2180	4-2650	0.596	172.9	12.3	5.89	1.366	64.8	0.535	1.135	77.9	471.8	0.528	1.743	4.03	1.048	121.8	321.9	-8.4	0.577
4-2180	4-2650	0.860	148.7	8.7	5.89	1.153	57.3	0.540	0.705	125.6	879.5	0.324	1.086	4.03	0.749	111.0	286.1	-15.7	0.408
4-2180	4-2660	0.458	183.4	14.1	4.91	1.368	71.8	0.465	1.142	60.4	463.9	0.611	1.673	3.27	1.053	116.9	334.6	-3.5	0.497
4-2180	4-2660	0.569	150.9	8.8	4.91	1.154	61.9	0.471	0.706	121.4	884.9	0.373	1.039	3.27	0.753	102.7	286.6	-14.9	0.317
4-2180	4-2670	0.559	155.0	15.9	4.22	1.370	77.1	0.421	1.149	55.0	458.2	0.665	1.633	2.81	1.057	113.9	344.0	0.6	0.448
4-2180	4-2670	0.520	152.1	8.5	4.22	1.154	64.4	0.433	0.706	119.3	892.6	0.400	1.012	2.81	0.757	95.6	281.6	-14.9	0.261
4-2180	4-2680	0.290	209.0	17.5	3.69	1.372	81.3	0.396	1.156	31.0	454.0	0.699	1.614	2.52	1.063	107.1	356.7	5.1	0.419
4-2180	4-2680	0.778	143.4	4.1	3.69	1.119	50.4	0.642	0.669	139.7	918.7	0.240	1.098	2.52	0.707	62.3	229.3	-14.8	0.486
4-2180	4-2680	0.509	152.0	7.6	3.69	1.151	64.8	0.427	0.703	119.5	902.5	0.403	1.004	2.52	0.757	88.2	268.9	-15.6	0.244
4-2180	4-2690	0.244	225.9	18.5	3.24	1.374	85.0	0.383	1.164	18.2	451.1	0.718	1.609	2.35	1.068	111.1	6.9	9.3	0.403
4-2180	4-2700	0.220	245.5	18.0	2.83	1.376	88.2	0.379	1.171	6.5	449.2	0.727	1.616	2.27	1.073	110.7	16.8	13.4	0.398
4-2180	4-2680	0.219	265.3	15.5	2.44	1.378	91.2	0.383	1.180	355.6	808.2	0.728	1.632	2.25	1.079	110.7	26.6	17.1	0.400
4-2180	4-2720	0.236	282.6	12.0	2.04	1.381	94.1	0.393	1.189	345.4	808.0	0.722	1.656	2.31	1.084	111.2	36.4	20.5	0.409
4-2180	4-2730	0.267	296.2	8.3	1.60	1.383	96.9	0.408	1.199	335.9	808.6	0.710	1.688	2.44	1.090	112.0	46.2	23.4	0.423
4-2180	4-2740	0.309	306.9	4.9	1.10	1.386	99.7	0.427	1.210	327.0	809.8	0.693	1.726	2.67	1.095	113.1	56.1	26.0	0.443
4-2180	4-2750	0.660	162.3	1.8	0.45	1.296	59.4	0.544	0.938	99.8	592.7	0.428	1.448	3.07	0.981	57.2	270.8	-18.9	0.559
4-2180	4-2750	0.357	315.1	1.7	0.45	1.389	102.5	0.450	1.222	318.7	811.5	0.672	1.771	3.07	1.100	114.5	66.1	28.3	0.468
4-2180	4-2760	0.597	165.6	-0.9	-0.44	1.301	62.6	0.505	0.950	93.2	596.2	0.470	1.429	3.74	0.989	59.8	279.5	-17.0	0.521
4-2180	4-2760	0.410	321.8	-1.5	-0.44	1.392	105.4	0.476	1.234	310.7	813.7	0.646	1.822	3.74	1.105	116.1	76.1	30.3	0.498
4-2180	4-2770	0.540	169.0	-4.2	-1.91	1.306	65.6	0.468	0.960	86.4	599.5	0.511	1.410	4.98	0.996	62.1	288.1	-13.3	0.489
4-2180	4-2770	0.469	327.4	-5.4	-1.91	1.395	108.3	0.505	1.248	303.1	816.3	0.617	1.879	4.98	1.110	118.0	86.1	32.6	0.533
4-2180	4-2780	0.494	172.2	-12.3	-4.96	1.310	68.4	0.435	0.970	79.4	602.6	0.548	1.393	7.83	1.002	64.2	296.2	-5.8	0.469
4-2180	4-2780	0.539	332.6	-12.1	-4.96	1.398	111.4	0.537	1.263	295.9	819.2	0.585	1.941	7.83	1.115	120.1	96.0	36.5	0.578
4-2190	4-2370	0.748	169.7	1.6	1.22	1.238	54.0	0.596	0.824	117.0	219.1	---	1.315	2.92	0.900	55.1	264.1	-19.6	0.575
4-2190	4-2380	0.695	172.7	1.0	0.66	1.252	56.9	0.559	0.849	110.8	223.1	---	1.323	3.09	0.922	57.2	272.1	-19.1	0.547
4-2190	4-2390	0.644	175.8	0.0	0.02	1.265	59.6	0.525	0.873	104.6	227.0	---	1.331	3.38	0.940	59.1	280.3	-17.9	0.522
4-2190	4-2400	0.596	178.9	-1.5	-0.79	1.276	62.2	0.494	0.895	98.3	230.8	---	1.337	3.88	0.957	60.9	288.4	-15.8	0.499
4-2190	4-2410	0.551	182.0	-4.1	-1.92	1.286	65.7	0.466	0.916	91.8	234.5	---	1.342	4.71	0.971	62.5	296.3	-12.6	0.478
4-2190	4-2420	0.512	185.2	-8.8	-3.74	1.295	67.1	0.440	0.936	85.3	238.1	---	1.347	6.26	0.983	64.1	303.9	-7.5	0.463
4-2190	4-2430	0.489	187.7	-19.0	-7.51	1.303	69.3	0.417	0.954	78.6	241.5	---	1.352	9.77	0.992	65.4	310.7	1.9	0.462
4-2190	4-2440	0.614	181.2	-47.0	-21.21	1.310	71.4	0.398	0.971	72.0	244.7	---	1.357	23.21	1.001	66.6	317.7	25.4	0.569
4-2190	4-2460	0.448	196.2	41.9	13.49	1.322	75.8	0.361	1.002	57.0	250.9	---	1.363	-12.00	1.013	68.9	353.5	-32.3	0.434
4-2190	4-2470	0.357	205.0	31.7	8.33	1.327	77.8	0.348	1.015	49.7	253.5	---	1.368	-7.09	1.017	69.7	355.3	-21.2	0.390
4-2190	4-2480	0.306	212.3	27.1	6.11	1.332	79.8	0.337	1.027	42.0	255.8	---	1.374	-5.14	1.021	70.4	1.1	-14.2	0.371
4-2190	4-2490	0.267	220.5	24.6	4.82	1.336	81.7	0.329	1.039	34.1	257.8	---	1.381	-4.14	1.023	70.9	8.0	-8.8	0.359
4-2190	4-2500	0.235	230.2	22.9	3.94	1.339	83.7	0.323	1.049	25.9	259.6	---	1.388	-3.55	1.025	71.3	15.4	-4.1	0.351
4-2190	4-2510	0.210	242.2	21.3	3.26	1.342	85.8	0.320	1.059	17.5	260.9	---	1.398	-3.19	1.026	71.6	23.2	0.3	0.346
4-2190	4-2520	0.193	256.8	19.1	2.69	1.345	87.9	0.320	1.068	8.6	261.9	---	1.410	-2.98	1.028	71.6	31.4	3.7	0.344
4-2190	4-2530	0.187	273.5	16.0	2.18	1.348	90.1	0.324	1.077	359.5	622.4	0.728	1.425	-2.88	1.029	71.5	40.0	7.0	0.346
4-2190	4-2540	0.195	290.7	11.9	1.70	1.351	92.5	0.331	1.084	349.8	622.5	0.725	1.443	-2.86	1.029	71.1	49.1	9.9	0.352
4-2190	4-2540	0.579	15.8	3.0	1.70	1.180	118.5	0.478	0.739	242.9	875.6	0.386	1.091	-2.86	0.792	109.2	179.2	-6.5	0.349
4-2190	4-2550	0.218	306.7	7.5	1.21	1.353	95.2	0.344	1.092	339.6	622.0	0.717	1.467	-2.92	1.030	70.3	58.6	12.3	0.363
4-2190	4-2550	0.511	15.2	2.5	1.21	1.168	115.2	0.426	0.724	244.0	886.4	0.415	1.033	-2.92	0.772	99.7	170.5	-5.2	0.261
4-2190	4-2560	0.259	320.5	3.5	0.68	1.355	98.2	0.353	1.099	328.8	620.7	0.700	1.497	-3.08	1.031	69.2	68.8	14.1	0.381
4-2190	4-2560	0.493	15.3	1.5	0.68	1.164	114.4	0.413	0.718	243.9	895.8	0.421	1.015	-3.08	0.763	93.0	160.4	-2.7	0.232
4-2190	4-2570	0.318	332.1	0.3	0.08	1.357	101.7	0.391	1.105	317.2	618.6	0.674	1.537	-3.35	1.033	67.5	79.6	15.2	0.408
4-2190	4-2570	0.501	15.7	0.2	0.08	1.162	114.9	0.421	0.716	243.0	904.5	0.415	1.017	-3.35	0.758	86.7	150.9	0.6	0.240
4-2190	4-2580	0.399	342.2	-2.1	-0.66	1.359	106.0	0.431	1.112	304.3	615.4	0.633	1.593	-3.79	1.034	64.9	91.1	15.5	0.451
4-2190	4-2580	0.535	16.6	-1.3	-0.66	1.161	118.5	0.447	0.715	241.4	912.4	0.395	1.035	-3.79	0.755	80.3	144.8	3.3	0.279
4-2190	4-2590	0.510	351.6	-4.1	-1.64	1.361	111.6	0.490	1.119	289.9	610.4	0.570	1.667	-4.50	1.036	61.1	103.6	14.9	0.515
4-2190	4-2590	0.599	18.1	-2.8	-1.64	1.162	119.8	0.497	0.716	238.5	919.0	0.360	1.071	-4.50	0.755	73.0	143.3	4.7	0.350
4-2190	4-2600	0.709	20.8	-4.2	-3.14	1.163	125.3	0.578	0.717	233.4	923.5	0.302	1.132	-5.73	0.757	63.8	145.8	4.7	0.458
4-2190	4-2600	0.968	38.1	-2.0	-3.14	0.994	142.4	0.811	0.569	205.4	255.5	0.108	1.030	-5.73	0.458	108.4	204.9	-15.0	0.572
4-2190	4-2610	0.992	39.4	-3.4	-5.84	0.981	144.0	0.827	0.561	203.8	263.3	0.097	1.024	-8.19	0.429	72.8	189.3	-10.3	0.588
4-2190	4-2660	0.741	163.1	9.1	7.26	1.158	53.5	0.595	0.711	128.3	876.2	0.298	1.135	6.83	0.760	117.8	300.5	-12.0	0.496
4-2190	4-2670	0.535	193.3	13.3	5.56	1.370	68.1	0.505	1.149	69.6	467.1	0.569	1.729	4.70	1.057	119.5	341.2	0.6	0.548
4-2190	4-2670	0.610	166.5	9.2	5.56	1.160	60.1	0.499	0.713	122.0	879.5	0.358	1.069	4.70	0.766	108.2	304.6	-10.3	0.375
4-2190	4-2680	0.412	204.5	14.5	4.48	1.372	74.4	0.447	1.156	52.7	460.0	0.640	1.672	3.89	1.062	115.5	353.2	5.6	0.480
4-2190	4-2680	0.531	168.5	8.8	4.48	1.160	64.0	0.439	0.714	118.3	885.5	0.401	1.028	3.89	0.771	100.8	304.4	-9.4	0.295
4-2190	4-2690	0.325	217.4	15.5	3.69	1.373	79.2	0.412	1.162	37.8	454.8	0.684	1.642	3.41	1.068	113.0	4.4	10.2	0.359
4-2190	4-2690	0.896	156.1	3.2	3.69	1.111	43.9	0.724	0.663	141.7	918.8	0.182	1.140	3.41	0.698	55.5	237.0	-16.1	0.594
4-2190	4-2690	0.489	169.5	8.9	3.69	1.160	66.0	0.407	0.718	116.5	893.6	0.424	1.004	3.41	0.774	94.4	298.8	-9.8	0.246
4-2190	4-2700	0.265	232.9	15.9	3.05	1.375	83.2	0.393	1.170	24.3	451.2	0.710	1.630	3.11	1.073	111.6	15.2	18.6	0.415
4-2190	4-2700	0.746	160.7	3.7	3.05	1.127	52.3	0.615	0.678	133.2	920.1	0.261	1.095	3.11	0.728	83.4	248.2	-17.6	0.470
4-2190	4-2700	0.484	169.4	6.7	3.05	1.158	66.2	0.404	0.711	116.9	903.9	0.424	0.999	3.11	0.774	87.4	286.0	-12.3	0.235
4-2190	4-2710	0.229	251.4	15.2	2.50	1.377	86.7	0.385	1.177	11.9	448.8	0.724	1.631	2.93	1.078	110.9	25.7	18.5	0.404
4-2190	4-2720	0.216	271.4	12.8	1.99	1.379	89.8	0.386	1.185	0.6	447.4	0.728	1.643	2.86	1.083	110.7	36.1	22.0	0.402

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2190	4-2730	0.225	290.1	9.2	1.49	1.382	92.8	0.393	1.194	350.1	807.0	0.725	1.663	2.88	1.088	111.0	46.5	25.0	0.407
4-2190	4-2740	0.250	305.4	5.3	0.96	1.384	95.6	0.405	1.204	340.4	807.3	0.716	1.691	2.99	1.093	113.7	57.0	27.4	0.418
4-2190	4-2750	0.287	317.4	1.8	0.37	1.387	98.4	0.422	1.214	331.3	808.3	0.702	1.726	3.21	1.098	112.6	67.5	29.4	0.435
4-2190	4-2760	0.706	176.2	-0.5	-0.34	1.295	57.2	0.572	0.934	103.7	590.9	0.400	1.472	3.59	0.981	55.2	282.3	-18.1	0.595
4-2190	4-2760	0.333	326.7	-1.4	-0.34	1.389	101.2	0.443	1.225	322.8	809.9	0.683	1.767	3.59	1.102	113.9	78.0	31.0	0.457
4-2190	4-2770	0.641	179.4	-2.2	-1.27	1.300	60.5	0.532	0.948	97.2	594.5	0.444	1.452	4.22	0.989	58.0	290.8	-15.6	0.555
4-2190	4-2770	0.384	334.2	-4.5	-1.27	1.392	104.0	0.467	1.237	314.7	812.0	0.660	1.814	4.22	1.107	115.4	88.5	32.2	0.484
4-2190	4-2780	0.582	182.7	-5.3	-2.66	1.305	63.7	0.493	0.959	90.4	597.9	0.486	1.432	5.32	0.996	60.5	299.0	-11.7	0.520
4-2190	4-2780	0.442	340.4	-8.0	-2.66	1.395	106.9	0.494	1.250	307.0	814.5	0.633	1.868	5.32	1.111	117.1	98.9	33.4	0.516
4-2190	4-2790	0.533	185.8	-11.6	-5.13	1.310	66.6	0.458	0.970	83.5	601.1	0.525	1.414	7.52	1.081	62.7	306.6	-5.2	0.494
4-2190	4-2790	0.509	345.9	-13.4	-5.13	1.398	109.8	0.524	1.264	299.8	817.4	0.602	1.926	7.52	1.115	119.1	109.3	35.6	0.557
4-2200	4-2500	0.294	231.0	23.8	5.17	1.337	80.4	0.341	1.042	39.0	256.9	---	1.398	-5.30	1.022	70.2	98.3	-7.0	0.376
4-2200	4-2510	0.257	239.5	20.9	3.95	1.341	82.4	0.334	1.054	31.1	258.8	---	1.405	-4.39	1.024	70.7	25.3	-2.1	0.365
4-2200	4-2520	0.226	249.8	18.4	3.06	1.344	84.4	0.329	1.064	22.9	260.4	---	1.414	-3.85	1.026	71.0	32.8	2.1	0.356
4-2200	4-2530	0.203	262.4	15.8	2.35	1.348	86.5	0.327	1.073	14.4	261.6	---	1.425	-3.52	1.027	71.2	41.0	5.6	0.352
4-2200	4-2540	0.189	277.5	12.6	1.74	1.350	88.6	0.328	1.082	5.6	262.5	---	1.437	-3.34	1.029	71.2	49.5	8.6	0.350
4-2200	4-2550	0.187	294.3	8.6	1.18	1.353	90.9	0.333	1.090	356.4	622.9	0.728	1.453	-3.25	1.030	71.0	58.5	11.1	0.352
4-2200	4-2560	0.201	311.5	4.3	0.64	1.355	93.4	0.342	1.098	346.7	622.8	0.723	1.473	-3.27	1.031	70.5	67.9	12.9	0.359
4-2200	4-2560	0.518	30.3	1.3	0.64	1.178	115.6	0.432	0.735	245.5	831.6	0.417	1.053	-3.27	0.785	103.0	187.6	-12.9	0.283
4-2200	4-2570	0.231	326.0	0.4	0.07	1.357	96.1	0.356	1.105	336.5	622.1	0.712	1.499	-3.37	1.033	69.7	77.9	14.1	0.371
4-2200	4-2570	0.484	30.1	0.2	0.07	1.171	114.0	0.407	0.727	245.8	891.5	0.431	1.022	-3.37	0.771	95.8	178.1	-11.3	0.234
4-2200	4-2580	0.277	339.6	-2.6	-0.55	1.360	99.3	0.377	1.112	325.5	620.7	0.693	1.532	-3.58	1.034	68.4	88.3	14.6	0.391
4-2200	4-2580	0.481	30.4	-1.2	-0.55	1.168	113.9	0.405	0.726	245.3	900.5	0.431	1.016	-3.59	0.766	89.6	168.0	-8.2	0.225
4-2200	4-2590	0.501	31.1	-2.7	-1.27	1.167	114.8	0.420	0.722	244.1	908.9	0.419	1.025	-3.95	0.763	83.7	160.1	-4.7	0.248
4-2200	4-2700	0.495	186.1	7.8	3.61	1.167	65.9	0.408	0.722	115.1	886.2	0.428	1.017	4.17	0.788	99.1	321.0	-2.7	0.273
4-2200	4-2710	0.293	240.6	13.0	2.78	1.377	81.3	0.406	1.176	30.7	451.7	0.699	1.654	3.71	1.078	112.3	23.7	19.2	0.431
4-2200	4-2710	0.460	187.0	6.5	2.78	1.167	67.6	0.381	0.722	113.6	894.6	0.447	0.997	3.71	0.791	93.3	314.9	-3.8	0.231
4-2200	4-2720	0.244	257.7	11.9	2.10	1.379	85.0	0.393	1.184	17.7	448.7	0.718	1.649	3.44	1.082	111.3	35.0	22.9	0.412
4-2200	4-2720	0.461	186.6	4.9	2.10	1.164	67.4	0.384	0.719	114.3	905.4	0.443	0.995	3.44	0.791	80.7	302.0	-7.9	0.227
4-2200	4-2730	0.219	277.2	9.5	1.50	1.381	88.4	0.390	1.191	5.9	446.9	0.727	1.656	3.29	1.087	110.9	46.2	26.0	0.405
4-2200	4-2740	0.218	296.7	5.9	0.92	1.383	91.4	0.394	1.199	355.0	806.1	0.727	1.672	3.25	1.092	110.9	57.3	28.4	0.405
4-2200	4-2750	0.236	313.8	2.0	0.34	1.386	94.3	0.403	1.208	345.0	806.3	0.721	1.696	3.31	1.096	111.4	68.5	30.3	0.413
4-2200	4-2760	0.269	327.3	-1.5	-0.29	1.388	97.1	0.418	1.218	335.7	807.1	0.709	1.727	3.49	1.100	112.2	79.5	31.5	0.427
4-2250	4-2590	0.286	314.7	-7.0	-1.47	1.365	80.7	0.377	1.105	34.5	259.6	---	1.522	-2.19	1.031	68.3	98.6	17.8	0.387
4-2250	4-2600	0.258	323.0	-10.1	-1.92	1.368	82.8	0.371	1.116	26.9	261.6	---	1.530	-1.91	1.035	68.8	107.5	17.5	0.376
4-2250	4-2610	0.236	333.2	-13.3	-2.27	1.371	84.9	0.367	1.125	19.1	263.4	---	1.539	-1.73	1.039	69.1	116.5	16.6	0.368
4-2250	4-2620	0.218	345.8	-16.4	-2.57	1.373	87.0	0.365	1.134	11.1	264.8	---	1.549	-1.62	1.043	69.3	125.8	15.0	0.363
4-2250	4-2630	0.210	0.8	-18.9	-2.84	1.376	89.3	0.368	1.142	2.8	265.9	---	1.562	-1.56	1.047	69.4	134.6	12.7	0.362
4-2250	4-2630	0.449	105.2	-7.1	-2.84	1.209	111.9	0.376	0.768	256.1	879.4	0.478	1.053	-1.56	0.816	101.5	264.3	-28.3	0.254
4-2250	4-2640	0.214	17.6	-20.3	-3.10	1.378	91.7	0.373	1.150	353.7	626.6	0.721	1.579	-1.56	1.051	69.2	143.8	9.9	0.364
4-2250	4-2640	0.415	104.9	-8.4	-3.10	1.203	110.2	0.348	0.757	256.9	889.4	0.494	1.021	-1.56	0.809	95.3	255.5	-29.0	0.202
4-2250	4-2650	0.234	34.3	-20.2	-3.36	1.380	94.4	0.382	1.157	344.1	626.7	0.715	1.600	-1.59	1.056	68.7	153.0	6.6	0.372
4-2250	4-2650	0.407	105.0	-9.4	-3.36	1.201	109.8	0.341	0.754	256.8	899.3	0.497	1.011	-1.59	0.808	90.3	244.1	-28.4	0.184
4-2250	4-2660	0.270	49.7	-18.9	-3.65	1.382	97.4	0.397	1.164	333.8	626.0	0.701	1.627	-1.68	1.060	67.8	162.5	2.8	0.387
4-2250	4-2660	0.416	105.5	-9.9	-3.65	1.199	110.2	0.348	0.752	255.9	908.1	0.491	1.014	-1.68	0.809	85.7	233.4	-26.4	0.192
4-2250	4-2670	0.443	106.4	-10.1	-3.99	1.199	111.5	0.368	0.752	254.2	916.1	0.475	1.029	-1.83	0.812	81.0	226.8	-24.4	0.224
4-2250	4-2680	0.491	107.9	-9.9	-4.40	1.200	113.8	0.405	0.752	251.3	923.0	0.447	1.057	-2.08	0.815	75.8	225.0	-23.2	0.278
4-2250	4-2780	0.443	271.0	-4.6	-1.81	1.203	69.1	0.360	0.758	104.0	876.2	0.485	1.030	1.97	0.845	102.2	50.3	24.8	0.284
4-2250	4-2790	0.286	325.7	-10.7	-2.20	1.398	82.6	0.428	1.227	25.1	447.4	0.702	1.753	1.76	1.104	112.7	114.0	25.9	0.425
4-2250	4-2790	0.398	272.6	-6.3	-2.20	1.204	71.3	0.324	0.758	100.7	883.1	0.513	1.004	1.76	0.846	97.8	49.0	25.3	0.213
4-2250	4-2800	0.248	343.3	-14.4	-2.53	1.399	86.2	0.419	1.234	12.8	445.3	0.717	1.751	1.63	1.105	112.0	126.1	23.5	0.409
4-2250	4-2800	0.375	273.3	-7.8	-2.53	1.204	72.5	0.304	0.758	99.0	891.5	0.528	0.989	1.63	0.845	93.7	42.4	24.2	0.182
4-2250	4-2810	0.234	2.5	-17.1	-2.82	1.401	89.4	0.418	1.242	1.9	444.5	0.723	1.761	1.57	1.107	111.8	137.7	20.6	0.404
4-2250	4-2810	0.375	273.1	-8.6	-2.82	1.202	72.5	0.304	0.756	99.5	902.1	0.527	0.986	1.57	0.841	89.1	29.6	20.1	0.177
4-2250	4-2820	0.240	20.9	-18.3	-3.09	1.403	92.4	0.423	1.250	351.9	804.7	0.721	1.779	1.56	1.107	112.1	147.4	17.3	0.407
4-2250	4-2830	0.263	36.5	-18.2	-3.37	1.405	95.2	0.433	1.258	342.7	805.6	0.713	1.804	1.59	1.108	112.7	156.9	13.9	0.416
4-2250	4-2840	0.297	49.0	-17.5	-3.68	1.407	97.9	0.447	1.268	334.2	807.1	0.700	1.835	1.69	1.108	113.6	165.8	10.4	0.431
4-2300	4-2690	0.277	45.3	-17.9	-3.54	1.390	82.5	0.406	1.173	26.3	267.1	---	1.649	3.13	1.071	67.5	194.4	2.3	0.397
4-2300	4-2690	0.419	181.2	-9.9	-3.54	1.240	109.5	0.347	0.803	267.1	867.9	0.524	1.082	3.13	0.868	104.7	334.8	-0.7	0.290
4-2300	4-2700	0.249	56.3	-16.8	-2.98	1.392	84.7	0.401	1.182	18.5	269.2	---	1.656	2.89	1.077	69.0	202.5	-1.4	0.390
4-2300	4-2700	0.352	179.6	-10.0	-2.98	1.231	106.4	0.294	0.788	270.3	881.0	0.556	1.020	2.89	0.858	97.6	328.6	0.1	0.205
4-2300	4-2710	0.227	69.8	-15.3	-2.47	1.395	87.1	0.399	1.190	10.3	270.9	---	1.666	2.77	1.082	68.4	211.0	-4.9	0.386
4-2300	4-2710	0.328	179.1	-8.9	-2.47	1.227	105.3	0.276	0.782	271.3	891.9	0.567	0.998	2.77	0.856	95.1	320.4	-0.5	0.169
4-2300	4-2720	0.217	86.0	-12.9	-1.99	1.396	89.6	0.400	1.198	1.5	272.0	---	1.678	2.75	1.087	68.5	220.0	-6.1	0.387
4-2300	4-2720	0.323	179.1	-7.3	-1.99	1.225	105.1	0.272	0.780	271.1	901.7	0.568	0.992	2.73	0.857	89.4	310.8	-2.6	0.158
4-2300	4-2730	0.223	103.8	-9.5	-1.50	1.398	92.3	0.406	1.205	351.9	632.5	0.716	1.695	2.78	1.092	68.3	229.6	-1.9	0.394
4-2300	4-2730	0.330	179.6	-5.4	-1.50	1.225	105.6	0.279	0.779	270.0	910.6	0.562	0.996	2.78	0.859	86.0	302.4	-5.8	0.167
4-2300	4-2740	0.249	121.3	-5.5	-0.98	1.400	95.5	0.417	1.212	341.4	632.0	0.707	0.717	2.92	1.096	67.7	240.0	-13.2	0.408
4-2300	4-2740	0.351	180.5	-3.3	-0.98	1.225	106.6	0.295	0.779	268.0	918.7	0.549	1.009	2.92	0.861	82.5	297.8	-7.8	0.194
4-2300	4-2750	0.299	136.9	-1.8	-0.39	1.401	99.1	0.435	1.219	329.5	630.3	0.688	1.749	3.18	1.099	86.5	251.2	-14.8	0.433
4-2300	4-2750	0.387	182.0	-1.2	-0.39	1.225	108.4	0.324	0.780	264.9	925.7	0.527	1.032	3.18	0.864	78.8	297.0	-9.5	0.237
4-2300	4-2760	0.444	184.1	0.9	0.35	1.226	111.2	0.369	0.781	260.6	931.5	0.493	1.069	3.62	0.867	74.3	299.6	-10.3	0.297
4-2300	4-2860	0.444	354.4	-10.8	-4.14	1.232	69.4	0.363	0.790	97.2	869.3	0.503	1.076	-3.46	0.860	105.0	140.9	4.2	0.275
4-2300	4-2870	0.390	356.8	-10.5	-3.47	1.233	71.9	0.322	0.791	92.4	874.4	0.536	1.046	-3.09	0.858	101.8	143.3	2.1	0.223
4-2300	4-2880	0.262	62.3	-15.9	-2.91	1.416	85.4	0.446	1.283	14.9	446.7	0.711	1.856	-2.87	1.103	113.5	199.1	-15.5	0.426
4-2300	4-2880	0.353	358.5	-9.8	-2.91	1.233	73.6	0.296	0.792	88.8	880.7	0.558	1.026	-2.87	0.856	97.7	142.8	0.6	0.185
4-2300	4-2890	0.242	80.7	-14.3	-2.42	1.417	88.7	0.444	1.291	4.4	446.0	0.718	1.864	-2.76	1.102	113.2	209.2	-19.0	0.422
4-2300	4-2890	0.330	35.7	-8.7	-2.42	1.234	74.7	0.279	0.792	86.5	888.1	0.571	1.013	-2.76	0.853	94.5	138.6	0.4	0.159
4-2300	4-2900	0.242	98.6	-11.5	-1.95	1.419	91.6	0.447	1.299	354.8	806.1	0.718	1.880	-2.73	1.102	113.4	219.1	-22.1	0.427
4-2300	4-2900	0.323	360.0	-7.2	-1.95	1.233	75.0	0.274	0.791	86.1	897.4	0.574	1.008	-2.73	0.849	91.0	129.3	2.3	0.150

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2350	4-2760	0.285	253.0	1.5	0.55	1.242	102.8	0.248	0.815	283.8	873.8	0.613	1.018	3.16	0.897	98.0	28.6	27.7	0.190
4-2350	4-2770	0.295	122.8	4.6	0.99	1.396	80.8	0.433	1.219	30.0	271.0	---	1.747	2.79	1.102	66.8	271.9	-16.9	0.434
4-2350	4-2770	0.260	251.9	4.6	0.99	1.238	101.6	0.226	0.809	285.9	886.1	0.626	0.992	2.79	0.893	94.0	19.6	20.5	0.149
4-2350	4-2780	0.265	133.2	8.0	1.52	1.398	83.3	0.426	1.229	22.7	273.1	---	1.752	2.57	1.105	67.4	281.4	-16.8	0.426
4-2350	4-2780	0.254	251.9	7.3	1.52	1.236	101.3	0.220	0.806	286.2	896.6	0.628	0.984	2.57	0.891	91.0	9.5	23.0	0.134
4-2350	4-2790	0.243	146.4	11.4	1.98	1.400	85.8	0.421	1.238	14.2	274.7	---	1.759	2.45	1.107	67.9	291.0	-16.0	0.421
4-2350	4-2790	0.260	252.4	9.3	1.98	1.236	101.5	0.223	0.805	285.3	905.9	0.625	0.985	2.45	0.890	88.3	1.4	18.3	0.137
4-2350	4-2800	0.232	162.6	14.7	2.41	1.402	88.5	0.421	1.246	5.0	275.7	---	1.770	2.42	1.109	68.1	300.9	-14.4	0.421
4-2350	4-2800	0.274	253.5	10.7	2.41	1.236	102.2	0.233	0.805	283.4	914.1	0.617	0.995	2.42	0.889	85.8	357.1	14.2	0.153
4-2350	4-2810	0.239	181.1	16.9	2.85	1.404	91.5	0.424	1.253	354.9	635.8	0.722	1.785	2.47	1.110	68.0	310.8	-12.0	0.427
4-2350	4-2810	0.298	255.0	11.5	2.85	1.236	103.3	0.251	0.806	280.5	921.4	0.604	1.008	2.47	0.888	83.2	356.4	11.8	0.179
4-2350	4-2820	0.267	199.7	17.8	3.31	1.405	94.9	0.434	1.261	343.9	634.9	0.714	1.807	2.59	1.110	67.4	320.9	-8.9	0.440
4-2350	4-2820	0.333	256.9	12.0	3.31	1.237	104.9	0.276	0.807	276.7	927.7	0.584	1.030	2.59	0.887	80.4	358.5	10.9	0.215
4-2350	4-2830	0.382	259.3	12.0	3.84	1.238	107.2	0.312	0.809	271.9	933.0	0.556	1.062	2.83	0.887	77.0	2.6	11.3	0.262
4-2350	4-2950	0.386	80.7	2.7	0.89	1.248	71.6	0.337	0.825	87.9	866.3	0.547	1.103	-2.84	0.869	104.6	230.7	-28.9	0.262
4-2400	4-2530	0.548	358.2	4.2	2.26	1.156	117.1	0.455	0.709	239.9	526.1	0.386	---	-1.98	0.759	101.1	154.3	5.1	0.283
4-2400	4-2540	0.539	354.9	3.6	1.89	1.147	116.7	0.451	0.698	238.5	534.4	0.383	---	-2.11	0.748	94.6	146.6	7.6	0.258
4-2400	4-2550	0.550	355.7	2.7	1.45	1.142	117.3	0.461	0.693	237.1	542.6	0.373	1.012	-2.34	0.737	87.7	137.5	9.6	0.264
4-2400	4-2660	0.596	139.5	7.1	4.35	1.120	60.0	0.505	0.670	128.5	539.5	0.332	1.008	2.45	0.701	90.5	254.8	-16.8	0.294
4-2400	4-2820	0.261	225.4	29.1	5.91	1.249	100.1	0.220	0.842	297.3	868.8	0.657	1.027	-3.64	0.916	98.0	98.6	3.3	0.169
4-2400	4-2830	0.228	322.8	27.8	4.95	1.245	98.8	0.198	0.835	300.9	882.5	0.669	1.000	-2.06	0.908	94.2	88.9	2.7	0.128
4-2400	4-2840	0.216	322.2	25.3	4.32	1.243	98.5	0.193	0.832	301.5	893.1	0.672	0.993	-2.42	0.903	91.6	78.8	3.3	0.114
4-2400	4-2850	0.216	322.6	22.4	3.84	1.243	98.7	0.195	0.832	300.4	902.1	0.669	0.994	-2.16	0.900	89.5	70.4	4.8	0.114
4-2400	4-2860	0.287	213.0	16.9	3.44	1.402	83.2	0.443	1.278	22.3	273.9	---	1.844	-2.00	1.106	66.8	2.1	-4.0	0.455
4-2400	4-2860	0.223	323.7	19.3	3.44	1.243	99.2	0.202	0.832	298.3	910.0	0.664	1.000	-2.00	0.897	87.5	65.3	6.8	0.125
4-2400	4-2870	0.261	226.2	16.8	3.10	1.404	85.9	0.439	1.287	13.6	275.1	---	1.851	-1.92	1.106	67.2	10.4	-0.3	0.448
4-2400	4-2870	0.236	325.4	16.3	3.10	1.244	100.0	0.214	0.833	295.4	916.9	0.655	1.011	-1.92	0.895	85.5	65.7	8.9	0.142
4-2400	4-2880	0.247	242.1	16.0	2.77	1.405	88.7	0.438	1.295	4.4	275.7	---	1.863	-1.90	1.106	67.3	19.0	3.3	0.445
4-2400	4-2880	0.256	327.5	13.3	2.77	1.245	101.1	0.230	0.834	291.8	923.1	0.642	1.026	-1.90	0.893	83.5	64.9	11.0	0.165
4-2400	4-2890	0.248	260.0	13.9	2.44	1.407	91.7	0.442	1.303	354.4	635.6	0.727	1.879	-1.94	1.105	67.1	28.1	6.8	0.448
4-2400	4-2890	0.283	329.8	10.5	2.44	1.246	102.6	0.252	0.836	287.5	928.6	0.626	1.046	-1.94	0.891	81.2	68.3	13.0	0.193
4-2400	4-2900	0.271	277.9	10.9	2.09	1.409	95.1	0.451	1.310	343.6	634.5	0.719	1.902	-2.04	1.105	65.5	37.7	10.1	0.457
4-2400	4-2900	0.319	332.4	7.9	2.09	1.247	104.4	0.280	0.833	282.6	933.4	0.603	1.072	-2.04	0.889	78.6	73.3	14.7	0.227
4-2400	4-2910	0.368	335.4	5.5	1.69	1.248	106.9	0.317	0.840	276.9	937.3	0.574	1.106	-2.21	0.888	75.6	79.6	16.0	0.270
4-2450	4-2580	0.452	64.2	-1.3	-0.51	1.216	112.0	0.331	0.784	258.3	513.4	0.485	---	-3.23	0.832	104.5	217.7	-24.8	0.276
4-2450	4-2590	0.428	64.8	-2.8	-1.05	1.205	111.0	0.362	0.768	257.1	521.7	0.490	---	-3.13	0.815	99.8	215.1	-25.6	0.231
4-2450	4-2600	0.416	65.3	-4.2	-1.57	1.198	110.5	0.352	0.758	256.0	530.2	0.491	---	-3.13	0.805	95.2	209.0	-25.2	0.202
4-2450	4-2610	0.416	65.9	-5.7	-2.10	1.194	110.4	0.351	0.753	255.0	530.7	0.489	---	-3.21	0.799	90.7	200.2	-23.1	0.192
4-2450	4-2620	0.428	66.6	-7.0	-2.68	1.192	111.0	0.360	0.750	253.7	546.9	0.480	1.020	-3.39	0.797	86.1	191.9	-19.8	0.202
4-2450	4-2630	0.457	67.6	-8.1	-3.35	1.192	112.4	0.381	0.749	252.0	554.8	0.464	1.035	-3.71	0.798	81.3	186.7	-16.6	0.234
4-2450	4-2640	0.506	69.0	-9.0	-4.19	1.193	114.7	0.419	0.750	249.4	561.7	0.436	1.064	-4.22	0.801	75.8	185.4	-14.8	0.208
4-2450	4-2740	0.446	231.7	3.0	1.19	1.201	69.8	0.365	0.761	104.5	515.5	0.483	1.039	4.01	0.847	102.8	10.4	17.3	0.281
4-2450	4-2750	0.393	233.8	1.1	0.88	1.202	71.3	0.323	0.763	100.4	521.5	0.517	1.010	3.56	0.848	98.4	10.9	19.1	0.227
4-2450	4-2760	0.361	235.0	-0.9	-0.28	1.203	72.9	0.298	0.764	97.9	529.1	0.536	0.992	3.29	0.850	94.5	7.2	19.2	0.191
4-2450	4-2770	0.354	235.0	-2.8	-0.87	1.201	73.3	0.291	0.762	97.9	539.3	0.540	0.984	3.15	0.849	90.3	357.0	15.6	0.176
4-2450	4-2880	0.315	36.6	63.2	12.92	1.264	96.3	0.193	0.864	319.1	871.6	0.697	1.031	-14.59	0.915	96.3	126.8	-41.5	0.271
4-2450	4-2890	0.193	23.6	46.3	6.38	1.261	95.3	0.179	0.858	323.8	885.9	0.705	1.012	-8.32	0.908	93.0	124.7	-34.4	0.167
4-2450	4-2900	0.157	21.6	31.2	3.77	1.260	95.2	0.177	0.857	324.1	895.8	0.705	1.008	-5.94	0.904	90.9	121.0	-26.0	0.132
4-2450	4-2910	0.148	22.7	19.0	2.21	1.260	95.5	0.180	0.857	322.4	903.8	0.703	1.011	-4.72	0.901	89.2	118.3	-17.9	0.121
4-2450	4-2920	0.151	25.2	9.9	1.19	1.261	96.0	0.185	0.858	319.8	910.7	0.699	1.016	-4.02	0.900	87.6	117.6	-11.0	0.121
4-2450	4-2930	0.162	28.3	3.3	0.42	1.261	96.7	0.193	0.859	316.4	916.9	0.694	1.024	-3.58	0.899	86.1	118.9	-5.7	0.128
4-2450	4-2940	0.296	290.2	-1.0	-0.21	1.415	82.8	0.466	1.327	22.7	272.8	---	1.946	-3.32	1.103	65.5	77.2	15.8	0.468
4-2450	4-2940	0.177	31.7	-1.5	-0.21	1.262	97.5	0.203	0.861	312.4	922.5	0.670	1.035	-3.32	0.899	84.5	121.8	-2.0	0.140
4-2450	4-2950	0.269	300.0	-4.0	-0.77	1.417	85.4	0.462	1.336	14.6	274.2	---	1.954	-3.17	1.104	66.0	86.2	16.4	0.458
4-2450	4-2950	0.197	35.3	-4.9	-0.77	1.263	98.5	0.219	0.862	308.0	927.7	0.677	1.048	-3.17	0.899	82.9	126.1	0.2	0.185
4-2450	4-2960	0.253	316.2	-7.3	-1.30	1.418	88.1	0.461	1.345	6.0	275.1	---	1.964	-3.12	1.11	66.2	95.5	16.3	0.452
4-2450	4-2960	0.222	38.9	-7.3	-1.30	1.264	99.8	0.231	0.864	303.2	932.4	0.664	1.064	-3.12	0.900	61.2	131.3	1.3	0.175
4-2450	4-2970	0.252	332.7	-10.3	-1.82	1.420	91.0	0.464	1.352	356.8	635.5	0.726	1.979	-3.15	1.108	66.2	105.1	15.6	0.450
4-2450	4-2970	0.253	345	-9.0	-1.82	1.265	101.2	0.251	0.866	298.0	936.7	0.648	1.084	-3.15	0.902	79.3	137.3	1.5	0.198
4-2450	4-2980	0.270	350.1	-12.6	-2.37	1.421	94.2	0.471	1.360	346.9	635.1	0.720	2.000	-3.28	1.110	65.8	115.0	14.0	0.456
4-2450	4-2980	0.291	46.2	-10.1	-2.37	1.266	103.1	0.277	0.868	292.2	940.4	0.628	1.109	-3.28	0.904	77.2	143.8	0.8	0.228
4-2450	4-2990	0.339	50.1	-10.8	-2.98	1.268	105.4	0.310	0.871	285.8	943.5	0.601	1.140	-3.52	0.906	74.6	150.9	-0.6	0.265
4-2450	4-3000	0.585	77.5	-6.3	-5.72	1.131	119.5	0.496	0.678	233.4	1260.6	0.342	1.014	-3.92	0.705	89.4	221.9	-26.3	0.287
4-2500	4-2620	0.382	133.3	-14.6	-4.52	1.277	107.0	0.336	0.870	282.5	495.6	0.578	---	1.45	0.906	107.2	279.8	-18.9	0.299
4-2500	4-2630	0.347	133.7	-14.7	-4.16	1.261	105.6	0.303	0.842	281.8	504.4	0.586	---	1.17	0.885	103.2	282.6	-18.8	0.245
4-2500	4-2640	0.323	134.0	-14.8	-3.92	1.251	104.6	0.281	0.824	281.2	513.4	0.593	---	1.00	0.872	99.5	283.3	-18.6	0.201
4-2500	4-2650	0.306	134.3	-14.8	-3.73	1.244	104.0	0.265	0.812	280.6	522.5	0.597	---	0.90	0.865	96.1	281.2	-18.4	0.167
4-2500	4-2660	0.297	134.7	-14.6	-3.57	1.240	103.6	0.257	0.805	280.0	531.5	0.598	---	0.84	0.861	92.9	275.4	-18.4	0.145
4-2500	4-2670	0.296	135.1	-14.1	-3.42	1.237	103.6	0.255	0.801	279.1	540.4	0.596	1.006	0.80	0.860	89.9	266.8	-18.3	0.135
4-2500	4-2680	0.301	135.7	-13.2	-3.29	1.236	104.0	0.260	0.799	277.9	548.9	0.592	1.007	0.79	0.862	86.9	257.8	-18.1	0.140
4-2500	4-2690	0.316	136.5	-12.0	-3.15	1.236	104.7	0.271	0.799	276.1	556.9	0.582	1.016	0.81	0.865	83.9	251.5	-17.9	0.159
4-2500	4-2700	0.340	137.8	-10.6	-3.00	1.237	105.9	0.291	0.800	273.6	564.2	0.567	1.033	0.85	0.870	80.8	249.0	-18.2	0.190
4-2500	4-2710	0.378	139.5	-8.9	-2.83	1.238	107.8	0.321	0.802	270.0	570.6	0.545	1.060	0.92	0.875	77.3	250.1	-18.8	0.234
4-2500	4-2720	0.435	141.8	-7.0	-2.62	1.240	110.6	0.366	0.805	265.2	575.8	0.511	1.100	1.04	0.880	73.1	254.0	-19.6	0.294
4-2500	4-2820	0.412	319.3	-11.4	-3.92	1.254	71.4	0.341	0.828	87.3	499.3	0.545	1.111	-1.01	0.905	106.7	112.7	18.8	0.290
4-2500	4-2830	0.350	323.2	-12.9	-3.72	1.256	74.5	0.297	0.832	79.5	501.6	0.585	1.079	-0.90	0.906	103.5	120.2	17.2	0.238
4-2500	4-2840	0.304	326.8	-14.5	-3.55	1.258	76.8	0.265	0.836	72.3	504.6	0.615	1.057	-0.83	0.906	101.1	126.7	15.3	0.200
4-2500	4-2850	0.266	330.4	-15.9	-3.41	1.260	78.7	0.241	0.840	65.7	507.9	0.637	1.042	-0.80	0.906	99.1	132.4	13.4	0.170
4-2500	4-2860	0.238	334.2	-17.3	-3.27	1.262	80.2	0.223	0.844	59.3	511.4	0.656	1.032	-0.79	0.906	97.6	137.3	11.3	0.147
4-2500	4-2870	0.214	338.1	-18.7	-3.13	1.264	81.6	0.209	0.847	53.0	515.1	0.670	1.024	-0.81	0.906	96.2	141.5	9.1	0.129

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2500	4-2880	0.417	315.6	-8.3	-2.98	1.230	70.7	0.341	0.790	95.1	567.0	0.520	1.059	-0.85	0.854	77.5	59.3	17.7	0.261
4-2500	4-2890	0.192	342.6	-19.9	-2.98	1.266	82.7	0.198	0.851	46.8	518.7	0.682	1.019	-0.85	0.905	95.1	145.2	6.8	0.115
4-2500	4-2890	0.319	322.9	-10.7	-2.81	1.244	75.7	0.271	0.812	80.3	561.9	0.592	1.032	-0.93	0.871	82.3	79.6	18.5	0.187
4-2500	4-2890	0.172	347.8	-21.0	-2.81	1.269	83.9	0.190	0.855	40.3	522.0	0.692	1.017	-0.93	0.905	94.1	148.9	4.1	0.105
4-2500	4-2900	0.231	333.3	-14.1	-2.60	1.257	80.3	0.216	0.834	60.8	552.2	0.654	1.014	-1.06	0.886	86.7	100.0	15.7	0.127
4-2500	4-2900	0.152	355.3	-2.3	-2.60	1.271	85.1	0.183	0.860	32.4	523.8	0.702	1.017	-1.06	0.906	93.5	154.6	0.1	0.099
4-2500	4-2910	0.168	347.3	-7.6	-2.32	1.267	83.9	0.187	0.851	41.0	542.1	0.692	1.010	-1.26	0.897	89.5	127.8	6.8	0.097
4-2500	4-2910	0.124	13	-24.6	-2.32	1.277	87.3	0.179	0.870	17.7	518.7	0.715	1.025	-1.26	0.911	94.4	171.9	-8.8	0.102
4-2500	4-2920	0.141	35.7	-17.3	-1.89	1.271	85.5	0.179	0.859	30.3	541.0	0.705	1.012	-1.62	0.900	89.8	138.4	-0.7	0.092
4-2500	4-2920	0.115	61.3	-21.7	-1.89	1.287	91.3	0.193	0.890	352.2	862.9	0.719	1.061	-1.62	0.923	97.8	201.7	-20.7	0.139
4-2500	4-2930	0.123	5.9	-11.3	-1.09	1.275	86.5	0.176	0.863	23.5	543.8	0.711	1.014	-2.35	0.902	89.2	140.5	-8.7	0.095
4-2500	4-2930	0.167	97.3	-8.4	-1.09	1.298	95.7	0.233	0.914	329.1	649.4	0.700	1.127	-2.35	0.937	102.0	223.6	-27.9	0.202
4-2500	4-2940	0.314	14.1	12.8	1.13	1.275	87.4	0.175	0.866	17.6	547.4	0.715	1.017	-4.50	0.903	88.4	138.1	-24.0	0.115
4-2500	4-2940	0.251	113.6	5.8	1.13	1.309	100.2	0.290	0.938	312.2	842.0	0.667	1.210	-4.50	0.951	106.2	238.2	-35.5	0.178
4-2500	4-2950	0.204	30.6	-05.0	-8.32	1.278	89.0	0.175	0.872	6.4	555.4	0.719	1.024	-5.09	0.906	86.8	177.8	44.7	0.126
4-2500	4-2970	0.156	43.3	-54.2	-5.67	1.279	89.8	0.177	0.874	1.0	559.5	0.720	1.029	-2.50	0.908	85.9	170.4	27.5	0.108
4-2500	4-2980	0.143	54.7	-48.6	-4.79	1.280	90.7	0.180	0.877	355.6	923.6	0.719	1.035	-1.69	0.910	85.1	171.3	19.0	0.110
4-2500	4-2990	0.139	65.8	-44.1	-4.33	1.282	91.5	0.184	0.880	350.1	927.6	0.718	1.041	-1.30	0.913	84.2	174.4	13.5	0.117
4-2500	4-3000	0.141	76.0	-39.7	-4.04	1.283	92.5	0.189	0.882	344.4	931.6	0.716	1.049	-1.08	0.916	83.3	178.7	9.2	0.125
4-2500	4-3010	0.148	85.3	-35.3	-3.82	1.284	93.4	0.195	0.886	338.7	935.4	0.712	1.057	-0.95	0.920	82.3	183.7	5.4	0.136
4-2500	4-3020	0.159	93.6	-30.9	-3.65	1.285	94.5	0.204	0.887	332.7	939.1	0.706	1.068	-0.87	0.924	81.3	189.2	1.8	0.148
4-2500	4-3030	0.174	100.9	-26.6	-3.50	1.286	95.7	0.214	0.889	326.5	942.6	0.699	1.080	-0.82	0.928	80.2	195.3	-1.6	0.163
4-2500	4-3040	0.279	27.8	-17.5	-3.36	1.435	86.4	0.486	1.391	11.9	276.9	---	2.067	0.80	1.128	65.5	173.2	4.9	0.453
4-2500	4-3040	0.195	107.5	-22.6	-3.36	1.287	97.1	0.228	0.892	320.1	945.9	0.689	1.095	0.80	0.932	79.0	201.9	-4.8	0.181
4-2500	4-3050	0.266	43.3	-17.7	-3.22	1.437	89.2	0.486	1.399	2.3	277.9	---	2.078	0.80	1.132	65.7	181.8	1.2	0.450
4-2500	4-3050	0.222	113.4	-18.9	-3.22	1.289	98.7	0.245	0.894	313.2	948.8	0.675	1.113	0.80	0.937	77.6	208.9	-8.0	0.203
4-2500	4-3060	0.270	60.9	-16.6	-3.08	1.438	92.4	0.489	1.406	352.8	638.3	0.718	2.094	0.82	1.136	65.6	190.9	-2.6	0.453
4-2500	4-3060	0.256	118.9	-15.4	-3.08	1.290	100.6	0.267	0.896	305.9	951.4	0.657	1.135	0.82	0.942	75.9	216.5	-11.0	0.230
4-2500	4-3070	0.295	78.8	-14.3	-2.92	1.439	95.9	0.499	1.413	342.2	637.6	0.708	2.118	0.08	1.140	65.1	200.6	-6.6	0.465
4-2500	4-3070	0.301	124.1	-12.3	-2.92	1.291	103.0	0.296	0.899	297.9	953.3	0.632	1.165	0.88	0.946	73.9	224.7	-13.8	0.264
4-2500	4-3070	0.510	154.0	-6.0	-2.92	1.161	115.2	0.427	0.699	241.1	1256.5	0.400	0.997	0.88	0.760	92.6	308.6	-16.0	0.251
4-2500	4-3080	0.515	154.3	-5.6	-2.74	1.159	115.5	0.431	0.697	240.6	1265.9	0.396	0.997	0.97	0.760	85.6	296.7	-18.2	0.253
4-2500	4-3090	0.551	155.1	-4.7	-2.50	1.159	117.4	0.461	0.696	238.9	1274.2	0.375	1.017	1.13	0.763	78.4	288.3	-19.5	0.297
4-2550	4-2690	0.261	198.7	-49.6	-9.11	1.268	96.2	0.197	0.854	315.5	515.4	0.686	---	9.97	0.910	95.7	311.6	30.2	0.218
4-2550	4-2700	0.206	195.6	-37.1	-5.67	1.264	96.	0.187	0.846	315.9	525.6	0.688	---	6.84	0.907	93.3	312.4	25.3	0.164
4-2550	4-2710	0.182	194.8	-27.3	-3.82	1.261	96.5	0.183	0.842	315.6	535.2	0.688	---	5.31	0.907	91.1	309.0	20.9	0.136
4-2550	4-2720	0.174	195.1	-19.2	-2.61	1.260	96.6	0.182	0.840	314.7	544.2	0.687	0.992	4.45	0.908	89.1	303.7	15.7	0.124
4-2550	4-2730	0.174	196.1	-12.4	-1.72	1.260	96.9	0.185	0.839	313.0	552.5	0.684	0.995	3.92	0.911	87.2	299.0	9.9	0.124
4-2550	4-2740	0.182	197.8	-6.8	-0.98	1.261	97.4	0.192	0.840	310.5	560.1	0.679	1.002	3.61	0.914	85.4	296.5	4.7	0.134
4-2550	4-2750	0.197	199.9	-2.2	-0.34	1.262	98.2	0.202	0.842	307.2	567.0	0.672	1.013	3.44	0.918	83.6	296.7	0.5	0.150
4-2550	4-2760	0.218	202.5	1.5	0.27	1.263	99.2	0.217	0.845	303.2	573.0	0.661	1.028	3.38	0.921	81.8	299.3	-2.2	0.173
4-2550	4-2770	0.247	205.5	4.4	0.87	1.265	100.0	0.237	0.848	298.3	578.3	0.647	1.049	3.44	0.924	79.8	303.6	-3.8	0.202
4-2550	4-2780	0.287	208.8	6.6	1.52	1.267	102.5	0.264	0.852	292.5	582.7	0.627	1.077	3.61	0.927	77.5	309.4	-4.2	0.238
4-2550	4-2790	0.340	212.5	8.2	2.26	1.269	105.0	0.301	0.856	285.8	586.2	0.598	1.114	3.92	0.930	74.7	316.2	-3.7	0.284
4-2550	4-2910	0.343	50.4	-6.1	-1.48	1.290	74.7	0.325	0.896	69.4	489.4	0.605	1.188	-3.91	0.930	107.6	202.8	-22.3	0.294
4-2550	4-2920	0.284	56.4	-4.4	-0.99	1.293	77.6	0.292	0.902	59.7	489.3	0.639	1.165	-3.61	0.931	105.5	212.5	-26.4	0.261
4-2550	4-2930	0.237	63.3	-2.0	-0.37	1.296	80.1	0.267	0.908	49.9	489.1	0.666	1.151	-3.44	0.933	104.0	222.8	-30.2	0.238
4-2550	4-2940	0.198	72.0	1.3	0.20	1.299	82.4	0.250	0.915	39.8	488.5	0.686	1.143	-3.38	0.936	103.0	234.0	-33.6	0.224
4-2550	4-2950	0.166	83.6	6.0	0.77	1.302	84.5	0.238	0.922	29.1	487.3	0.702	1.141	-3.42	0.940	102.5	246.2	-36.4	0.218
4-2550	4-2960	0.143	99.8	12.5	1.36	1.305	86.7	0.233	0.930	17.6	485.4	0.713	1.147	-3.55	0.944	102.4	259.5	-38.3	0.219
4-2550	4-2970	0.136	121.6	19.9	2.02	1.310	89.0	0.235	0.939	5.4	482.7	0.719	1.160	-3.81	0.950	102.7	273.5	-39.1	0.228
4-2550	4-2980	0.150	141.1	25.4	2.81	1.314	91.4	0.244	0.951	352.7	839.5	0.718	1.183	-4.23	0.957	103.6	287.5	-38.8	0.246
4-2550	4-2990	0.376	43.3	12.4	3.83	1.263	72.9	0.326	0.844	81.6	577.9	0.568	1.119	-4.90	0.886	74.9	153.9	-6.0	0.271
4-2550	4-2990	0.187	167.3	28.0	3.83	1.320	94.1	0.263	0.964	839.9	836.2	0.710	1.217	-4.90	0.966	104.9	301.0	-37.7	0.274
4-2550	4-3000	0.334	47.5	19.8	5.28	1.269	75.5	0.292	0.855	72.8	578.7	0.605	1.106	-6.04	0.897	76.6	160.4	-15.2	0.248
4-2550	4-3000	0.245	182.8	29.7	5.28	1.326	97.1	0.291	0.979	327.6	833.5	0.694	1.263	-6.04	0.975	106.8	313.7	-36.5	0.313
4-2550	4-3010	0.316	51.2	31.8	7.69	1.274	77.8	0.267	0.865	64.2	579.6	0.634	1.096	-8.15	0.906	77.9	165.4	-27.5	0.245
4-2550	4-3020	0.361	51.3	51.3	12.92	1.279	79.8	0.248	0.874	55.8	580.7	0.657	1.090	-13.08	0.914	78.7	167.6	-44.9	0.286
4-2550	4-3050	0.309	72.0	-64.8	-12.59	1.288	84.8	0.213	0.892	30.3	595.2	0.702	1.082	13.29	0.936	79.9	234.3	32.4	0.277
4-2550	4-3060	0.204	89.3	-52.0	-7.16	1.290	86.1	0.208	0.897	22.7	587.3	0.710	1.083	8.16	0.942	79.9	233.2	19.9	0.215
4-2550	4-3070	0.157	103.3	-42.0	-4.68	1.292	87.5	0.206	0.901	15.0	589.4	0.715	1.086	6.00	0.948	79.8	237.0	10.6	0.196
4-2550	4-3080	0.133	118.1	-32.8	-3.20	1.294	88.8	0.206	0.905	7.3	591.6	0.719	1.090	4.85	0.953	79.5	242.9	3.8	0.191
4-2550	4-3090	0.123	133.7	-23.4	-2.16	1.296	90.1	0.208	0.908	359.4	953.7	0.720	1.096	4.17	0.958	79.2	249.8	-1.1	0.192
4-2550	4-3100	0.125	148.9	-14.2	-1.35	1.297	91.5	0.212	0.911	351.4	955.7	0.718	1.104	3.75	0.962	78.8	257.6	-4.8	0.199
4-2550	4-3110	0.137	162.5	-6.4	-0.67	1.298	93.0	0.219	0.914	343.1	957.5	0.714	1.115	3.51	0.966	78.2	265.8	-7.3	0.209
4-2550	4-3120	0.284	104.1	-0.2	-0.05	1.443	84.9	0.505	1.435	15.3	279.8	---	2.160	3.40	1.155	65.4	251.0	-14.8	0.478
4-2550	4-3120	0.159	174.2	-0.4	-0.05	1.300	94.7	0.230	0.917	334.6	959.1	0.707	1.128	3.40	0.970	77.4	274.5	-6.8	0.223
4-2550	4-3130	0.266	119.4	3.0	0.55	1.445	87.9	0.502	1.443	6.4	281.1	---	2.168	3.39	1.157	65.8	260.8	-15.6	0.476
4-2550	4-3130	0.189	184.1	3.8	0.55	1.301	96.5	0.245	0.920	325.7	960.4	0.695	1.149	3.39	0.973	76.4	283.4	-9.4	0.242
4-2550	4-3130	0.495	231.6	1.2	0.55	1.183	113.9	0.405	0.724	247.0	1241.7	0.431	1.018	3.39	0.808	101.7	26.7	21.1	0.286
4-2550	4-3140	0.267	137.3	6.4	1.17	1.446	91.1	0.504	1.450	356.6	641.4	0.719	2.182	3.50	1.159	65.8	271.2	-15.7	0.479
4-2550	4-3140	0.230	192.5	6.6	1.17	1.302	98.7	0.265	0.923	316.4	961.3	0.678	1.168	3.50	0.975	75.1	292.7	-9.2	0.267
4-2550	4-3140	0.456	231.2	2.8	1.17	1.178	112.0	0.374	0.719	247.9	1252.8	0.450	0.988	3.50	0.802	94.3	15.3	19.7	0.232
4-2550	4-3150	0.293	156.2	9.2	1.86	1.447	94.9	0.511	1.457	345.6	640.6	0.712	2.203	3.73	1.161	65.3	282.1	-14.9	0.492
4-2550	4-3150	0.282	199.9	8.4	1.86	1.304	101.4	0.294	0.926	306.5	961.6	0.653	1.198	3.73	0.977	73.3	302.2	-8.2	0.301
4-2550	4-3150	0.454	231.5	4.5	1.86	1.177	111.9	0.373	0.717	247.0	1262.6	0.450	0.984	3.73	0.799	88.5	4.0	16.2	0.227
4-2560	4-2620	0.544	200.0	7.5	2.73	1.560	106.0	0.775	2.924	323.2	438.9	0.658	---	-3.52	1.276	123.5	313.1	-23.0	0.717
4-2560	4-2630	0.432	202.3	11.4	3.45	1.460	103.7	0.571	1.550	321.8	447.1	0.665	---	-3.88	1.152	119.0	319.0	-23.1	0.571
4-2560	4-2640	0.354	203.9	14.0	4.35	1.393	101.6	0.439	1.197	321.2	455.9	0.672	---	-4.07	1.068	114.6	325.2	-23.9	0.461
4-2560	4-2650	0.304	205.0	25.4	5.64	1.348	99.8	0.349	1.044	321.1	465.5	0.679	---	-5.45	1.010	110.4	331.8	-26.3	0.378

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2560	4-2660	0.286	206.3	37.8	7.75	1.318	98.3	0.287	0.962	321.7	475.7	0.686	---	-7.25	0.972	106.5	339.1	-32.1	0.320
4-2560	4-2670	0.325	210.6	35.7	12.04	1.297	97.0	0.244	0.915	322.8	486.4	0.692	---	-11.29	0.946	102.9	348.8	-45.0	0.304
4-2560	4-2680	0.610	255.4	75.8	27.62	1.283	96.0	0.213	0.886	324.6	497.5	0.697	---	-26.59	0.930	99.7	1.0	-68.5	0.479
4-2560	4-2700	0.294	211.8	-62.7	-11.93	1.268	95.3	0.183	0.857	324.7	518.4	0.700	---	13.50	0.915	94.6	309.0	39.7	0.259
4-2560	4-2710	0.192	204.3	-44.4	-6.12	1.265	95.0	0.175	0.850	325.2	528.7	0.701	---	7.98	0.914	92.4	312.8	32.7	0.171
4-2560	4-2720	0.159	203.1	-29.9	-3.61	1.263	95.0	0.172	0.847	324.8	538.2	0.701	---	5.77	0.914	90.4	310.6	26.0	0.136
4-2560	4-2730	0.149	203.7	-18.4	-2.15	1.262	95.1	0.172	0.845	323.6	547.0	0.700	0.991	4.62	0.916	88.6	306.5	18.9	0.123
4-2560	4-2740	0.151	205.3	-9.6	-1.15	1.262	95.5	0.176	0.846	321.5	555.0	0.697	0.994	3.95	0.918	87.9	303.4	11.9	0.123
4-2560	4-2750	0.159	207.6	-2.9	-0.37	1.263	96.1	0.182	0.847	318.6	562.2	0.693	1.002	3.54	0.921	85.3	302.4	6.1	0.132
4-2560	4-2760	0.174	210.6	2.0	0.28	1.264	96.8	0.192	0.850	314.9	568.6	0.687	1.013	3.31	0.925	83.7	303.8	1.9	0.147
4-2560	4-2770	0.195	213.7	5.6	0.87	1.266	97.8	0.205	0.853	310.5	574.4	0.678	1.028	3.19	0.928	82.0	307.2	-0.7	0.168
4-2560	4-2780	0.223	217.2	8.1	1.43	1.268	99.2	0.223	0.856	305.3	579.4	0.665	1.047	3.18	0.931	80.3	312.1	-2.0	0.195
4-2560	4-2790	0.258	221.0	9.8	2.01	1.270	100.9	0.247	0.860	299.4	583.6	0.648	1.072	3.27	0.933	78.3	318.1	-2.1	0.225
4-2560	4-2800	0.305	225.0	10.8	2.65	1.272	103.1	0.278	0.864	292.6	587.0	0.624	1.105	3.48	0.936	75.9	325.0	-1.2	0.264
4-2560	4-2810	0.367	229.2	11.4	3.39	1.275	106.0	0.320	0.869	284.8	589.4	0.590	1.147	3.85	0.937	72.9	332.6	0.6	0.314
4-2560	4-2820	0.453	234.0	11.6	4.34	1.277	110.0	0.380	0.874	275.7	590.3	0.542	1.206	4.46	0.939	68.9	341.0	3.1	0.382
4-2560	4-2830	0.577	239.5	11.4	5.70	1.280	115.8	0.465	0.879	264.6	589.3	0.470	1.288	5.49	0.941	63.2	350.5	6.4	0.478
4-2560	4-2835	0.635	267.6	5.1	5.70	1.027	133.2	0.706	0.581	212.5	897.2	0.171	0.992	5.49	0.550	96.6	65.3	27.9	0.473
4-2560	4-2840	0.888	269.0	6.3	7.94	1.019	136.1	0.741	0.575	210.3	905.0	0.149	1.002	7.44	0.529	76.2	52.1	26.4	0.523
4-2560	4-2900	0.602	51.8	-6.6	-3.48	1.287	62.1	0.499	0.894	97.8	492.0	0.448	1.340	-5.65	0.931	119.1	193.3	-16.1	0.481
4-2560	4-2910	0.476	58.0	-5.3	-2.10	1.290	68.1	0.416	0.900	85.4	489.2	0.526	1.274	-4.58	0.932	113.6	204.0	-20.8	0.392
4-2560	4-2920	0.386	64.0	-3.7	-1.15	1.293	72.5	0.358	0.906	74.4	487.9	0.582	1.230	-3.95	0.934	109.9	214.5	-24.9	0.332
4-2560	4-2930	0.318	70.0	-1.6	-0.41	1.296	75.9	0.317	0.912	64.1	487.1	0.623	1.201	-3.56	0.936	107.3	225.1	-28.5	0.292
4-2560	4-2940	0.263	76.9	1.0	0.21	1.299	78.8	0.287	0.918	53.9	486.4	0.655	1.181	-3.33	0.938	105.5	236.3	-31.6	0.264
4-2560	4-2950	0.817	37.5	0.9	0.77	1.207	49.7	0.648	0.759	126.9	569.0	0.267	1.250	-3.20	0.806	54.1	125.5	15.7	0.582
4-2560	4-2960	0.219	85.2	4.5	0.77	1.301	81.3	0.265	0.924	43.5	485.6	0.679	1.170	-3.20	0.941	104.3	248.0	-34.0	0.246
4-2560	4-2960	0.730	41.0	1.8	1.30	1.219	54.3	0.586	0.776	120.0	577.6	0.321	1.231	-3.17	0.824	58.4	133.2	13.1	0.518
4-2560	4-2960	0.183	95.9	9.2	1.30	1.305	83.6	0.251	0.931	32.8	484.4	0.698	1.165	-3.17	0.945	103.6	260.5	-35.6	0.236
4-2560	4-2970	0.648	44.5	3.0	1.83	1.230	58.6	0.526	0.793	112.9	574.0	0.376	1.210	-3.23	0.840	62.4	140.8	9.8	0.457
4-2560	4-2970	0.157	110.7	15.4	1.83	1.308	85.9	0.243	0.939	21.4	482.5	0.711	1.167	-3.23	0.950	103.3	273.6	-36.3	0.234
4-2560	4-2980	0.571	48.1	4.6	2.40	1.241	62.7	0.469	0.809	105.4	576.1	0.429	1.189	-3.39	0.856	66.0	148.4	5.8	0.402
4-2560	4-2980	0.145	130.8	22.2	2.40	1.312	88.2	0.242	0.948	9.5	480.1	0.719	1.178	-3.39	0.956	103.4	286.9	-35.9	0.239
4-2560	4-2990	0.500	51.8	7.0	3.05	1.250	66.3	0.417	0.824	97.1	577.8	0.480	1.168	-3.67	0.870	69.1	155.8	1.0	0.354
4-2560	4-2990	0.153	154.5	27.4	3.05	1.316	90.6	0.248	0.959	357.1	637.3	0.720	1.197	-3.67	0.963	104.0	300.0	-34.6	0.253
4-2560	4-3000	0.438	55.6	10.4	3.85	1.253	69.7	0.372	0.838	89.6	579.4	0.527	1.150	-4.13	0.883	71.7	163.0	-4.8	0.313
4-2560	4-3000	0.181	176.5	29.3	3.85	1.321	93.2	0.263	0.971	344.7	834.4	0.715	1.226	-4.13	0.971	105.0	312.4	-32.5	0.275
4-2560	4-3010	0.386	59.5	15.5	4.90	1.265	72.6	0.333	0.851	81.4	580.7	0.568	1.134	-4.87	0.895	73.8	169.9	-12.0	0.281
4-2560	4-3010	0.228	193.3	29.7	4.90	1.327	96.0	0.286	0.984	332.6	831.9	0.703	1.266	-4.87	0.980	106.6	324.1	-30.2	0.306
4-2560	4-3020	0.349	63.3	23.4	6.48	1.271	75.2	0.301	0.862	73.0	581.9	0.603	1.121	-6.16	0.906	75.5	176.0	-21.3	0.262
4-2560	4-3020	0.292	205.6	30.6	6.48	1.333	99.1	0.318	1.000	321.2	830.2	0.682	1.318	-6.16	0.990	108.5	335.1	-28.4	0.348
4-2560	4-3030	0.341	66.3	36.2	9.31	1.276	77.5	0.275	0.871	64.7	583.2	0.632	1.111	-8.70	0.915	76.7	180.7	-34.4	0.252
4-2560	4-3030	0.378	215.4	34.1	9.31	1.339	102.3	0.356	1.018	310.8	829.3	0.655	1.380	-8.70	1.002	110.9	345.8	-28.4	0.404
4-2560	4-3040	0.424	62.7	57.1	16.43	1.280	79.4	0.256	0.879	56.6	584.7	0.655	1.104	-15.54	0.924	77.6	181.9	-54.3	0.328
4-2560	4-3040	0.526	226.7	44.1	16.43	1.346	105.8	0.400	1.037	301.4	829.5	0.622	1.451	-15.54	1.013	113.5	357.0	-34.3	0.499
4-2560	4-3060	0.460	64.0	-71.1	-19.94	1.287	83.1	0.226	0.893	38.9	587.7	0.691	1.094	21.37	0.939	70.9	248.0	36.1	0.400
4-2560	4-3070	0.586	69.6	-19.4	-8.43	1.431	67.7	0.582	1.375	63.1	261.5	---	2.175	10.14	1.132	57.8	214.5	3.1	0.613
4-2560	4-3070	0.238	93.6	-52.1	-8.43	1.289	84.5	0.218	0.898	31.3	589.6	0.702	1.094	10.14	0.946	79.0	241.7	21.2	0.248
4-2560	4-3080	0.519	74.9	-12.4	-4.73	1.434	70.1	0.566	1.388	56.8	265.0	---	2.173	6.73	1.137	59.3	220.0	-3.5	0.577
4-2560	4-3080	0.171	106.9	-38.5	-4.73	1.291	86.0	0.213	0.903	23.4	591.5	0.710	1.095	6.73	0.952	79.1	244.8	10.1	0.213
4-2560	4-3090	0.467	80.1	-8.4	-2.84	1.436	72.6	0.551	1.400	50.2	268.3	---	2.171	5.14	1.142	60.8	227.2	-8.0	0.551
4-2560	4-3090	0.138	120.3	-27.6	-2.84	1.293	87.4	0.210	0.907	15.3	593.5	0.716	1.098	5.14	0.957	79.1	250.8	2.7	0.201
4-2560	4-3100	0.820	86.0	-5.4	-1.64	1.438	75.1	0.538	1.411	43.3	271.5	---	2.169	4.26	1.147	62.1	235.1	-11.2	0.530
4-2560	4-3100	0.122	135.3	-17.7	-1.64	1.295	88.8	0.210	0.911	7.2	595.4	0.720	1.102	4.26	0.962	78.9	258.2	-2.3	0.199
4-2560	4-3110	0.376	93.2	-2.8	-0.76	1.439	77.7	0.527	1.421	36.2	274.4	---	2.169	3.73	1.150	63.2	243.5	-13.6	0.513
4-2560	4-3110	0.118	151.9	-8.3	-0.76	1.297	90.2	0.212	0.914	358.9	957.2	0.721	1.108	3.73	0.966	78.6	266.3	-5.7	0.203
4-2560	4-3120	0.337	101.6	-0.2	-0.05	1.441	80.3	0.517	1.430	28.7	277.1	---	2.170	3.41	1.154	64.2	252.4	-15.3	0.498
4-2560	4-3120	0.126	167.0	-0.5	-0.05	1.298	91.7	0.217	0.918	350.5	958.8	0.719	1.116	3.41	0.970	78.2	274.8	-7.7	0.210
4-2560	4-3130	0.303	112.3	2.7	0.56	1.443	83.0	0.510	1.439	20.7	279.2	---	2.173	3.24	1.157	65.0	261.8	-16.2	0.468
4-2560	4-3130	0.144	181.0	5.1	0.56	1.300	93.3	0.225	0.921	341.7	960.3	0.714	1.128	3.24	0.973	77.6	283.7	-8.7	0.221
4-2560	4-3140	0.278	125.8	5.9	1.13	1.444	85.9	0.506	1.447	12.1	280.8	---	2.180	3.17	1.159	65.6	271.5	-16.5	0.482
4-2560	4-3140	0.170	192.8	8.7	1.13	1.301	95.1	0.237	0.924	332.7	961.4	0.705	1.142	3.17	0.975	76.8	292.8	-8.8	0.237
4-2560	4-3140	0.534	247.9	2.3	1.13	1.189	115.7	0.434	0.734	246.5	1235.2	0.416	1.053	3.17	0.820	106.7	46.9	25.3	0.335
4-2560	4-3140	0.738	251.7	1.5	1.13	1.208	125.7	0.584	0.760	238.5	1227.2	0.316	1.204	3.17	0.847	121.9	59.3	24.8	0.541
4-2560	4-3150	0.268	142.3	9.2	1.70	1.445	89.1	0.505	1.455	2.8	281.7	---	2.190	3.21	1.160	65.8	281.6	-15.9	0.481
4-2560	4-3150	0.206	202.7	10.7	1.70	1.303	97.2	0.253	0.927	323.4	962.2	0.692	1.162	3.21	0.977	75.7	302.1	-8.0	0.258
4-2560	4-3150	0.460	246.9	4.1	1.70	1.181	112.1	0.376	0.725	240.7	1247.6	0.452	0.997	3.21	0.809	97.3	35.1	25.3	0.242
4-2560	4-3160	0.279	161.0	12.0	2.30	1.446	92.5	0.509	1.462	352.5	641.6	0.719	2.206	3.36	1.162	65.7	292.1	-14.5	0.488
4-2560	4-3160	0.252	211.1	11.8	2.30	1.304	99.6	0.277	0.930	313.5	962.6	0.672	1.187	3.36	0.978	74.2	311.4	-6.5	0.286
4-2560	4-3160	0.446	246.9	5.7	2.30	1.179	111.3	0.360	0.722	248.9	1257.9	0.459	0.984	3.36	0.805	91.2	22.9	22.9	0.219
4-2570	4-2630	0.462	209.7	9.6	2.98	1.524	102.4	0.69	2.227	329.5	458.6	0.681	---	-2.87	1.234	120.9	322.8	-19.6	0.648
4-2570	4-2640	0.363	211.6	13.8	3.53	1.436	100.5	0.510	1.401	328.7	447.4	0.686	---	-3.09	1.123	116.5	328.3	-19.3	0.515
4-2570	4-2650	0.296	212.6	19.6	4.19	1.375	98.7	0.391	1.137	328.7	457.0	0.692	---	-3.46	1.048	112.2	334.0	-19.5	0.413
4-2570	4-2660	0.253	212.9	27.5	5.05	1.336	97.1	0.311	1.013	329.4	467.3	0.698	---	-4.05	0.998	108.1	339.8	-21.0	0.335
4-2570	4-2670	0.232	212.8	38.1	6.33	1.309	95.9	0.257	0.946	330.7	478.3	0.703	---	-5.07	0.965	104.4	345.9	-24.9	0.276
4-2570	4-2680	0.243	213.5	51.9	8.56	1.291	94.9	0.220	0.906	332.4	489.7	0.707	---	-7.06	0.943	101.1	353.2	-33.6	0.242
4-2570	4-2690	0.328	221.0	69.3	13.93	1.279	94.1	0.195	0.882	334.3	501.3	0.710	---	-12.19	0.930	98.2	4.5	-51.3	0.264
4-2570	4-2710	0.414	239.2	-77.6	-18.64	1.267	93.6	0.170	0.858	335.0	522.6	0.712	---	20.85	0.919	93.5	302.6	46.1	0.366
4-2570	4-2720	0.185	209.8	-52.8	-6.69	1.264	93.4	0.164	0.853	335.5	532.9	0.713	---	9.14	0.919	91.4	311.4	38.4	0.181
4-2570	4-2730	0.136	208.3	-37.4	-3.23	1.263	93.5	0.163	0.851	334.8	542.1	0.712	0.990	5.92	0.920	89.6	311.2	28.8	0.135
4-2570	4-2740	0.126	209.8	-15.4	-1.52	1.263	93.7	0.164	0.851	333.1	550.5	0.711	0.991	4.47	0.922	88.0	308.9	19.4	0.120

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2570	4-2750	0.129	212.5	-4.4	-0.45	1.264	94.1	0.168	0.852	330.5	558.0	0.708	0.995	3.68	0.925	86.5	307.6	11.5	0.121
4-2570	4-2760	0.139	215.9	2.9	0.32	1.265	94.7	0.175	0.854	327.1	564.7	0.705	1.003	3.21	0.928	85.0	308.2	5.5	0.130
4-2570	4-2770	0.155	219.8	7.6	0.93	1.266	95.5	0.184	0.857	322.9	570.7	0.699	1.015	2.93	0.931	83.-	310.9	1.7	0.144
4-2570	4-2780	0.175	224.0	10.6	1.46	1.268	96.5	0.196	0.860	318.7	576.0	0.692	1.029	2.77	0.934	82.2	315.2	-0.4	0.163
4-2570	4-2790	0.201	228.3	12.3	1.95	1.270	97.8	0.212	0.864	312.5	580.7	0.681	1.047	2.71	0.936	80.7	320.7	-1.1	0.186
4-2570	4-2800	0.234	232.6	13.2	2.44	1.272	99.3	0.232	0.868	306.4	584.6	0.665	1.070	2.74	0.938	78.9	327.0	-0.7	0.216
4-2570	4-2810	0.275	237.0	13.5	2.95	1.275	101.3	0.259	0.873	299.4	587.9	0.646	1.099	2.86	0.940	76.9	334.0	0.6	0.247
4-2570	4-2820	0.329	241.5	13.4	3.52	1.277	103.9	0.295	0.877	291.7	590.3	0.618	1.136	3.09	0.942	74.4	341.6	2.7	0.290
4-2570	4-2830	0.400	246.3	13.0	4.27	1.280	107.3	0.344	0.882	283.0	591.6	0.579	1.186	3.47	0.943	71.1	349.8	5.4	0.345
4-2570	4-2840	0.500	251.5	12.3	5.13	1.282	112.0	0.413	0.888	272.8	591.5	0.521	1.254	4.11	0.944	66.5	358.8	8.7	0.421
4-2570	4-2840	0.834	282.4	4.7	5.13	1.043	132.9	0.699	0.594	214.1	892.7	0.179	1.010	4.11	0.579	106.1	89.8	28.2	0.478
4-2570	4-2850	0.645	257.7	11.4	6.50	1.285	118.9	0.512	0.894	260.3	588.4	0.436	1.351	5.22	0.945	59.8	9.2	12.7	0.533
4-2570	4-2850	0.833	283.4	5.9	6.50	1.029	132.9	0.702	0.584	212.9	901.5	0.174	0.995	5.22	0.549	86.4	73.9	28.8	0.466
4-2570	4-2860	0.935	285.4	6.5	8.96	1.026	138.6	0.767	0.582	209.4	907.9	0.135	1.028	7.43	0.536	66.3	64.8	27.9	0.570
4-2570	4-2910	0.715	63.7	-4.7	-3.13	1.289	56.4	0.577	0.902	106.8	494.5	0.381	1.423	-5.84	0.934	124.7	202.4	-17.9	0.571
4-2570	4-2920	0.553	70.8	-3.2	-1.52	1.293	64.3	0.471	0.909	92.4	489.8	0.481	1.337	-4.58	0.936	117.4	214.5	-22.5	0.454
4-2570	4-2930	0.441	77.1	-1.4	-0.50	1.296	69.8	0.398	0.915	80.3	487.2	0.551	1.279	-3.72	0.938	112.7	226.1	-26.2	0.377
4-2570	4-2940	0.359	83.3	0.8	0.24	1.298	73.9	0.346	0.921	69.1	485.6	0.602	1.240	-3.26	0.940	109.4	237.6	-29.2	0.326
4-2570	4-2950	0.295	90.1	3.6	0.83	1.301	77.2	0.309	0.927	58.4	484.4	0.641	1.214	-2.97	0.943	107.2	249.4	-31.4	0.291
4-2570	4-2960	0.244	98.0	7.1	1.34	1.304	80.0	0.283	0.934	47.7	483.2	0.670	1.198	-2.80	0.947	105.6	261.6	-32.8	0.268
4-2570	4-2970	0.804	54.5	2.1	1.80	1.213	50.4	0.639	0.770	125.2	570.3	0.278	1.262	-2.72	0.818	54.3	143.6	11.1	0.574
4-2570	4-2970	0.204	108.0	11.5	1.80	1.307	82.5	0.265	0.941	36.8	481.8	0.692	1.190	-2.72	0.951	104.6	274.0	-33.3	0.254
4-2570	4-2980	0.720	57.9	3.1	2.26	1.224	54.9	0.579	0.786	118.5	573.0	0.331	1.242	-2.72	0.835	58.5	150.9	7.9	0.513
4-2570	4-2980	0.174	121.5	17.2	2.26	1.310	84.9	0.254	0.948	25.4	480.0	0.708	1.189	-2.72	0.956	104.1	286.6	-32.8	0.249
4-2570	4-2990	0.641	61.3	4.5	2.72	1.235	59.0	0.522	0.803	111.4	575.5	0.384	1.221	-2.80	0.851	62.2	158.2	4.2	0.456
4-2570	4-2990	0.156	139.8	23.5	2.72	1.314	87.3	0.250	0.957	13.6	477.7	0.718	1.196	-2.80	0.962	104.1	299.1	-31.4	0.251
4-2570	4-3000	0.568	64.8	6.3	3.23	1.244	62.9	0.468	0.818	104.2	577.8	0.436	1.201	-2.96	0.866	65.6	165.5	-0.1	0.404
4-2570	4-3000	0.156	162.5	28.4	3.23	1.318	89.7	0.253	0.967	1.5	475.1	0.722	1.211	-2.96	0.969	104.4	311.2	-29.2	0.260
4-2570	4-3010	0.500	68.4	8.8	3.82	1.253	66.4	0.418	0.833	96.6	579.8	0.485	1.181	-3.24	0.881	68.5	172.7	-4.9	0.358
4-2570	4-3010	0.176	185.1	30.1	3.82	1.322	92.2	0.264	0.978	349.3	832.5	0.719	1.236	-3.24	0.977	105.2	322.8	-26.4	0.277
4-2570	4-3020	0.441	72.1	12.3	4.56	1.260	69.6	0.374	0.846	88.8	581.7	0.529	1.163	-3.70	0.894	70.9	179.8	-10.7	0.320
4-2570	4-3020	0.213	203.4	29.5	4.56	1.327	95.0	0.284	0.990	337.3	830.2	0.710	1.271	-3.70	0.986	106.4	333.6	-23.4	0.302
4-2570	4-3030	0.393	75.9	17.4	5.59	1.267	72.5	0.337	0.858	80.8	583.4	0.569	1.147	-4.46	0.906	73.6	186.8	-17.6	0.290
4-2570	4-3030	0.267	214.7	28.8	5.59	1.333	97.9	0.311	1.005	326.0	828.5	0.693	1.317	-4.46	0.995	108.1	343.9	-20.6	0.316
4-2570	4-3040	0.359	7.5	25.4	7.21	1.273	75.0	0.306	0.868	72.7	585.0	0.603	1.134	-5.83	0.916	74.6	195.2	-26.7	0.271
4-2570	4-3040	0.335	226.7	29.5	7.21	1.338	101.0	0.345	1.021	315.4	827.7	0.669	1.373	-5.83	1.006	110.2	353.9	-18.6	0.380
4-2570	4-3050	0.358	81.9	38.9	10.41	1.277	77.2	0.281	0.878	64.6	586.6	0.631	1.124	-8.79	0.926	75.8	198.2	-40.4	0.274
4-2570	4-3050	0.427	235.3	33.5	10.41	1.345	104.3	0.386	1.039	305.7	827.7	0.638	1.430	-8.79	1.017	112.6	3.9	-19.2	0.437
4-2570	4-3060	0.502	72.0	62.4	20.68	1.281	79.2	0.261	0.886	56.7	588.3	0.654	1.117	-18.83	0.934	78.7	199.8	-64.6	0.381
4-2570	4-3060	0.619	248.7	47.2	20.68	1.351	107.8	0.430	1.058	297.0	828.5	0.603	1.512	-18.83	1.028	115.3	14.6	-29.3	0.559
4-2570	4-3080	0.291	99.3	-54.2	-10.64	1.288	82.9	0.231	0.899	39.4	591.6	0.691	1.106	12.96	0.949	78.1	250.7	23.3	0.294
4-2570	4-3090	0.552	88.1	-11.3	-4.68	1.432	68.4	0.579	1.389	61.2	263.2	---	2.193	7.24	1.140	58.3	230.5	-6.3	0.599
4-2570	4-3090	0.187	113.0	-34.0	-4.68	1.290	84.4	0.223	0.904	31.4	593.4	0.703	1.105	7.24	0.955	78.3	252.4	8.8	0.229
4-2570	4-3100	0.498	93.0	-66.3	-2.30	1.434	70.9	0.563	1.401	54.7	266.7	---	2.191	5.12	1.144	59.8	237.7	-11.0	0.570
4-2570	4-3100	0.148	124.8	-20.5	-2.30	1.293	85.9	0.217	0.909	23.1	595.2	0.712	1.106	5.12	0.961	78.5	258.7	0.4	0.211
4-2570	4-3110	0.449	98.4	-2.9	-0.96	1.436	73.4	0.549	1.413	47.9	270.1	---	2.188	4.05	1.149	61.3	245.8	-14.0	0.547
4-2570	4-3110	0.127	138.2	-9.8	-0.96	1.295	87.4	0.214	0.913	14.8	596.9	0.718	1.109	4.05	0.966	78.5	266.5	-4.5	0.206
4-2570	4-3120	0.404	104.7	-0.2	-0.06	1.438	76.0	0.536	1.424	40.9	273.2	---	2.187	3.43	1.152	62.5	254.4	-16.0	0.528
4-2570	4-3120	0.119	153.8	-0.7	-0.06	1.296	88.9	0.214	0.917	6.3	598.6	0.721	1.113	3.43	0.970	78.4	275.0	-7.4	0.207
4-2570	4-3130	0.363	112.2	2.4	0.62	1.440	78.6	0.525	1.434	33.6	276.0	---	2.187	3.06	1.155	63.6	263.4	-17.1	0.512
4-2570	4-3130	0.122	170.4	6.6	0.62	1.298	90.4	0.216	0.921	357.6	960.0	0.722	1.120	3.06	0.973	78.1	284.0	-8.9	0.212
4-2570	4-3140	0.326	121.6	5.2	1.19	1.441	81.3	0.517	1.443	25.8	278.4	---	2.188	2.84	1.158	64.6	272.8	-17.4	0.499
4-2570	4-3140	0.134	186.3	11.6	1.19	1.300	92.0	0.222	0.924	348.7	961.3	0.719	1.129	2.84	0.976	77.7	293.1	-9.2	0.221
4-2570	4-3150	0.296	133.4	8.3	1.70	1.443	84.1	0.510	1.451	17.5	280.3	---	2.192	2.73	1.160	65.3	282.4	-17.0	0.490
4-2570	4-3150	0.156	200.3	14.2	1.70	1.301	93.8	0.231	0.927	339.6	962.3	0.713	1.141	2.73	0.978	77.1	302.3	-8.6	0.233
4-2570	4-3160	0.277	148.2	11.4	2.18	1.444	87.1	0.507	1.459	8.6	281.6	---	2.200	2.72	1.161	65.7	292.2	-15.9	0.486
4-2570	4-3160	0.187	211.9	15.3	2.18	1.302	95.7	0.244	0.930	330.1	963.1	0.703	1.158	2.72	0.979	76.2	311.5	-7.2	0.250
4-2570	4-3160	0.474	262.7	5.0	2.18	1.185	112.7	0.386	0.732	249.2	1242.1	0.449	1.014	2.72	0.816	100.6	56.3	28.4	0.263
4-2570	4-3170	0.275	165.9	14.2	2.67	1.445	90.4	0.508	1.467	358.9	642.0	0.722	2.212	2.79	1.162	65.8	302.2	-13.9	0.488
4-2570	4-3170	0.227	217.6	15.4	2.67	1.304	98.0	0.264	0.933	320.3	963.4	0.687	1.180	2.79	0.980	75.0	320.8	-5.1	0.273
4-2570	4-3170	0.443	262.4	6.7	2.67	1.181	111.1	0.360	0.727	249.9	1253.0	0.465	0.989	2.79	0.809	93.9	43.9	27.6	0.218
4-2580	4-2630	0.506	214.7	8.8	2.82	1.606	100.4	0.870	5.350	337.7	430.8	0.698	---	-2.05	1.336	122.5	326.7	-16.7	0.742
4-2580	4-2640	0.380	217.2	12.3	3.17	1.485	98.7	0.606	1.780	336.7	439.4	0.701	---	-2.09	1.189	118.2	331.5	-15.7	0.577
4-2580	4-2650	0.296	218.3	17.0	3.55	1.406	97.1	0.445	1.270	336.7	449.0	0.705	---	-2.21	1.091	113.8	336.5	-15.0	0.455
4-2580	4-2660	0.240	218.0	23.0	3.99	1.355	95.6	0.341	1.076	337.6	459.6	0.709	---	-2.41	1.027	109.6	341.5	-14.8	0.362
4-2580	4-2670	0.204	216.7	30.7	4.53	1.321	94.4	0.273	0.981	339.3	471.0	0.713	---	-2.73	0.984	105.8	346.4	-15.5	0.290
4-2580	4-2680	0.186	214.6	39.8	5.27	1.299	93.4	0.227	0.927	341.6	483.0	0.716	---	-3.28	0.957	102.3	351.2	-18.1	0.235
4-2580	4-2690	0.187	212.5	50.3	6.43	1.284	92.6	0.197	0.895	343.9	495.1	0.719	---	-4.24	0.939	99.2	356.2	-24.2	0.195
4-2580	4-2700	0.216	211.6	62.7	8.67	1.274	92.1	0.178	0.876	346.1	507.1	0.720	---	-6.30	0.929	96.5	2.7	-36.8	0.180
4-2580	4-2710	0.345	223.9	79.1	15.52	1.268	91.7	0.166	0.865	347.7	518.5	0.721	---	-12.97	0.924	94.1	16.0	-58.2	0.247
4-2580	4-2730	0.189	210.1	-61.8	-7.57	1.263	91.8	0.157	0.855	346.9	538.2	0.721	---	10.48	0.923	90.3	308.7	42.5	0.198
4-2580	4-2740	0.114	209.2	-29.4	-2.54	1.263	91.9	0.157	0.854	345.6	546.9	0.720	0.989	5.63	0.925	88.7	317.7	28.4	0.130
4-2580	4-2750	0.105	212.4	-7.7	-0.64	1.264	92.3	0.159	0.855	343.2	554.6	0.719	0.992	3.92	0.927	87.3	311.5	16.6	0.116
4-2580	4-2760	0.112	216.9	4.6	0.40	1.265	92.8	0.164	0.857	339.9	561.5	0.717	0.998	3.08	0.930	86.0	312.2	8.2	0.118
4-2580	4-2770	0.124	222.0	11.3	1.10	1.266	93.4	0.170	0.860	335.9	567.6	0.715	1.006	2.60	0.933	84.7	314.5	2.9	0.128
4-2580	4-2780	0.139	227.5	14.8	1.62	1.268	94.3	0.178	0.864	331.2	573.0	0.710	1.018	2.32	0.936	83.5	318.4	-0.1	0.143
4-2580	4-2790	0.159	233.0	16.5	2.05	1.270	95.3	0.189	0.868	325.8	577.9	0.703	1.032	2.15	0.939	81.2	323.4	-1.2	0.160
4-2580	4-2800	0.183	238.4	17.1	2.43	1.272	96.5	0.203	0.872	319.9	582.1	0.694	1.049	2.06	0.941	80.9	329.4	-1.1	0.181
4-2580	4-2810	0.212	243.6	16.9	2.80	1.275	98.0	0.221	0.876	313.4	585.8	0.682	1.070	2.04	0.943	79.4	336.0	-0.1	0.205
4-2580	4-2820	0.249	248.6	16.2	3.17	1.277	99.8	0.245	0.881	306.3	588.9	0.665	1.096	2.09	0.944	77.6	343.2	1.8	0.235

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2580	4-2830	0.295	253.5	15.3	3.56	1.279	102.1	0.275	0.886	298.6	591.2	0.642	1.129	2.21	0.945	75.5	350.8	4.2	0.270
4-2580	4-2840	0.355	258.4	14.1	4.02	1.202	105.0	0.316	0.891	290.1	592.7	0.609	1.172	2.43	0.946	72.7	358.9	7.1	0.316
4-2580	4-2850	0.437	263.5	12.9	4.59	1.284	108.9	0.372	0.896	280.5	593.1	0.563	1.229	2.78	0.947	69.0	7.7	10.4	0.377
4-2580	4-2850	0.872	297.4	4.0	4.59	1.065	134.9	0.717	0.613	214.9	837.6	0.173	1.053	2.78	0.618	117.3	114.7	24.4	0.531
4-2580	4-2860	0.551	267.2	11.5	5.38	1.287	114.4	0.451	0.902	269.1	591.7	0.495	1.308	3.36	0.947	63.8	17.5	14.1	0.463
4-2580	4-2860	0.804	298.0	5.2	5.38	1.041	131.3	0.680	0.595	214.9	897.5	0.190	0.999	3.36	0.570	95.4	97.7	27.6	0.439
4-2580	4-2870	0.721	276.1	10.0	6.63	1.290	122.6	0.566	0.908	255.1	587.5	0.395	1.422	4.42	0.948	56.0	29.1	18.2	0.592
4-2580	4-2870	0.852	299.3	5.8	6.63	1.034	134.0	0.719	0.589	212.8	905.2	0.169	1.010	4.42	0.552	77.3	84.7	28.3	0.485
4-2580	4-2930	0.454	82.8	-1.2	-0.72	1.295	59.4	0.541	0.918	100.9	491.7	0.422	1.418	-3.99	0.959	122.2	224.5	-23.1	0.531
4-2580	4-2940	0.511	89.8	0.7	0.31	1.298	66.4	0.447	0.924	87.0	487.4	0.511	1.337	-3.15	0.942	116.0	237.3	-26.4	0.432
4-2580	4-2950	0.409	96.2	3.0	0.99	1.300	71.5	0.381	0.931	74.9	484.8	0.576	1.285	-2.67	0.945	111.8	249.6	-28.6	0.366
4-2580	4-2960	0.334	103.0	5.7	1.50	1.303	75.4	0.335	0.937	83.5	482.9	0.623	1.251	-2.37	0.948	109.0	261.9	-29.9	0.322
4-2580	4-2970	0.275	110.6	9.0	1.93	1.306	79.6	0.302	0.943	52.3	481.3	0.658	1.228	-2.19	0.952	107.1	274.2	-30.2	0.293
4-2580	4-2980	0.228	120.0	13.1	2.30	1.309	81.4	0.280	0.950	41.1	479.6	0.684	1.216	-2.08	0.957	105.8	286.4	-29.7	0.276
4-2580	4-2990	0.791	71.5	3.2	2.64	1.219	51.1	0.630	0.781	123.6	571.7	0.289	1.272	-2.04	0.830	54.5	161.1	5.4	0.567
4-2580	4-2990	0.192	132.3	18.2	2.64	1.313	83.9	0.265	0.957	29.6	477.7	0.703	1.211	-2.04	0.962	105.0	298.4	-28.2	0.264
4-2580	4-3000	0.711	74.8	4.3	2.98	1.227	55.4	0.572	0.797	116.9	574.5	0.341	1.253	-2.06	0.847	58.5	168.2	1.9	0.509
4-2580	4-3000	0.169	149.0	23.9	2.98	1.315	86.4	0.258	0.965	17.9	475.5	0.716	1.215	-2.06	0.960	104.7	310.2	-26.0	0.262
4-2580	4-3010	0.634	78.1	5.6	3.34	1.239	59.5	0.517	0.812	110.0	577.2	0.393	1.232	-2.14	0.863	62.0	173.4	-1.9	0.455
4-2580	4-3010	0.161	170.6	28.5	3.34	1.319	88.8	0.259	0.975	5.8	473.1	0.722	1.227	-2.14	0.975	104.8	321.5	-23.1	0.268
4-2580	4-3020	0.563	81.6	7.4	3.75	1.248	63.2	0.465	0.827	102.8	579.7	0.443	1.212	-2.29	0.879	65.2	182.6	-6.1	0.405
4-2580	4-3020	0.172	193.2	30.1	3.75	1.323	91.3	0.267	0.985	353.8	830.6	0.722	1.247	-2.29	0.983	105.4	332.2	-19.7	0.281
4-2580	4-3030	0.498	85.1	9.8	4.23	1.256	66.6	0.417	0.841	95.4	582.0	0.490	1.192	-2.54	0.893	68.0	190.0	-10.6	0.362
4-2580	4-3030	0.201	212.8	29.1	4.23	1.328	94.0	0.282	0.997	341.9	828.5	0.715	1.278	-2.54	0.991	106.4	342.5	-16.2	0.301
4-2580	4-3040	0.441	88.8	13.1	4.85	1.263	69.7	0.375	0.854	87.8	584.1	0.533	1.174	-2.96	0.905	70.3	197.5	-15.8	0.325
4-2580	4-3040	0.245	227.4	27.2	4.85	1.333	96.8	0.306	1.010	330.6	826.8	0.701	1.319	-2.96	1.040	107.8	352.3	-12.7	0.328
4-2580	4-3050	0.394	92.5	17.9	5.75	1.269	72.5	0.339	0.865	80.0	586.0	0.572	1.159	-3.66	0.917	72.3	205.0	-22.0	0.296
4-2580	4-3050	0.302	238.2	26.0	5.75	1.338	99.8	0.336	1.025	319.9	826.0	0.680	1.369	-3.66	1.010	109.6	1.8	-9.7	0.364
4-2580	4-3060	0.361	96.2	25.6	7.28	1.274	75.0	0.309	0.876	72.0	587.9	0.605	1.146	-5.00	0.927	73.9	212.3	-30.4	0.277
4-2580	4-3060	0.372	246.6	26.5	7.28	1.344	103.0	0.373	1.041	310.1	825.9	0.653	1.429	-5.00	1.021	111.8	11.2	-7.9	0.408
4-2580	4-3070	0.364	98.3	39.8	10.76	1.279	77.2	0.284	0.884	64.0	589.7	0.633	1.136	-8.31	0.937	75.1	218.6	-44.5	0.281
4-2580	4-3070	0.467	254.3	31.2	10.76	1.350	106.3	0.414	1.059	301.0	824.7	0.620	1.498	-8.31	1.032	114.3	21.1	-9.4	0.466
4-2580	4-3080	0.653	71.5	68.0	28.71	1.283	79.1	0.265	0.892	56.2	591.5	0.[illegible]	1.129	-26.08	0.945	76.1	232.6	-76.8	0.491
4-2580	4-3090	0.410	100.9	-61.9	-16.51	1.286	81.2	0.246	0.899	47.0	593.2	0.[illegible]	1.121	19.33	0.952	77.0	262.2	28.7	0.390
4-2580	4-3100	0.584	101.6	-10.0	-4.42	1.430	66.6	0.593	1.390	65.4	261.5	---	2.214	7.42	1.142	57.3	241.7	-9.0	0.621
4-2580	4-3100	0.206	121.4	-28.6	-4.42	1.289	82.9	0.235	0.905	38.9	595.0	0.693	1.118	7.42	0.958	77.5	259.9	6.5	0.245
4-2580	4-3110	0.528	106.2	-3.7	-1.47	1.433	69.2	0.576	1.403	59.0	265.1	---	2.210	4.65	1.147	58.9	248.4	-14.1	0.587
4-2580	4-3110	0.162	131.5	-11.7	-1.47	1.291	84.5	0.226	0.911	30.6	596.7	0.705	1.116	4.65	0.964	77.8	266.6	-3.2	0.221
4-2580	4-3120	0.480	111.1	-0.2	-0.08	1.435	71.7	0.560	1.415	52.3	268.5	---	2.207	3.46	1.151	60.4	256.7	-16.7	0.564
4-2580	4-3120	0.140	143.0	-0.8	-0.08	1.294	86.1	0.220	0.915	22.1	598.3	0.715	1.117	3.46	0.968	78.0	275.1	-7.8	0.213
4-2580	4-3130	0.434	116.8	2.4	0.76	1.437	74.3	0.548	1.426	45.4	271.8	---	2.205	2.82	1.154	61.8	265.6	-18.1	0.543
4-2580	4-3130	0.128	157.0	7.7	0.76	1.296	87.6	0.217	0.920	13.4	599.8	0.72[illegible]	[illegible]20	2.82	0.972	78.1	284.2	-10.0	0.212
4-2580	4-3140	0.391	123.5	4.9	1.36	1.439	76.9	0.534	1.437	38.2	274.7	---	2.204	2.45	1.157	63.0	274.7	-18.6	0.526
4-2580	4-3140	0.125	173.3	14.3	1.36	1.297	89.2	0.217	0.924	4.6	601.1	0.72[illegible]	[illegible]24	2.45	0.975	78.0	293.4	-10.6	0.215
4-2580	4-3150	0.351	131.7	7.4	1.83	1.440	79.6	0.524	1.446	30.6	277.3	---	2.204	2.22	1.159	64.0	284.0	-18.3	0.511
4-2580	4-3150	0.132	190.4	18.4	1.83	1.299	90.8	0.221	0.927	385.5	962.2	0.723	1.152	2.22	0.978	77.7	302.7	-10.2	0.221
4-2580	4-3160	0.317	142.1	10.1	2.24	1.442	82.3	0.516	1.455	22.6	279.5	---	2.206	2.10	1.160	64.9	293.5	-17.2	0.499
4-2580	4-3160	0.148	206.4	20.1	2.24	1.301	92.5	0.227	0.931	346.2	963.1	0.719	1.142	2.10	0.979	77.3	312.0	-8.8	0.231
4-2580	4-3170	0.291	155.1	13.0	2.61	1.443	85.3	0.511	1.464	14.0	281.1	---	2.212	2.05	1.161	65.5	303.0	-15.5	0.492
4-2580	4-3170	0.172	220.1	20.0	2.61	1.302	94.4	0.238	0.934	338.7	961.8	0.712	1.156	2.05	0.980	78.6	321.2	-6.8	0.245
4-2580	4-3170	0.507	278.8	5.6	2.61	1.190	114.2	0.411	0.741	248.81	235.8	0.456	1.045	2.05	0.825	105.1	78.6	28.4	0.303
4-2580	4-3170	0.747	283.9	3.4	2.61	1.212	125.9	0.589	0.771	239.01	226.0	0.317	1.225	2.05	0.857	122.8	94.0	26.1	0.545
4-2580	4-3180	0.278	171.3	15.6	2.97	1.444	88.4	0.508	1.472	4.7	282.0	---	2.221	2.06	1.161	65.7	312.6	-13.1	0.490
4-2580	4-3180	0.206	231.3	19.0	2.97	1.303	96.5	0.254	0.937	326.9	964.1	0.699	1.175	2.06	0.980	75.6	330.4	-4.2	0.264
4-2580	4-3180	0.448	277.9	7.3	2.97	1.184	111.3	0.363	0.733	250.61	247.8	0.467	0.999	2.06	0.814	96.8	66.5	29.2	0.225
4-2590	4-2630	0.577	216.8	8.6	2.09	1.715	97.1	1.130	-5.487	346.7	823.8	0.714	---	-1.25	1.408	124.1	330.7	-13.8	0.862
4-2590	4-2640	0.410	219.9	11.7	3.10	1.547	96.2	0.737	2.715	345.5	832.2	0.715	---	-1.22	1.267	119.8	334.8	-12.7	0.650
4-2590	4-2650	0.304	220.9	15.8	3.30	1.443	94.9	0.513	1.473	345.5	841.8	0.717	---	-1.22	1.140	115.3	339.0	-11.5	0.503
4-2590	4-2660	0.235	220.0	21.0	3.52	1.377	93.6	0.377	1.155	346.7	852.7	0.719	---	-1.27	1.057	111.0	343.4	-10.5	0.394
4-2590	4-2670	0.190	217.2	27.3	3.75	1.334	92.5	0.292	1.018	348.9	865.6	0.722	---	-1.35	1.003	106.9	347.5	-9.9	0.311
4-2590	4-2680	0.163	212.9	34.2	4.04	1.306	91.6	0.236	0.947	351.9	878.3	0.723	---	-1.49	0.969	103.3	351.2	-10.0	0.246
4-2590	4-2690	0.150	207.8	41.2	4.40	1.287	90.8	0.201	0.907	355.1	890.3	0.724	---	-1.73	0.947	100.0	354.3	-11.5	0.196
4-2590	4-2700	0.147	202.9	48.0	4.92	1.276	90.3	0.179	0.883	357.9	903.1	0.725	---	-2.13	0.934	97.2	356.6	-15.3	0.157
4-2590	4-2710	0.156	199.3	55.3	5.79	1.269	90.0	0.166	0.869	360.0	915.3	0.725	---	-2.89	0.927	94.7	358.2	-23.4	0.132
4-2590	4-2720	0.188	197.7	65.0	7.73	1.265	89.9	0.158	0.861	1.0	168.[illegible]	---	---	-4.72	0.925	92.8	1.6	-39.3	0.129
4-2590	4-2730	0.374	202.8	85.0	17.18	1.263	89.9	0.155	0.857	1.0	176.0	---	---	-14.06	0.925	90.7	21.4	-63.9	0.253
4-2590	4-2740	0.228	202.9	-72.1	-9.91	1.262	90.1	0.154	0.856	359.0	544.4	0.725	0.988	13.13	0.926	89.2	305.3	45.9	0.238
4-2590	4-2750	0.094	205.2	-17.1	-1.25	1.262	90.4	0.155	0.857	356.8	552.2	0.724	0.990	4.59	0.929	87.8	313.3	22.7	0.119
4-2590	4-2760	0.094	211.0	8.3	0.62	1.264	90.9	0.157	0.859	353.6	559.1	0.724	0.994	2.82	0.932	86.5	315.5	8.7	0.110
4-2590	4-2770	0.104	217.9	18.2	1.48	1.265	91.4	0.162	0.862	349.6	565.3	0.723	1.002	2.09	0.935	85.4	318.0	1.5	0.117
4-2590	4-2780	0.116	225.4	22.3	1.99	1.267	92.2	0.167	0.866	344.8	570.7	0.721	1.011	1.69	0.938	84.3	321.7	-2.0	0.128
4-2590	4-2790	0.130	233.0	23.6	2.35	1.269	93.0	0.175	0.870	339.5	575.6	0.718	1.022	1.47	0.940	83.2	326.5	-3.3	0.143
4-2590	4-2800	0.147	240.3	23.4	2.63	1.272	94.0	0.185	0.875	333.7	579.9	0.713	1.036	1.33	0.943	82.1	331.2	-3.1	0.159
4-2590	4-2810	0.167	247.2	22.3	2.87	1.274	95.2	0.197	0.879	327.4	583.8	0.706	1.053	1.25	0.945	81.0	335.5	-2.0	0.178
4-2590	4-2820	0.193	253.5	20.8	3.10	1.276	96.6	0.213	0.884	320.6	587.1	0.696	1.072	1.22	0.946	79.8	340.3	-0.1	0.200
4-2590	4-2830	0.225	259.4	19.0	3.31	1.279	98.3	0.233	0.889	313.3	589.9	0.681	1.096	1.22	0.947	78.1	352.6	2.3	0.225
4-2590	4-2840	0.265	264.9	17.0	3.53	1.281	100.4	0.259	0.894	305.5	592.2	0.662	1.126	1.27	0.948	76.3	0.2	5.1	0.255
4-2590	4-2850	0.314	270.2	15.1	3.78	1.284	103.0	0.294	0.899	297.1	593.8	0.635	1.163	1.36	0.949	74.0	8.3	8.2	0.294
4-2590	4-2860	0.384	275.4	13.2	4.07	1.286	106.3	0.340	0.904	287.8	594.5	0.597	1.211	1.52	0.949	71.0	17.0	11.5	0.343
4-2590	4-2870	0.476	280.9	11.3	4.45	1.289	110.8	0.403	0.910	277.4	593.9	0.543	1.277	1.77	0.950	66.9	26.5	15.0	0.411

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2590	4-2870	0.799	312.7	4.4	4.45	1.055	131.0	0.672	0.607	216.4	895.0	0.199	1.015	1.77	0.994	103.9	121.1	22.7	0.442
4-2590	4-2880	0.607	287.1	9.5	5.00	1.292	117.2	0.494	0.916	264.9	591.3	0.464	1.368	2.20	0.957	60.9	37.8	18.5	0.509
4-2590	4-2880	0.800	313.6	4.9	5.00	1.044	131.1	0.677	0.598	215.3	901.6	0.193	1.003	2.20	0.569	86.6	106.7	25.5	0.433
4-2590	4-2890	0.887	315.3	4.8	5.92	1.040	136.1	0.736	0.596	212.2	908.3	0.157	1.034	3.01	0.558	68.7	97.6	26.2	0.524
4-2590	4-2950	0.600	101.8	2.6	1.36	1.299	62.1	0.507	0.933	94.9	488.8	0.460	1.406	-2.18	0.947	120.1	247.7	-25.5	0.500
4-2590	4-2960	0.473	108.8	4.8	1.88	1.302	68.5	0.424	0.939	81.4	484.8	0.541	1.338	-1.77	0.950	114.7	260.9	-26.9	0.414
4-2590	4-2970	0.380	115.6	7.4	2.25	1.305	73.2	0.366	0.946	69.1	482.0	0.600	1.292	-1.52	0.954	111.1	273.5	-27.2	0.358
4-2590	4-2980	0.310	123.1	10.5	2.54	1.308	76.9	0.325	0.952	57.3	479.9	0.643	1.262	-1.37	0.958	108.6	285.7	-26.6	0.320
4-2590	4-2990	0.256	132.0	14.1	2.78	1.311	80.0	0.297	0.959	45.7	477.8	0.674	1.243	-1.28	0.963	106.9	297.6	-25.1	0.295
4-2590	4-3000	0.214	143.3	18.6	2.99	1.314	82.8	0.278	0.966	34.1	475.7	0.698	1.235	-1.23	0.968	105.9	309.1	-22.8	0.281
4-2590	4-3010	0.779	88.4	4.0	3.20	1.223	51.9	0.621	0.791	122.0	573.2	0.300	1.282	-1.22	0.844	54.7	178.3	-0.9	0.562
4-2590	4-3010	0.184	158.4	23.5	3.20	1.317	85.4	0.268	0.974	22.2	473.4	0.713	1.235	-1.22	0.975	105.4	320.2	-19.9	0.275
4-2590	4-3020	0.700	91.6	5.0	3.40	1.233	56.1	0.565	0.807	115.3	576.2	0.351	1.262	-1.24	0.861	58.5	185.4	-4.3	0.506
4-2590	4-3020	0.168	178.2	27.7	3.40	1.320	87.9	0.265	0.982	10.2	471.1	0.722	1.243	-1.24	0.981	105.3	330.8	-16.5	0.277
4-2590	4-3030	0.626	95.0	6.2	3.63	1.243	60.0	0.511	0.822	108.4	579.0	0.402	1.242	-1.30	0.877	61.9	192.8	-7.9	0.454
4-2590	4-3030	0.170	200.8	29.4	3.63	1.324	90.4	0.270	0.992	358.1	828.7	0.724	1.260	-1.30	0.989	105.6	341.1	-12.7	0.285
4-2590	4-3040	0.557	98.4	7.8	3.88	1.251	63.6	0.461	0.836	101.3	581.7	0.451	1.221	-1.41	0.892	65.0	200.3	-11.6	0.407
4-2590	4-3040	0.190	221.5	28.1	3.88	1.328	93.0	0.282	1.003	346.4	826.7	0.720	1.286	-1.41	0.997	106.4	350.9	-8.8	0.301
4-2590	4-3050	0.493	102.0	9.9	4.19	1.258	66.9	0.415	0.850	94.0	584.1	0.497	1.202	-1.59	0.905	67.6	208.2	-15.5	0.366
4-2590	4-3050	0.226	237.7	25.4	4.19	1.333	95.7	0.302	1.015	335.0	827.1	0.709	1.322	-1.59	1.006	107.6	0.4	-5.0	0.324
4-2590	4-3060	0.487	105.7	12.6	4.62	1.265	69.9	0.374	0.862	86.5	586.4	0.539	1.184	-1.89	0.918	69.9	216.3	-19.6	0.331
4-2590	4-3060	0.275	249.5	22.8	4.62	1.337	98.6	0.329	1.029	324.3	824.3	0.691	1.367	-1.89	1.015	109.1	9.8	-1.4	0.353
4-2590	4-3070	0.389	109.5	16.6	5.26	1.271	72.7	0.339	0.873	78.7	588.6	0.577	1.169	-2.42	0.929	71.8	224.8	-24.4	0.302
4-2590	4-3070	0.433	258.4	21.2	5.26	1.343	101.7	0.362	1.044	314.3	824.2	0.667	1.422	-2.42	1.025	111.1	19.0	1.6	0.390
4-2590	4-3080	0.352	113.4	23.3	6.48	1.276	75.1	0.310	0.883	70.8	590.6	0.610	1.156	-3.53	0.939	73.4	233.4	-30.9	0.280
4-2590	4-3080	0.404	265.4	21.4	6.48	1.368	106.9	0.400	1.061	305.1	824.9	0.636	1.486	-3.53	1.035	113.3	28.2	3.3	0.433
4-2590	4-3090	0.352	116.0	37.7	9.93	1.280	77.4	0.285	0.892	62.8	592.6	0.637	1.146	-6.87	0.947	74.7	242.0	-44.4	0.280
4-2590	4-3090	0.495	272.2	26.6	9.93	1.354	108.3	0.413	1.079	296.5	826.5	0.601	1.557	-6.87	1.045	115.9	38.1	1.0	0.490
4-2590	4-3110	0.225	131.4	-21.5	-3.68	1.287	81.3	0.249	0.906	46.1	596.2	0.680	1.132	6.96	0.961	76.5	267.5	2.7	0.257
4-2590	4-3110	0.605	278.9	-7.5	-3.68	1.366	115.6	0.536	1.119	280.9	830.9	0.519	1.718	6.96	1.065	121.8	48.6	29.1	0.592
4-2590	4-3120	0.560	119.6	-0.3	-0.14	1.431	67.5	0.589	1.404	63.1	263.3	----	2.230	3.53	1.148	57.9	259.3	-17.4	0.607
4-2590	4-3120	0.183	139.9	-1.0	-0.14	1.290	83.0	0.237	0.912	37.6	597.8	0.696	1.128	3.53	0.966	77.1	275.2	-8.7	0.229
4-2590	4-3130	0.512	124.1	2.9	1.09	1.433	70.1	0.572	1.417	56.5	266.9	----	2.227	2.41	1.152	59.5	268.0	-19.3	0.582
4-2590	4-3130	0.160	149.7	8.8	1.09	1.292	84.7	0.228	0.917	29.0	599.4	0.708	1.127	2.41	0.971	77.5	284.4	-12.4	0.221
4-2590	4-3140	0.465	129.2	5.1	1.75	1.435	72.7	0.557	1.428	49.7	270.2	----	2.224	1.87	1.155	60.9	277.1	-19.9	0.560
4-2590	4-3140	0.145	161.8	15.8	1.75	1.295	86.4	0.223	0.922	20.2	600.7	0.716	1.128	1.87	0.974	77.7	293.9	-13.3	0.218
4-2590	4-3150	0.421	139.3	7.2	2.17	1.437	75.3	0.543	1.439	42.6	273.3	----	2.221	1.57	1.157	62.3	286.3	-19.6	0.541
4-2590	4-3150	0.136	176.8	21.2	2.17	1.297	88.0	0.221	0.926	11.2	602.0	0.722	1.131	1.57	0.977	77.7	303.4	-12.9	0.219
4-2590	4-3160	0.379	142.6	9.3	2.49	1.439	77.9	0.532	1.449	39.2	276.1	----	2.220	1.39	1.159	63.4	295.5	-18.6	0.524
4-2590	4-3160	0.136	193.9	24.6	2.49	1.298	89.6	0.221	0.930	2.1	603.0	0.724	1.136	1.39	0.979	77.6	312.8	-11.4	0.223
4-2590	4-3170	0.341	151.7	11.6	2.75	1.441	80.7	0.523	1.459	27.4	278.5	----	2.221	1.29	1.160	64.4	304.7	-16.9	0.510
4-2590	4-3170	0.144	211.3	25.6	2.75	1.300	91.3	0.225	0.934	352.7	963.8	0.724	1.145	1.29	0.980	77.3	322.1	-9.3	0.231
4-2590	4-3180	0.309	163.1	13.9	2.98	1.442	83.5	0.516	1.468	19.1	280.4	----	2.225	1.23	1.161	65.1	313.9	-14.7	0.500
4-2590	4-3180	0.162	227.0	24.6	2.98	1.302	93.2	0.233	0.938	343.1	964.4	0.719	1.157	1.23	0.981	76.8	331.2	-6.6	0.241
4-2590	4-3190	0.288	177.5	16.2	3.20	1.443	86.5	0.512	1.476	10.2	281.6	----	2.231	1.22	1.161	65.6	323.1	-11.5	0.495
4-2590	4-3190	0.389	240.1	22.5	3.20	1.303	95.2	0.246	0.941	333.3	964.7	0.709	1.172	1.22	0.987	76.0	340.2	-3.5	0.256
4-2590	4-3190	0.461	293.7	7.6	3.20	1.187	111.9	0.374	0.739	250.9	1242.3	0.464	1.016	1.22	0.820	100.0	89.2	27.5	0.244
4-2600	4-2640	0.467	219.3	11.5	3.28	1.628	92.3	0.923	9.393	355.2	426.0	0.725	---	-0.32	1.367	121.5	337.8	-9.8	0.756
4-2600	4-2650	0.326	219.8	15.3	3.33	1.485	91.8	0.602	1.820	355.3	435.7	0.725	---	-0.30	1.196	116.9	341.3	-8.5	0.559
4-2600	4-2660	0.241	217.6	20.0	3.38	1.399	90.9	0.421	1.253	356.9	447.0	0.726	---	-0.30	1.089	112.4	345.0	-7.2	0.429
4-2600	4-2670	0.189	212.7	25.2	3.43	1.345	90.0	0.313	1.057	359.9	459.7	0.726	---	-0.30	1.021	108.0	348.4	-6.0	0.333
4-2600	4-2680	0.158	205.8	30.2	3.49	1.311	89.2	0.247	0.964	3.8	113.4	---	---	-0.32	0.978	104.1	351.3	-5.0	0.260
4-2600	4-2690	0.141	198.3	34.4	3.55	1.289	88.6	0.207	0.914	8.0	127.4	---	---	-0.34	0.951	100.6	353.3	-4.6	0.203
4-2600	4-2700	0.133	191.7	37.4	3.63	1.275	88.2	0.183	0.885	11.8	141.0	---	---	-0.39	0.936	97.6	354.0	-5.1	0.760
4-2600	4-2710	0.129	187.2	39.6	3.73	1.267	87.9	0.168	0.869	14.5	153.6	---	---	-0.46	0.928	95.0	352.6	-6.8	0.127
4-2600	4-2720	0.128	185.0	41.8	3.88	1.262	87.8	0.161	0.86	15.7	164.9	---	---	-0.59	0.924	92.8	349.0	-10.4	0.109
4-2600	4-2730	0.130	185.2	44.6	4.17	1.260	87.9	0.156	0.856	15.6	174.8	---	---	-0.85	0.924	91.0	343.6	-16.1	0.093
4-2600	4-2740	0.141	187.3	50.7	4.97	1.260	88.1	0.155	0.855	14.2	183.5	---	0.488	-1.62	0.925	89.4	339.6	-26.5	0.091
4-2600	4-2750	0.662	46.5	87.3	31.31	1.260	88.4	0.155	0.856	11.9	191.3	---	0.989	-27.93	0.928	88.0	27.7	-65.3	0.477
4-2600	4-2760	0.097	198.9	21.3	3.61	1.262	88.9	0.156	0.859	8.3	197.9	---	0.993	1.80	0.931	86.8	319.6	1.8	0.102
4-2600	4-2770	0.106	206.7	31.8	2.55	1.263	89.4	0.159	0.863	4.1	203.9	---	0.999	0.89	0.935	85.7	322.5	-6.7	0.109
4-2600	4-2780	0.112	215.9	38.3	2.86	1.266	90.1	0.162	0.867	359.3	569.2	0.726	1.007	0.60	0.938	84.7	325.8	-8.7	0.120
4-2600	4-2790	0.119	225.9	34.3	3.03	1.268	90.9	0.168	0.871	353.8	574.0	0.725	1.017	0.47	0.941	84.8	330.2	-8.7	0.132
4-2600	4-2800	0.127	235.9	33.0	3.13	1.271	91.8	0.174	0.876	347.9	578.3	0.723	1.029	0.39	0.944	82.9	335.5	-7.5	0.146
4-2600	4-2810	0.139	245.6	30.7	3.21	1.273	92.8	0.183	0.881	341.6	582.1	0.720	1.042	0.34	0.946	81.9	341.5	-5.7	0.161
4-2600	4-2820	0.156	254.4	27.8	3.28	1.276	94.0	0.194	0.886	334.9	585.5	0.715	1.058	0.32	0.948	80.9	348.0	-3.3	0.178
4-2600	4-2830	0.177	262.2	24.7	3.33	1.278	95.4	0.207	0.894	327.8	588.5	0.707	1.076	0.30	0.949	79.8	356.9	-0.6	0.197
4-2600	4-2840	0.204	269.3	21.6	3.39	1.281	97.0	0.225	0.897	320.3	591.1	0.695	1.098	0.30	0.950	78.5	2.2	2.3	0.219
4-2600	4-2850	0.238	275.6	18.6	3.44	1.283	98.9	0.247	0.902	312.4	593.2	0.679	1.125	0.31	0.951	76.9	9.9	3.5	0.244
4-2600	4-2860	0.282	281.4	15.8	3.49	1.286	101.2	0.276	0.907	304.1	594.8	0.657	1.158	0.32	0.951	75.0	17.9	8.7	0.276
4-2600	4-2870	0.339	287.0	13.2	3.56	1.288	104.1	0.314	0.913	295.1	595.7	0.626	1.200	0.35	0.951	72.5	26.5	12.0	0.317
4-2600	4-2880	0.414	292.5	10.8	3.64	1.291	107.9	0.366	0.918	285.2	595.6	0.582	1.254	0.39	0.952	69.2	35.9	15.3	0.371
4-2600	4-2880	0.824	327.7	3.5	3.64	1.074	132.3	0.684	0.624	217.5	887.9	0.197	1.051	0.39	0.626	113.4	143.0	35.1	0.482
4-2600	4-2890	0.518	298.3	8.6	3.74	1.294	113.0	0.438	0.928	273.8	594.1	0.520	1.328	0.47	0.953	64.5	46.4	18.4	0.447
4-2600	4-2890	0.772	328.2	3.9	3.74	1.055	129.6	0.655	0.609	217.3	897.5	0.210	1.007	0.47	0.588	94.7	128.6	19.4	0.410
4-2600	4-2900	0.669	305.0	6.5	3.90	1.297	120.4	0.540	0.930	260.2	590.1	0.428	1.433	0.60	0.954	57.6	58.4	21.2	0.558
4-2600	4-2900	0.812	329.3	3.7	3.90	1.049	131.9	0.685	0.604	215.4	905.3	0.190	1.017	0.60	0.573	78.7	116.8	21.9	0.449
4-2600	4-2910	0.938	331.6	3.1	4.19	1.048	139.2	0.768	0.603	210.9	910.3	0.180	1.006	0.86	0.567	60.2	112.1	22.6	0.578
4-2600	4-2960	0.718	113.2	4.2	2.80	1.301	56.6	0.503	0.941	104.3	491.9	0.392	1.491	-0.65	0.951	125.4	256.9	-23.8	0.588
4-2600	4-2970	0.553	120.8	6.4	2.98	1.304	64.8	0.476	0.948	88.8	485.8	0.497	1.461	-0.50	0.955	118.2	273.1	-24.3	0.474

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEM SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2600	4-2980	0.438	128.0	8.8	3.10	1.307	70.5	0.403	0.955	75.3	481.9	0.570	1.339	-0.41	0.960	114.5	284.0	-23.7	0.400
4-2600	4-2990	0.353	135.4	11.5	3.18	1.310	74.9	0.351	0.961	62.8	478.9	0.623	1.299	-0.36	0.964	110.3	296.2	-22.2	0.352
4-2600	4-3000	0.288	143.9	14.6	3.25	1.312	78.5	0.316	0.968	50.7	476.4	0.662	1.274	-0.33	0.969	108.2	307.7	-19.9	0.320
4-2600	4-3010	0.238	154.4	18.4	3.30	1.315	81.5	0.292	0.975	38.7	474.0	0.690	1.260	-0.31	0.975	106.9	318.8	-17.0	0.305
4-2600	4-3020	0.201	168.2	22.5	3.35	1.318	84.3	0.278	0.982	26.6	471.6	0.709	1.255	-0.30	0.981	106.1	329.4	-13 [illegible]	0.289
4-2600	4-3030	0.765	105.3	4.3	3.41	1.228	52.7	0.611	0.802	120.2	574.9	0.312	1.291	-0.30	0.859	55.0	195.6	-7.1	0.558
4-2600	4-3030	0.177	186.3	26.2	3.41	1.321	86.9	0.272	0.990	14.5	469.2	0.721	1.260	-0.30	0.988	105.8	339.6	-9.7	0.287
4-2600	4-3040	0.688	108.5	5.2	3.46	1.230	56.8	0.536	0.817	113.6	578.0	0.363	1.271	-0.31	0.876	58.6	203.0	-10.1	0.504
4-2600	4-3040	0.171	208.1	27.9	3.46	1.329	89.5	0.274	0.999	2.5	466.9	0.726	1.272	-0.31	0.995	105.9	349.5	-5.6	0.291
4-2600	4-3050	0.616	111.9	6.2	3.52	1.246	60.6	0.504	0.852	106.7	580.9	0.413	1.250	-0.33	0.891	61.9	210.8	-13.1	0.455
4-2600	4-3050	0.182	229.7	26.6	3.52	1.329	92.0	0.283	1.010	350.7	824.9	0.724	1.296	-0.33	1.003	106.4	359.2	-1.5	0.303
4-2600	4-3060	0.548	115.3	7.4	3.58	1.254	64.1	0.455	0.845	99.7	583.7	0.461	1.230	-0.36	0.905	64.9	218.9	-16.0	0.410
4-2600	4-3060	0.210	247.3	23.3	3.58	1.333	94.7	0.300	1.021	339.4	823.4	0.715	1.327	-0.36	1.011	107.4	8.6	2.5	0.321
4-2600	4-3070	0.485	118.9	8.8	3.67	1.261	67.3	0.411	0.858	92.4	586.3	0.506	1.211	-0.42	0.918	67.5	227.4	-18.7	0.370
4-2600	4-3070	0.251	260.4	19.7	3.67	1.337	97.5	0.323	1.034	328.6	822.6	0.700	1.368	-0.42	1.020	108.7	17.9	6.4	0.346
4-2600	4-3080	0.429	122.8	10.6	3.79	1.267	70.3	0.372	0.870	84.8	588.8	0.547	1.193	-0.51	0.930	69.7	236.3	-21.2	0.336
4-2600	4-3080	0.303	270.1	16.8	3.79	1.342	100.5	0.353	1.058	318.5	822.5	0.670	1.418	-0.51	1.029	110.4	27.2	9.8	0.377
4-2600	4-3090	0.378	126.8	13.0	3.99	1.273	73.0	0.338	0.881	77.1	591.0	0.584	1.178	-0.68	0.940	71.6	245.6	-23.6	0.307
4-2600	4-3090	0.362	277.6	14.6	3.99	1.347	103.6	0.388	1.064	309.2	823.1	0.651	1.476	-0.68	1.039	112.5	36.5	12.8	0.415
4-2600	4-3100	0.334	131.2	16.6	4.43	1.278	75.4	0.309	0.890	69.2	593.2	0.615	1.165	-1.09	0.949	73.1	255.3	-26.3	0.283
4-2600	4-3100	0.429	283.6	13.5	4.43	1.353	106.9	0.428	1.081	300.4	824.4	0.619	1.543	-1.09	1.048	114.9	45[illegible]	14.9	0.457
4-2600	4-3110	0.309	135.4	26.3	6.29	1.282	77.6	0.285	0.899	61.0	595.1	0.643	1.157	-2.92	0.956	74.4	265.4	-33.5	0.268
4-2600	4-3110	0.507	289.0	16.0	6.29	1.359	110.3	0.471	1.099	292.3	826.4	0.582	1.616	-2.92	1.057	117.5	55.6	14.1	0.507
4-2600	4-3120	0.242	142.8	-3.4	-0.65	1.285	79.7	0.265	0.906	52.7	597.0	0.666	1.147	4.05	0.963	75.4	275.4	-8.6	0.259
4-2600	4-3120	0.564	292.4	-1.4	-0.65	1.364	113.8	0.516	1.118	284.6	828.9	0.541	1.696	4.05	1.066	120.4	62.1	17.8	0.559
4-2600	4-3130	0.595	133.0	4.9	2.21	1.430	65.8	0.602	1.405	67.0	261.5	---	2.250	1.21	1.149	56.8	270.7	-21.6	0.627
4-2600	4-3130	0.214	149.5	13.3	2.21	1.289	80.6	0.250	0.913	44.2	598.6	0.685	1.141	1.21	0.968	76.2	285.0	-18.0	0.239
4-2600	4-3140	0.546	137.2	6.7	2.73	1.432	68.3	0.584	1.418	60.5	265.1	---	2.246	0.72	1.155	58.5	279.8	-22.0	0.601
4-2600	4-3140	0.189	157.8	18.8	2.73	1.291	83.4	0.238	0.919	35.5	600.1	0.700	1.138	0.72	0.972	76.8	294.9	-18.5	0.232
4-2600	4-3150	0.498	142.0	8.1	2.95	1.434	71.1	0.568	1.420	53.8	268.6	---	2.242	0.53	1.155	60.1	289.0	-21.4	0.578
4-2600	4-3150	0.169	168.3	23.1	2.95	1.294	85.1	0.230	0.924	26.7	601.5	0.711	1.137	0.53	0.976	77.2	304.6	-17.4	0.227
4-2600	4-3160	0.552	147.5	9.4	3.08	1.433	73.7	0.553	1.442	46.8	271.8	---	2.239	0.42	1.157	61.5	298.1	-20.2	0.557
4-2600	4-3160	0.154	181.5	26.9	3.08	1.296	86.8	0.225	0.929	17.6	602.6	0.720	1.138	0.42	0.978	77.4	314.1	-15.4	0.226
4-2600	4-3170	0.408	154.1	10.9	3.17	1.438	76.4	0.540	1.452	39.5	274.7	---	2.237	0.37	1.159	62.7	307.1	-18.4	0.538
4-2600	4-3170	0.146	197.5	29.5	3.17	1.298	88.5	0.224	0.933	9.4	603.6	0.724	1.142	0.37	0.980	77.4	322.4	-12.9	0.228
4-2600	4-3180	0.367	162.1	12.6	3.24	1.439	79.1	0.530	1.462	31.9	277.2	---	2.237	0.33	1.160	63.8	316.0	-16.1	0.522
4-2600	4-3180	0.146	215.2	30.2	3.24	1.300	90.2	0.226	0.937	359.0	964.3	0.726	1.149	0.33	0.981	77.3	332.5	-9.9	0.232
4-2600	4-3190	0.331	172.1	14.4	3.30	1.441	81.8	0.521	1.472	23.9	279.4	---	2.237	0.31	1.160	64.6	324.8	-13.4	0.510
4-2600	4-3190	0.136	232.5	28.7	3.30	1.301	92.0	0.231	0.941	349.4	964.8	0.724	1.157	0.31	0.981	76.9	341.4	-6.5	0.240
4-2600	4-3200	0.302	184.8	16.2	3.36	1.442	84.8	0.516	1.480	15.4	280.9	---	2.244	0.30	1.160	65.2	333.6	-10.2	0.501
4-2600	4-3200	0.175	247.5	25.7	3.36	1.303	93.9	0.243	0.945	339.6	965.1	0.717	1.173	0.30	0.980	76.3	350.3	-3.0	0.252
4-2600	4-3200	0.492	309.7	7.5	3.36	1.191	113.4	0.399	0.768	250.5	1236.0	0.450	1.057	0.30	0.827	104.3	110.9	22.9	0.283
4-2600	4-3200	0.742	314.9	4.5	3.36	1.215	125.7	0.587	0.781	239.9	1225.4	0.323	1.029	0.30	0.860	122.8	126.8	19.6	0.536
4-2610	4-2640	0.588	216.0	11.3	3.78	1.745	86.5	1.213	-3.405	6.4	61.3	---	---	0.78	1.506	123.9	340.4	-7.1	0.891
4-2610	4-2650	0.392	215.5	14.8	3.64	1.538	87.3	0.720	2.586	6.5	71.1	---	---	0.70	1.262	118.9	343.1	-5.9	0.633
4-2610	4-2660	0.271	211.6	18.8	3.51	1.423	87.2	0.473	1.374	8.8	83.0	---	---	0.66	1.120	113.9	345.9	-4.5	0.470
4-2610	4-2670	0.209	204.6	22.6	3.40	1.354	86.8	0.337	1.090	12.9	96.8	---	---	0.64	1.035	109.2	348.6	-3.0	0.357
4-2610	4-2680	0.176	196.0	25.4	3.29	1.312	86.3	0.259	0.972	18.2	111.9	---	---	0.64	0.982	104.9	350.6	-1.6	0.274
4-2610	4-2690	0.158	188.1	26.7	3.10	1.287	85.9	0.215	0.912	23.7	127.2	---	---	0.65	0.951	101.2	351.7	-0.5	0.212
4-2610	4-2700	0.149	182.1	27.0	3.06	1.271	85.6	0.190	0.880	28.3	141.6	---	---	0.69	0.933	97.9	351.0	0.4	0.195
4-2610	4-2710	0.143	178.5	26.5	2.92	1.262	85.5	0.176	0.863	31.3	154.6	---	---	0.70	0.923	95.1	348.1	0.7	0.131
4-2610	4-2720	0.138	177.2	25.6	2.73	1.257	85.5	0.168	0.854	32.5	165.7	---	---	0.87	0.920	92.8	342.6	0.6	0.109
4-2610	4-2730	0.133	177.7	24.1	2.48	1.255	85.6	0.164	0.851	32.2	175.6	---	---	1.07	0.920	90.9	335.0	0.6	0.097
4-2610	4-2740	0.126	179.9	21.0	2.06	1.255	85.9	0.162	0.850	30.5	183.9	---	0.988	1.42	0.922	89.2	327.1	1.7	0.094
4-2610	4-2750	0.116	183.5	12.8	1.18	1.256	86.3	0.161	0.852	27.7	191.2	---	0.989	2.25	0.925	87.9	320.2	6.7	0.101
4-2610	4-2760	0.120	188.1	-26.4	-2.44	1.258	86.7	0.161	0.856	24.0	197.7	---	0.993	5.81	0.929	30.7	311.9	0.0	0.140
4-2610	4-2770	0.285	184.1	73.9	12.57	1.261	87.3	0.161	0.860	19.4	203.3	---	0.999	-9.25	0.933	85.7	360.0	-58.7	0.191
4-2610	4-2780	0.160	201.8	53.9	5.87	1.263	88.0	0.163	0.865	14.4	208.5	---	1.006	-2.61	0.937	84.8	336.1	-31.0	0.127
4-2610	4-2790	0.141	212.5	48.1	4.34	1.266	88.8	0.166	0.870	8.8	213.1	---	1.015	-1.55	0.941	84.0	336.5	-21.6	0.132
4-2610	4-2800	0.134	224.1	44.7	4.26	1.269	89.6	0.170	0.876	2.7	217.2	---	1.025	-1.12	0.944	83.2	340.2	-16.3	0.143
4-2610	4-2810	0.134	236.3	41.4	3.98	1.272	90.6	0.176	0.882	356.3	580.9	0.727	1.037	-0.91	0.946	82.6	345.3	-12.2	0.154
4-2610	4-2820	0.138	248.3	37.5	3.78	1.275	91.6	0.183	0.887	349.5	586.3	0.725	1.050	-0.78	0.94[illegible]	81.6	351.3	-8.5	0.167
4-2610	4-2830	0.148	259.5	33.2	3.65	1.277	92.8	0.192	0.893	342.4	587.3	0.721	1.065	-0.70	0.95[illegible]	80.8	357.7	-5.0	0.181
4-2610	4-2840	0.163	269.3	28.6	3.61	1.280	94.1	0.204	0.899	335.1	590.0	0.715	1.080	-0.66	0.951	79.8	4.6	-1.4	0.197
4-2610	4-2850	0.185	277.9	24.1	3.39	1.283	95.7	0.219	0.904	327.4	592.3	0.706	1.102	-0.64	0.952	78.7	11.9	2.1	0.215
4-2610	4-2860	0.215	285.4	20.0	3.28	1.286	97.5	0.238	0.910	319.5	594.3	0.693	1.126	-0.64	0.953	77.3	19.5	5.5	0.237
4-2610	4-2870	0.251	292.0	15.2	3.17	1.288	99.6	0.262	0.915	311.1	595.9	0.675	1.156	-0.66	0.953	75.7	27.6	8.9	0.264
4-2610	4-2880	0.299	298.1	10.0	3.04	1.291	102.1	0.294	0.921	302.3	596.9	0.650	1.192	-0.70	0.954	73.6	36.2	12.1	0.297
4-2610	4-2890	0.362	303.4	10.0	2.90	1.293	105.4	0.337	0.927	292.8	597.1	0.615	1.238	-0.77	0.954	70.9	45.5	15.1	0.341
4-2610	4-2900	0.446	309.7	7.5	2.72	1.296	109.6	0.394	0.932	282.2	596.3	0.565	1.300	-0.89	0.955	67.2	55.6	17.7	0.400
4-2610	4-2900	0.764	342.9	2.9	3.72	1.068	129.3	0.647	0.620	218.9	893.0	0.219	1.022	-0.89	0.610	90[illegible].5	149.4	11.1	0.413
4-2610	4-2910	0.564	315.9	5.1	2.47	1.298	115.4	0.475	0.938	270.0	593.8	0.493	1.384	-1.08	0.[illegible]	62.0	67.0	19.9	0.485
4-2610	4-2910	0.764	343.6	2.6	2.47	1.058	129.4	0.650	0.613	217.8	901.6	0.214	1.011	-1.08	0.609	47.0	136.7	14.9	0.404
4-2610	4-2920	0.837	345.1	1.9	2.06	1.055	133.5	0.702	0.610	215.1	908.5	0.182	1.039	-1.42	0.[illegible]	71.2	128.2	17.1	0.481
4-2610	4-2970	0.947	101.9	3.4	4.97	1.015	39.2	0.791	0.581	152.4	903.6	0.121	1.041	1.76	0.[illegible]	112.4	216.4	-12.9	0.559
4-2610	4-2980	0.655	132.5	7.6	4.40	1.306	60.0	0.542	0.956	97.5	488.2	0.438	1.474	1.25	0.961	122.6	280.0	-21.3	0.551
4-2610	4-2990	0.508	140.0	9.7	4.08	1.309	67.3	0.447	0.963	82.3	482.6	0.533	1.394	0.98	0.965	116.4	293.4	-19.8	0.453
4-2610	4-3000	0.404	147.6	12.1	3.87	1.312	72.6	0.383	0.970	66.8	478.6	0.599	1.341	0.83	0.971	112.4	305.6	-17.4	0.389
4-2610	4-3010	0.326	155.8	14.7	3.71	1.314	76.7	0.339	0.976	54.0	476.5	0.646	1.307	0.74	0.976	109.7	317.0	-14.4	0.348
4-2610	4-3020	0.266	165.7	17.7	3.58	1.317	80.1	0.309	0.983	43.5	472.7	0.680	1.287	0.68	0.982	107.9	329.7	-10.9	0.321

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2610	4-3030	0.220	178.2	21.1	3.46	1.320	83.1	0.293	0.990	31.2	470.0	0.709	1.278	0.65	0.988	106.8	358.0	-7.1	0.305
4-2610	4-3040	0.189	194.7	24.1	3.35	1.323	85.9	0.280	0.998	19.0	467.5	0.718	1.278	0.64	0.995	106.3	348.0	-2.9	0.298
4-2610	4-3050	0.751	122.2	4.3	5.24	1.233	53.6	0.600	0.812	118.3	576.7	0.325	1.299	0.64	0.875	55.4	213.5	-12.6	0.555
4-2610	4-3059	0.173	215.3	25.6	3.24	1.326	86.5	0.279	1.007	6.9	465.2	0.726	1.288	0.64	1.002	106.2	357.8	1.3	0.299
4-2610	4-3060	0.675	125.5	4.9	3.13	1.242	57.5	0.546	0.927	111.7	579.9	0.375	1.279	0.67	0.891	58.9	221.5	-15.0	0.503
4-2610	4-3060	0.176	237.2	24.3	3.13	1.330	91.1	0.285	1.016	355.0	823.2	0.726	1.306	0.67	1.009	106.6	7.4	5.5	0.306
4-2610	4-3070	0.603	128.9	5.4	2.99	1.250	61.3	0.495	0.841	104.8	582.9	0.424	1.258	0.72	0.905	62.1	229.8	-17.3	0.456
4-2610	4-3070	0.196	256.3	20.7	2.99	1.333	93.7	0.299	1.027	348.7	821.8	0.720	1.334	0.72	1.017	108.3	17.0	9.6	0.321
4-2610	4-3080	0.536	132.4	6.0	2.84	1.258	64.7	0.448	0.855	97.7	585.8	0.472	1.238	0.81	0.918	65.0	238.5	-18.6	0.412
4-2610	4-3080	0.231	270.8	12.5	2.84	1.338	96.5	0.319	1.039	332.9	820.9	0.708	1.370	0.81	1.025	108.4	26.5	13.4	0.342
4-2610	4-3090	0.474	136.1	6.5	2.63	1.264	67.9	0.405	0.867	90.4	588.5	0.516	1.218	0.95	0.930	67.5	247.5	-19.6	0.374
4-2610	4-3090	0.2..	281.6	12.7	2.63	1.342	99.3	0.345	1.052	322.7	820.8	0.689	1.415	0.95	1.034	109.9	36.1	17.0	0.369
4-2610	4-3100	0.416	140.0	6.7	2.71	1.270	70.0	0.367	0.879	82.9	591.0	0.556	1.201	1.21	0.941	69.6	256.9	-19.9	0.341
4-2610	4-3100	0.331	289.8	9.2	2.31	1.347	102.3	0.377	1.067	313.3	821.4	0.664	1.469	1.21	1.042	111.8	45.7	20.3	0.402
4-2610	4-3110	0.364	144.3	5.9	1.74	1.275	73.4	0.339	0.889	75.1	593.3	0.592	1.186	1.72	0.950	71.5	266.4	-18.5	0.334
4-2610	4-3110	0.391	296.2	5.8	1.74	1.352	105.5	0.414	1.083	304.4	822.7	0.634	1.531	1.72	1.051	114.0	55.2	23.4	0.441
4-2610	4-3120	0.316	149.3	0.9	0.24	1.280	75.8	0.307	0.898	67.1	595.4	0.623	1.174	3.16	0.958	73.0	275.9	-13.5	0.295
4-2610	4-3120	0.457	301.5	-0.7	0.24	1.357	108.8	0.455	1.100	296.2	824.5	0.600	1.600	3.16	1.059	116.4	64.5	27.6	0.486
4-2610	4-3130	0.511	137.6	-59.2	-20.65	1.384	78.0	0.284	0.906	59.0	597.4	0.649	1.164	23.79	0.964	74.2	290.4	29.2	0.484
4-2610	4-3140	0.285	158.1	35.3	7.47	1.287	81.1	0.265	0.914	50.3	599.1	0.672	1.156	-4.18	0.969	75.3	299.5	-35.8	0.267
4-2610	4-3140	0.623	311.1	14.4	7.47	1.363	116.9	0.543	1.158	281.1	829.8	0.920	1.755	-4.18	1.075	122.0	85.0	16.9	0.586
4-2610	4-3150	0.586	150.2	11.7	5.19	1.431	66.9	0.596	1.419	64.3	263.3	---	2.265	-1.96	1.153	57.5	292.3	-25.0	0.623
4-2610	4-3150	0.232	166.6	29.8	5.19	1.290	83.0	0.250	0.920	41.7	600.0	0.690	1.151	-1.96	0.973	76.9	307.4	-26.7	0.249
4-2610	4-3160	0.534	154.8	11.3	4.48	1.433	69.5	0.579	1.432	57.7	266.8	---	2.261	-1.31	1.155	59.1	301.2	-22.6	0.597
4-2610	4-3160	0.201	176.0	30.0	4.48	1.293	85.8	0.239	0.925	32.8	602.0	0.704	1.143	-1.31	0.976	76.8	316.5	-22.0	0.241
4-2610	4-3170	0.485	160.0	11.7	4.11	1.435	72.2	0.563	1.444	50.8	270.1	---	2.257	-1.00	1.157	60.6	310.0	-20.2	0.575
4-2610	4-3170	0.177	187.5	31.5	4.11	1.295	85.6	0.232	0.931	23.0	603.1	0.715	1.147	-1.00	0.978	77.0	325.5	-18.1	0.236
4-2610	4-3180	0.438	166.0	12.4	3.88	1.437	74.8	0.550	1.455	43.7	273.1	---	2.255	-0.84	1.158	62.0	318.7	-17.6	0.554
4-2610	4-3180	0.161	201.9	33.0	3.88	1.297	87.3	0.228	0.936	14.5	604.0	0.723	1.150	-0.84	0.980	77.2	334.4	-14.3	0.235
4-2610	4-3190	0.394	173.2	13.3	3.71	1.439	77.5	0.538	1.466	36.3	275.8	---	2.254	-0.74	1.159	64.1	327.2	-14.7	0.536
4-2610	4-3190	0.153	218.9	33.4	3.71	1.299	89.1	0.228	0.940	5.1	604.7	0.726	1.155	-0.74	0.980	77.2	343.1	-10.4	0.237
4-2610	4-3200	0.354	182.0	14.4	3.57	1.440	80.2	0.528	1.475	28.5	278.1	---	2.254	-0.68	1.159	64.1	335.7	-11.6	0.521
4-2610	4-3200	0.154	236.9	31.8	3.57	1.301	90.8	0.231	0.944	355.5	965.2	0.727	1.162	-0.68	0.980	76.9	351.8	-6.5	0.242
4-2610	4-3210	0.320	193.0	15.6	3.45	1.442	85.1	0.521	1.484	20.3	279.9	---	2.257	-0.65	1.158	64.8	344.1	-8.2	0.510
4-2610	4-3210	0.165	253.7	28.3	3.45	1.303	92.7	0.238	0.948	345.8	965.5	0.723	1.174	-0.65	0.980	76.5	0.4	-2.5	0.250
4-2620	4-2650	506	210.0	13.9	4.37	1.613	80.6	0.895	6.741	19.9	68.7	---	---	2.03	1.353	122.2	343.7	-3.6	0.750
4-2620	4-2660	0.343	204.5	16.8	3.97	1.448	81.9	0.538	1.532	23.2	81.6	---	---	1.79	1.154	116.3	345.7	-2.3	0.528
4-2620	4-2670	0.244	196.7	19.0	3.65	1.359	82.4	0.366	1.109	28.9	97.0	---	---	1.64	1.043	110.8	347.4	-0.9	0.388
4-2620	4-2680	0.224	188.7	19.9	3.36	1.308	82.4	0.277	0.965	36.0	113.8	---	---	1.56	0.979	105.9	348.5	0.5	0.291
4-2620	4-2690	0.204	182.3	19.6	3.10	1.279	82.4	0.230	0.899	42.7	130.4	---	---	1.52	0.942	101.7	348.4	1.9	0.223
4-2620	4-2700	0.193	178.2	18.7	2.83	1.262	82.4	0.206	0.865	47.7	145.3	---	---	1.54	0.922	98.0	346.5	3.0	0.173
4-2620	4-2710	0.185	176.1	17.4	2.55	1.253	82.5	0.193	0.848	50.5	158.0	---	---	1.60	0.912	95.0	342.2	3.8	0.139
4-2620	4-2720	0.178	175.6	16.9	2.24	1.249	82.6	0.185	0.841	51.2	168.7	---	---	1.72	0.909	92.5	335.8	4.3	0.117
4-2620	4-2730	0.170	176.5	16.7	1.86	1.247	82.9	0.180	0.839	50.3	177.8	---	---	1.92	0.910	90.5	328.3	4.8	0.107
4-2620	4-2740	0.161	178.4	10.6	1.37	1.248	83.3	0.177	0.840	49.0	185.6	---	0.988	2.26	0.914	80.6	321.7	5.8	0.106
4-2620	4-2750	0.152	181.3	5.1	0.62	1.250	83.8	0.174	0.844	44.6	192.3	---	0.990	2.85	0.918	87.4	317.1	8.6	0.113
4-2620	4-2760	0.144	185.1	-6.2	-0.71	1.253	84.4	0.172	0.848	40.4	198.3	---	0.995	4.04	0.924	86.3	314.4	14.7	0.128
4-2620	4-2770	0.160	188.7	-34.3	-4.14	1.256	85.0	0.171	0.858	35.7	203.7	---	1.001	7.33	0.929	85.3	311.7	28.2	0.170
4-2620	4-2790	0.302	191.1	72.0	13.15	1.263	86.6	0.171	0.867	24.0	212.6	---	1.015	-10.23	0.938	83.8	4.7	-53.5	0.219
4-2620	4-2800	0.194	209.6	58.6	7.54	1.264	87.4	0.173	0.874	17.9	216.6	---	1.025	-4.75	0.942	83.2	351.1	-34.8	0.164
4-2620	4-2810	0.163	222.2	52.1	5.80	1.270	88.3	0.176	0.880	11.3	220.2	---	1.035	-3.16	0.945	82.5	351.8	-23.9	0.161
4-2620	4-2820	0.148	235.4	47.4	4.92	1.273	89.3	0.180	0.887	4.5	223.5	---	1.046	-2.42	0.948	81.9	355.9	-18.7	0.167
4-2620	4-2830	0.143	249.0	42.8	4.36	1.276	90.4	0.185	0.893	357.4	586.4	0.728	1.059	-2.02	0.950	81.2	1.3	-11.2	0.176
4-2620	4-2840	0.144	262.3	37.6	3.95	1.279	91.6	0.193	0.900	350.0	589.1	0.726	1.073	-1.77	0.952	80.5	7.5	-6.5	0.187
4-2620	4-2850	0.153	274.4	31.6	3.62	1.282	92.9	0.203	0.906	342.4	591.5	0.722	1.089	-1.63	0.953	79.7	14.3	-2.2	0.200
4-2620	4-2860	0.168	284.9	26.2	3.33	1.285	94.4	0.217	0.912	334.6	593.7	0.715	1.108	-1.55	0.954	78.7	21.5	1.8	0.215
4-2620	4-2870	0.191	293.9	21.0	3.06	1.288	96.1	0.232	0.918	326.6	595.5	0.705	1.130	-1.52	0.955	77.6	29.1	5.4	0.233
4-2620	4-2880	0.223	301.7	16.3	2.80	1.291	98.1	0.252	0.923	318.2	597.0	0.690	1.156	-1.54	0.955	76.2	37.2	8.8	0.255
4-2620	4-2890	0.263	308.6	12.3	2.52	1.295	100.4	0.279	0.929	309.5	598.0	0.670	1.188	-1.61	0.956	74.5	45.8	11.8	0.283
4-2620	4-2900	0.317	314.3	8.9	2.22	1.296	103.2	0.314	0.935	300.3	598.5	0.642	1.228	-1.73	0.956	72.3	55.0	14.5	0.318
4-2620	4-2910	0.387	320.8	6.0	1.85	1.298	106.7	0.360	0.941	290.3	598.2	0.602	1.279	-1.93	0.957	69.3	64.9	16.6	0.365
4-2620	4-2910	0.782	357.8	2.0	1.85	1.084	130.2	0.655	0.636	220.1	888.0	0.219	1.052	-1.93	0.638	110.7	169.1	1.9	0.448
4-2620	4-2920	0.582	326.9	3.4	1.37	1.301	111.4	0.424	0.946	279.1	596.6	0.545	1.348	-2.26	0.959	65.2	75.8	18.2	0.431
4-2620	4-2920	0.737	358.2	1.6	1.37	1.069	127.9	0.629	0.623	219.8	897.4	0.231	1.014	-2.26	0.608	94.4	156.3	6.1	0.385
4-2620	4-2930	0.616	333.6	1.3	0.68	1.304	118.0	0.514	0.953	266.0	593.1	0.463	1.442	-2.81	0.961	59.3	87.9	19.0	0.526
4-2620	4-2930	0.759	359.1	0.7	0.68	1.063	129.8	0.658	0.618	218.2	905.3	0.214	1.022	-2.81	0.595	80.1	185.6	9.6	0.417
4-2620	4-2940	0.876	1.1	-0.4	0.30	1.062	135.7	0.727	0.617	214.3	911.1	0.169	1.066	-3.85	0.591	64.0	140.6	11.3	0.527
4-2620	4-2940	0.890	119.5	9.0	6.38	1.027	42.9	0.750	0.590	149.4	893.9	0.148	1.033	3.67	0.525	107.5	234.7	-15.8	0.514
4-2620	4-3000	0.597	151.6	10.4	5.29	1.311	63.2	0.501	0.971	90.3	484.4	0.483	1.460	2.72	0.977	120.1	301.7	-15.7	0.520
4-2620	4-3010	0.465	159.5	12.4	4.63	1.314	69.8	0.421	0.978	75.4	479.1	0.546	1.390	2.20	0.977	114.8	314.2	-12.6	0.455
4-2620	4-3020	0.370	167.7	14.5	4.17	1.317	74.7	0.368	0.985	61.7	475.0	0.625	1.345	1.90	0.983	111.4	325.5	-9.0	0.381
4-2620	4-3030	0.298	177.1	16.8	3.81	1.319	78.5	0.327	0.992	48.7	471.7	0.667	1.317	1.71	0.989	109.1	336.1	-5.0	0.345
4-2620	4-3040	0.243	188.7	19.2	3.51	1.322	81.8	0.304	0.999	36.0	468.7	0.695	1.302	1.59	0.995	107.7	346.3	-0.8	0.323
4-2620	4-3050	0.203	203.6	21.5	3.23	1.325	84.8	0.290	1.006	23.5	466.0	0.714	1.298	1.54	1.001	106.9	356.3	3.6	0.311
4-2620	4-3060	0.179	223.7	22.6	2.97	1.328	87.5	0.280	1.014	13.3	463.7	0.725	1.304	1.52	1.008	106.6	6.1	7.9	0.307
4-2620	4-3070	0.734	139.2	3.7	2.70	1.238	54.5	0.388	0.822	116.3	578.6	0.939	1.306	1.56	0.890	55.9	232.4	-16.8	0.554
4-2620	4-3070	0.173	244.4	21.3	2.70	1.331	90.1	0.209	1.023	359.4	821.7	0.728	1.313	1.56	1.015	106.7	15.9	12.1	0.311
4-2620	4-3080	0.660	142.5	3.9	2.41	1.246	58.4	0.565	0.837	109.6	581.8	0.389	1.285	1.64	0.905	59.3	240.8	-18.1	0.503
4-2620	4-3080	0.185	268.6	17.6	2.41	1.334	92.8	0.295	1.033	348.0	820.2	0.724	1.342	1.64	1.023	107.3	25.8	16.6	0.322
4-2620	4-3090	0.509	146.9	3.9	2.07	1.254	62.3	0.480	0.851	102.7	584.9	0.437	1.264	1.80	0.918	62.4	249.5	-18.9	0.457

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2620	4-3090	0.214	280.7	13.0	2.07	1.338	95.4	0.316	1.044	337.1	819.4	0.714	1.374	1.80	1.030	108.2	35.7	19.7	0.339
4-2620	4-3100	0.522	149.5	3.6	1.65	1.261	65.4	0.440	0.864	95.6	587.9	0.484	1.244	2.06	0.931	65.2	258.6	-18.8	0.415
4-2620	4-3100	0.255	292.7	8.6	1.65	1.342	98.2	0.339	1.056	326.9	819.2	0.698	1.415	2.06	1.038	109.5	45.8	25.1	0.362
4-2620	4-3110	0.461	153.3	2.7	1.06	1.268	68.5	0.399	0.876	88.2	590.6	0.527	1.225	2.50	0.941	67.6	267.7	-17.7	0.379
4-2620	4-3110	0.305	301.8	4.6	1.06	1.347	101.1	0.368	1.070	317.4	819.8	0.676	1.464	2.50	1.045	111.2	55.9	26.1	0.392
4-2620	4-3120	0.405	157.3	0.3	0.11	1.273	71.4	0.362	0.887	80.6	593.1	0.566	1.208	3.30	0.950	59.7	276.9	-14.8	0.350
4-2620	4-3120	0.363	308.9	0.4	0.11	1.352	104.1	0.402	1.085	308.5	821.0	0.649	1.521	3.30	1.055	113.1	65.9	29.2	0.428
4-2620	4-3130	0.357	161.5	-6.4	-1.85	1.278	74.0	0.331	0.897	72.7	595.4	0.601	1.194	3.12	0.958	71.5	285.7	-8.3	0.330
4-2620	4-3130	0.428	314.8	-5.6	-1.85	1.357	107.3	0.440	1.101	300.1	822.8	0.617	1.585	3.12	1.060	115.4	75.8	33.3	0.472
4-2620	4-3140	0.363	165.6	-32.6	-9.03	1.283	76.3	0.304	0.906	64.7	597.4	0.631	1.182	12.16	0.965	75.0	294.0	11.5	0.360
4-2620	4-3140	0.530	321.3	-22.2	-9.03	1.362	110.6	0.480	1.119	292.3	825.1	0.581	1.656	12.16	1.068	117.9	85.7	44.6	0.548
4-2620	4-3150	0.665	136.9	67.2	29.10	1.286	78.7	0.280	0.914	55.8	599.3	0.458	1.171	-26.11	0.970	74.3	354.5	-61.8	0.520
4-2620	4-3160	0.306	174.7	43.1	9.45	1.290	80.6	0.264	0.921	47.5	600.8	0.673	1.164	-6.59	0.974	75.2	324.5	-37.6	0.287
4-2620	4-3170	0.574	167.7	15.3	6.54	1.432	68.0	0.591	1.433	61.4	264.9	---	2.280	-3.82	1.155	58.2	314.0	-23.6	0.620
4-2620	4-3170	0.243	184.5	30.9	6.54	1.293	82.6	0.250	0.928	38.7	602.2	0.696	1.160	-3.82	0.976	75.9	329.9	-27.1	0.262
4-2620	4-3180	0.520	172.6	14.0	5.32	1.434	70.6	0.574	1.446	54.7	268.3	---	2.276	-2.75	1.156	59.7	322.1	-19.8	0.594
4-2620	4-3180	0.206	194.9	35.4	5.32	1.295	84.4	0.240	0.934	29.6	603.3	0.709	1.158	-2.75	0.978	76.5	337.6	-20.7	0.251
4-2620	4-3190	0.470	178.2	13.7	4.62	1.436	73.3	0.559	1.458	47.7	271.4	---	2.273	-2.20	1.157	61.1	330.3	-16.3	0.572
4-2620	4-3190	0.180	207.6	35.3	4.62	1.297	86.2	0.234	0.939	20.4	604.2	0.719	1.158	-2.20	0.979	76.8	345.7	-15.4	0.246
4-2620	4-3200	0.423	184.7	13.8	4.15	1.438	76.0	0.546	1.469	40.4	274.3	---	2.271	-1.89	1.157	62.4	338.4	-12.9	0.552
4-2620	4-3200	0.163	223.1	35.1	4.15	1.299	87.9	0.231	0.943	11.1	604.9	0.725	1.162	-1.89	0.980	76.9	353.9	-10.7	0.244
4-2620	4-3210	0.380	192.6	14.2	3.78	1.440	78.7	0.535	1.479	32.9	276.7	---	2.271	-1.70	1.157	63.4	346.4	-9.4	0.534
4-2620	4-3210	0.156	240.7	33.5	3.78	1.301	89.7	0.232	0.948	1.5	605.4	0.728	1.168	-1.70	0.980	76.8	2.2	-6.2	0.246
4-2620	4-3220	0.341	202.2	14.7	3.48	1.441	81.4	0.527	1.488	24.9	278.8	---	2.272	-1.59	1.157	64.3	354.6	-5.8	0.520
4-2620	4-3220	0.158	258.5	30.0	3.48	1.303	91.6	0.237	0.952	351.9	965.7	0.726	1.177	-1.59	0.979	76.6	10.6	-2.0	0.251
4-2630	4-2660	0.491	199.7	14.6	5.00	1.481	74.1	0.637	1.812	41.3	83.9	---	---	3.39	1.196	120.7	343.7	-0.9	0.629
4-2630	4-2670	0.367	192.4	15.5	4.28	1.256	76.2	0.410	1.109	49.3	101.6	---	---	2.90	1.043	113.6	344.4	0.2	0.438
4-2630	4-2680	0.310	186.0	15.4	3.72	1.296	77.3	0.309	0.937	58.1	120.1	---	---	2.59	0.963	107.6	344.4	1.4	0.320
4-2630	4-2690	0.280	181.5	14.5	3.25	1.263	77.9	0.262	0.868	65.2	137.1	---	---	2.41	0.920	102.4	343.0	2.6	0.241
4-2630	4-2700	0.262	179.1	13.3	2.84	1.245	78.3	0.238	0.836	69.6	151.4	---	---	2.33	0.900	98.2	339.8	3.4	0.187
4-2630	4-2710	0.249	178.2	12.0	2.44	1.237	78.8	0.225	0.822	71.4	163.0	---	---	2.29	0.891	94.8	334.6	3.9	0.152
4-2630	4-2720	0.238	178.5	10.4	2.03	1.234	79.2	0.216	0.818	71.0	172.6	---	---	2.36	0.891	92.0	328.0	4.0	0.132
4-2630	4-2730	0.226	179.7	8.6	1.59	1.235	79.7	0.209	0.818	69.0	180.7	---	0.989	2.47	0.894	89.8	321.7	4.0	0.124
4-2630	4-2740	0.215	181.7	6.2	1.08	1.237	80.3	0.203	0.823	65.9	187.7	---	0.990	2.70	0.900	88.1	317.0	4.5	0.123
4-2630	4-2750	0.203	184.2	2.7	0.45	1.241	80.9	0.198	0.829	61.9	193.8	---	0.993	3.08	0.907	86.7	314.6	6.0	0.129
4-2630	4-2760	0.191	187.3	-2.8	-0.43	1.245	81.6	0.193	0.836	57.2	199.2	---	0.997	3.73	0.914	85.5	314.1	9.2	0.138
4-2630	4-2770	0.183	190.8	-12.6	-1.85	1.250	82.4	0.190	0.844	51.9	204.1	---	1.004	4.92	0.921	84.6	314.7	15.0	0.154
4-2630	4-2780	0.194	194.1	-31.8	-4.71	1.254	83.2	0.187	0.852	46.3	208.7	---	1.011	7.56	0.927	83.9	315.3	25.6	0.187
4-2630	4-2790	0.347	185.8	-66.7	-14.73	1.259	84.0	0.185	0.860	40.6	212.9	---	1.019	17.38	0.933	85.2	315.4	45.0	0.327
4-2630	4-2810	0.291	205.4	67.9	12.33	1.267	86.0	0.182	0.876	26.5	219.7	---	1.036	-10.09	0.943	82.3	10.9	-45.2	0.232
4-2630	4-2820	0.206	221.7	57.5	7.85	1.271	87.0	0.184	0.884	19.6	222.9	---	1.046	-5.82	0.946	81.8	4.8	-30.4	0.192
4-2630	4-2830	0.171	234.9	51.1	6.00	1.275	88.1	0.186	0.891	12.5	225.8	---	1.057	-4.18	0.949	81.3	6.8	-20.5	0.187
4-2630	4-2840	0.153	248.9	45.9	4.94	1.278	89.2	0.190	0.899	5.1	228.4	---	1.070	-3.34	0.951	80.7	11.4	-13.3	0.190
4-2630	4-2850	0.145	263.3	40.4	4.21	1.282	90.4	0.196	0.906	357.5	590.8	0.728	1.083	-2.86	0.953	80.2	17.3	-7.6	0.197
4-2630	4-2860	0.146	277.3	34.2	3.66	1.285	91.7	0.204	0.912	349.8	595.0	0.726	1.099	-2.57	0.954	79.5	23.8	-2.7	0.206
4-2630	4-2870	0.155	290.0	27.7	3.20	1.288	93.2	0.214	0.919	341.9	595.0	0.722	1.116	-2.39	0.955	78.7	31.0	1.6	0.218
4-2630	4-2880	0.172	300.9	21.4	2.79	1.291	94.8	0.228	0.925	333.8	596.7	0.714	1.136	-2.31	0.956	77.7	38.6	5.3	0.232
4-2630	4-2890	0.197	310.2	15.8	2.40	1.293	96.6	0.245	0.931	325.4	598.2	0.703	1.159	-2.29	0.957	76.9	46.7	8.6	0.250
4-2630	4-2900	0.232	318.2	11.1	2.00	1.296	98.7	0.267	0.937	316.8	599.3	0.687	1.188	-2.35	0.958	76.1	55.3	11.4	0.272
4-2630	4-2910	0.277	325.2	7.2	1.57	1.299	101.2	0.296	0.943	307.8	599.9	0.664	1.222	-2.47	0.959	75.3	64.4	13.7	0.301
4-2630	4-2920	0.336	331.7	4.1	1.09	1.301	104.3	0.334	0.949	298.2	599.9	0.632	1.265	-2.69	0.960	70.9	74.2	15.4	0.339
4-2630	4-2930	0.414	337.9	1.5	0.49	1.304	108.2	0.385	0.955	287.7	599.0	0.587	1.322	-3.05	0.962	67.6	84.6	16.4	0.390
4-2630	4-2930	0.729	12.9	0.6	0.49	1.081	127.5	0.620	0.634	221.6	892.9	0.241	1.027	-3.05	0.628	101.3	175.5	-3.3	0.389
4-2630	4-2940	0.521	344.4	-0.7	-0.32	1.306	113.4	0.455	0.961	275.8	596.7	0.524	1.398	-3.63	0.964	63.1	95.9	16.6	0.463
4-2630	4-2940	0.726	13.5	-0.4	-0.32	1.073	125.4	0.621	0.627	220.6	901.5	0.237	1.016	-3.63	0.612	87.5	163.6	0.6	0.378
4-2630	4-2950	0.675	351.6	-2.6	-1.54	1.309	120.9	0.555	0.967	261.6	592.0	0.430	1.504	-4.64	0.967	56.4	108.5	15.8	0.572
4-2630	4-2950	0.787	14.8	-1.6	-1.54	1.070	130.8	0.665	0.624	218.3	908.7	0.209	1.040	-4.64	0.605	73.6	155.5	3.7	0.444
4-2630	4-2960	0.929	17.6	-2.9	-3.77	1.071	138.6	0.758	0.625	213.1	913.0	0.151	1.098	-6.68	0.605	56.9	153.9	4.4	0.586
4-2630	4-3010	0.837	137.1	6.1	6.83	1.038	46.2	0.709	0.599	146.4	894.4	0.174	1.024	4.90	0.554	103.3	253.1	-16.9	0.474
4-2630	4-3020	0.541	171.2	12.3	5.49	1.316	66.3	0.468	0.986	82.9	480.4	0.525	1.448	3.76	0.983	117.9	321.9	-8.0	0.492
4-2630	4-3030	0.422	179.5	13.9	4.63	1.319	72.2	0.397	0.993	68.1	475.3	0.598	1.388	3.12	0.989	113.4	333.5	-3.7	0.420
4-2630	4-3040	0.335	188.6	15.5	4.00	1.322	76.7	0.350	1.000	54.3	471.2	0.650	1.350	2.73	0.995	110.5	344.2	0.7	0.373
4-2630	4-3050	0.270	199.4	17.1	3.49	1.324	80.4	0.320	1.007	41.1	467.8	0.685	1.328	2.49	1.002	108.7	354.5	5.2	0.343
4-2630	4-3060	0.221	213.0	18.6	3.05	1.327	83.6	0.302	1.014	28.3	464.9	0.708	1.320	2.36	1.008	107.5	4.6	9.6	0.325
4-2630	4-3070	0.188	230.5	19.1	2.65	1.330	86.4	0.298	1.022	15.9	462.3	0.722	1.321	2.30	1.014	107.0	14.7	13.9	0.317
4-2630	4-3080	0.173	251.2	17.6	2.25	1.333	89.1	0.293	1.030	3.9	460.3	0.728	1.332	2.31	1.021	106.9	24.9	18.0	0.317
4-2630	4-3090	0.717	156.2	2.6	1.83	1.243	55.6	0.575	0.833	114.1	580.5	0.354	1.312	2.39	0.904	56.4	252.0	-19.1	0.550
4-2630	4-3090	0.177	272.2	13.9	1.83	1.336	91.8	0.301	1.039	352.4	818.8	0.727	1.352	2.39	1.028	107.3	35.2	21.7	0.324
4-2630	4-3100	0.643	159.6	2.3	1.36	1.251	59.4	0.524	0.847	107.3	583.8	0.404	1.290	2.56	0.913	59.8	260.7	-19.1	0.502
4-2630	4-3100	0.200	289.8	9.2	1.36	1.339	94.4	0.315	1.049	341.5	817.9	0.719	1.380	2.56	1.035	108.1	45.7	25.0	0.337
4-2630	4-3110	0.573	163.0	1.6	0.80	1.259	62.9	0.475	0.861	100.3	586.9	0.452	1.270	2.85	0.930	62.8	269.6	-18.3	0.457
4-2630	4-3110	0.236	303.3	4.5	0.80	1.343	97.1	0.335	1.061	331.2	817.8	0.706	1.416	2.85	1.041	109.2	56.3	27.9	0.357
4-2630	4-3120	0.509	166.6	0.2	0.07	1.266	66.2	0.431	0.873	93.1	589.8	0.497	1.250	3.34	0.941	65.5	278.5	-16.3	0.418
4-2630	4-3120	0.283	313.5	0.3	0.07	1.347	99.9	0.361	1.073	321.6	818.3	0.686	1.461	3.34	1.048	110.6	67.0	30.5	0.383
4-2630	4-3130	0.450	170.4	-2.7	-1.01	1.272	69.3	0.391	0.885	85.7	592.5	0.539	1.231	4.19	0.950	67.8	287.3	-12.8	0.385
4-2630	4-3130	0.338	321.4	-3.9	-1.01	1.352	102.8	0.391	1.087	312.6	819.4	0.662	1.513	4.19	1.055	112.4	77.8	32.9	0.416
4-2630	4-3140	0.399	174.3	-8.9	-2.90	1.277	72.0	0.356	0.896	77.9	594.9	0.577	1.215	5.87	0.958	69.9	295.5	-6.4	0.362
4-2630	4-3140	0.402	327.9	-9.5	-2.90	1.356	105.9	0.426	1.103	304.2	821.1	0.633	1.573	5.87	1.062	114.5	88.4	35.9	0.456
4-2630	4-3150	0.380	177.3	-25.3	-7.56	1.282	74.6	0.326	0.906	70.0	597.1	0.610	1.201	10.31	0.964	71.6	302.8	7.3	0.366
4-2630	4-3150	0.489	334.2	-20.2	-7.56	1.361	109.1	0.464	1.119	296.3	823.4	0.599	1.639	10.31	1.068	116.9	98.6	42.5	0.517

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2630	4-3170	0.478	174.8	59.8	19.06	1.289	79.3	0.278	0.922	52.8	600.7	0.668	1.175	-16.71	0.973	7..3	353.8	-49.3	0.399
4-2630	4-3180	0.305	192.9	48.7	9.60	1.293	81.2	0.262	0.929	44.2	602.2	0.685	1.173	-7.45	0.976	75.2	345.6	-32.7	0.297
4-2630	4-3190	0.558	185.4	16.6	6.82	1.434	69.1	0.585	1.448	58.4	266.4	---	2.295	-4.88	1.155	52.9	334.3	-19.0	0.617
4-2630	4-3190	0.242	203.2	39.1	6.82	1.295	83.2	0.250	0.935	35.3	603.3	0.701	1.176	-4.88	0.974	75.9	350.3	-23.0	0.272
4-2630	4-3200	0.503	190.7	14.9	5.43	1.436	71.8	0.570	1.460	51.5	269.6	---	2.292	-3.72	1.154	50.2	3..8	-14.6	0.591
4-2630	4-3200	0.204	214.6	36.9	5.43	1.298	85.8	0.242	0.961	26.2	604.2	0.71*	1.169	-3.72	0.978	76.5	357.1	-16.2	0.260
4-2630	4-3210	0.453	196.7	14.1	4.56	1.438	74.4	0.556	1.471	44.5	272.5	---	2.289	-3.08	1.156	51.5	349.4	-10.6	0.568
4-2630	4-3210	0.178	228.3	35.6	4.56	1.300	86.8	0.237	0.986	16.9	805.0	0.722	1.170	-3.09	0.979	76.6	4.6	-10.7	0.254
4-2630	4-3220	0.406	203.7	13.7	3.94	1.439	77.1	0.544	1.482	37.1	275.1	---	2.288	-2.70	1.155	62.7	357.1	-6.8	0.549
4-2630	4-3220	0.161	244.6	35.7	3.94	1.302	88.6	0.235	0.951	7.5	605.5	0.727	1.174	-2.70	0.979	76.6	12.5	-5.8	0.252
4-2630	4-3230	0.364	212.2	13.5	3.43	1.441	79.8	0.534	1.492	29.4	277.4	---	2.288	-2.47	1.155	63.6	4.9	-3.1	0.532
4-2630	4-3230	0.155	262..	30.3	3.43	1.304	90.4	0.238	0.955	357.9	965.8	0.728	1.182	-2.47	0.978	76.5	20.7	-1.3	0.254
4-2640	4-2670	0.549	191.4	15.0	5.68	1.355	67.0	0.499	1.099	74.5	111.1	---	---	4.85	1.038	119.6	339.4	0.0	0.542
4-2640	4-2680	0.448	186.7	12.3	4.55	1.271	70.1	0.379	0.885	83.9	134..	---	---	3.99	0.929	111.0	338.3	0.8	0.578
4-2640	4-2690	0.391	183.9	11.2	3.73	1.234	71.9	0.327	0.817	89.8	146.9	---	---	3.48	0.880	106.1	335.9	1.4	0.279
4-2640	4-2700	0.359	182.6	10.5	3.67	1.227	73.1	0.300	0.791	92.3	158.3	---	---	3.14	0.861	98.8	331.8	1.7	0.213
4-2640	4-2710	0.336	182.9	[illegible]	3.51	1.212	74.1	0.282	0.782	92.3	166.2	---	---	2.98	0.856	94.6	326.4	1.6	0.180
4-2640	4-2720	0.317	183.9	[illegible]	3.38	1.212	75.0	0.268	0.783	91.5	173.5	---	---	2.89	0.860	91.3	320.7	1.7	0.160
4-2640	4-2730	0.300	185.5	[illegible]	[illegible]	1.215	75.8	0.256	0.788	87.4	180.3	---	0.990	2.90	0.868	88.9	316.1	1.0	0.151
4-2640	4-2740	0.283	187.[illegible]	[illegible]	[illegible]	1.221	76.7	0.245	0.796	85.4	[illegible]	---	0.992	3.00	0.878	87.0	313.4	1.2	0.149
4-2640	4-2750	0.267	190.1	[illegible]	0.57	1.227	77.6	0.235	0.806	78.8	194.[illegible]	---	0.996	3.21	0.886	85.5	312.7	2.1	0.152
4-2640	4-2760	0.251	192.9	-1.6	-0.33	1.234	78.5	0.226	0.817	73.6	199.[illegible]	---	1.001	3.58	0.898	84.4	313.7	4.2	0.158
4-2640	4-2770	0.236	196.0	-4.5	-1.25	1.240	79.4	0.219	0.827	68.0	204.[illegible]	---	1.008	4.19	0.908	83.6	315.9	7.6	0.166
4-2640	4-2780	0.225	199.4	-14.3	-2.59	1.246	80.3	0.212	0.838	62.3	208.[illegible]	---	1.016	5.24	0.917	82.9	318.6	13.1	0.179
4-2640	4-2790	0.227	202.[illegible]	-27.9	-4.95	1.252	81.3	0.206	0.849	56.9	213.[illegible]	---	1.024	7.31	0.925	82.3	321.1	22.3	0.202
4-2640	4-2800	0.290	262.3	-51.9	-10.55	1.258	82.3	0.202	0.859	49.5	216.2	---	1.032	12.66	0.932	81.9	322.6	37.1	0.270
4-2640	4-2820	0.511	179.9	75.5	23.39	1.268	84.6	0.194	0.876	34.3	222.1	---	1.048	-21.59	0.942	81.4	36.[illegible]	-49.4	0.403
4-2640	4-2830	0.271	222.2	62.5	10.91	1.272	85.6	0.194	0.887	27.5	225.[illegible]	---	1.059	-9.56	0.946	80.9	19.	-35.8	0.241
4-2640	4-2840	0.202	236.4	53.4	7.32	1.277	86.7	0.195	0.896	20.2	227.[illegible]	---	1.070	-6.24	0.949	80.6	18.[illegible]	-23.5	0.213
4-2640	4-2850	0.169	249.7	46.9	5.55	1.281	87.9	0.197	0.904	12.6	230.2	---	1.082	-4.74	0.952	80.2	21.4	-14.7	0.207
4-2640	4-2860	0.151	263.9	41.1	4.44	1.284	89.2	0.201	0.911	5.0	232.4	---	1.095	-3.92	0.954	79.7	26.7	-8.1	0.209
4-2640	4-2870	0.143	278.7	34.8	3.84	1.288	90.5	0.207	0.919	357.1	594.5	0.728	1.109	-3.43	0.955	79.1	33.1	-2.8	0.214
4-2640	4-2880	0.145	293.1	27.9	3.00	1.291	91.9	0.216	0.926	349.2	596.3	0.726	1.125	-3.13	0.956	78.5	40.1	1.6	0.223
4-2640	4-2890	0.155	306.0	20.9	2.46	1.294	93.5	0.227	0.932	341.0	598.0	0.723	1.144	-2.96	0.958	77.7	47.8	5.4	0.233
4-2640	4-2900	0.175	317.2	14.6	1.95	1.297	95.2	0.241	0.939	332.7	599.4	0.713	1.165	-2.99	0.959	76.7	55.9	8.5	0.247
4-2640	4-2910	0.204	326.6	9.3	1.47	1.299	97.1	0.259	0.945	324.2	600.5	0.700	1.190	-2.90	0.960	75.5	64.5	11.0	0.265
4-2640	4-2920	0.243	334.8	5.1	0.96	1.302	99.4	0.283	0.951	315.4	601.3	0.682	1.220	-3.00	0.961	74.0	73.6	12.9	0.288
4-2640	4-2930	0.293	342.0	1.8	0.41	1.304	102.1	0.314	0.957	306.1	601.6	0.657	1.257	-3.20	0.963	72.0	83.2	14.0	0.318
4-2640	4-2940	0.359	348.9	-0.9	-0.24	1.307	105.4	0.358	0.963	296.1	601.2	0.621	1.304	-3.53	0.965	69.	95.7	14.5	0.359
4-2640	4-2940	0.740	27.8	-0.3	-0.24	1.097	128.0	0.224	0.648	223.0	888 0	0.244	1.052	-3.53	0.653	108.3	194..	-12.0	0.419
4-2640	4-2950	0.446	355.2	-2.3	-1.07	1.309	109.7	0.410	0.969	285.1	549.	0.572	1.366	-4.06	0.967	65.9	104 0	14.1	0.416
4-2640	4-2950	0.701	28..	-3.3	-1.07	1.084	126.0	0.600	0.638	222.7	897.3	0.255	1.018	-4.06	0.630	94.0	182.4	-8.7	0.362
4-2640	4-2960	0.567	[illegible]	-4.6	-2.21	1.312	115.5	0.488	0.975	272.4	596.5	0.499	1.450	-4.93	0.970	60.9	111.5	12.8	0.498
4-2640	4-2960	0.727	29.0	-5.6	-2.21	1.079	127.5	0.620	0.632	221.3	905.4	0.240	1.024	-4.93	0.620	91.3	171.[illegible]	-5.0	0.388
4-2640	4-2970	0.817	30.8	-3.9	-4.04	1.078	132.3	0.683	0.631	218.1	911.7	0.200	1.062	-6.50	0.616	67.4	166.6	-2.6	0.483
4-2640	4-3020	0.903	152.7	7.1	9.[illegible]	1.051	43.0	0.743	0.609	147.3	889.2	0.156	1.061	7.78	0.582	117.3	276.8	-16.1	0.559
4-2640	4-3030	0.636	162.5	12.0	6.[illegible]	1.319	61.9	0.527	0.594	91.5	483.0	0.470	1.518	5.53	0.990	121.8	329.0	-3.8	0.565
4-2640	4-3030	0.787	154.7	6.6	6.51	1.049	49.3	0.669	0.608	143.7	895.2	0.201	1.014	5.53	0.583	99.6	270.9	-16.2	0.439
4-2640	4-3040	0.487	191.2	13.0	5.09	1.322	69.2	0.437	1.001	75.1	476.3	0.564	1.439	4.39	0.996	115.9	341.1	1.1	0.468
4-2640	4-3050	0.380	200.1	14.0	4.13	1.324	74.5	0.378	1.008	60.4	471.3	0.627	1.388	3.72	1.002	112.2	352.1	5.9	0.406
4-2640	4-3060	0.301	210.3	14.8	3.40	1.327	78.7	0.339	1.014	46.5	467.3	0.671	1.358	3.31	1.008	109.8	2.8	10.6	0.366
4-2640	4-3070	0.242	222.8	15.4	2.80	1.329	82.2	0.315	1.021	33.3	464.0	0.700	1.343	3.06	1.014	108.3	13.2	15.1	0.342
4-2640	4-3080	0.200	238.6	15.2	2.26	1.332	85.2	0.303	1.029	20.6	461.3	0.717	1.340	2.93	1.021	107.5	23.8	19.3	0.328
4-2640	4-3090	0.177	258.1	13.4	1.75	1.335	88.1	0.299	1.037	8.5	459.1	0.726	1.347	2.89	1.027	107.2	34.4	23.1	0.323
4-2640	4-3100	0.774	170.0	1.6	1.24	1.241	52.7	0.614	0.629	118.3	578.9	0.320	1.337	2.94	0.904	53.6	263.4	-19.7	0.598
4-2640	4-3100	0.173	279.3	9.6	1.24	1.338	90.7	0.304	1.045	356.9	817.5	0.728	1.363	2.94	1.033	107.4	45.3	26.4	0.326
4-2640	4-3110	0.698	113.3	1.0	0.69	1.249	56.7	0.561	0.843	111.6	582.4	0.370	1.316	3.09	0.917	57.1	272.1	-19.1	0.547
4-2640	4-3110	0.189	298.1	4.9	0.69	1.341	93.4	0.315	1.055	345.9	816.7	0.728	1.387	3.09	1.039	108.0	56.5	29.2	0.336
4-2640	4-3120	0.626	176.7	0.1	0.06	1.257	60.4	0.511	0.897	104.8	585.7	0.419	1.295	3.36	0.929	60.4	280.8	-17.6	0.500
4-2640	4-3120	0.220	313.2	0.3	0.06	1.345	96.0	0.332	1.066	335.6	816.5	0.712	1.419	3.36	1.045	108.9	67.7	31.5	0.352
4-2640	4-3130	0.558	180.1	-1.5	-0.73	1.264	63.9	0.464	0.870	97.7	588.8	0.466	1.274	3.83	0.940	63.3	289.3	-15.2	0.458
4-2640	4-3130	0.263	324.7	-3.7	-0.73	1.348	98.7	0.355	1.077	325.9	816.9	0.695	1.459	3.83	1.051	110.2	79.1	33.2	0.375
4-2640	4-3140	0.496	183.7	-4.3	-1.81	1.270	67.1	0.421	0.883	90.4	591.6	0.511	1.255	4.61	0.949	65.9	297.7	-11.3	0.421
4-2640	4-3140	0.316	333.5	-7.6	-1.81	1.353	101.6	0.382	1.090	316.8	818.0	0.674	1.507	4.61	1.057	111.8	90.3	34.7	0.404
4-2640	4-3150	0.443	187.4	-9.5	-3.51	1.276	70.0	0.383	0.894	82.9	594.2	0.552	1.237	6.03	0.957	68.2	305.5	-5.3	0.392
4-2640	4-3150	0.377	340.7	-12.3	-3.51	1.357	104.5	0.414	1.105	308.3	819.6	0.647	1.562	6.03	1.062	113.7	101.5	36.5	0.441
4-2640	4-3160	0.410	190.6	-20.9	-6.86	1.281	72.8	0.350	0.905	75.1	596.5	0.588	1.222	9.11	0.963	70.1	312.4	5.2	0.382
4-2640	4-3160	0.455	347.1	-19.9	-6.86	1.362	107.6	0.450	1.120	300.3	821.8	0.616	1.624	9.11	1.068	115.9	112.5	40.1	0.491
4-2640	4-3170	0.500	186.[illegible]	-48.7	-17.59	1.286	75.2	0.322	0.914	67.2	598.6	0.619	1.209	19.58	0.968	71.7	318.4	28.2	0.462
4-2640	4-3190	0.405	198.7	54.4	14.99	1.293	79.9	0.278	0.930	49.4	601.9	0.673	1.188	-14.51	0.974	74.3	5.1	-38.6	0.365
4-2640	4-3200	0.287	212.1	43.3	8.82	1.296	81.9	0.262	0.937	40.7	603.7	0.692	1.183	-7.60	0.976	75.1	3.6	-25.3	0.301
4-2640	4-3210	0.538	203.4	16.2	6.36	1.436	70.3	0.581	1.462	55.3	267.6	---	2.311	-5.[illegible]	1.154	59.3	353.1	-12.5	0.612
4-2640	4-3210	0.232	222.7	38.1	6.36	1.299	83.8	0.251	0.943	31.8	604.1	0.706	1.180	-5.40	0.977	75.8	8.5	-16.7	0.278
4-2640	4-3220	0.484	209.0	14.2	4.97	1.438	72.9	0.566	1.474	48.4	270.7	---	2.308	-4.29	1.154	60.7	0.1	-8.0	0.586
4-2640	4-3220	0.195	234.8	35.1	4.97	1.301	85.6	0.244	0.949	22.6	604.9	0.717	1.180	-4.29	0.977	76.2	15.2	-10.3	0.266
4-2640	4-3230	0.434	215.4	13.0	4.03	1.440	75.6	0.553	1.485	41.2	273.4	---	2.306	-3.66	1.153	61.9	7.5	-4.0	0.564
4-2640	4-3230	0.170	249.3	32.6	4.03	1.303	87.4	0.240	0.954	13.3	605.5	0.725	1.183	-3.66	0.977	76.3	22.6	-5.0	0.260
4-2640	4-3240	0.389	222.9	12.1	3.32	1.441	78.3	0.542	1.495	33.8	275.8	---	2.306	-3.27	1.153	62.9	15.1	-0.2	0.545
4-2640	4-3240	0.356	266.1	29.1	3.32	1.305	89.2	0.240	0.958	3.9	605.9	0.728	1.188	-3.27	0.977	76.3	30.5	-0.5	0.259
4-2650	4-2680	0.660	189.1	10.4	6.47	1.236	59.0	0.524	0.820	110.4	141.0	---	---	6.43	0.980	119.1	331.6	-1.2	0.508

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2650	4-2690	0.552	187.8	9.2	4.78	1.188	63.4	0.448	0.748	113.5	153.8	---	---	5.05	0.814	108.3	320.8	-1.2	0.363
4-2650	4-2700	0.491	187.8	8.0	3.66	1.173	66.2	0.404	0.729	113.6	163.8	---	---	4.25	0.797	100.5	324.8	-1.4	0.280
4-2650	4-2710	0.451	188.9	6.8	2.81	1.173	68.1	0.373	0.729	111.7	171.8	---	---	3.77	0.799	94.8	320.1	-1.9	0.232
4-2650	4-2720	0.419	190.5	5.6	2.12	1.179	69.7	0.348	0.736	108.6	178.7	---	---	3.47	0.811	90.7	315.6	-2.4	0.206
4-2650	4-2730	0.392	192.6	4.3	1.50	1.187	71.0	0.326	0.747	104.6	184.7	---	0.991	3.31	0.827	87.7	312.8	-2.8	0.193
4-2650	4-2740	0.368	195.0	2.9	0.92	1.197	72.3	0.307	0.761	100.0	190.2	---	0.994	3.26	0.843	85.6	311.9	-2.9	0.188
4-2650	4-2750	0.345	197.6	1.1	0.34	1.207	73.5	0.290	0.775	94.8	195.1	---	1.000	3.32	0.860	84.0	312.1	-1.9	0.187
4-2650	4-2760	0.324	200.4	-1.0	-0.29	1.217	74.7	0.274	0.790	89.3	199.7	---	1.006	3.48	0.875	82.9	314.1	-0.4	0.188
4-2650	4-2770	0.303	203.3	-3.9	-1.00	1.226	75.9	0.260	0.804	83.4	204.0	---	1.014	3.79	0.889	82.1	317.1	2.1	0.192
4-2650	4-2780	0.284	206.4	-8.0	-1.88	1.235	77.1	0.248	0.818	77.3	208.0	---	1.021	4.31	0.901	81.5	320.9	5.7	0.197
4-2650	4-2790	0.269	209.7	-14.1	-3.09	1.243	78.2	0.238	0.832	70.9	211.8	---	1.030	5.18	0.912	81.1	324.8	10.8	0.204
4-2650	4-2800	0.263	212.8	-24.0	-4.98	1.259	79.4	0.229	0.845	64.3	215.4	---	1.038	6.75	0.921	80.7	328.6	18.5	0.219
4-2650	4-2810	0.287	214.6	-40.5	-6.65	1.257	80.5	0.222	0.857	57.6	218.7	---	1.047	10.12	0.929	80.5	331.2	30.6	0.255
4-2650	4-2820	0.465	201.4	-66.2	-19.91	1.263	81.6	0.217	0.868	50.9	221.8	---	1.057	21.08	0.935	80.2	332.7	50.4	0.403
4-2650	4-2840	0.304	219.5	68.7	16.38	1.274	84.2	0.207	0.889	34.8	226.9	---	1.073	-15.78	0.945	80.0	334.1	-39.9	0.329
4-2650	4-2850	0.245	239.9	55.5	9.10	1.279	85.4	0.206	0.899	27.6	229.4	---	1.084	-8.79	0.949	79.8	29.4	-25.9	0.248
4-2650	4-2860	0.191	252.6	46.7	6.22	1.285	86.6	0.206	0.906	20.0	231.7	---	1.095	-6.21	0.951	79.5	31.1	-15.6	0.228
4-2650	4-2870	0.162	265.6	39.8	4.62	1.287	87.9	0.209	0.916	12.3	233.9	---	1.108	-4.92	0.954	79.1	35.9	-8.1	0.223
4-2650	4-2880	0.145	279.8	33.3	3.54	1.291	89.2	0.213	0.924	4.4	235.5	---	1.121	-4.18	0.956	78.7	42.0	-2.4	0.224
4-2650	4-2890	0.139	294.7	26.3	2.73	1.294	90.6	0.219	0.932	356.5	587.6	0.728	1.136	-3.73	0.957	78.2	49.0	2.1	0.229
4-2650	4-2900	0.143	309.3	19.1	2.07	1.297	92.1	0.228	0.939	348.4	599.2	0.725	1.153	-3.46	0.959	77.5	56.7	5.7	0.236
4-2650	4-2910	0.157	322.4	12.3	1.48	1.300	93.6	0.239	0.946	340.1	600.6	0.720	1.172	-3.31	0.960	76.7	64.8	8.6	0.247
4-2650	4-2920	0.180	333.7	6.1	0.92	1.303	95.6	0.254	0.952	331.7	601.8	0.710	1.194	-3.26	0.962	75.7	73.5	10.7	0.260
4-2650	4-2930	0.213	343.3	2.3	0.37	1.305	97.7	0.273	0.959	323.0	602.7	0.697	1.221	-3.51	0.964	74.5	82.5	12.1	0.279
4-2650	4-2940	0.256	351.6	-1.1	-0.21	1.308	100.1	0.298	0.965	313.9	603.2	0.677	1.253	-3.96	0.966	72.9	92.0	12.8	0.303
4-2650	4-2950	0.312	359.0	-3.5	-0.87	1.310	103.0	0.331	0.971	304.3	603.1	0.649	1.292	-3.73	0.968	70.8	102.8	12.7	0.335
4-2650	4-2960	0.384	5.9	-5.4	-1.65	1.313	106.6	0.375	0.977	293.9	602.2	0.610	1.343	-4.16	0.971	68.1	112.1	11.9	0.379
4-2650	4-2970	0.482	12.7	-6.8	-2.68	1.515	111.3	0.436	0.983	282.3	600.1	0.554	1.411	-4.86	0.974	64.2	122.9	10.1	0.442
4-2650	4-2970	0.688	43.5	-3.5	-2.68	1.089	125.3	0.589	0.640	223.8	901.6	0.265	1.017	-4.86	0.637	87.8	189.9	-13.8	0.354
4-2650	4-2980	0.619	20.0	-7.9	-4.17	1.318	117.9	0.522	0.989	268.7	596.0	0.472	1.506	-6.05	0.978	58.5	134.5	7.4	0.536
4-2650	4-2980	0.740	44.7	-4.8	-4.17	1.086	128.0	0.626	0.638	221.7	909.1	0.239	1.037	-6.05	0.633	75.5	181.5	-10.5	0.410
4-2650	4-2990	0.862	47.1	-6.0	-6.71	1.086	134.5	0.708	0.638	217.4	914.2	0.186	1.090	-8.21	0.635	61.1	179.2	-9.1	0.534
4-2650	4-3040	0.831	170.7	7.3	7.81	1.063	47.3	0.691	0.618	143.6	889.1	0.191	1.045	7.61	0.610	112.1	295.5	-12.7	0.505
4-2650	4-3050	0.566	202.6	11.9	5.57	1.325	65.4	0.487	1.009	83.2	478.4	0.518	1.500	5.67	1.003	119.1	348.4	5.3	0.527
4-2650	4-3050	0.741	172.2	6.3	5.57	1.069	52.0	0.632	0.616	141.1	896.3	0.227	1.005	5.67	0.611	96.4	287.9	-13.7	0.407
4-2650	4-3060	0.431	211.7	12.3	4.20	1.328	71.9	0.411	1.016	67.1	472.1	0.598	1.433	4.62	1.009	114.2	0.1	10.5	0.445
4-2650	4-3070	0.339	221.4	12.4	3.23	1.330	76.8	0.362	1.022	52.5	467.4	0.652	1.392	3.99	1.015	111.2	11.2	15.3	0.393
4-2650	4-3080	0.269	232.9	12.1	2.47	1.333	80.6	0.331	1.029	38.7	463.6	0.688	1.370	3.61	1.021	109.2	22.2	19.8	0.360
4-2650	4-3090	0.218	247.2	11.1	1.82	1.335	83.9	0.314	1.036	25.7	460.5	0.711	1.361	3.38	1.026	108.1	33.4	23.7	0.340
4-2650	4-3100	0.185	265.1	8.9	1.22	1.338	86.9	0.307	1.044	13.3	458.2	0.723	1.364	3.25	1.032	107.6	44.7	27.2	0.331
4-2650	4-3110	0.173	285.6	5.0	0.65	1.340	89.6	0.308	1.052	1.6	456.5	0.728	1.376	3.28	1.038	107.6	56.3	30.0	0.330
4-2650	4-3120	0.754	187.1	0.1	0.05	1.246	53.9	0.598	0.840	115.7	580.8	0.337	1.342	3.38	0.916	54.4	283.5	-18.6	0.593
4-2650	4-3120	0.181	305.6	0.4	0.05	1.343	92.3	0.316	1.061	350.5	815.6	0.726	1.396	3.58	1.043	108.0	68.0	32.1	0.335
4-2650	4-3130	0.680	190.4	-1.0	-0.61	1.255	57.8	0.547	0.854	109.0	584.2	0.387	1.321	3.61	0.928	57.9	291.9	-16.6	0.543
4-2650	4-3130	0.207	322.4	-3.9	-0.61	1.347	94.9	0.330	1.071	340.1	815.3	0.717	1.424	3.61	1.048	108.7	79.9	33.5	0.348
4-2650	4-3140	0.609	193.8	-2.5	-1.39	1.263	61.5	0.498	0.867	102.1	587.5	0.435	1.300	4.01	0.939	61.0	300.2	-13.8	0.497
4-2650	4-3140	0.246	335.3	-7.6	-1.39	1.350	97.6	0.350	1.082	330.3	815.7	0.703	1.460	4.01	1.053	109.8	91.6	34.3	0.367
4-2650	4-3150	0.545	197.2	-5.1	-2.40	1.269	64.9	0.453	0.880	94.9	590.5	0.482	1.279	4.66	0.948	63.9	308.2	-9.8	0.457
4-2650	4-3150	0.295	345.2	-10.9	-2.40	1.354	100.3	0.375	1.094	321.1	816.7	0.684	1.504	4.66	1.058	111.3	103.1	34.7	0.392
4-2650	4-3160	0.487	200.7	-9.4	-3.87	1.216	68.0	0.412	0.892	87.5	593.2	0.525	1.260	5.80	0.955	66.4	315.7	-4.3	0.423
4-2650	4-3160	0.353	353.1	-14.6	-3.87	1.358	105.2	0.404	1.107	312.6	818.3	0.660	1.554	5.80	1.063	113.0	114.4	35.2	0.425
4-2650	4-3170	0.445	204.0	-17.6	-6.36	1.281	70.9	0.376	0.904	79.9	595.7	0.564	1.243	7.99	0.961	68.5	322.4	4.2	0.401
4-2650	4-3170	0.424	359.9	-20.0	-6.36	1.362	106.1	0.437	1.122	304.5	820.3	0.632	1.612	7.99	1.068	115.0	125.5	36.6	0.468
4-2650	4-3180	0.451	205.1	-34.9	-12.09	1.286	73.5	0.345	0.914	72.0	597.8	0.599	1.229	13.42	0.965	70.3	327.7	19.6	0.416
4-2650	4-3180	0.530	7.4	-30.7	-12.09	1.367	109.1	0.473	1.138	296.9	822.7	0.600	1.675	13.42	1.072	117.2	136.7	42.1	0.536
4-2650	4-3200	0.651	188.7	66.1	27.98	1.294	78.6	0.292	0.931	54.3	601.4	0.660	1.203	-27.23	0.973	73.4	32.6	-42.7	0.547
4-2650	4-3210	0.351	220.5	48.7	11.89	1.297	80.5	0.276	0.939	46.0	602.7	0.680	1.197	-11.43	0.974	74.3	17.9	-27.9	0.346
4-2650	4-3220	0.575	316.3	17.7	7.48	1.437	68.7	0.592	1.464	59.0	265.6	---	2.331	-7.32	1.152	58.2	4.4	-10.4	0.635
4-2650	4-3220	0.264	231.8	39.5	7.48	1.300	82.5	0.262	0.945	37.3	603.8	0.697	1.193	-7.32	0.975	75.1	19.9	-17.1	0.301
4-2650	4-3230	0.516	221.6	14.3	5.37	1.439	71.4	0.577	1.476	52.3	268.7	---	2.328	-5.50	1.152	59.7	10.8	-5.2	0.605
4-2650	4-3230	0.215	242.6	34.2	5.37	1.302	84.4	0.253	0.951	28.3	604.7	0.710	1.192	-5.50	0.976	75.6	25.5	-9.7	0.281
4-2650	4-3240	0.463	227.4	12.2	4.06	1.441	74.0	0.563	1.488	45.3	271.5	---	2.325	-4.52	1.151	61.0	17.8	-6.9	0.580
4-2650	4-3240	0.182	255.2	30.4	4.06	1.305	86.2	0.247	0.956	19.1	605.4	0.720	1.193	-4.52	0.976	75.9	32.4	-4.0	0.270
4-2650	4-3250	0.416	234.1	10.6	3.13	1.442	76.7	0.551	1.499	30.1	270.1	---	2.324	-3.94	1.151	62.1	25.2	2.8	0.559
4-2650	4-3250	0.160	270.2	26.5	3.13	1.307	88.1	0.245	0.961	9.9	605.9	0.726	1.195	-3.94	0.976	76.1	40.1	0.7	0.265
4-2660	4-2690	0.802	192.0	8.0	7.45	1.127	50.0	0.645	0.676	135.2	159.8	---	---	8.18	0.722	139.5	324.3	-4.1	0.538
4-2660	4-2700	0.676	193.2	6.8	4.97	1.109	56.1	0.564	0.658	132.7	167.2	---	---	6.01	0.697	105.6	321.0	-4.8	0.398
4-2660	4-2710	0.601	195.2	5.6	3.49	1.116	60.0	0.506	0.664	129.3	173.6	---	---	4.86	0.711	96.5	317.3	-5.2	0.322
4-2660	4-2720	0.548	197.6	4.5	2.45	1.130	62.8	0.462	0.679	125.1	179.4	---	---	4.18	0.737	90.5	314.1	-5.7	0.279
4-2660	4-2730	0.507	200.2	3.4	1.64	1.146	65.0	0.424	0.696	120.4	184.7	---	0.992	3.77	0.745	86.6	312.2	-6.0	0.256
4-2660	4-2740	0.471	203.0	2.2	0.96	1.163	66.9	0.392	0.716	115.3	189.6	---	0.996	3.53	0.793	83.9	311.9	-5.9	0.242
4-2660	4-2750	0.440	205.8	0.8	0.33	1.179	68.6	0.364	0.735	109.8	194.2	---	1.003	3.41	0.818	82.1	313.1	-5.3	0.235
4-2660	4-2760	0.411	208.7	-0.7	-0.27	1.194	70.2	0.340	0.755	104.0	198.6	---	1.011	3.41	0.840	80.9	315.5	-4.1	0.231
4-2660	4-2770	0.383	211.7	-2.7	-0.89	1.207	71.8	0.318	0.773	98.0	202.8	---	1.019	3.51	0.860	80.1	319.0	-2.1	0.229
4-2660	4-2780	0.358	214.8	-5.1	-1.57	1.219	73.2	0.299	0.791	91.8	206.7	---	1.028	3.74	0.878	79.6	323.3	0.5	0.229
4-2660	4-2790	0.335	217.9	-8.5	-2.38	1.230	74.6	0.282	0.808	85.3	210.4	---	1.037	4.15	0.893	79.3	327.9	4.1	0.229
4-2660	4-2800	0.315	221.1	-13.2	-3.42	1.240	76.0	0.268	0.825	78.7	213.9	---	1.045	4.82	0.905	79.1	332.7	8.9	0.232
4-2660	4-2810	0.301	224.3	-20.3	-4.92	1.249	77.3	0.255	0.840	71.9	217.2	---	1.054	5.98	0.916	79.0	337.2	15.5	0.238

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2660	4-2820	0.305	226.9	-31.8	-7.44	1.257	78.6	0.245	0.854	64.9	220.4	---	1.063	8.18	0.925	79.0	341.0	25.1	0.255
4-2660	4-2830	0.364	225.8	-50.7	-13.10	1.264	79.9	0.237	0.867	58.0	223.3	---	1.073	13.53	0.932	78.9	342.9	40.6	0.312
4-2660	4-2850	0.664	190.1	74.2	30.31	1.276	82.8	0.221	0.893	41.5	228.2	---	1.088	-30.48	0.943	79.1	57.7	-40.9	0.549
4-2660	4-2860	0.307	244.5	58.7	11.87	1.281	84.0	0.219	0.902	34.7	230.7	---	1.099	-12.34	0.947	78.9	41.3	-28.6	0.297
4-2660	4-2870	0.218	257.7	46.1	7.04	1.286	85.2	0.218	0.912	27.2	233.0	---	1.111	-7.81	0.951	78.7	40.7	-16.1	0.252
4-2660	4-2880	0.177	269.5	37.2	4.76	1.290	86.5	0.218	0.921	19.5	235.1	---	1.122	-5.84	0.954	78.4	44.7	-7.6	0.238
4-2660	4-2890	0.152	282.0	29.9	3.37	1.294	87.9	0.221	0.930	11.7	237.0	---	1.135	-4.78	0.956	78.1	50.7	-1.5	0.235
4-2660	4-2900	0.139	296.1	22.7	2.38	1.298	89.3	0.225	0.938	3.8	238.8	---	1.149	-4.14	0.958	77.7	57.7	3.1	0.236
4-2660	4-2910	0.137	311.1	15.5	1.61	1.301	90.8	0.231	0.946	355.7	600.4	0.727	1.164	-3.76	0.960	77.2	65.4	6.5	0.240
4-2660	4-2920	0.144	325.7	8.7	0.96	1.304	92.4	0.240	0.953	347.6	601.9	0.724	1.181	-3.53	0.962	76.6	73.6	9.0	0.247
4-2660	4-2930	0.161	338.9	3.0	0.37	1.307	94.1	0.252	0.960	339.5	603.1	0.718	1.201	-3.41	0.964	75.8	82.3	10.8	0.258
4-2660	4-2940	0.188	350.3	-1.4	-0.20	1.309	96.1	0.267	0.966	330.7	604.1	0.708	1.224	-3.40	0.967	74.8	91.3	11.7	0.272
4-2660	4-2950	0.225	0.1	-4.5	-0.78	1.312	98.2	0.288	0.972	321.8	604.6	0.693	1.252	-3.48	0.969	73.5	100.7	11.8	0.291
4-2660	4-2960	0.273	8.5	-6.7	-1.40	1.314	100.9	0.314	0.978	312.5	605.0	0.671	1.286	-3.67	0.972	71.8	110.3	11.2	0.316
4-2660	4-2970	0.334	16.1	-8.1	-2.12	1.317	103.9	0.349	0.984	302.6	604.6	0.640	1.328	-4.00	0.975	69.6	120.2	9.8	0.351
4-2660	4-2970	0.697	57.8	-2.7	-2.12	1.110	125.6	0.589	0.658	226.2	888.2	0.271	1.047	-4.00	0.671	105.9	222.5	-23.3	0.389
4-2660	4-2980	0.414	23.2	-9.2	-3.00	1.319	107.6	0.397	0.990	291.7	603.2	0.597	1.384	-4.53	0.979	66.6	130.4	7.7	0.400
4-2660	4-2980	0.663	58.1	-4.1	-3.00	1.100	125.9	0.567	0.649	225.9	887.4	0.281	1.017	-4.53	0.654	95.3	209.7	-21.5	0.340
4-2660	4-2990	0.523	30.4	-6.8	-4.20	1.321	113.1	0.468	0.996	279.3	600.3	0.534	1.459	-5.40	0.983	62.4	141.2	4.6	0.471
4-2660	4-2990	0.686	59.0	-5.5	-4.20	1.096	125.1	0.584	0.645	224.7	905.7	0.269	1.022	-5.40	0.649	82.1	198.6	-18.3	0.360
4-2660	4-3000	0.679	38.2	-10.2	-6.03	1.328	120.5	0.560	1.007	264.5	595.8	0.441	1.565	-6.92	0.988	59.9	153.0	0.6	0.580
4-2660	4-3000	0.764	60.5	-6.7	-6.03	1.095	129.1	0.639	0.644	221.9	912.4	0.233	1.056	-6.92	0.649	69.9	192.7	-15.8	0.443
4-2660	4-3010	0.922	63.8	-7.5	-9.40	1.096	137.4	0.741	0.645	215.9	916.0	0.167	1.124	-10.00	0.654	54.6	193.3	-15.4	0.598
4-2660	4-3060	0.766	188.7	6.6	6.09	1.074	51.0	0.642	0.627	140.3	889.5	0.224	1.029	6.96	0.637	107.6	312.9	-8.0	0.456
4-2660	4-3070	0.501	223.1	10.4	4.19	1.331	68.7	0.452	1.023	74.8	473.8	0.560	1.484	5.39	1.015	116.9	8.1	14.3	0.493
4-2660	4-3070	0.700	189.6	5.2	4.19	1.071	54.4	0.398	0.624	138.6	897.7	0.251	0.997	5.39	0.637	93.4	303.7	-10.6	0.379
4-2660	4-3080	0.386	232.6	9.9	2.96	1.334	74.4	0.390	1.030	59.0	468.0	0.624	1.431	4.50	1.021	112.9	20.0	19.2	0.424
4-2660	4-3090	0.302	243.3	8.9	2.05	1.336	76.9	0.351	1.036	44.6	463.6	0.673	1.400	3.96	1.027	110.4	31.8	23.6	0.381
4-2660	4-3100	0.241	256.3	7.2	1.31	1.338	82.5	0.328	1.043	31.1	460.2	0.702	1.385	3.63	1.032	108.9	43.6	27.2	0.356
4-2660	4-3110	0.200	272.5	4.4	0.66	1.341	85.6	0.316	1.050	18.4	457.6	0.718	1.382	3.46	1.037	108.1	55.7	30.1	0.339
4-2660	4-3120	0.178	291.9	0.4	0.05	1.343	88.4	0.314	1.058	6.5	455.8	0.726	1.390	3.39	1.042	107.9	67.9	32.2	0.333
4-2660	4-3130	0.178	312.3	-4.2	-0.56	1.346	91.1	0.319	1.067	355.3	814.7	0.727	1.406	3.44	1.046	108.1	80.2	33.4	0.335
4-2660	4-3140	0.734	204.3	-1.7	-1.20	1.255	55.2	0.583	0.850	113.0	582.6	0.455	1.546	3.60	0.926	55.4	303.1	-15.2	0.586
4-2660	4-3140	0.198	330.6	-8.2	-1.20	1.349	93.8	0.330	1.076	344.8	814.3	0.721	1.431	3.60	1.051	108.6	92.3	35.9	0.344
4-2660	4-3150	0.661	207.5	-3.2	-1.94	1.263	59.0	0.533	0.864	106.3	585.9	0.404	1.325	3.91	0.937	58.7	311.0	-12.1	0.557
4-2660	4-3150	0.231	345.1	-11.3	-1.94	1.352	96.4	0.347	1.086	334.9	814.7	0.710	1.463	3.91	1.055	109.6	104.2	33.7	0.360
4-2660	4-3160	0.594	210.9	-5.4	-2.84	1.269	62.6	0.485	0.878	99.2	589.1	0.452	1.304	4.43	0.945	61.7	318.7	-8.1	0.493
4-2660	4-3160	0.276	356.3	-13.9	-2.84	1.356	99.1	0.368	1.097	325.7	815.6	0.695	1.502	4.43	1.059	110.8	115.7	33.1	0.381
4-2660	4-3170	0.533	214.3	-8.9	-4.06	1.275	65.9	0.442	0.890	91.9	592.0	0.497	1.284	5.29	0.953	64.4	326.1	-3.0	0.454
4-2660	4-3170	0.350	5.1	-16.6	-4.06	1.360	101.8	0.395	1.110	317.0	817.0	0.672	1.548	5.29	1.063	112.4	126.7	32.3	0.410
4-2660	4-3180	0.482	217.6	-14.8	-5.92	1.281	68.9	0.403	0.902	84.4	594.6	0.539	1.266	6.83	0.959	66.8	332.8	4.1	0.424
4-2660	4-3190	0.394	12.4	-20.2	-5.92	1.364	104.7	0.425	1.124	308.8	818.9	0.646	1.601	6.83	1.067	114.2	137.4	32.1	0.446
4-2660	4-3190	0.457	220.1	-26.1	-9.45	1.286	71.7	0.369	0.913	76.7	596.9	0.576	1.250	10.04	0.964	68.9	338.4	15.1	0.412
4-2660	4-3190	0.476	19.2	-26.7	-9.45	1.368	107.6	0.458	1.139	301.1	821.3	0.617	1.661	10.04	1.071	116.3	148.1	33.9	0.496
4-2660	4-3200	0.546	215.4	-49.3	-19.49	1.291	74.2	0.340	0.923	69.0	598.9	0.609	1.237	19.78	0.968	70.6	342.4	36.5	0.481
4-2660	4-3220	0.463	225.5	56.9	17.70	1.298	79.2	0.291	0.940	51.1	602.2	0.666	1.213	-18.01	0.972	73.4	34.8	-31.5	0.428
4-2660	4-3230	0.304	241.4	41.6	9.04	1.301	81.2	0.276	0.947	42.7	603.4	0.686	1.208	-9.64	0.973	74.3	51.3	-17.7	0.330
4-2660	4-3240	0.549	234.4	14.4	5.79	1.440	69.8	0.589	1.478	56.1	266.6	---	2.348	-6.71	1.150	58.7	21.3	-2.4	0.626
4-2660	4-3240	0.239	251.6	33.1	5.79	1.304	83.1	0.264	0.953	33.9	604.4	0.702	1.205	-6.71	0.974	75.0	35.5	-8.8	0.298
4-2660	4-3250	0.494	239.8	11.3	4.03	1.442	72.4	0.574	1.490	49.3	269.6	---	2.345	-5.26	1.150	60.0	28.0	2.1	0.597
4-2660	4-3250	0.198	262.6	27.5	4.03	1.306	85.0	0.256	0.959	25.0	605.2	0.714	1.224	-5.26	0.974	75.4	41.9	-2.6	0.281
4-2660	4-3260	0.444	245.9	19.0	2.86	1.444	75.0	0.561	1.501	42.3	272.3	---	2.344	-4.44	1.149	61.3	35.3	5.8	0.573
4-2660	4-3260	0.169	275.6	22.1	2.86	1.309	86.8	0.251	0.964	15.9	605.9	0.722	1.206	-4.44	0.975	75.7	49.4	2.1	0.272
4-2670	4-2710	0.809	201.2	4.9	5.11	1.038	48.1	0.687	0.597	185.5	174.0	---	---	6.86	0.579	102.8	318.3	-7.5	0.472
4-2670	4-2720	0.716	208.5	3.8	3.20	1.062	53.4	0.613	0.615	140.3	178.7	---	---	5.26	0.625	92.1	315.9	-8.0	0.392
4-2670	4-2730	0.650	207.8	2.8	1.98	1.089	57.2	0.554	0.638	134.9	183.4	---	0.992	4.37	0.674	85.8	314.5	-8.3	0.346
4-2670	4-2740	0.598	211.1	1.7	1.08	1.115	60.1	0.505	0.662	129.4	187.9	---	0.997	3.83	0.718	82.1	314.4	-8.3	0.319
4-2670	4-2750	0.553	214.3	0.7	0.36	1.139	62.6	0.463	0.687	123.7	192.3	---	1.005	3.51	0.757	79.8	315.7	-7.7	0.301
4-2670	4-2760	0.514	217.5	-0.6	-0.27	1.161	64.8	0.426	0.711	117.7	196.5	---	1.014	3.33	0.791	78.5	318.3	-6.7	0.289
4-2670	4-2770	0.479	220.7	-2.0	-0.86	1.180	66.8	0.394	0.735	111.6	200.5	---	1.024	3.27	0.820	77.7	321.9	-5.1	0.280
4-2670	4-2780	0.446	223.8	-3.6	-1.45	1.197	68.7	0.365	0.757	105.4	204.4	---	1.034	3.31	0.845	77.2	326.2	-2.9	0.273
4-2670	4-2790	0.415	226.9	-5.7	-2.07	1.212	70.4	0.341	0.778	98.9	208.2	---	1.044	3.46	0.865	77.1	331.1	-0.2	0.268
4-2670	4-2800	0.587	230.1	-8.4	-2.77	1.225	72.1	0.319	0.798	92.3	211.7	---	1.053	3.75	0.883	77.0	336.2	3.3	0.264
4-2670	4-2810	0.362	233.4	-12.0	-3.62	1.237	73.5	0.301	0.817	85.6	215.1	---	1.062	4.24	0.898	77.1	341.6	7.7	0.261
4-2670	4-2820	0.341	236.4	-17.1	-4.77	1.247	75.2	0.284	0.834	78.7	218.3	---	1.072	5.05	0.910	77.2	346.8	13.3	0.260
4-2670	4-2830	0.330	239.4	-24.9	-6.52	1.256	76.7	0.271	0.850	71.7	221.4	---	1.081	6.48	0.920	77.3	351.6	20.9	0.265
4-2670	4-2840	0.343	241.3	-37.7	-9.77	1.264	78.1	0.259	0.865	64.6	224.3	---	1.090	9.42	0.928	77.5	355.2	32.3	0.286
4-2670	4-2850	0.466	234.2	-59.0	-18.65	1.271	79.4	0.251	0.879	57.6	227.0	---	1.100	18.01	0.935	77.5	356.3	52.0	0.382
4-2670	4-2870	0.422	244.9	64.8	17.45	1.283	82.5	0.235	0.904	41.4	231.7	---	1.116	-18.65	0.946	77.8	95.5	-32.1	0.387
4-2670	4-2880	0.253	264.7	46.1	8.18	1.289	83.8	0.232	0.915	34.1	234.0	---	1.127	-9.67	0.950	77.8	50.2	-16.7	0.280
4-2670	4-2890	0.195	275.3	34.0	4.86	1.293	85.1	0.230	0.925	26.5	236.1	---	1.138	-6.44	0.953	77.6	53.3	-6.6	0.255
4-2670	4-2900	0.165	286.2	25.1	3.09	1.297	86.5	0.230	0.934	18.8	238.0	---	1.150	-5.17	0.956	77.4	59.1	-0.0	0.246
4-2670	4-2910	0.146	298.6	17.5	1.94	1.301	87.9	0.232	0.943	11.0	239.8	---	1.163	-4.34	0.959	77.2	66.2	4.5	0.244
4-2670	4-2920	0.137	312.7	10.4	1.00	1.305	89.4	0.237	0.951	3.7	241.5	---	1.177	-3.83	0.962	76.8	74.0	7.7	0.245
4-2670	4-2930	0.138	327.7	3.7	0.40	1.308	91.0	0.243	0.959	355.0	603.1	0.726	1.192	-3.52	0.964	76.3	82.4	9.9	0.249
4-2670	4-2940	0.149	342.4	-1.8	-0.20	1.311	92.6	0.252	0.966	346.9	604.4	0.723	1.210	-3.34	0.967	75.7	91.1	11.1	0.256
4-2670	4-2950	0.170	355.7	-5.9	-0.76	1.314	94.5	0.264	0.973	338.4	605.6	0.716	1.230	-3.27	0.970	74.9	100.1	11.5	0.267
4-2670	4-2960	0.200	7.2	-8.6	-1.30	1.316	96.5	0.280	0.980	329.8	606.4	0.705	1.254	-3.29	0.973	73.8	109.4	11.2	0.281
4-2670	4-2970	0.240	17.1	-10.2	-1.87	1.319	98.8	0.302	0.986	320.7	606.9	0.688	1.283	-3.40	0.976	72.5	118.8	10.1	0.301
4-2670	4-2980	0.291	25.7	-11.2	-2.56	1.321	101.5	0.330	0.992	311.1	606.8	0.665	1.319	-3.62	0.980	70.8	128.4	8.2	0.329

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2670	4-2960	0.726	72.9	-3.1	-2.50	1.128	127.0	0.604	0.676	227.3	883.0	0.267	1.084	-3.62	0.699	112.7	243.9	-26.7	0.439
4-2670	4-2990	0.358	33.5	-11.6	-3.23	1.323	104.1	0.368	0.998	300.7	605.9	0.631	1.365	-4.00	0.984	68.5	138.1	5.6	0.367
4-2670	4-2990	0.651	72.9	-4.6	-3.23	1.112	123.2	0.554	0.659	227.9	893.1	0.294	1.024	-4.00	0.673	98.4	231.2	-26.8	0.341
4-2670	4-3000	0.446	40.8	-11.8	-4.17	1.326	109.2	0.420	1.004	289.2	604.0	0.582	1.425	-4.60	0.988	65.2	148.5	2.3	0.422
4-2670	4-3000	0.649	73.5	-6.0	-4.17	1.106	123.0	0.553	0.653	227.2	901.9	0.292	1.014	-4.60	0.665	87.6	218.3	-24.9	0.329
4-2670	4-3010	0.569	48.4	-11.6	-5.48	1.328	115.1	0.494	1.010	275.9	600.2	0.511	1.509	-5.61	0.993	60.4	159.4	-1.7	0.503
4-2670	4-3010	0.694	74.6	-7.1	-5.48	1.103	125.3	0.586	0.651	225.4	909.7	0.269	1.032	-5.61	0.663	76.9	208.9	-22.1	0.377
4-2670	4-3020	0.801	76.7	-7.9	-7.61	1.103	130.8	0.660	0.651	221.5	915.4	0.222	1.080	-7.44	0.667	64.3	205.0	-20.5	0.488
4-2670	4-3070	0.840	204.0	6.3	6.69	1.085	47.2	0.688	0.634	141.7	885.0	0.198	1.071	8.28	0.657	117.9	331.1	-2.4	0.545
4-2670	4-3080	0.586	234.2	8.4	4.08	1.335	84.6	0.505	1.031	83.5	476.7	0.510	1.551	5.98	1.021	120.3	16.1	17.2	0.554
4-2670	4-3080	0.709	206.5	5.1	4.08	1.085	54.1	0.598	0.635	137.2	899.3	0.255	1.014	5.98	0.662	103.7	329.1	-2.6	0.411
4-2670	4-3090	0.443	243.8	7.4	2.57	1.338	71.6	0.425	1.037	66.4	469.5	0.597	1.478	4.78	1.027	115.0	29.1	22.2	0.462
4-2670	4-3090	0.913	199.9	2.0	2.57	1.044	42.1	0.756	0.601	148.6	911.8	0.147	1.055	4.78	0.596	59.4	285.9	-18.4	0.578
4-2670	4-3090	0.666	206.9	3.5	2.57	1.082	56.3	0.569	0.632	136.4	899.5	0.272	0.991	4.78	0.660	90.6	318.3	-6.8	0.357
4-2670	4-3100	0.342	258.0	5.8	1.52	1.340	76.7	0.374	1.044	51.1	464.2	0.653	1.435	4.08	1.032	111.8	41.8	26.3	0.405
4-2670	4-3110	0.270	285.9	3.5	0.72	1.342	80.8	0.344	1.050	37.0	460.3	0.689	1.412	3.66	1.037	109.8	54.4	29.4	0.369
4-2670	4-3120	0.220	280.4	0.3	0.05	1.344	84.2	0.327	1.057	23.9	457.3	0.711	1.403	3.41	1.041	108.7	67.2	31.6	0.348
4-2670	4-3130	0.190	296.3	-3.9	-0.55	1.347	87.2	0.321	1.065	11.7	455.3	0.723	1.406	3.29	1.046	108.2	79.9	32.8	0.338
4-2670	4-3140	0.181	318.4	-8.5	-1.14	1.349	89.9	0.323	1.073	0.4	454.1	0.726	1.419	3.27	1.050	108.2	92.5	33.2	0.336
4-2670	4-3150	0.192	337.8	-12.3	-1.73	1.352	92.6	0.331	1.081	349.7	813.6	0.724	1.439	3.36	1.053	108.6	104.7	32.7	0.341
4-2670	4-3160	0.714	221.4	-3.5	-2.38	1.262	56.5	0.567	0.861	110.2	584.3	0.373	1.350	3.58	0.934	56.3	321.9	-9.9	0.577
4-2670	4-3160	0.219	354.1	-14.8	-2.38	1.355	95.2	0.345	1.091	339.7	813.8	0.715	1.447	3.58	1.091	109.4	116.4	31.5	0.353
4-2670	4-3170	0.644	224.7	-5.4	-3.15	1.269	60.2	0.519	0.875	103.3	587.5	0.421	1.329	3.95	0.943	59.5	329.3	-6.0	0.529
4-2670	4-3170	0.259	6.7	-16.6	-3.15	1.358	97.8	0.363	1.101	330.4	814.6	0.701	1.502	3.95	1.060	110.5	127.6	29.9	0.371
4-2670	4-3180	0.579	228.0	-8.2	-4.12	1.276	63.6	0.473	0.888	96.2	590.5	0.468	1.308	4.57	0.950	62.4	336.5	-1.3	0.486
4-2670	4-3180	0.307	16.6	-18.2	-4.12	1.362	100.4	0.387	1.113	321.6	815.9	0.683	1.544	4.57	1.063	111.8	138.1	28.2	0.395
4-2670	4-3190	0.523	231.3	-12.5	-5.50	1.282	66.8	0.432	0.990	88.8	593.2	0.512	1.289	5.62	0.956	65.0	343.4	4.7	0.450
4-2670	4-3190	0.365	24.5	-20.4	-5.50	1.366	103.2	0.414	1.126	313.3	817.7	0.660	1.592	5.62	1.066	113.5	148.3	26.7	0.426
4-2670	4-3200	0.480	234.4	-19.9	-7.77	1.287	69.8	0.395	0.912	81.3	595.7	0.55	1.272	7.58	0.961	67.3	349.5	13.0	0.423
4-2670	4-3200	0.434	31.4	-24.2	-7.77	1.370	106.1	0.445	1.140	305.5	819.9	0.633	1.648	7.58	1.069	115.4	158.3	26.2	0.466
4-2670	4-3210	0.479	235.6	-34.3	-12.64	1.292	72.5	0.363	0.922	73.5	597.8	0.588	1.257	12.16	0.965	69.2	354.2	26.7	0.424
4-2670	4-3210	0.534	38.7	-32.2	-12.64	1.379	109.0	0.479	1.155	298.1	822.4	0.602	1.709	12.16	1.072	117.5	168.6	29.3	0.527
4-2670	4-3240	0.381	250.8	45.5	11.58	1.303	79.7	0.291	0.948	48.0	602.8	0.672	1.224	-12.92	0.971	73.4	43.2	-19.2	0.372
4-2670	4-3250	0.583	247.4	14.6	6.30	1.441	68.2	0.601	1.480	60.0	264.4	---	2.369	-7.92	1.147	57.6	31.8	0.2	0.647
4-2670	4-3250	0.266	261.5	32.2	6.30	1.306	81.7	0.277	0.955	39.5	603.9	0.690	1.219	-7.92	0.972	74.2	45.3	-7.9	0.317
4-2670	4-3260	0.525	252.5	10.2	3.91	1.443	70.8	0.586	1.492	53.3	267.5	---	2.366	-5.83	1.148	59.0	38.2	5.2	0.615
4-2670	4-3260	0.216	271.2	24.2	3.91	1.309	83.7	0.266	0.961	30.8	604.9	0.705	1.217	-5.83	0.973	74.8	51.2	-1.0	0.293
4-2670	4-3270	0.474	258.0	7.3	2.49	1.445	73.4	0.572	1.504	46.5	270.3	---	2.364	-4.72	1.148	60.3	45.4	8.8	0.588
4-2670	4-3270	0.182	282.2	18.2	2.49	1.311	85.5	0.260	0.967	22.0	605.7	0.716	1.217	-4.72	0.973	75.2	58.6	3.9	0.280
4-2680	4-2720	0.946	210.8	3.4	5.19	0.976	39.3	0.798	0.554	154.9	177.4	---	---	7.55	0.459	100.0	320.5	-9.1	0.571
4-2680	4-2730	0.834	215.0	2.4	2.75	1.013	46.3	0.715	0.577	148.7	181.2	---	0.990	5.38	0.538	87.0	319.2	-9.5	0.479
4-2680	4-2740	0.753	219.0	1.5	1.36	1.051	51.2	0.645	0.605	142.7	185.3	---	0.995	4.27	0.610	80.6	319.0	-9.5	0.424
4-2680	4-2750	0.691	222.8	0.5	0.42	1.086	55.0	0.585	0.633	136.7	189.4	---	1.004	3.63	0.671	73.3	320.1	-9.1	0.389
4-2680	4-2760	0.638	226.4	-0.4	-0.30	1.117	58.1	0.534	0.662	130.6	193.4	---	1.015	3.25	0.722	75.5	322.5	-8.2	0.365
4-2680	4-2770	0.591	229.8	-1.5	-0.90	1.143	60.8	0.489	0.690	124.5	197.4	---	1.027	3.02	0.764	74.6	325.8	-6.9	0.347
4-2680	4-2780	0.549	233.1	-2.7	-1.44	1.167	63.3	0.450	0.716	118.2	201.3	---	1.038	2.91	0.799	74.2	330.0	-5.1	0.332
4-2680	4-2790	0.510	236.4	-4.1	-1.95	1.187	65.5	0.416	0.741	111.8	205.1	---	1.050	2.89	0.828	74.2	334.7	-2.8	0.320
4-2680	4-2800	0.474	239.6	-5.8	-2.48	1.205	67.5	0.385	0.765	105.3	208.8	---	1.060	2.97	0.852	74.4	340.0	0.1	0.310
4-2680	4-2810	0.441	242.8	-7.9	-3.05	1.220	69.4	0.359	0.788	98.6	212.3	---	1.071	3.15	0.872	74.6	345.5	3.4	0.301
4-2680	4-2820	0.411	245.9	-10.6	-3.72	1.233	71.2	0.336	0.809	91.9	215.6	---	1.080	3.47	0.889	74.9	351.2	7.3	0.293
4-2680	4-2830	0.384	249.1	-14.3	-4.56	1.245	73.0	0.316	0.828	85.0	218.8	---	1.090	4.00	0.903	75.3	356.9	12.1	0.287
4-2680	4-2840	0.363	252.3	-19.5	-5.75	1.255	74.6	0.299	0.846	78.0	221.8	---	1.099	4.90	0.914	75.6	2.5	18.0	0.283
4-2680	4-2850	0.353	255.1	-27.7	-7.67	1.264	76.2	0.285	0.863	70.9	224.7	---	1.108	6.55	0.924	75.9	7.6	26.2	0.286
4-2680	4-2860	0.378	256.0	-41.7	-11.69	1.272	77.7	0.273	0.878	63.8	227.4	---	1.118	10.31	0.932	76.2	11.3	39.4	0.310
4-2680	4-2870	0.619	235.6	-65.6	-26.67	1.279	79.1	0.264	0.892	56.9	230.0	---	1.128	25.04	0.938	76.3	13.7	65.2	0.486
4-2680	4-2890	0.302	272.5	48.2	10.14	1.291	82.2	0.248	0.917	40.9	234.6	---	1.144	-12.27	0.948	76.7	60.1	-18.3	0.319
4-2680	4-2900	0.218	283.2	30.6	4.94	1.296	83.6	0.244	0.928	33.5	236.8	---	1.155	-7.31	0.952	76.7	61.8	-5.4	0.271
4-2680	4-2910	0.181	292.4	19.5	2.68	1.301	85.0	0.242	0.939	25.9	238.8	---	1.166	-5.32	0.956	76.7	67.5	2.0	0.257
4-2680	4-2920	0.159	302.9	11.2	1.37	1.305	86.5	0.242	0.948	18.2	240.7	---	1.178	-4.27	0.960	76.5	74.7	6.6	0.252
4-2680	4-2930	0.146	315.2	4.2	0.46	1.309	88.0	0.244	0.957	10.4	242.5	---	1.191	-3.66	0.963	76.3	82.7	9.5	0.251
4-2680	4-2940	0.141	329.3	-2.1	-0.23	1.312	89.5	0.249	0.965	2.5	244.2	---	1.205	-3.28	0.966	75.9	91.2	11.2	0.252
4-2680	4-2950	0.144	344.4	-7.3	-0.80	1.315	91.1	0.255	0.973	354.4	605.6	0.725	1.221	-3.05	0.969	75.4	100.0	11.9	0.257
4-2680	4-2960	0.158	359.2	-11.0	-1.31	1.318	92.9	0.264	0.980	346.2	606.9	0.721	1.239	-2.93	0.973	74.8	109.0	11.7	0.264
4-2680	4-2970	0.181	12.7	-13.2	-1.80	1.321	94.8	0.277	0.987	337.7	607.9	0.714	1.260	-2.89	0.977	74.0	118.2	10.8	0.275
4-2680	4-2980	0.213	24.4	-14.2	-2.28	1.323	96.9	0.293	0.993	328.9	608.6	0.702	1.284	-2.93	0.980	73.0	127.4	9.2	0.290
4-2680	4-2990	0.256	34.4	-14.4	-2.80	1.325	99.4	0.316	0.999	319.6	608.9	0.684	1.315	-3.06	0.985	71.6	136.8	6.9	0.312
4-2680	4-3000	0.311	43.1	-14.2	-3.38	1.328	102.3	0.346	1.005	309.6	608.5	0.658	1.353	-3.30	0.989	69.8	146.3	4.0	0.342
4-2680	4-3000	0.651	87.9	-4.9	-3.38	1.125	123.0	0.550	0.670	229.7	888.6	0.302	1.038	-3.30	0.693	103.3	253.3	-28.8	0.357
4-2680	4-3010	0.384	51.0	-13.7	-4.08	1.330	106.0	0.387	1.011	298.7	607.1	0.620	1.402	-3.69	0.994	67.2	156.2	0.5	0.384
4-2680	4-3010	0.624	88.2	-6.2	-4.08	1.116	121.6	0.531	0.661	229.4	897.9	0.310	1.013	-3.69	0.682	92.4	240.3	-28.8	0.314
4-2680	4-3020	0.482	58.6	-13.0	-5.01	1.332	110.8	0.444	1.017	286.4	604.4	0.565	1.469	-4.32	0.999	63.6	166.6	-3.7	0.447
4-2680	4-3020	0.644	89.0	-7.3	-5.01	1.112	122.6	0.546	0.658	228.3	906.4	0.299	1.017	-4.32	0.679	82.5	228.1	-27.0	0.352
4-2680	4-3030	0.622	66.6	-12.2	-6.37	1.334	117.5	0.529	1.023	271.8	599.5	0.482	1.564	-5.42	1.004	58.1	178.0	-8.4	0.541
4-2680	4-3040	0.713	90.4	-8.0	-6.37	1.111	126.1	0.596	0.657	225.7	913.5	0.266	1.048	-5.42	0.681	71.7	221.2	-25.0	0.406
4-2680	4-3040	0.853	93.3	-8.3	-8.75	1.112	133.4	0.691	0.658	220.4	917.8	0.203	1.112	-7.54	0.686	58.3	221.1	-24.3	0.547
4-2680	4-3090	0.763	222.3	4.3	3.83	1.096	51.4	0.632	0.643	137.7	885.0	0.237	1.049	6.31	0.681	112.8	348.4	4.0	0.480
4-2680	4-3100	0.515	254.9	4.9	2.01	1.342	68.1	0.469	1.044	74.7	472.0	0.555	1.534	4.77	1.032	117.8	38.4	24.1	0.510
4-2680	4-3100	0.661	224.1	2.8	2.01	1.096	56.7	0.559	0.643	134.3	891.6	0.283	1.002	4.77	0.684	100.3	344.5	2.8	0.371
4-2680	4-3110	0.393	264.8	2.9	0.88	1.344	74.2	0.404	1.051	58.2	465.6	0.626	1.475	3.93	1.037	113.6	52.1	27.8	0.435
4-2680	4-3110	0.863	217.7	0.8	0.88	1.059	45.1	0.719	0.611	145.5	912.9	0.172	1.050	3.93	0.625	61.8	305.1	-15.5	0.546

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2680	4-3110	0.641	224.0	1.3	0.88	1.091	57.7	0.546	0.638	134.5	901.8	0.289	0.987	3.93	0.679	87.8	331.8	-3.2	0.340
4-2680	4-3120	0.307	275.8	0.2	0.06	1.346	78.8	0.364	1.057	43.4	460.9	0.672	1.443	3.42	1.042	111.0	65.6	30.3	0.398
4-2680	4-3130	0.246	288.9	-3.2	-0.60	1.348	82.5	0.341	1.064	29.9	457.5	0.701	1.427	3.12	1.045	109.5	78.9	31.7	0.360
4-2680	4-3140	0.207	305.0	-7.8	-1.16	1.351	85.7	0.331	1.071	17.4	455.2	0.717	1.425	2.95	1.049	108.7	92.0	32.0	0.344
4-2680	4-3150	0.188	324.1	-12.2	-1.68	1.353	88.6	0.328	1.079	5.8	453.7	0.724	1.433	2.89	1.052	108.5	104.6	31.4	0.337
4-2680	4-3160	0.190	344.1	-15.9	-2.20	1.356	91.3	0.333	1.087	354.9	813.1	0.725	1.449	2.92	1.055	108.7	116.6	30.0	0.339
4-2680	4-3170	0.210	1.9	-18.0	-2.74	1.358	93.9	0.344	1.096	344.8	813.2	0.719	1.473	3.04	1.058	109.3	127.9	27.9	0.347
4-2680	4-3180	0.695	238.6	-5.2	-3.35	1.269	57.7	0.552	0.872	107.3	585.8	0.390	1.354	3.28	0.939	57.2	339.9	-3.5	0.567
4-2680	4-3180	0.243	16.3	-19.0	-3.35	1.361	96.5	0.360	1.106	335.4	813.8	0.708	1.504	3.28	1.060	110.2	138.6	25.5	0.362
4-2680	4-3190	0.627	241.8	-7.3	-4.09	1.276	61.3	0.505	0.886	100.3	588.9	0.438	1.333	3.69	0.946	60.3	347.1	0.8	0.520
4-2680	4-3190	0.286	27.4	-19.6	-4.09	1.365	99.1	0.380	1.117	326.5	815.0	0.692	1.541	3.69	1.063	111.4	148.6	22.9	0.382
4-2680	4-3200	0.565	245.1	-10.4	-5.07	1.283	64.7	0.462	0.899	93.1	591.7	0.484	1.313	4.37	0.952	63.1	354.1	5.9	0.478
4-2680	4-3200	0.337	36.2	-20.5	-5.07	1.368	101.8	0.405	1.129	318.1	816.7	0.672	1.586	4.37	1.065	112.9	158.3	20.5	0.409
4-2680	4-3210	0.513	248.4	-15.3	-6.52	1.288	67.8	0.422	0.910	85.7	594.3	0.526	1.295	5.55	0.957	65.5	0.7	12.3	0.443
4-2680	4-3210	0.397	43.4	-22.3	-6.52	1.372	104.5	0.433	1.142	310.1	818.7	0.647	1.637	5.55	1.067	114.6	167.6	18.6	0.442
4-2680	4-3220	0.478	251.2	-23.9	-9.14	1.293	70.6	0.388	0.921	78.1	596.6	0.564	1.279	7.90	0.961	67.6	6.6	21.4	0.420
4-2680	4-3220	0.471	50.0	-26.3	-9.14	1.376	107.4	0.465	1.157	302.5	821.1	0.619	1.694	7.90	1.070	116.6	177.0	18.5	0.485
4-2680	4-3230	0.511	250.4	-41.6	-15.82	1.298	73.3	0.358	0.932	70.4	598.6	0.598	1.265	14.33	0.965	69.4	10.8	38.2	0.459
4-2680	4-3230	0.594	58.3	-36.4	-15.82	1.380	110.4	0.499	1.172	295.4	823.7	0.587	1.757	14.33	1.073	118.8	187.1	23.9	0.559
4-2680	4-3250	0.471	256.8	53.8	17.30	1.305	78.2	0.368	0.949	53.3	602.0	0.657	1.241	-19.30	0.909	72.4	57.6	-23.5	0.452
4-2680	4-3260	0.297	272.1	31.9	7.01	1.308	80.3	0.292	0.956	45.1	603.4	0.677	1.235	-9.25	0.970	73.3	55.0	-7.4	0.339
4-2680	4-3270	0.557	265.5	9.0	3.69	1.445	89.1	0.598	1.498	57.4	265.3	---	2.388	-6.18	1.146	57.9	42.4	8.1	0.632
4-2680	4-3270	0.237	280.9	20.6	3.69	1.311	82.2	0.279	0.963	36.6	604.5	0.694	1.232	-6.18	0.971	74.0	60.3	1.0	0.305
4-2680	4-3280	0.505	270.5	5.4	1.99	1.447	71.7	0.584	1.506	50.7	268.2	---	2.385	-4.75	1.146	59.3	55.7	11.7	0.603
4-2680	4-3280	0.199	290.3	13.1	1.99	1.314	84.1	0.270	0.969	28.0	605.5	0.707	1.230	-4.75	0.972	74.5	67.7	6.0	0.288
4-2690	4-2740	0.952	226.3	1.3	2.06	0.970	38.8	0.805	0.549	155.6	182.2	---	0.990	5.11	0.451	80.9	329.5	-9.6	0.574
4-2690	4-2750	0.859	230.8	0.5	0.56	1.016	45.0	0.730	0.578	149.2	185.9	---	1.000	3.82	0.547	74.7	326.1	-9.4	0.508
4-2690	4-2760	0.785	234.9	-0.4	-0.37	1.058	49.7	0.663	0.609	142.9	189.8	---	1.012	3.13	0.624	72.0	327.9	-8.7	0.464
4-2690	4-2770	0.723	238.8	-1.2	-0.03	1.095	53.5	0.605	0.639	136.6	193.7	---	1.026	2.72	0.685	70.9	330.8	-7.6	0.432
4-2690	4-2780	0.669	242.5	-2.2	-1.55	1.127	56.7	0.553	0.670	130.4	197.5	---	1.040	2.48	0.735	70.5	334.6	-6.0	0.407
4-2690	4-2790	0.621	246.0	-3.2	-2.00	1.154	59.5	0.508	0.699	124.0	201.4	---	1.053	2.34	0.776	70.7	339.0	-4.0	0.387
4-2690	4-2800	0.576	249.3	-4.4	-2.41	1.177	62.1	0.468	0.726	117.5	205.1	---	1.066	2.29	0.809	71.0	344.0	-1.7	0.369
4-2690	4-2810	0.535	252.6	-5.7	-2.82	1.197	64.5	0.432	0.752	111.0	208.7	---	1.078	2.31	0.837	71.5	349.5	1.1	0.354
4-2690	4-2820	0.497	255.8	-7.3	-3.25	1.215	66.6	0.401	0.777	104.4	212.2	---	1.089	2.40	0.860	72.1	355.2	4.2	0.340
4-2690	4-2830	0.462	259.0	-9.3	-3.72	1.230	68.7	0.374	0.800	97.6	215.5	---	1.099	2.59	0.879	72.6	1.2	7.8	0.327
4-2690	4-2840	0.430	262.2	-11.8	-4.29	1.243	70.6	0.350	0.821	90.8	218.7	---	1.109	2.90	0.894	73.2	7.3	11.7	0.316
4-2690	4-2850	0.401	265.4	-15.2	-5.05	1.255	72.4	0.330	0.841	83.9	221.8	---	1.119	3.41	0.907	73.7	13.6	16.4	0.307
4-2690	4-2860	0.378	268.5	-20.2	-6.15	1.265	74.1	0.313	0.859	76.8	224.7	---	1.128	4.30	0.918	74.2	19.8	22.1	0.300
4-2690	4-2870	0.368	271.3	-28.2	-8.10	1.273	75.8	0.298	0.876	69.8	227.5	---	1.137	6.04	0.927	74.6	25.6	30.2	0.300
4-2690	4-2880	0.403	271.6	-43.6	-12.84	1.281	77.4	0.286	0.892	62.7	230.1	---	1.146	10.58	0.935	75.0	30.1	45.0	0.326
4-2690	4-2900	0.402	277.7	55.6	15.08	1.294	80.6	0.266	0.919	47.4	234.9	---	1.163	-17.73	0.947	75.6	72.3	-23.2	0.393
4-2690	4-2910	0.244	292.6	27.3	4.99	1.299	82.0	0.260	0.931	40.2	237.2	---	1.173	-7.84	0.952	75.7	70.2	-3.9	0.288
4-2690	4-2920	0.202	300.6	13.3	2.07	1.304	83.5	0.256	0.942	32.8	239.4	---	1.184	-5.11	0.956	75.8	75.9	4.8	0.268
4-2690	4-2930	0.179	309.2	4.5	0.62	1.309	85.0	0.254	0.952	25.2	241.4	---	1.194	-3.88	0.960	75.7	83.4	9.3	0.260
4-2690	4-2940	0.162	319.6	-2.3	-0.28	1.313	86.5	0.254	0.962	17.6	243.3	---	1.206	-3.19	0.964	75.6	91.7	11.7	0.257
4-2690	4-2950	0.152	331.9	-8.0	-0.92	1.316	88.0	0.256	0.970	9.9	245.1	---	1.219	-2.78	0.968	75.4	100.3	12.9	0.257
4-2690	4-2960	0.149	346.1	-12.8	-1.43	1.319	89.6	0.260	0.978	2.0	246.7	---	1.233	-2.53	0.972	75.1	109.2	13.0	0.259
4-2690	4-2970	0.154	1.4	-16.2	-1.87	1.322	91.3	0.267	0.986	353.9	608.2	0.723	1.249	-2.37	0.976	74.6	118.2	12.2	0.263
4-2690	4-2980	0.169	16.4	-18.0	-2.26	1.325	93.1	0.276	0.993	345.6	609.4	0.719	1.267	-2.30	0.980	74.0	127.2	10.8	0.271
4-2690	4-2990	0.193	30.0	-18.4	-2.64	1.328	95.1	0.289	1.000	337.0	610.3	0.711	1.288	-2.29	0.985	73.2	136.3	8.7	0.283
4-2690	4-3000	0.227	41.7	-17.9	-3.04	1.330	97.4	0.306	1.006	327.9	610.8	0.698	1.314	-2.34	0.990	72.2	145.5	6.0	0.299
4-2690	4-3010	0.273	51.8	-16.9	-3.46	1.332	100.0	0.330	1.012	318.3	610.8	0.678	1.346	-2.47	0.994	70.7	154.8	2.7	0.323
4-2690	4-3010	0.665	103.0	-4.9	-3.46	1.140	123.6	0.555	0.683	231.3	883.8	0.304	1.062	-2.47	0.716	108.4	274.6	-27.7	0.391
4-2690	4-3020	0.332	60.6	-15.6	-3.95	1.334	103.2	0.362	1.018	307.8	610.0	0.650	1.387	-2.70	0.999	68.8	164.4	-1.0	0.356
4-2690	4-3020	0.610	103.1	-6.3	-3.95	1.127	120.8	0.516	0.670	231.6	893.7	0.324	1.016	-2.70	0.699	96.6	263.0	-29.3	0.313
4-2690	4-3030	0.412	68.7	-14.3	-4.56	1.337	101.2	0.407	1.024	296.3	608.1	0.607	1.441	-3.07	1.005	66.0	174.4	-5.2	0.404
4-2690	4-3030	0.609	103.6	-7.2	-4.56	1.122	120.7	0.516	0.665	230.8	902.7	0.322	1.008	-3.07	0.694	87.2	249.7	-29.2	0.303
4-2690	4-3040	0.522	76.7	-12.8	-5.39	1.339	112.6	0.472	1.030	283.0	604.5	0.544	1.516	-3.68	1.010	61.9	185.2	-9.8	0.476
4-2690	4-3040	0.650	104.5	-7.8	-5.39	1.120	122.8	0.547	0.663	229.1	910.7	0.301	1.026	-3.68	0.695	77.6	239.4	-27.8	0.347
4-2690	4-3050	0.684	85.2	-11.4	-6.70	1.341	120.4	0.569	1.036	266.8	598.2	0.447	1.626	-4.77	1.016	55.4	197.6	-14.8	0.588
4-2690	4-3050	0.745	106.4	-8.0	-6.70	1.120	127.6	0.615	0.663	225.6	916.9	0.255	1.071	-4.77	0.699	66.5	235.5	-26.7	0.448
4-2690	4-3100	0.859	236.9	3.1	3.35	1.106	46.4	0.695	0.649	140.5	881.8	0.198	1.101	6.29	0.695	122.6	4.1	8.7	0.581
4-2690	4-3110	0.609	265.8	2.5	1.24	1.346	63.6	0.525	1.051	84.4	475.8	0.499	1.604	4.39	1.037	121.5	47.6	24.8	0.572
4-2690	4-3110	0.699	240.3	1.6	1.24	1.107	54.9	0.582	0.651	134.2	885.6	0.272	1.030	4.39	0.701	108.4	5.3	9.8	0.423
4-2690	4-3120	0.456	275.7	0.2	0.07	1.348	71.1	0.441	1.058	66.3	467.8	0.592	1.525	3.45	1.042	115.9	62.5	28.0	0.472
4-2690	4-3120	0.624	241.5	0.1	0.07	1.106	58.8	0.527	0.650	131.8	893.3	0.307	0.992	3.45	0.701	97.3	359.2	7.4	0.338
4-2690	4-3130	0.353	286.0	-2.6	-0.70	1.350	76.5	0.389	1.064	50.5	462.2	0.650	1.479	2.91	1.046	112.5	76.7	29.8	0.411
4-2690	4-3130	0.812	235.7	-0.7	-0.70	1.075	48.4	0.675	0.622	142.0	913.7	0.202	1.042	2.91	0.652	65.0	324.5	-10.5	0.505
4-2690	4-3130	0.630	240.8	-1.0	-0.70	1.100	58.5	0.534	0.644	133.0	904.6	0.300	0.988	2.91	0.693	84.7	344.3	-0.2	0.334
4-2690	4-3140	0.280	297.8	-6.1	-1.29	1.352	80.6	0.359	1.071	36.4	458.2	0.687	1.455	2.59	1.049	110.5	90.4	30.3	0.374
4-2690	4-3150	0.230	312.3	-10.4	-1.77	1.355	84.1	0.342	1.078	23.4	455.5	0.709	1.446	2.40	1.052	109.4	103.6	29.7	0.352
4-2690	4-3160	0.202	329.9	-14.9	-2.20	1.357	87.1	0.336	1.085	11.5	453.7	0.720	1.449	2.31	1.054	108.9	116.0	28.2	0.341
4-2690	4-3170	0.193	349.5	-18.4	-2.61	1.359	89.9	0.337	1.093	0.5	452.9	0.724	1.461	2.29	1.056	108.9	127.6	25.9	0.338
4-2690	4-3180	0.204	8.6	-20.6	-3.02	1.362	92.5	0.345	1.101	350.2	812.7	0.721	1.481	2.34	1.058	109.3	138.5	23.2	0.343
4-2690	4-3190	0.229	24.8	-21.0	-3.46	1.365	95.1	0.358	1.110	340.6	813.2	0.713	1.508	2.48	1.060	110.0	148.7	20.1	0.354
4-2690	4-3200	0.676	255.8	-6.4	-3.98	1.277	58.9	0.539	0.883	104.4	587.1	0.408	1.359	2.72	0.942	58.1	357.7	3.3	0.555
4-2690	4-3200	0.266	37.4	-20.7	-3.98	1.368	97.7	0.375	1.121	331.5	814.2	0.700	1.541	2.72	1.062	111.1	158.3	16.9	0.371
4-2690	4-3210	0.610	259.0	-8.6	-4.62	1.283	62.4	0.493	0.896	97.3	590.0	0.454	1.338	3.11	0.948	61.0	4.8	7.6	0.509
4-2690	4-3210	0.311	47.3	-20.5	-4.62	1.371	100.3	0.397	1.132	323.0	815.7	0.683	1.581	3.11	1.064	112.4	167.5	13.8	0.394
4-2690	4-3220	0.551	262.4	-11.8	-5.51	1.289	65.7	0.452	0.909	90.1	592.8	0.498	1.319	3.77	0.953	63.7	11.9	12.6	0.468

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2690	4-3220	0.364	55.2	-20.7	-5.51	1.374	103.0	0.423	1.144	314.9	817.6	0.661	1.628	3.77	1.066	113.9	176.4	11.1	0.422
4-2690	4-3230	0.501	265.6	-16.9	-6.92	1.295	68.7	0.415	0.920	82.7	595.2	0.539	1.302	4.96	0.958	66.0	18.8	18.8	0.434
4-2690	4-3230	0.425	61.8	-22.1	-6.92	1.378	105.8	0.452	1.158	307.2	819.8	0.635	1.681	4.96	1.068	115.7	185.3	9.2	0.457
4-2690	4-3240	0.472	268.3	-26.1	-9.72	1.299	71.4	0.382	0.931	75.1	597.4	0.575	1.286	7.56	0.961	67.9	25.1	28.2	0.412
4-2690	4-3240	0.501	68.0	-26.2	-9.72	1.382	108.7	0.484	1.173	299.9	822.2	0.605	1.741	7.56	1.070	117.8	194.4	9.5	0.502
4-2690	4-3250	0.549	264.5	-47.8	-18.96	1.304	73.9	0.354	0.941	67.4	599.4	0.607	1.274	16.61	0.964	69.6	29.8	49.3	0.456
4-2690	4-3250	0.656	78.0	-39.6	-18.96	1.386	111.6	0.518	1.189	292.9	824.9	0.573	1.805	16.61	1.073	120.0	204.2	18.6	0.594
4-2690	4-3270	0.338	283.0	33.4	8.33	1.311	78.7	0.309	0.957	50.7	602.7	0.661	1.253	-11.07	0.968	72.2	64.9	-7.9	0.367
4-2690	4-3280	0.591	278.7	7.5	3.29	1.447	67.4	0.612	1.495	61.4	263.0	---	2.410	-6.23	1.144	56.7	58.7	10.9	0.649
4-2690	4-3280	0.261	291.5	16.6	3.29	1.314	80.7	0.294	0.964	42.5	604.0	0.681	1.248	-6.23	0.970	73.1	69.3	3.4	0.318
4-2690	4-3290	0.538	283.3	3.2	1.28	1.449	70.0	0.596	1.508	54.9	266.1	---	2.407	-4.43	1.144	58.2	66.0	14.6	0.618
4-2690	4-3290	0.221	299.5	7.6	1.28	1.316	82.7	0.282	0.973	34.1	605.2	0.697	1.245	-4.43	0.971	73.8	76.8	8.8	0.296
4-2700	4-2760	0.964	243.0	-0.3	-0.52	0.985	38.3	0.806	0.557	154.9	185.8	---	1.005	2.94	0.485	67.8	334.7	-8.1	0.595
4-2700	4-2770	0.980	247.5	-1.1	-1.31	1.033	44.0	0.736	0.588	148.5	189.4	---	1.021	2.29	0.577	66.1	336.8	-7.3	0.541
4-2700	4-2780	0.810	251.6	-1.8	-1.83	1.075	48.6	0.673	0.620	142.1	193.2	---	1.037	1.93	0.649	65.9	340.0	-6.0	0.501
4-2700	4-2790	0.749	255.4	-2.6	-2.22	1.110	52.4	0.617	0.651	135.7	197.1	---	1.053	1.71	0.706	66.2	344.0	-4.3	0.470
4-2700	4-2800	0.694	259.1	-3.5	-2.54	1.141	55.7	0.566	0.682	129.3	200.8	---	1.068	1.59	0.752	66.8	348.6	-2.2	0.443
4-2700	4-2810	0.644	262.3	-4.4	-2.82	1.167	58.6	0.521	0.712	122.8	204.5	---	1.082	1.52	0.790	67.6	353.8	0.2	0.420
4-2700	4-2820	0.598	265.8	-5.4	-3.09	1.190	61.3	0.481	0.740	116.3	208.2	---	1.095	1.50	0.821	68.5	359.4	2.9	0.400
4-2700	4-2830	0.555	269.1	-6.6	-3.36	1.209	63.7	0.446	0.766	109.7	211.6	---	1.107	1.54	0.847	69.4	5.3	5.8	0.381
4-2700	4-2840	0.515	272.3	-8.0	-3.65	1.226	66.0	0.414	0.791	103.1	215.0	---	1.118	1.62	0.868	70.2	11.5	8.9	0.364
4-2700	4-2850	0.478	275.5	-9.6	-3.98	1.241	68.1	0.387	0.814	96.3	218.3	---	1.129	1.77	0.885	71.0	18.0	12.2	0.349
4-2700	4-2860	0.444	278.7	-11.7	-4.39	1.253	70.1	0.363	0.835	89.5	221.4	---	1.139	2.02	0.900	71.7	24.7	15.8	0.335
4-2700	4-2870	0.413	281.9	-14.6	-4.95	1.264	72.0	0.343	0.855	82.6	224.3	---	1.148	2.43	0.912	72.4	31.6	19.8	0.323
4-2700	4-2880	0.387	285.2	-18.7	-5.83	1.274	73.8	0.325	0.873	75.6	227.2	---	1.157	3.16	0.922	73.0	38.6	24.5	0.313
4-2700	4-2890	0.371	288.2	-25.9	-7.51	1.282	75.5	0.310	0.890	68.5	229.9	---	1.166	4.71	0.931	73.5	45.6	31.5	0.308
4-2700	4-2900	0.407	288.5	-42.4	-12.61	1.290	77.1	0.298	0.906	61.5	232.5	---	1.175	9.69	0.938	73.9	52.0	47.1	0.331
4-2700	4-2920	0.273	303.1	24.4	5.04	1.302	80.3	0.279	0.933	46.8	237.4	---	1.193	-8.22	0.951	74.6	78.8	-2.4	0.306
4-2700	4-2930	0.227	310.1	6.1	1.07	1.307	81.8	0.273	0.945	39.5	239.7	---	1.202	-4.37	0.956	74.7	84.6	8.7	0.278
4-2700	4-2940	0.204	317.3	-2.6	-0.40	1.312	83.4	0.268	0.956	32.2	241.8	---	1.212	-3.04	0.961	74.8	92.5	12.9	0.269
4-2700	4-2950	0.185	325.8	-8.5	-1.20	1.316	84.9	0.266	0.966	24.7	243.9	---	1.223	-2.38	0.966	74.8	101.1	14.6	0.264
4-2700	4-2960	0.171	336.2	-13.4	-1.72	1.320	86.4	0.266	0.975	17.1	245.9	---	1.234	-2.00	0.970	74.8	109.9	15.0	0.262
4-2700	4-2970	0.162	348.6	-17.5	-2.11	1.323	88.0	0.267	0.984	9.4	247.7	---	1.247	-1.77	0.975	74.6	118.8	14.3	0.263
4-2700	4-2980	0.159	3.1	-20.7	-2.43	1.327	89.7	0.271	0.992	1.5	249.3	---	1.261	-1.62	0.980	74.3	127.7	13.0	0.265
4-2700	4-2990	0.165	18.6	-22.4	-2.71	1.329	91.4	0.278	0.999	353.4	610.7	0.722	1.277	-1.54	0.985	73.9	136.7	10.9	0.270
4-2700	4-3000	0.180	33.6	-22.5	-2.96	1.332	93.3	0.287	1.006	345.0	611.9	0.717	1.295	-1.51	0.990	73.3	145.6	8.3	0.279
4-2700	4-3010	0.205	47.5	-21.3	-3.22	1.334	95.4	0.301	1.013	336.1	612.7	0.708	1.317	-1.51	0.995	72.5	154.6	5.3	0.291
4-2700	4-3020	0.241	59.3	-19.5	-3.48	1.337	97.3	0.319	1.019	326.8	613.0	0.694	1.344	-1.57	1.000	71.4	163.7	1.8	0.309
4-2700	4-3020	0.709	118.5	-4.6	-3.48	1.159	125.6	0.582	0.702	232.0	878.2	0.293	1.110	-1.57	0.745	115.2	294.8	-23.8	0.458
4-2700	4-3030	0.289	69.5	-17.4	-3.77	1.339	100.7	0.344	1.025	316.8	612.6	0.672	1.378	-1.67	1.005	69.9	173.0	-2.1	0.335
4-2700	4-3030	0.604	118.1	-6.1	-3.77	1.139	120.3	0.508	0.680	233.5	889.4	0.334	1.025	-1.67	0.717	100.6	284.5	-26.4	0.324
4-2700	4-3040	0.354	78.4	-15.3	-4.12	1.341	104.1	0.379	1.031	305.8	611.3	0.640	1.422	-1.85	1.010	67.8	182.8	-6.3	0.373
4-2700	4-3040	0.583	118.4	-7.0	-4.12	1.132	119.3	0.494	0.673	233.2	898.8	0.341	1.005	-1.85	0.710	91.2	272.1	-28.0	0.288
4-2700	4-3050	0.443	86.7	-13.2	-4.57	1.343	108.6	0.430	1.037	293.3	608.7	0.591	1.482	-2.14	1.016	64.6	193.3	-10.7	0.428
4-2700	4-3050	0.603	119.0	-7.4	-4.57	1.129	120.3	0.509	0.670	232.0	907.4	0.329	1.010	-2.14	0.709	82.5	259.8	-28.0	0.306
4-2700	4-3060	0.569	95.0	-11.2	-5.21	1.345	114.8	0.504	1.043	278.8	604.0	0.517	1.569	-2.64	1.022	59.8	205.1	-15.3	0.512
4-2700	4-3060	0.665	120.3	-7.4	-5.21	1.128	123.5	0.556	0.669	229.6	914.8	0.297	1.040	-2.64	0.712	72.9	252.5	-27.3	0.375
4-2700	4-3070	0.792	122.8	-6.9	-6.29	1.129	130.1	0.646	0.670	224.6	919.7	0.237	1.102	-3.57	0.717	60.9	252.0	-26.9	0.505
4-2700	4-3120	0.774	255.5	0.1	0.11	1.117	51.1	0.633	0.658	135.9	881.4	0.241	1.074	3.50	0.714	116.8	22.9	14.3	0.504
4-2700	4-3130	0.537	286.4	-2.2	-0.95	1.352	67.2	0.488	1.065	75.4	471.1	0.545	1.585	2.58	1.046	118.9	72.5	27.0	0.522
4-2700	4-3130	0.650	257.9	-1.4	-0.95	1.118	57.6	0.542	0.658	131.1	886.8	0.302	1.015	2.58	0.717	104.7	22.0	14.4	0.375
4-2700	4-3140	0.410	296.4	-5.0	-1.58	1.355	73.6	0.421	1.071	58.4	468.2	0.621	1.522	2.10	1.049	114.5	87.4	28.0	0.442
4-2700	4-3140	0.598	258.6	-2.6	-1.58	1.116	60.4	0.502	0.657	129.6	895.4	0.327	0.986	2.10	0.715	94.6	13.6	11.0	0.311
4-2700	4-3150	0.322	307.3	-8.4	-2.03	1.357	78.4	0.380	1.078	43.4	459.4	0.668	1.487	1.81	1.052	111.8	101.4	27.6	0.393
4-2700	4-3150	0.741	254.2	-2.4	-2.03	1.093	52.6	0.618	0.635	137.6	913.6	0.243	1.028	1.81	0.678	70.0	344.8	-3.7	0.446
4-2700	4-3150	0.640	257.0	-3.0	-2.03	1.106	58.1	0.538	0.648	132.5	908.5	0.299	0.996	1.81	0.700	80.4	355.1	1.8	0.348
4-2700	4-3160	0.261	320.2	-12.4	-2.38	1.359	82.2	0.357	1.084	30.0	456.2	0.697	1.471	1.64	1.054	110.3	114.4	26.1	0.363
4-2700	4-3170	0.221	336.0	-16.7	-2.68	1.361	85.5	0.346	1.091	17.7	454.1	0.714	1.468	1.55	1.056	109.5	126.4	23.8	0.347
4-2700	4-3180	0.202	354.7	-20.7	-2.95	1.363	88.4	0.343	1.098	6.4	452.9	0.721	1.475	1.51	1.057	109.2	137.7	20.9	0.340
4-2700	4-3190	0.202	14.3	-22.3	-3.22	1.365	91.1	0.347	1.106	355.9	812.5	0.722	1.491	1.51	1.059	109.4	148.2	17.6	0.341
4-2700	4-3200	0.218	32.1	-22.4	-3.49	1.368	93.6	0.357	1.115	346.1	812.8	0.717	1.513	1.57	1.060	109.9	158.0	14.0	0.349
4-2700	4-3210	0.727	269.8	-5.6	-3.80	1.278	56.4	0.573	0.880	108.4	585.1	0.376	1.384	1.68	0.938	55.7	8.3	6.0	0.591
4-2700	4-3210	0.247	46.5	-21.4	-3.80	1.371	96.2	0.372	1.125	336.9	813.6	0.707	1.543	1.68	1.061	110.8	167.3	10.4	0.363
4-2700	4-3220	0.657	273.0	-7.1	-4.16	1.284	60.1	0.526	0.894	101.5	588.2	0.424	1.364	1.88	0.944	58.9	15.6	9.7	0.542
4-2700	4-3220	0.286	57.7	-20.2	-4.16	1.374	98.8	0.391	1.136	328.2	814.9	0.692	1.579	1.88	1.062	111.9	176.3	6.9	0.382
4-2700	4-3230	0.593	276.3	-9.0	-4.63	1.290	63.4	0.483	0.907	94.5	591.1	0.469	1.345	2.19	0.949	61.7	23.1	13.6	0.497
4-2700	4-3230	0.332	66.5	-19.2	-4.63	1.377	101.4	0.413	1.147	319.9	816.5	0.673	1.622	2.19	1.064	113.3	184.9	3.6	0.407
4-2700	4-3240	0.535	279.7	-11.9	-5.31	1.296	66.6	0.444	0.919	87.2	593.7	0.511	1.326	2.72	0.954	64.1	30.6	17.9	0.457
4-2700	4-3240	0.385	73.7	-18.8	-5.31	1.381	104.2	0.440	1.160	312.1	818.5	0.650	1.671	2.72	1.066	115.0	193.5	0.8	0.437
4-2700	4-3250	0.486	283.1	-16.4	-6.46	1.301	69.4	0.408	0.930	79.8	596.0	0.550	1.310	3.74	0.958	66.3	38.2	23.2	0.423
4-2700	4-3250	0.446	79.7	-19.5	-6.46	1.384	107.0	0.470	1.174	304.6	820.8	0.623	1.726	3.74	1.068	116.8	202.1	-1.1	0.472
4-2700	4-3260	0.456	285.9	-25.4	-9.07	1.306	72.1	0.378	0.940	72.2	598.2	0.585	1.295	6.21	0.961	68.2	45.5	31.7	0.400
4-2700	4-3260	0.521	85.4	-23.3	-9.07	1.388	109.9	0.502	1.190	297.4	823.4	0.592	1.787	6.21	1.071	118.9	211.0	-0.6	0.517
4-2700	4-3270	0.600	277.2	-53.5	-22.49	1.310	74.6	0.352	0.950	64.6	600.1	0.615	1.284	19.50	0.964	69.7	54.1	59.5	0.482
4-2700	4-3280	0.416	292.3	41.5	12.45	1.313	77.0	0.329	0.958	56.2	601.8	0.643	1.273	-15.56	0.966	71.1	76.6	-12.9	0.422
4-2700	4-3290	0.287	302.9	11.5	2.54	1.316	79.1	0.311	0.966	48.3	603.4	0.665	1.266	-5.78	0.969	72.1	78.3	6.6	0.329
4-2700	4-3300	0.572	296.3	0.6	0.24	1.451	68.2	0.610	1.510	59.2	263.8	---	2.430	-3.61	1.144	57.0	76.6	17.4	0.634
4-2700	4-3300	0.246	309.8	1.2	0.24	1.319	81.1	0.297	0.972	40.2	604.8	0.684	1.261	-3.61	0.971	72.9	86.1	12.4	0.305
4-2710	4-2790	0.897	264.6	-2.2	-2.74	1.056	43.5	0.738	0.603	147.1	192.4	---	1.048	0.85	0.612	60.4	349.8	-3.5	0.572
4-2710	4-2800	0.829	268.6	-2.9	-2.93	1.095	47.9	0.679	0.635	140.7	196.1	---	1.066	0.73	0.676	61.6	353.9	-1.8	0.534

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2710	4-2810	0.719	272.4	-3.5	-3.07	1.128	51.6	0.624	0.667	134.3	199.9	---	1.083	0.66	0.728	62.8	358.6	0.3	0.501
4-2710	4-2820	0.713	275.9	-4.2	-3.19	1.157	54.9	0.575	0.698	127.8	203.6	---	1.099	0.62	0.770	64.1	3.9	2.7	0.475
4-2710	4-2830	0.662	279.3	-5.0	-3.30	1.182	57.9	0.531	0.727	121.3	207.2	---	1.113	0.60	0.804	65.3	9.5	5.2	0.448
4-2710	4-2840	0.615	282.6	-5.8	-3.40	1.203	60.7	0.492	0.755	114.8	210.7	---	1.126	0.61	0.832	66.5	15.6	7.8	0.425
4-2710	4-2850	0.570	285.8	-6.7	-3.51	1.222	63.2	0.457	0.781	108.2	214.1	---	1.138	0.63	0.856	67.7	22.0	10.5	0.404
4-2710	4-2860	0.529	289.0	-7.8	-3.63	1.238	65.5	0.426	0.806	101.6	217.4	---	1.149	0.67	0.875	68.6	28.7	13.3	0.385
4-2710	4-2870	0.490	292.2	-8.9	-3.77	1.252	67.6	0.399	0.829	94.9	220.6	---	1.159	0.74	0.891	69.6	35.7	16.0	0.367
4-2710	4-2880	0.454	295.4	-10.4	-3.95	1.264	69.7	0.375	0.850	88.1	223.7	---	1.169	0.86	0.905	70.4	43.0	18.7	0.351
4-2710	4-2890	0.420	298.7	-12.2	-4.21	1.274	71.6	0.355	0.870	81.2	226.6	---	1.178	1.06	0.916	71.2	50.6	21.4	0.337
4-2710	4-2900	0.389	302.2	-14.8	-4.64	1.283	73.4	0.337	0.888	74.3	229.4	---	1.187	1.43	0.926	71.8	58.5	24.3	0.324
4-2710	4-2910	0.364	305.7	-19.4	-5.55	1.291	75.2	0.322	0.904	67.4	232.1	---	1.196	2.29	0.935	72.4	66.7	28.3	0.314
4-2710	4-2920	0.373	307.7	-33.8	-9.46	1.298	76.9	0.310	0.920	60.4	234.8	---	1.204	6.15	0.942	72.9	75.2	40.5	0.318
4-2710	4-2930	0.306	314.5	22.3	5.20	1.305	78.5	0.299	0.934	53.2	237.3	---	1.213	-8.56	0.949	73.3	87.5	-1.2	0.324
4-2710	4-2940	0.258	320.6	-4.2	-0.85	1.310	80.1	0.291	0.947	46.1	239.7	---	1.222	-2.56	0.956	73.6	93.8	15.2	0.288
4-2710	4-2950	0.236	326.6	-10.7	-1.93	1.315	81.7	0.284	0.958	38.9	242.1	---	1.231	-1.53	0.962	73.8	102.4	17.9	0.279
4-2710	4-2960	0.215	333.7	-14.8	-2.40	1.320	83.2	0.280	0.969	31.6	244.3	---	1.241	-1.12	0.967	74.0	111.3	18.2	0.274
4-2710	4-2970	0.197	342.3	-18.2	-2.68	1.324	84.8	0.277	0.979	24.2	246.4	---	1.251	-0.90	0.973	74.0	120.1	17.4	0.271
4-2710	4-2980	0.182	352.9	-21.3	-2.87	1.327	86.4	0.277	0.988	16.7	248.4	---	1.262	-0.77	0.978	74.0	129.0	15.9	0.269
4-2710	4-2990	0.172	5.6	-23.9	-3.01	1.330	88.1	0.278	0.997	9.0	250.2	---	1.274	-0.69	0.983	73.9	137.8	13.7	0.269
4-2710	4-3000	0.169	20.4	-25.5	-3.13	1.333	89.8	0.282	1.005	1.0	251.9	---	1.288	-0.64	0.989	73.6	146.5	11.1	0.272
4-2710	4-3010	0.174	36.2	-25.7	-3.24	1.336	91.6	0.289	1.012	352.8	613.3	0.720	1.304	-0.61	0.994	73.2	155.2	8.1	0.273
4-2710	4-3020	0.189	51.5	-24.3	-3.34	1.339	93.6	0.298	1.019	344.2	614.3	0.715	1.323	-0.60	1.000	72.6	164.0	4.7	0.287
4-2710	4-3030	0.215	65.3	-21.9	-3.44	1.341	95.8	0.312	1.025	335.1	614.9	0.705	1.346	-0.61	1.005	71.8	172.9	1.0	0.301
4-2710	4-3040	0.253	77.2	-19.0	-3.55	1.343	98.4	0.332	1.032	325.4	615.0	0.690	1.374	-0.64	1.011	70.7	182.1	-3.0	0.321
4-2710	4-3040	0.608	133.2	-5.8	-3.55	1.151	120.4	0.507	0.690	235.3	884.8	0.340	1.041	-0.64	0.737	104.6	303.7	-21.2	0.347
4-2710	4-3050	0.306	87.4	-16.1	-3.68	1.345	101.5	0.359	1.038	314.9	614.2	0.665	1.410	-0.69	1.016	69.1	191.7	-7.1	0.350
4-2710	4-3050	0.567	133.3	-6.5	-3.68	1.142	118.3	0.478	0.681	235.3	894.7	0.356	1.006	-0.69	0.726	94.8	293.3	-23.5	0.286
4-2710	4-3060	0.378	96.4	-13.3	-3.83	1.347	105.3	0.398	1.044	303.2	612.3	0.628	1.459	-0.78	1.022	66.7	202.0	-11.2	0.393
4-2710	4-3060	0.568	133.7	-6.8	-3.83	1.138	118.4	0.480	0.676	234.6	903.8	0.352	1.001	-0.76	0.724	86.5	280.8	-25.1	0.280
4-2710	4-3070	0.478	105.0	-10.7	-4.04	1.349	110.4	0.455	1.049	289.7	608.8	0.572	1.527	-0.92	1.027	63.1	213.4	-15.4	0.458
4-2710	4-3070	0.606	134.6	-6.5	-4.04	1.136	120.4	0.510	0.675	232.9	912.0	0.331	1.019	-0.92	0.725	78.1	270.9	-25.5	0.323
4-2710	4-3080	0.626	113.7	-8.3	-4.34	1.351	117.6	0.542	1.056	273.6	602.6	0.483	1.628	-1.17	1.033	57.3	226.5	-19.3	0.560
4-2710	4-3080	0.693	136.3	-5.8	-4.34	1.136	124.9	0.575	0.675	229.5	918.5	0.287	1.063	-1.17	0.729	68.1	267.1	-25.3	0.410
4-2710	4-3090	0.860	139.8	-4.7	-4.91	1.138	133.7	0.692	0.676	222.4	921.4	0.208	1.145	-1.68	0.735	54.6	270.1	-25.2	0.582
4-2710	4-3140	0.642	296.8	-4.3	-2.29	1.356	62.2	0.549	1.072	86.0	475.8	0.483	1.660	1.21	1.049	123.0	81.6	25.0	0.590
4-2710	4-3140	0.708	273.5	-3.0	-2.29	1.127	54.8	0.581	0.665	132.0	881.8	0.279	1.052	1.21	0.728	112.1	41.7	18.0	0.439
4-2710	4-3150	0.481	306.8	-7.0	-2.62	1.359	70.2	0.460	1.078	67.2	467.2	0.582	1.574	0.93	1.052	117.0	97.3	25.1	0.483
4-2710	4-3150	0.613	275.3	-4.2	-2.62	1.127	59.7	0.509	0.665	128.4	888.4	0.327	1.004	0.94	0.729	101.6	38.6	17.2	0.336
4-2710	4-3160	0.373	317.1	-10.1	-2.84	1.360	75.8	0.407	1.084	51.2	461.4	0.643	1.526	0.78	1.054	113.4	111.3	23.8	0.418
4-2710	4-3160	0.903	266.1	-2.3	-2.84	1.080	43.3	0.736	0.623	145.2	915.3	0.165	1.081	0.78	0.654	56.2	349.1	-3.9	0.599
4-2710	4-3160	0.581	275.6	-4.8	-2.84	1.125	61.4	0.485	0.663	127.7	897.9	0.342	0.984	0.78	0.724	92.0	27.6	13.4	0.293
4-2710	4-3170	0.298	328.8	-13.6	-3.00	1.362	80.1	0.375	1.091	37.1	457.4	0.681	1.500	0.69	1.056	111.4	124.2	21.6	0.379
4-2710	4-3190	0.247	342.9	-17.4	-3.13	1.365	83.6	0.358	1.097	24.3	454.8	0.704	1.490	0.64	1.057	110.2	136.0	18.6	0.356
4-2710	4-3190	0.216	360.0	-20.9	-3.24	1.367	86.7	0.351	1.104	12.7	453.2	0.717	1.492	0.61	1.058	109.7	146.9	15.2	0.345
4-2710	4-3200	0.205	19.2	-23.0	-3.35	1.369	89.5	0.351	1.112	1.9	452.6	0.721	1.503	0.60	1.059	109.6	157.1	11.4	0.343
4-2710	4-3210	0.211	38.1	-23.1	-3.45	1.371	92.1	0.358	1.120	351.9	812.5	0.719	1.521	0.61	1.059	110.0	166.8	7.6	0.347
4-2710	4-3220	0.231	54.4	-21.6	-3.57	1.374	94.7	0.369	1.129	342.5	813.1	0.712	1.547	0.64	1.060	110.6	175.9	3.7	0.358
4-2710	4-3230	0.707	287.1	-5.7	-3.70	1.285	57.6	0.560	0.991	105.7	586.3	0.392	1.390	0.70	0.939	56.6	26.5	12.0	0.577
4-2710	4-3230	0.263	67.3	-19.5	-3.70	1.377	97.3	0.385	1.140	333.6	814.2	0.700	1.579	0.70	1.061	111.6	184.8	-0.1	0.374
4-2710	4-3240	0.639	290.4	-6.8	-3.85	1.291	61.1	0.515	0.905	98.8	589.2	0.438	1.371	0.79	0.945	59.5	34.2	15.0	0.529
4-2710	4-3240	0.304	77.3	-17.5	-3.85	1.380	99.9	0.406	1.151	325.2	815.6	0.684	1.617	0.79	1.063	112.8	193.4	-3.6	0.396
4-2710	4-3250	0.576	293.7	-8.3	-4.06	1.297	64.3	0.474	0.917	91.8	592.0	0.482	1.352	0.94	0.950	62.2	42.2	17.9	0.486
4-2710	4-3250	0.351	85.2	-15.8	-4.06	1.383	102.5	0.429	1.163	317.2	817.4	0.663	1.662	0.94	1.064	114.3	201.9	-6.9	0.422
4-2710	4-3260	0.518	297.2	-10.2	-4.38	1.302	67.3	0.437	0.929	84.5	594.5	0.523	1.335	1.20	0.954	64.5	50.4	20.9	0.447
4-2710	4-3260	0.403	91.7	-14.7	-4.38	1.387	105.3	0.457	1.176	309.5	819.5	0.639	1.713	1.20	1.066	116.0	210.4	-9.7	0.453
4-2710	4-3270	0.466	300.8	-13.2	-4.97	1.307	70.1	0.404	0.939	77.2	596.8	0.560	1.319	1.73	0.958	66.5	58.8	24.1	0.412
4-2710	4-3270	0.461	97.2	-14.4	-4.97	1.390	108.1	0.487	1.191	302.2	821.8	0.611	1.771	1.73	1.069	117.9	219.0	-11.7	0.489
4-2710	4-3280	0.427	304.3	-19.5	-6.54	1.311	72.7	0.375	0.949	69.6	598.9	0.594	1.306	3.25	0.961	68.3	67.4	29.5	0.384
4-2710	4-3280	0.528	102.1	-16.3	-6.54	1.394	111.1	0.520	1.206	295.1	824.4	0.579	1.833	3.25	1.072	120.0	227.8	-11.9	0.531
4-2710	4-3300	0.315	315.0	2.7	0.66	1.318	77.4	0.330	0.966	54.1	602.7	0.647	1.285	-4.04	0.967	70.9	87.4	12.4	0.338
4-2710	4-3310	0.278	320.7	-7.0	-1.50	1.321	79.5	0.314	0.973	46.2	604.3	0.668	1.279	-1.94	0.970	71.9	96.0	17.6	0.315
4-2720	4-2810	0.911	282.0	-3.0	-3.67	1.080	43.2	0.738	0.621	145.4	194.9	---	1.078	-0.46	0.647	56.6	4.1	1.3	0.595
4-2720	4-2820	0.844	285.8	-3.5	-3.58	1.116	47.4	0.681	0.653	139.0	198.6	---	1.097	-0.41	0.703	58.5	8.8	3.3	0.561
4-2720	4-2830	0.784	289.4	-4.0	-3.51	1.147	51.1	0.629	0.684	132.6	202.3	---	1.115	-0.37	0.749	60.3	14.2	5.6	0.527
4-2720	4-2840	0.728	292.9	-4.5	-3.44	1.174	54.4	0.582	0.715	126.2	206.0	---	1.130	-0.36	0.786	61.9	19.9	7.9	0.497
4-2720	4-2850	0.676	296.2	-5.0	-3.38	1.197	57.4	0.539	0.744	119.7	209.5	---	1.145	-0.35	0.817	63.4	26.1	10.2	0.470
4-2720	4-2860	0.627	299.4	-5.6	-3.32	1.217	60.2	0.501	0.771	113.2	213.0	---	1.158	-0.36	0.843	64.8	32.6	12.5	0.445
4-2720	4-2870	0.582	302.6	-6.1	-3.25	1.234	62.7	0.467	0.797	106.7	216.3	---	1.169	-0.37	0.864	66.1	39.5	14.7	0.423
4-2720	4-2880	0.539	305.8	-6.7	-3.18	1.249	65.0	0.437	0.822	100.1	219.5	---	1.180	-0.40	0.882	67.3	46.7	16.7	0.402
4-2720	4-2890	0.499	309.0	-7.2	-3.09	1.262	67.2	0.410	0.844	93.4	222.7	---	1.190	-0.45	0.897	68.3	54.3	18.4	0.383
4-2720	4-2900	0.460	312.3	-7.7	-2.97	1.273	69.3	0.38	0.865	86.7	225.7	---	1.200	-0.53	0.910	69.2	62.1	19.7	0.366
4-2720	4-2910	0.424	315.7	-8.1	-2.80	1.283	71.3	0.36	0.885	80.0	228.7	---	1.209	-0.67	0.922	70.1	70.3	20.5	0.350
4-2720	4-2920	0.389	319.3	-8.0	-2.50	1.292	73.1	0.349	0.902	73.2	231.5	---	1.217	-0.95	0.931	70.8	78.6	20.6	0.336
4-2720	4-2930	0.354	323.2	-6.2	-1.75	1.300	74.9	0.334	0.919	66.4	234.3	---	1.226	-1.67	0.940	71.4	87.1	18.8	0.324
4-2720	4-2940	0.335	326.8	17.1	4.46	1.306	76.6	0.321	0.934	59.5	236.9	---	1.234	-7.84	0.948	71.9	96.2	1.9	0.338
4-2720	4-2950	0.321	330.7	-25.7	-6.22	1.312	78.3	0.311	0.949	52.5	239.5	---	1.242	2.87	0.955	72.4	105.7	31.3	0.306
4-2720	4-2960	0.281	336.5	-21.5	-4.55	1.318	79.9	0.302	0.960	45.5	242.0	---	1.250	1.23	0.962	72.7	113.9	25.5	0.295
4-2720	4-2970	0.254	342.0	-21.6	-4.09	1.322	81.5	0.296	0.972	38.4	244.4	---	1.259	0.80	0.969	73.0	122.6	22.7	0.287
4-2720	4-2980	0.230	350.5	-22.8	-3.86	1.327	83.1	0.291	0.983	31.1	246.8	---	1.268	0.60	0.975	73.2	131.2	20.1	0.282
4-2720	4-2990	0.209	359.0	-24.3	-3.72	1.330	84.7	0.288	0.992	23.8	248.9	---	1.278	0.49	0.981	73.3	139.7	17.4	0.279

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2720	4-3000	0.192	9.8	-26.0	-3.62	1.334	86.4	0.287	1.001	16.2	251.0	---	1.289	0.43	0.987	73.3	148.2	14.4	0.277
4-2720	4-3010	0.181	22.9	-27.2	-3.54	1.337	88.1	0.289	1.010	8.5	252.8	---	1.301	0.39	0.993	73.2	156.7	11.2	0.278
4-2720	4-3020	0.176	36.1	-27.4	-3.48	1.340	89.9	0.292	1.018	0.5	254.5	---	1.315	0.36	0.999	73.0	165.2	7.7	0.283
4-2720	4-3030	0.181	54.2	-26.2	-3.41	1.342	91.8	0.299	1.025	352.1	615.8	0.719	1.331	0.35	1.005	72.6	173.7	4.0	0.287
4-2720	4-3040	0.196	69.7	-23.6	-3.36	1.345	93.9	0.309	1.032	343.3	616.7	0.713	1.350	0.35	1.011	72.1	182.5	0.2	0.297
4-2720	4-3050	0.224	83.5	-20.1	-3.29	1.347	96.3	0.324	1.038	333.9	617.1	0.702	1.374	0.36	1.017	71.2	191.5	-3.7	0.313
4-2720	4-3050	0.626	148.5	-5.3	-3.29	1.164	121.1	0.517	0.703	236.7	879.9	0.340	1.067	0.36	0.758	109.0	320.9	-14.6	0.386
4-2720	4-3060	0.266	95.4	-16.4	-3.23	1.349	99.1	0.345	1.044	323.7	616.8	0.684	1.404	0.38	1.022	70.0	201.0	-7.7	0.336
4-2720	4-3060	0.557	148.7	-5.9	-3.23	1.152	117.7	0.467	0.689	237.4	890.5	0.367	1.011	0.38	0.742	98.2	312.2	-16.8	0.291
4-2720	4-3070	0.324	105.0	-12.9	-3.15	1.351	102.4	0.375	1.050	312.5	615.5	0.657	1.444	0.42	1.028	68.2	211.2	-11.5	0.369
4-2720	4-3070	0.543	148.6	-5.9	-3.15	1.146	117.1	0.457	0.683	237.0	899.9	0.371	0.996	0.42	0.738	90.1	300.8	-19.3	0.266
4-2720	4-3080	0.405	114.8	-9.8	-3.05	1.353	106.7	0.419	1.056	299.9	612.9	0.614	1.499	0.48	1.033	65.4	222.3	-15.1	0.419
4-2720	4-3080	0.563	14 .2	-5.5	-3.05	1.144	118.1	0.474	0.681	235.8	908.7	0.358	1.004	0.48	0.738	92.3	289.7	-21.0	0.287
4-2720	4-3090	0.522	123.6	-7.0	-2.91	1.355	112.6	0.485	1.062	285.2	608.2	0.546	1.578	0.58	1.038	61.2	234.8	-18.4	0.496
4-2720	4-3090	0.622	150.4	-4.6	-2.91	1.144	121.1	0.519	0.680	233.4	916.3	0.327	1.034	0.58	0.741	73.8	283.2	-21.7	0.355
4-2720	4-3100	0.739	152.7	-3.3	-2.69	1.144	127.2	0.607	0.681	228.5	921.5	0.268	1.095	0.77	0.745	63.0	283.0	-21.8	0.477
4-2720	4-3150	0.803	288.0	-4.5	-4.17	1.135	50.0	0.646	0.671	135.0	878.8	0.238	1.104	-0.87	0.738	120.4	58.5	19.2	0.532
4-2720	4-3160	0.573	317.2	-8.5	-3.89	1.362	65.9	0.511	1.085	77.3	471.3	0.530	1.639	-0.63	1.054	120.3	106.0	21.6	0.539
4-2720	4-3160	0.658	291.1	-5.7	-3.89	1.136	57.6	0.540	0.673	128.8	882.8	0.310	1.035	-0.63	0.739	108.2	60.3	19.5	0.388
4-2720	4-3170	0.437	327.2	-11.2	-3.74	1.364	72.7	0.441	1.091	59.9	464.1	0.610	1.572	-0.50	1.056	115.6	120.3	19.4	0.453
4-2720	4-3170	0.586	292.4	-6.4	-3.74	1.136	61.3	0.485	0.672	126.1	890.3	0.346	0.999	-0.50	0.737	98.9	54.8	18.3	0.306
4-2720	4-3180	0.345	338.0	-14.2	-3.63	1.366	77.6	0.398	1.097	44.9	459.2	0.660	1.534	-0.43	1.057	112.8	133.1	16.5	0.402
4-2720	4-3180	0.857	284.1	-3.4	-3.63	1.095	46.4	0.697	0.634	141.8	916.1	0.192	1.075	-0.43	0.671	59.6	7.4	2.7	0.558
4-2720	4-3180	0.572	292.4	-6.4	-3.63	1.132	62.0	0.474	0.669	126.2	900.5	0.352	0.986	-0.43	0.730	89.5	41.3	14.8	0.284
4-2720	4-3190	0.280	350.6	-17.4	-3.54	1.368	81.6	0.374	1.104	31.5	456.0	0.691	1.516	-0.39	1.058	111.1	144.7	13.0	0.371
4-2720	4-3200	0.237	5.9	-20.4	-3.47	1.370	84.9	0.361	1.111	19.4	453.9	0.709	1.512	-0.36	1.058	110.3	155.5	9.1	0.354
4-2720	4-3210	0.213	23.9	-22.5	-3.41	1.372	87.8	0.358	1.118	8.3	452.9	0.718	1.518	-0.35	1.059	110.0	165.5	5.1	0.347
4-2720	4-3220	0.207	43.2	-22.8	-3.35	1.375	90.5	0.360	1.126	358.0	312.5	0.720	1.532	-0.35	1.059	110.1	175.1	1.0	0.348
4-2720	4-3230	0.218	61.0	-21.2	-3.29	1.377	93.1	0.369	1.134	348.4	812.8	0.716	1.553	-0.36	1.059	110.6	184.3	-3.0	0.356
4-2720	4-3240	0.243	75.8	-18.5	-3.22	1.380	95.7	0.382	1.144	339.3	813.6	0.707	1.581	-0.38	1.060	111.3	193.2	-6.8	0.369
4-2720	4-3250	0.687	304.4	-5.0	-3.14	1.292	58.6	0.549	0.902	103.2	587.3	0.407	1.397	-0.42	0.940	57.2	45.4	16.6	0.564
4-2720	4-3250	0.277	87.3	-15.7	-3.14	1.382	98.3	0.399	1.154	330.6	814.8	0.694	1.615	-0.42	1.061	112.4	202.0	-10.4	0.388
4-2720	4-3260	0.621	307.7	-5.6	-3.04	1.298	61.9	0.507	0.915	96.3	590.2	0.451	1.378	-0.49	0.946	60.1	53.6	18.5	0.518
4-2720	4-3260	0.319	96.4	-13.1	-3.04	1.386	100.9	0.420	1.166	322.4	816.3	0.676	1.656	-0.49	1.065	113.7	210.7	-13.7	0.412
4-2720	4-3270	0.559	311.1	-6.1	-2.90	1.303	65.1	0.468	0.927	89.3	592.9	0.493	1.360	-0.59	0.950	62.5	62.1	19.9	0.476
4-2720	4-3270	0.367	103.6	-10.7	-2.90	1.389	103.6	0.445	1.179	314.6	818.2	0.654	1.703	-0.59	1.065	115.2	219.4	-16.7	0.440
4-2720	4-3280	0.501	314.7	-6.5	-2.68	1.308	68.0	0.432	0.939	82.1	595.4	0.532	1.344	-0.78	0.955	64.7	70.8	20.7	0.438
4-2720	4-3280	0.420	109.5	-8.6	-2.68	1.392	106.4	0.473	1.192	307.1	820.3	0.628	1.756	-0.78	1.067	117.0	228.1	-19.5	0.473
4-2720	4-3290	0.447	318.5	-6.2	-2.24	1.313	70.7	0.401	0.949	74.8	597.7	0.568	1.329	-1.19	0.959	66.6	79.7	20.5	0.405
4-2720	4-3290	0.477	114.5	-6.2	-2.24	1.396	109.2	0.504	1.207	299.9	822.7	0.599	1.815	-1.19	1.070	118.9	236.7	-22.2	0.511
4-2720	4-3300	0.395	322.8	-2.4	-0.74	1.317	73.2	0.374	0.958	67.4	599.8	0.599	1.317	-2.65	0.963	68.3	88.8	17.1	0.378
4-2720	4-3300	0.537	118.8	-1.8	-0.74	1.400	112.2	0.537	1.223	292.9	825.3	0.567	1.880	-2.65	1.074	121.1	245.1	-26.0	0.553
4-2720	4-3310	0.451	321.8	-40.8	-13.35	1.320	75.5	0.351	0.967	59.8	601.8	0.627	1.306	9.98	0.967	69.6	102.5	47.0	0.387
4-2720	4-3320	0.328	331.6	-20.5	-5.09	1.323	77.7	0.332	0.974	52.1	603.7	0.651	1.298	1.75	0.970	70.8	107.7	27.3	0.330
4-2730	4-2840	0.855	303.1	-3.7	-3.78	1.137	47.1	0.682	0.672	137.2	200.8	---	1.130	-1.42	0.728	56.2	24.7	8.7	0.582
4-2730	4-2850	0.795	306.6	-4.0	-3.52	1.166	50.8	0.633	0.703	130.8	204.5	---	1.148	-1.33	0.760	58.3	30.5	10.7	0.548
4-2730	4-2860	0.739	310.0	-4.3	-3.29	1.190	54.1	0.587	0.733	124.5	208.0	---	1.163	-1.28	0.801	60.2	36.8	12.7	0.517
4-2730	4-2870	0.686	313.2	-4.5	-3.07	1.212	57.0	0.546	0.761	118.1	211.5	---	1.177	-1.28	0.829	61.9	43.4	14.6	0.489
4-2730	4-2880	0.637	316.4	-4.7	-2.84	1.230	59.8	0.509	0.789	111.6	214.9	---	1.190	-1.31	0.853	63.4	50.5	16.3	0.463
4-2730	4-2890	0.591	319.5	-4.9	-2.60	1.246	62.3	0.476	0.814	105.2	218.3	---	1.201	-1.39	0.872	64.8	57.8	17.6	0.439
4-2730	4-2900	0.547	322.7	-4.8	-2.32	1.260	64.7	0.447	0.838	98.7	221.5	---	1.212	-1.52	0.889	66.0	65.5	18.5	0.417
4-2730	4-2910	0.506	325.9	-4.6	-1.98	1.272	66.9	0.421	0.860	92.1	224.6	---	1.222	-1.73	0.904	67.1	73.4	18.9	0.398
4-2730	4-2920	0.466	329.1	-3.9	-1.50	1.283	69.0	0.398	0.881	85.6	227.7	---	1.231	-2.08	0.916	68.1	81.5	18.5	0.380
4-2730	4-2930	0.428	332.5	-2.2	-0.77	1.292	70.9	0.378	0.900	78.9	230.6	---	1.239	-2.69	0.928	69.0	89.6	17.0	0.364
4-2730	4-2940	0.393	336.1	2.0	0.62	1.300	72.8	0.360	0.917	72.3	233.5	---	1.247	-3.98	0.938	69.8	97.7	13.3	0.353
4-2730	4-2950	0.374	339.2	16.1	4.73	1.307	74.6	0.345	0.933	65.6	236.4	---	1.255	-7.97	0.947	70.4	105.6	2.3	0.358
4-2730	4-2970	0.372	344.9	-38.8	-10.41	1.319	78.1	0.321	0.961	51.8	241.8	---	1.270	7.38	0.963	71.5	130.9	39.4	0.334
4-2730	4-2980	0.306	352.4	-30.1	-6.75	1.324	79.8	0.313	0.974	44.9	244.4	---	1.279	3.83	0.970	71.9	135.9	28.8	0.309
4-2730	4-2990	0.269	359.1	-27.6	-5.45	1.329	81.4	0.306	0.985	37.8	246.9	---	1.287	2.63	0.977	72.3	143.3	23.2	0.299
4-2730	4-3000	0.241	6.8	-27.0	-4.74	1.333	83.0	0.301	0.996	30.7	249.3	---	1.296	2.05	0.984	72.5	151.1	18.8	0.292
4-2730	4-3010	0.217	16.0	-27.3	-4.29	1.337	84.7	0.298	1.006	23.3	251.5	---	1.305	1.71	0.991	72.7	159.1	14.9	0.288
4-2730	4-3020	0.198	27.2	-27.7	-3.95	1.340	86.4	0.297	1.014	15.7	253.6	---	1.316	1.51	0.998	72.7	167.2	11.0	0.287
4-2730	4-3030	0.185	40.7	-27.7	-3.67	1.343	88.2	0.298	1.023	7.9	255.4	---	1.328	1.38	1.004	72.7	175.3	7.1	0.287
4-2730	4-3040	0.180	56.3	-26.6	-3.43	1.346	90.1	0.302	1.030	359.7	617.0	0.719	1.341	1.31	1.010	72.5	183.6	3.2	0.291
4-2730	4-3050	0.185	72.7	-24.1	-3.21	1.348	92.1	0.309	1.038	351.2	618.2	0.717	1.358	1.28	1.016	72.1	192.2	-0.7	0.298
4-2730	4-3060	0.202	88.4	-20.4	-2.99	1.350	94.3	0.319	1.044	342.0	619.0	0.711	1.378	1.29	1.022	71.5	201.1	-4.9	0.309
4-2730	4-3060	0.682	164.3	-4.3	-2.99	1.183	123.6	0.553	0.724	237.0	873.9	0.323	1.125	1.29	0.788	115.8	337.4	-7.4	0.464
4-2730	4-3060	0.806	165.9	-3.4	-2.99	1.204	129.6	0.638	0.751	233.4	870.3	0.272	1.231	1.29	0.819	125.4	342.1	-6.0	0.594
4-2730	4-3070	0.233	102.2	-16.1	-2.76	1.352	96.9	0.335	1.051	332.2	619.0	0.698	1.403	1.33	1.028	70.6	210.5	-8.2	0.327
4-2730	4-3070	0.556	163.5	-5.1	-2.76	1.162	117.5	0.462	0.698	239.2	886.1	0.376	1.021	1.33	0.759	101.4	328.9	-9.2	0.309
4-2730	4-3080	0.279	113.9	-12.0	-2.50	1.355	99.9	0.358	1.057	321.5	618.3	0.678	1.435	1.43	1.033	69.3	220.6	-11.7	0.354
4-2730	4-3080	0.525	163.6	-4.9	-2.50	1.155	116.0	0.441	0.691	239.2	895.9	0.386	0.995	1.43	0.752	93.2	319.0	-11.6	0.263
4-2730	4-3090	0.346	124.2	-8.4	-2.19	1.356	103.6	0.392	1.063	309.6	616.4	0.646	1.480	1.59	1.038	67.2	231.5	-14.7	0.393
4-2730	4-3090	0.530	164.0	-4.3	-2.19	1.152	116.3	0.446	0.687	238.3	905.1	0.381	0.994	1.59	0.751	85.9	307.8	-14.3	0.264
4-2730	4-3100	0.441	133.5	-5.2	-1.78	1.358	108.5	0.443	1.069	295.9	612.8	0.595	1.542	1.87	1.043	64.0	243.6	-17.3	0.452
4-2730	4-3100	0.568	164.8	-3.2	-1.78	1.151	110.3	0.476	0.686	236.6	913.4	0.360	1.013	1.87	0.753	78.3	299.5	-16.1	0.309
4-2730	4-3110	0.580	142.7	-2.5	-1.18	1.360	115.3	0.522	1.075	279.7	606.6	0.514	1.636	2.34	1.047	58.9	257.2	-19.1	0.546
4-2730	4-3110	0.651	166.5	-1.8	-1.18	1.151	122.6	0.540	0.687	233.2	920.1	0.316	1.057	2.34	0.756	69.4	296.7	-17.0	0.401
4-2730	4-3120	0.808	169.8	-0.1	-0.12	1.152	130.7	0.653	0.688	226.3	923.4	0.239	1.137	3.28	0.760	57.1	299.9	-16.8	0.555
4-2730	4-3120	0.978	185.7	-0.1	-0.12	0.963	143.2	0.825	0.540	202.8	1259.9	0.094	0.985	3.28	0.421	90.6	346.8	-3.1	0.595

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPART ARRIVE PLANET= VENUS ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2730	4-3170	0.734	304.1	-7.0	-5.54	1.144	53.8	0.592	0.679	130.8	878.9	0.277	1.081	-2.72	0.747	115.5	78.4	19.1	0.466
4-2730	4-3180	0.517	337.4	-11.8	-4.77	1.367	68.8	0.484	1.098	69.6	487.7	0.567	1.629	-2.07	1.057	118.4	128.2	14.9	0.501
4-2730	4-3180	0.620	308.6	-7.6	-4.77	1.144	59.7	0.507	0.680	126.0	884.2	0.335	1.024	-2.07	0.746	105.1	78.2	18.7	0.348
4-2730	4-3190	0.402	347.6	-14.2	-4.28	1.369	74.7	0.427	1.104	53.4	461.7	0.632	1.576	-1.71	1.058	114.6	141.1	11.2	0.433
4-2730	4-3190	0.567	309.5	-7.7	-4.28	1.143	62.4	0.467	0.679	124.1	892.4	0.362	0.995	-1.71	0.742	96.5	70.6	17.8	0.285
4-2730	4-3200	0.321	35.0	-16.7	-3.93	1.371	79.2	0.394	1.110	39.3	457.6	0.673	1.547	-1.50	1.058	112.4	152.7	7.2	0.391
4-2730	4-3200	0.804	302.2	-4.1	-3.93	1.199	49.5	0.656	0.645	138.2	916.5	0.222	1.069	-1.50	0.686	63.3	26.5	9.0	0.511
4-2730	4-3200	0.570	309.0	-7.0	-3.93	1.139	62.1	0.471	0.674	125.1	903.4	0.356	0.992	-1.50	0.732	86.9	54.7	15.5	0.284
4-2730	4-3210	0.264	12.6	-19.2	-3.65	1.373	82.8	0.375	1.117	26.6	455.0	0.698	1.535	-1.37	1.058	111.1	163.5	3.0	0.367
4-2730	4-3220	0.227	29.0	-21.0	-3.41	1.375	86.0	0.366	1.124	15.1	453.4	0.713	1.535	-1.30	1.058	110.5	173.6	-1.2	0.355
4-2730	4-3230	0.210	47.7	-21.4	-3.18	1.377	88.8	0.365	1.131	4.4	452.7	0.719	1.544	-1.28	1.058	110.4	183.3	-5.3	0.352
4-2730	4-3240	0.210	66.5	-19.9	-2.96	1.380	91.5	0.370	1.140	354.5	812.6	0.718	1.561	-1.29	1.059	110.6	192.6	-9.3	0.356
4-2730	4-3250	0.226	83.1	-16.9	-2.73	1.382	94.1	0.380	1.149	345.2	813.1	0.713	1.585	-1.34	1.059	111.2	201.8	-13.1	0.367
4-2730	4-3260	0.738	316.5	-3.6	-2.47	1.292	56.0	0.584	0.899	107.5	585.2	0.374	1.425	-1.44	0.935	54.8	56.7	18.0	0.600
4-2730	4-3260	0.254	96.4	-13.5	-2.47	1.385	96.6	0.394	1.159	336.3	814.0	0.702	1.615	-1.44	1.060	112.0	210.9	-16.5	0.383
4-2730	4-3270	0.669	321.7	-3.6	-2.17	1.298	59.4	0.540	0.912	100.9	588.3	0.419	1.406	-1.61	0.941	57.8	65.1	19.1	0.552
4-2730	4-3270	0.292	106.9	-10.2	-2.17	1.388	99.2	0.412	1.169	327.9	815.3	0.687	1.652	-1.61	1.062	113.1	220.0	-19.7	0.404
4-2730	4-3280	0.604	325.0	-3.4	-1.77	1.304	62.7	0.500	0.925	94.0	591.1	0.463	1.387	-1.87	0.947	60.5	73.6	19.5	0.508
4-2730	4-3280	0.336	115.1	-7.2	-1.77	1.391	101.9	0.435	1.181	319.9	816.9	0.668	1.695	-1.87	1.064	114.5	229.1	-22.5	0.430
4-2730	4-3290	0.544	328.4	-2.6	-1.20	1.309	65.7	0.483	0.937	87.1	593.8	0.503	1.379	-2.32	0.952	62.8	82.2	19.0	0.468
4-2730	4-3290	0.386	121.9	-4.2	-1.20	1.394	104.6	0.460	1.195	312.2	818.9	0.645	1.744	-2.32	1.066	116.1	238.1	-25.2	0.461
4-2730	4-3300	0.487	332.1	-0.6	-0.24	1.314	68.5	0.429	0.947	80.0	596.3	0.541	1.354	-3.17	0.957	64.9	90.9	17.1	0.434
4-2730	4-3300	0.441	327.3	-0.7	-0.24	1.398	107.4	0.489	1.209	304.8	821.0	0.618	1.800	-3.17	1.069	117.9	247.2	-27.9	0.497
4-2730	4-3310	0.437	335.8	5.4	1.90	1.318	71.1	0.400	0.957	72.8	598.6	0.574	1.540	-5.20	0.961	66.7	99.5	11.8	0.408
4-2730	4-3310	0.502	332.2	5.0	1.90	1.401	110.4	0.520	1.224	297.7	823.5	0.587	1.861	-5.20	1.073	119.9	256.0	-31.9	0.540
4-2730	4-3320	0.468	335.8	35.0	12.24	1.321	73.5	0.375	0.966	65.6	600.8	0.604	1.329	-15.43	0.966	68.2	108.9	-10.1	0.449
4-2730	4-3330	0.511	334.6	-49.9	-17.70	1.325	75.9	0.352	0.975	57.9	602.9	0.632	1.318	14.61	0.970	69.5	133.4	51.9	0.422
4-2740	4-2860	0.863	320.4	-3.5	-3.54	1.157	47.0	0.683	0.692	135.4	202.8	---	1.164	-2.28	0.749	54.5	41.3	13.6	0.600
4-2740	4-2870	0.803	323.8	-3.6	-3.14	1.183	50.5	0.636	0.722	129.1	206.4	---	1.181	-2.16	0.785	56.7	47.7	15.2	0.565
4-2740	4-2880	0.747	327.0	-3.6	-2.77	1.205	53.8	0.592	0.752	122.8	209.9	---	1.197	-2.11	0.815	58.7	54.5	16.6	0.533
4-2740	4-2890	0.695	330.2	-3.8	-2.41	1.225	56.7	0.553	0.779	116.5	213.4	---	1.210	-2.12	0.841	60.5	61.6	17.7	0.504
4-2740	4-2900	0.645	333.3	-3.4	-2.04	1.242	59.4	0.517	0.806	110.2	216.8	---	1.223	-2.20	0.862	62.1	69.0	18.5	0.478
4-2740	4-2910	0.599	336.4	-3.0	-1.62	1.257	62.0	0.485	0.831	103.8	220.1	---	1.234	-2.35	0.881	63.6	76.7	18.8	0.453
4-2740	4-2920	0.554	339.5	-2.4	-1.14	1.270	64.3	0.456	0.854	97.4	223.3	---	1.244	-2.60	0.897	64.9	84.5	18.4	0.431
4-2740	4-2930	0.512	342.7	-1.2	-0.52	1.281	66.5	0.431	0.876	91.0	226.5	---	1.253	-3.00	0.911	66.1	92.4	17.3	0.411
4-2740	4-2940	0.473	345.9	0.9	0.35	1.291	68.6	0.408	0.894	84.5	229.6	---	1.262	-3.67	0.924	67.1	100.3	15.1	0.394
4-2740	4-2950	0.437	349.1	5.0	1.77	1.300	70.6	0.388	0.914	78.0	232.6	---	1.270	-4.90	0.935	68.0	108.0	11.1	0.381
4-2740	4-2960	0.413	352.1	11.8	4.72	1.308	72.5	0.371	0.932	71.5	235.6	---	1.277	-7.67	0.945	68.0	115.2	3.0	0.379
4-2740	4-2970	0.398	349.1	41.2	15.76	1.314	74.3	0.357	0.947	65.1	238.4	---	1.285	-18.54	0.955	69.5	122.7	-19.4	0.458
4-2740	4-2990	0.395	0.6	-42.0	-11.84	1.326	77.9	0.331	0.975	51.1	244.1	---	1.298	9.42	0.972	70.8	153.9	37.6	0.356
4-2740	4-3000	0.320	8.7	-33.5	-7.76	1.331	79.6	0.323	0.987	44.3	246.8	---	1.306	5.50	0.980	71.2	156.9	26.8	0.325
4-2740	4-3010	0.278	15.8	-29.9	-6.03	1.335	81.3	0.316	0.999	37.3	249.3	---	1.314	3.97	0.988	71.6	163.1	20.2	0.311
4-2740	4-3020	0.246	23.8	-28.2	-5.03	1.339	83.0	0.311	1.009	30.1	251.8	---	1.322	3.17	0.995	71.9	170.2	15.0	0.304
4-2740	4-3030	0.220	33.4	-27.4	-4.35	1.342	84.7	0.307	1.019	22.7	254.1	---	1.331	2.69	1.002	72.1	177.7	10.4	0.299
4-2740	4-3040	0.199	45.1	-26.7	-3.83	1.345	86.5	0.306	1.027	15.1	256.2	---	1.342	2.40	1.009	72.2	185.5	6.1	0.297
4-2740	4-3050	0.185	59.2	-25.5	-3.39	1.348	88.3	0.307	1.035	7.1	258.0	---	1.353	2.23	1.015	72.2	193.6	2.0	0.298
4-2740	4-3060	0.180	75.2	-23.2	-3.01	1.351	90.3	0.311	1.043	358.8	619.5	0.719	1.367	2.13	1.022	72.0	202.0	-1.8	0.302
4-2740	4-3070	0.187	91.9	-19.5	-2.64	1.353	92.4	0.318	1.050	349.9	620.5	0.716	1.384	2.10	1.028	71.7	210.9	-5.5	0.310
4-2740	4-3080	0.207	107.5	-15.0	-2.27	1.355	94.8	0.330	1.057	340.4	621.0	0.708	1.405	2.14	1.033	71.0	220.2	-8.8	0.324
4-2740	4-3080	0.563	178.7	-4.2	-2.27	1.172	117.7	0.464	0.709	240.9	881.4	0.380	1.038	2.14	0.777	104.8	344.4	-1.5	0.335
4-2740	4-3090	0.243	121.2	-10.4	-1.87	1.357	97.6	0.347	1.063	330.1	620.7	0.694	1.432	2.25	1.038	70.0	230.2	-11.8	0.344
4-2740	4-3090	0.514	178.7	-3.8	-1.87	1.163	115.4	0.429	0.699	241.2	891.8	0.399	0.998	2.25	0.766	96.1	335.7	-3.2	0.267
4-2740	4-3100	0.298	132.9	-6.4	-1.42	1.359	100.9	0.373	1.069	318.7	619.3	0.670	1.468	2.45	1.043	68.5	240.9	-14.3	0.375
4-2740	4-3100	0.506	178.9	-2.9	-1.42	1.159	115.0	0.424	0.694	240.7	901.3	0.400	0.989	2.45	0.763	89.0	324.9	-6.1	0.251
4-2740	4-3110	0.376	143.2	-8.0	-0.85	1.361	105.1	0.412	1.075	305.9	616.6	0.632	1.518	2.78	1.048	66.1	252.6	-16.1	0.421
4-2740	4-3110	0.529	179.5	-1.7	-0.85	1.157	116.2	0.442	0.692	239.4	910.1	0.386	0.999	2.78	0.764	82.1	315.5	-9.0	0.277
4-2740	4-3120	0.487	152.7	-0.2	-0.08	1.363	110.7	0.472	1.081	291.0	611.9	0.571	1.592	3.33	1.051	62.3	265.5	-17.1	0.493
4-2740	4-3120	0.557	180.7	-0.1	-0.08	1.157	119.1	0.488	0.692	236.9	917.8	0.354	1.030	3.33	0.765	74.4	310.7	-10.8	0.345
4-2740	4-3130	0.700	183.1	1.5	1.14	1.158	124.8	0.572	0.693	232.1	923.1	0.297	1.090	4.34	0.768	64.6	311.3	-11.3	0.462
4-2740	4-3180	0.849	320.0	-7.9	-7.87	1.150	48.1	0.669	0.684	135.1	877.2	0.226	1.142	-5.61	0.753	124.1	93.0	17.3	0.574
4-2740	4-3190	0.619	347.4	-12.0	-6.02	1.370	63.9	0.540	1.104	80.5	472.7	0.508	1.700	-3.96	1.058	122.2	135.2	10.5	0.567
4-2740	4-3190	0.682	323.9	-8.5	-6.02	1.151	56.7	0.551	0.686	127.5	879.6	0.308	1.064	-3.96	0.753	111.7	97.2	16.6	0.414
4-2740	4-3200	0.472	357.5	-13.8	-4.99	1.372	71.2	0.464	1.111	62.8	465.4	0.595	1.626	-3.13	1.058	117.6	148.4	6.2	0.475
4-2740	4-3200	0.591	325.9	-8.5	-4.99	1.152	61.2	0.483	0.686	123.6	885.6	0.355	1.018	-3.13	0.751	102.5	95.1	16.1	0.318
4-2740	4-3210	0.371	8.1	-15.7	-4.30	1.374	76.4	0.419	1.117	47.7	459.9	0.649	1.585	-2.66	1.058	114.0	160.2	1.7	0.419
4-2740	4-3210	0.552	326.5	-8.0	-4.30	1.150	63.1	0.454	0.685	122.4	894.6	0.374	0.996	-2.66	0.745	94.5	85.8	16.1	0.271
4-2740	4-3220	0.299	20.3	-17.4	-3.77	1.376	80.5	0.392	1.123	343	456.5	0.683	1.563	-2.38	1.058	112.2	171.1	-2.8	0.386
4-2740	4-3220	0.745	320.5	-4.5	-3.77	1.124	52.7	0.610	0.658	134.2	916.4	0.256	1.059	-2.38	0.699	67.4	46.9	14.1	0.459
4-2740	4-3220	0.576	325.5	-6.6	-3.77	1.144	61.8	0.476	0.679	124.5	906.7	0.356	1.001	-2.38	0.732	84.0	67.5	15.9	0.294
4-2740	4-3230	0.249	34.9	-18.7	-3.34	1.378	83.9	0.377	1.130	22.3	454.4	0.704	1.556	-2.21	1.058	111.2	181.5	-7.1	0.368
4-2740	4-3240	0.219	52.3	-19.0	-2.96	1.380	87.0	0.371	1.137	11.2	453.2	0.715	1.560	-2.13	1.058	110.7	191.4	-11.3	0.360
4-2740	4-3250	0.207	71.2	-17.6	-2.60	1.382	89.7	0.373	1.145	0.9	452.7	0.719	1.572	-2.11	1.058	110.7	201.2	-15.1	0.360
4-2740	4-3260	0.213	89.2	-14.7	-2.24	1.384	92.4	0.379	1.154	351.3	812.8	0.716	1.591	-2.15	1.058	111.1	210.8	-18.7	0.368
4-2740	4-3270	0.234	104.5	-11.0	-1.85	1.387	95.0	0.391	1.163	342.2	813.4	0.709	1.617	-2.26	1.059	111.8	220.3	-21.8	0.381
4-2740	4-3280	0.720	335.8	-2.1	-1.41	1.298	56.8	0.575	0.910	105.4	586.2	0.387	1.433	-2.45	0.937	55.4	76.5	19.6	0.587
4-2740	4-3280	0.267	116.6	-7.3	-1.41	1.390	97.6	0.406	1.174	333.5	814.4	0.697	1.550	-2.45	1.061	112.7	229.9	-24.6	0.399
4-2740	4-3290	0.653	338.9	-1.5	-0.87	1.304	60.2	0.533	0.923	98.8	589.2	0.431	1.415	-2.77	0.943	58.2	84.9	19.3	0.541
4-2740	4-3290	0.308	126.1	-3.9	-0.87	1.393	100.2	0.426	1.185	325.3	815.7	0.680	1.689	-2.77	1.063	113.9	239.5	-27.0	0.423
4-2740	4-3300	0.591	342.2	-0.3	-0.15	1.309	63.3	0.494	0.935	92.0	592.0	0.472	1.397	-3.28	0.949	60.7	93.4	18.0	0.500
4-2740	4-3300	0.356	133.7	-0.6	-0.15	1.396	102.9	0.449	1.197	317.4	817.4	0.660	1.735	-3.28	1.066	115.3	249.1	-29.1	0.451

ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2730	4-3310	0.533	345.6	2.1	0.92	1.314	66.2	0.457	0.946	85.2	594.7	0.512	1.380	-4.16	0.955	63.0	101.8	15.3	0.464
4-2740	4-3310	0.410	140.0	3.0	0.92	1.399	105.6	0.475	1.211	309.8	819.4	0.635	1.786	-4.14	1.069	116.9	258.7	-31.2	0.485
4-2740	4-3320	0.482	349.0	7.3	2.85	1.318	68.9	0.428	0.956	78.2	597.3	0.547	1.365	-5.90	0.960	64.9	109.8	10.2	0.435
4-2740	4-3320	0.471	145.5	8.1	2.85	1.403	108.5	0.504	1.225	302.5	821.6	0.607	1.843	-5.90	1.073	118.8	268.1	-34.0	0.526
4-2740	4-3330	0.459	351.5	21.6	7.75	1.322	71.5	0.400	0.966	71.2	599.7	0.580	1.352	-10.62	0.965	66.6	117.3	-1.6	0.431
4-2740	4-3330	0.553	151.1	18.6	7.75	1.406	111.4	0.536	1.241	295.5	824.0	0.576	1.906	-10.62	1.078	120.9	277.1	-40.3	0.584
4-2750	4-2890	0.810	340.9	-2.8	-2.42	1.198	50.3	0.639	0.742	127.5	208.1	---	1.216	-2.80	0.801	55.4	65.8	18.3	0.579
4-2750	4-2900	0.754	346.1	-2.5	-1.95	1.219	53.5	0.597	0.770	121.3	211.7	---	1.230	-2.77	0.828	57.5	72.9	19.0	0.547
4-2750	4-2910	0.702	347.2	-2.2	-1.48	1.237	56.4	0.559	0.798	115.1	215.1	---	1.244	-2.81	0.852	59.3	80.3	19.2	0.518
4-2750	4-2920	0.652	350.2	-1.6	-0.98	1.253	59.1	0.525	0.823	106.8	218.5	---	1.255	-2.94	0.872	61.0	87.9	18.9	0.491
4-2750	4-2940	0.606	353.3	-0.8	-0.42	1.267	61.6	0.493	0.848	102.6	221.8	---	1.266	-3.17	0.890	62.5	95.6	18.0	0.466
4-2750	4-2940	0.561	356.3	0.5	0.26	1.279	64.0	0.465	0.870	96.3	225.1	---	1.275	-3.55	0.906	63.8	103.3	16.3	0.444
4-2750	4-2950	0.520	359.4	2.6	1.14	1.289	66.2	0.440	0.891	90.0	228.3	---	1.284	-4.16	0.920	65.1	110.9	13.8	0.425
4-2750	4-2960	0.483	2.5	6.1	2.43	1.299	68.3	0.418	0.911	83.6	231.5	---	1.292	-5.20	0.933	66.1	118.2	9.8	0.409
4-2750	4-2970	0.453	5.4	12.8	4.66	1.307	70.3	0.399	0.929	77.2	234.6	---	1.300	-7.18	0.944	67.1	125.1	3.3	0.400
4-2750	4-2980	0.457	6.8	27.9	9.84	1.314	72.2	0.382	0.946	70.9	237.6	---	1.307	-12.13	0.955	67.9	131.1	-9.4	0.417
4-2750	4-3000	0.650	354.9	-60.7	-26.13	1.326	76.2	0.350	0.976	56.9	243.6	---	1.318	24.30	0.974	69.6	187.7	48.0	0.523
4-2750	4-3010	0.396	17.7	-41.7	-15.68	1.331	77.8	0.341	0.989	50.5	246.4	---	1.326	10.09	0.985	70.1	173.0	31.5	0.369
4-2750	4-3020	0.323	25.7	-23.4	-9.77	1.336	79.5	0.332	1.001	43.7	249.2	---	1.333	6.43	0.997	70.6	175.8	21.6	0.338
4-2750	4-3030	0.279	33.1	-29.2	-5.90	1.340	81.3	0.324	1.012	36.7	251.8	---	1.340	4.80	0.999	71.1	181.5	14.8	0.323
4-2750	4-3040	0.245	41.4	-26.8	-4.75	1.344	83.0	0.319	1.022	29.4	254.3	---	1.348	3.92	1.006	71.4	188.3	9.4	0.315
4-2750	4-3050	0.218	51.4	-25.0	-3.93	1.347	84.8	0.316	1.031	22.0	256.6	---	1.357	3.39	1.013	71.7	195.7	4.8	0.310
4-2750	4-3060	0.196	63.6	-23.2	-3.29	1.350	86.6	0.314	1.040	14.2	258.7	---	1.367	3.06	1.020	71.8	203.6	0.6	0.308
4-2750	4-3070	0.182	78.2	-20.8	-2.74	1.353	88.6	0.315	1.048	6.0	260.4	---	1.379	2.87	1.027	71.8	211.8	-3.2	0.309
4-2750	4-3080	0.179	94.8	-17.2	-2.24	1.355	90.6	0.320	1.056	357.4	621.8	0.718	1.393	2.78	1.033	71.7	220.6	-6.6	0.314
4-2750	4-3090	0.199	111.7	-12.7	-1.76	1.358	92.9	0.327	1.063	348.2	622.6	0.715	1.410	2.77	1.038	71.3	229.9	-9.6	0.324
4-2750	4-3090	0.583	194.2	-3.1	-1.76	1.183	118.5	0.477	0.722	242.0	876.4	0.378	1.067	2.77	0.796	108.8	359.3	5.8	0.374
4-2750	4-3100	0.215	127.3	-7.9	-1.26	1.360	95.5	0.340	1.069	338.3	622.7	0.705	1.433	2.85	1.043	70.6	239.8	-12.1	0.340
4-2750	4-3100	0.510	193.8	-2.6	-1.26	1.170	115.0	0.422	0.707	243.0	887.4	0.408	1.006	2.85	0.780	98.9	351.4	4.9	0.278
4-2750	4-3110	0.259	140.8	-3.7	-0.71	1.362	98.5	0.360	1.075	327.4	621.8	0.688	1.463	3.04	1.048	69.4	250.4	-13.9	0.364
4-2750	4-3110	0.490	194.0	-1.5	-0.71	1.165	114.0	0.408	0.701	242.8	897.3	0.415	0.987	3.04	0.775	91.9	341.3	2.5	0.246
4-2750	4-3120	0.323	152.3	-0.2	-0.06	1.364	102.1	0.390	1.082	315.2	619.8	0.600	1.503	3.36	1.052	67.6	261.8	-15.0	0.400
4-2750	4-3120	0.499	194.4	-0.1	-0.06	1.163	114.6	0.416	0.699	241.9	906.5	0.408	0.990	3.36	0.774	85.4	331.2	-0.9	0.255
4-2750	4-3130	0.415	162.6	2.4	0.78	1.366	106.9	0.435	1.088	301.4	616.2	0.614	1.561	3.90	1.055	64.7	274.0	-15.2	0.455
4-2750	4-3130	0.540	195.5	1.5	0.78	1.162	116.6	0.448	0.698	240.1	914.8	0.385	1.011	3.90	0.774	78.6	324.7	-3.7	0.303
4-2750	4-3140	0.549	172.4	4.5	1.97	1.367	113.4	0.506	1.094	285.1	610.9	0.540	1.648	4.82	1.058	60.1	287.3	-14.3	0.542
4-2750	4-3140	0.621	197.1	3.2	1.97	1.163	120.6	0.510	0.698	236.6	921.5	0.342	1.055	4.82	0.776	70.4	323.3	-5.0	0.392
4-2750	4-3150	0.770	200.4	4.7	3.99	1.164	128.1	0.618	0.700	230.0	925.0	0.268	1.133	6.57	0.778	59.3	326.9	-4.6	0.557
4-2750	4-3150	0.940	216.5	2.7	3.99	0.979	140.3	0.795	0.548	205.2	1260.2	0.112	0.983	6.57	0.457	89.1	11.9	10.9	0.566
4-2750	4-3200	0.775	338.4	-9.0	-7.64	1.157	52.0	0.616	0.692	130.8	876.9	0.266	1.118	-6.31	0.758	119.2	112.5	13.5	0.506
4-2750	4-3210	0.560	7.6	-13.1	-5.78	1.374	66.8	0.512	1.117	73.3	469.4	0.545	1.689	-4.70	1.058	120.2	155.1	1.7	0.531
4-2750	4-3210	0.640	341.6	-9.0	-5.78	1.158	58.8	0.519	0.693	124.6	880.7	0.334	1.053	-4.70	0.757	108.6	114.8	12.3	0.375
4-2750	4-3220	0.433	17.7	-14.2	-4.68	1.376	73.1	0.451	1.124	56.9	462.9	0.617	1.630	-3.85	1.058	116.0	167.3	-3.3	0.456
4-2750	4-3220	0.567	343.2	-8.4	-4.64	1.158	62.4	0.465	0.693	121.6	887.5	0.371	1.016	-3.85	0.753	100.4	111.2	12.2	0.295
4-2750	4-3230	0.343	28.8	-15.3	-3.84	1.378	77.0	0.413	1.130	42.6	458.5	0.663	1.597	-3.34	1.058	113.5	178.6	-8.0	0.411
4-2750	4-3230	0.885	333.0	-3.4	-3.84	1.113	45.0	0.712	0.647	141.3	917.2	0.186	1.108	-3.34	0.678	56.7	53.5	15.9	0.586
4-2750	4-3230	0.539	343.6	-7.4	-3.84	1.157	63.6	0.445	0.691	120.9	896.7	0.384	0.999	-3.34	0.747	92.6	100.7	13.5	0.261

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2760	4-3060	0.239	59.5	-22.8	-3.98	1.206	83.1	0.327	1.035	28.6	256.9	---	1.373	4.30	1.018	71.0	205.8	3.1	0.325
4-2760	4-3070	0.212	69.9	-20.2	-3.11	1.351	84.9	0.323	1.044	21.0	259.1	---	1.382	3.77	1.025	71.3	213.4	-1.2	0.320
4-2760	4-3080	0.191	82.7	-17.3	-2.41	1.354	86.8	0.322	1.053	13.0	261.1	---	1.392	3.45	1.031	71.5	221.6	-4.9	0.319
4-2760	4-3090	0.179	98.0	-13.7	-1.79	1.357	88.9	0.323	1.061	4.6	262.7	---	1.403	3.28	1.037	71.5	230.4	-8.0	0.321
4-2760	4-3100	0.180	115.1	-9.3	-1.22	1.359	91.1	0.328	1.068	355.6	623.8	0.716	1.418	3.21	1.043	71.3	239.7	-10.6	0.327
4-2760	4-3100	0.652	210.4	-1.9	-1.22	1.200	121.6	0.525	0.745	241.7	869.9	0.354	1.136	3.21	0.825	115.8	15.8	12.3	0.460
4-2760	4-3100	0.737	211.6	-1.6	-1.22	1.214	125.6	0.585	0.764	239.1	867.2	0.317	1.210	3.21	0.845	121.9	19.2	12.7	0.547
4-2760	4-3110	0.196	132.1	-4.5	-0.65	1.361	93.5	0.337	1.075	346.0	624.3	0.713	1.437	3.24	1.047	70.9	249.5	-12.5	0.339
4-2760	4-3110	0.512	209.1	-1.4	-0.65	1.178	114.9	0.421	0.716	244.7	882.9	0.414	1.018	3.24	0.795	101.7	6.9	12.3	0.295
4-2760	4-3120	0.229	147.5	-0.3	-0.05	1.363	96.3	0.351	1.082	335.5	623.9	0.702	1.462	3.38	1.052	70.1	259.9	-13.7	0.357
4-2760	4-3120	0.479	209.1	-0.1	-0.05	1.171	112.3	0.396	0.709	244.8	893.2	0.428	0.990	3.38	0.787	94.5	357.5	10.7	0.246
4-2760	4-3130	0.282	160.7	3.0	0.63	1.365	99.6	0.374	1.088	324.0	622.5	0.681	1.495	3.65	1.055	68.7	271.0	-14.1	0.385
4-2760	4-3130	0.478	209.6	1.4	0.63	1.168	113.3	0.396	0.705	244.2	902.7	0.426	0.985	3.65	0.784	88.2	347.0	7.4	0.240
4-2760	4-3140	0.358	172.3	5.4	1.45	1.367	103.7	0.409	1.094	311.0	619.7	0.647	1.542	4.11	1.058	66.5	282.7	-13.5	0.428
4-2760	4-3140	0.504	210.2	3.1	1.45	1.167	114.6	0.417	0.704	242.8	911.5	0.410	0.997	4.11	0.783	82.0	339.0	3.9	0.271
4-2760	4-3150	0.466	182.4	7.1	2.56	1.369	109.1	0.463	1.100	296.0	614.9	0.591	1.610	4.87	1.061	63.1	295.1	-11.9	0.494
4-2760	4-3150	0.564	211.5	4.7	2.56	1.167	117.5	0.462	0.704	240.2	919.1	0.378	1.030	4.87	0.785	75.0	335.8	1.7	0.339
4-2760	4-3160	0.626	192.6	8.3	4.23	1.371	116.7	0.548	1.107	278.2	607.2	0.500	1.713	6.23	1.063	57.3	308.6	-9.1	0.600
4-2760	4-3160	0.673	213.9	6.2	4.23	1.168	122.9	0.543	0.705	235.4	924.4	0.322	1.088	6.23	0.784	66.0	337.4	1.2	0.450
4-2760	4-3160	0.933	231.5	2.9	4.23	0.995	139.6	0.784	0.557	206.6	1255.6	0.120	0.994	6.23	0.489	105.5	35.1	19.5	0.565
4-2760	4-3170	0.968	232.9	4.6	7.31	0.982	141.6	0.807	0.550	204.7	1263.8	0.106	0.994	9.01	0.462	74.6	19.4	15.5	0.594
4-2760	4-3220	0.716	356.4	-9.0	-6.72	1.163	55.0	0.575	0.699	127.3	877.1	0.298	1.101	-6.46	0.761	115.4	130.5	8.1	0.453
4-2760	4-3230	0.510	27.6	-12.7	-4.99	1.378	69.2	0.492	1.130	67.1	466.8	0.574	1.686	-5.02	1.058	118.8	174.2	-7.6	0.505
4-2760	4-3230	0.605	359.1	-8.4	-4.99	1.164	60.4	0.494	0.700	122.2	881.9	0.354	1.046	-5.02	0.759	106.2	131.4	6.9	0.343
4-2760	4-3240	0.398	38.0	-13.0	-3.86	1.380	74.8	0.441	1.137	51.7	461.2	0.635	1.638	-4.22	1.058	115.3	186.1	-12.6	0.444
4-2760	4-3240	0.546	0.4	-7.4	-3.86	1.164	63.3	0.450	0.700	119.7	889.2	0.385	1.015	-4.22	0.755	98.6	126.8	7.4	0.277
4-2760	4-3250	0.318	49.7	-13.0	-3.02	1.381	79.2	0.410	1.143	38.1	457.4	0.674	1.612	-3.73	1.057	113.3	197.4	-17.0	0.407
4-2760	4-3250	0.842	350.8	-3.0	-3.02	1.124	47.3	0.682	0.658	138.4	917.8	0.209	1.106	-3.73	0.687	59.3	73.4	18.5	0.549
4-2760	4-3250	0.528	0.6	-6.0	-3.02	1.162	64.0	0.439	0.698	119.4	898.8	0.392	1.004	-3.73	0.748	91.0	115.5	10.2	0.254
4-2760	4-3260	0.261	63.6	-12.5	-2.35	1.383	82.8	0.393	1.150	25.9	454.9	0.698	1.602	-3.43	1.057	112.1	208.4	-21.0	0.386
4-2760	4-3270	0.224	80.2	-10.9	-1.76	1.385	85.9	0.385	1.157	14.7	453.4	0.712	1.603	-3.27	1.057	111.5	219.3	-24.4	0.377
4-2760	4-3280	0.207	98.7	-8.1	-1.21	1.387	88.8	0.384	1.165	4.2	452.6	0.718	1.612	-3.21	1.058	111.3	230.1	-27.1	0.376
4-2760	4-3290	0.210	117.0	-4.4	-0.67	1.390	91.5	0.389	1.174	354.5	812.4	0.718	1.630	-3.24	1.059	111.5	240.9	-29.3	0.383
4-2760	4-3300	0.230	133.0	-0.6	-0.10	1.392	94.2	0.398	1.183	345.2	812.8	0.712	1.654	-3.36	1.061	112.1	251.6	-30.8	0.395
4-2760	4-3310	0.262	145.9	2.8	0.52	1.395	96.8	0.412	1.193	336.4	813.5	0.701	1.685	-3.60	1.063	112.9	262.2	-31.8	0.413
4-2760	4-3320	0.691	10.0	2.0	1.27	1.307	58.2	0.561	0.930	101.7	588.3	0.408	1.452	-3.99	0.945	56.2	115.5	15.8	0.567
4-2760	4-3320	0.305	156.1	5.7	1.27	1.397	99.5	0.430	1.204	328.0	814.6	0.686	1.723	-3.99	1.066	114.0	272.6	-32.4	0.436
4-2760	4-3330	0.629	13.1	4.1	2.22	1.312	61.3	0.523	0.942	95.2	591.3	0.450	1.434	-4.63	0.952	58.8	123.2	12.6	0.526
4-2760	4-3330	0.354	164.3	8.6	2.22	1.400	102.2	0.452	1.216	320.0	816.1	0.666	1.767	-4.63	1.070	115.3	282.8	-32.6	0.464
4-2760	4-3340	0.574	16.1	7.4	3.58	1.317	64.3	0.487	0.953	88.6	594.2	0.489	1.417	-5.68	0.958	61.1	130.6	8.2	0.491
4-2760	4-3340	0.411	171.1	11.9	3.58	1.404	105.0	0.477	1.230	312.3	817.9	0.643	1.817	-5.68	1.074	116.8	292.8	-32.9	0.498
4-2760	4-3350	0.528	19.1	13.5	5.81	1.321	67.1	0.455	0.964	81.9	597.0	0.525	1.402	-7.63	0.965	63.1	137.4	1.5	0.465
4-2760	4-3350	0.477	177.1	16.5	5.81	1.407	107.8	0.505	1.264	304.9	820.0	0.636	1.872	-7.63	1.079	118.6	302.7	-33.9	0.539
4-2760	4-3360	0.514	20.8	26.3	10.55	1.325	69.6	0.426	0.973	75.2	599.7	0.559	1.388	-12.09	0.972	64.9	143.2	-10.3	0.461
4-2760	4-3360	0.568	183.4	25.1	10.55	1.410	110.7	0.535	1.259	297.8	822.4	0.585	1.933	-12.09	1.085	120.6	312.6	-37.6	0.598
4-2770	4-2940	0.765	18.0	0.3	0.20	1.242	53.1	0.607	0.808	118.6	214.9	---	1.297	-3.41	0.855	55.4	110.5	17.8	0.569
4-2770	4-2950	0.713	20.9	1.2	0.79	1.257	56.0	0.571	0.833	112.5	218.4	---	1.309	-3.52	0.876	57.3	117.8	16.1	0.540
4-2770	4-2960	0.665	23.8	2.3	1.43	1.271	58.6	0.538	0.858	106.5	221.9	---	1.320	-3.75	0.895	59.0	125.0	13.8	0.513
4-2770	4-2970	0.619	26.7	4.0	2.19	1.283	61.2	0.509	0.881	100.4	225.3	---	1.329	-4.13	0.912	60.6	132.1	10.9	0.488
4-2770	4-2980	0.577	29.6	6.3	3.15	1.293	63.5	0.482	0.902	94.3	228.7	---	1.337	-4.75	0.928	62.1	138.9	7.1	0.466
4-2770	4-2990	0.539	32.5	9.9	4.49	1.303	65.8	0.457	0.923	88.1	232.1	---	1.344	-5.76	0.942	63.4	145.5	2.3	0.448
4-2770	4-3000	0.509	35.1	16.0	6.63	1.311	67.9	0.435	0.941	81.9	235.4	---	1.351	-7.60	0.954	64.5	151.6	-4.5	0.437
4-2770	4-3010	0.507	36.5	27.6	10.94	1.318	69.9	0.416	0.959	75.7	238.7	---	1.358	-11.61	0.966	65.6	156.7	-15.6	0.444
4-2770	4-3020	0.676	26.2	52.4	25.19	1.325	71.8	0.400	0.975	69.7	241.8	---	1.365	-25.58	0.977	66.5	161.4	-39.3	0.569
4-2770	4-3040	0.474	44.1	-46.3	-15.32	1.336	75.9	0.367	1.003	55.5	248.3	---	1.371	15.51	0.997	68.5	205.1	26.7	0.441
4-2770	4-3050	0.359	54.2	-32.5	-8.45	1.340	77.7	0.356	1.016	48.9	251.3	---	1.378	8.94	1.006	69.2	204.4	14.4	0.378
4-2770	4-3060	0.303	61.4	-25.2	-5.59	1.345	79.5	0.346	1.028	42.0	254.1	---	1.384	6.38	1.015	69.8	209.2	6.6	0.354
4-2770	4-3070	0.263	69.0	-20.4	-3.95	1.348	81.4	0.339	1.038	34.8	256.8	---	1.390	5.07	1.022	70.3	215.7	1.0	0.342
4-2770	4-3080	0.231	77.9	-16.7	-2.84	1.352	83.3	0.333	1.048	27.4	259.3	---	1.397	4.31	1.029	70.8	223.2	-3.3	0.334
4-2770	4-3090	0.205	88.9	-13.2	-1.99	1.355	85.2	0.329	1.057	19.6	261.5	---	1.406	3.84	1.036	71.1	231.4	-6.9	0.350
4-2770	4-3100	0.188	102.5	-9.4	-1.28	1.357	87.2	0.328	1.066	11.4	263.3	---	1.416	3.57	1.042	71.3	240.2	-9.7	0.329
4-2770	4-3110	0.178	118.6	-5.0	-0.65	1.360	89.3	0.330	1.074	2.7	264.7	---	1.428	3.42	1.047	71.3	249.5	-11.7	0.332
4-2770	4-3120	0.184	136.1	-0.4	-0.05	1.362	91.7	0.336	1.081	353.3	625.5	0.718	1.444	3.39	1.051	71.0	259.3	-13.1	0.340
4-2770	4-3120	0.523	224.5	-0.1	-0.05	1.186	115.3	0.427	0.727	246.0	878.2	0.416	1.038	3.39	0.809	104.8	22.8	18.5	0.320
4-2770	4-3130	0.208	153.1	3.7	0.56	1.364	94.3	0.346	1.088	343.2	625.5	0.711	1.464	3.47	1.055	70.5	269.5	-13.6	0.354
4-2770	4-3130	0.474	224.3	1.3	0.56	1.177	112.9	0.390	0.717	246.6	888.9	0.437	0.996	3.47	0.798	96.9	14.0	17.9	0.252
4-2770	4-3140	0.250	168.2	6.7	1.23	1.366	97.3	0.363	1.094	332.2	624.7	0.697	1.492	3.67	1.058	69.5	280.3	-13.4	0.375
4-2770	4-3140	0.463	224.5	2.9	1.23	1.173	112.4	0.381	0.712	246.2	898.7	0.441	0.984	3.67	0.793	90.8	3.3	15.3	0.231
4-2770	4-3150	0.312	181.1	8.6	2.00	1.368	100.9	0.390	1.101	319.9	622.5	0.672	1.530	4.03	1.061	67.9	291.5	-12.1	0.409
4-2770	4-3150	0.478	225.1	4.5	2.00	1.172	113.1	0.393	0.710	245.2	907.8	0.431	0.989	4.03	0.791	85.0	354.0	11.5	0.247
4-2770	4-3160	0.402	192.2	9.8	2.97	1.370	105.6	0.431	1.107	306.0	618.8	0.630	1.584	4.62	1.063	65.2	303.2	-10.0	0.459
4-2770	4-3160	0.521	226.1	6.1	2.97	1.171	115.2	0.426	0.710	243.2	916.0	0.408	1.012	4.62	0.790	78.8	349.0	8.5	0.297
4-2770	4-3170	0.529	202.5	10.5	4.32	1.372	111.8	0.496	1.113	289.8	612.7	0.562	1.665	5.63	1.064	61.0	315.6	-6.7	0.539
4-2770	4-3170	0.602	228.0	7.4	4.32	1.172	119.1	0.486	0.711	239.7	922.6	0.365	1.056	5.63	0.790	71.3	348.8	7.2	0.383
4-2770	4-3180	0.742	231.3	8.3	6.51	1.174	126.0	0.588	0.712	233.2	926.3	0.294	1.131	7.49	0.790	61.2	352.8	7.8	0.518
4-2770	4-3180	0.915	247.5	4.7	6.51	0.993	138.2	0.771	0.557	207.2	1260.2	0.128	0.986	7.49	0.482	89.3	40.4	22.7	0.540
4-2770	4-3230	0.826	10.2	-8.5	-7.98	1.167	49.3	0.653	0.705	132.1	875.7	0.245	1.165	-8.50	0.765	123.6	143.3	4.3	0.559
4-2770	4-3240	0.609	37.5	-10.9	-5.34	1.379	64.2	0.540	1.137	78.5	471.8	0.516	1.757	-6.17	1.058	122.5	180.0	-10.9	0.570
4-2770	4-3240	0.667	14.3	-7.9	-5.34	1.169	57.2	0.541	0.707	124.3	877.7	0.324	1.090	-6.17	0.764	112.4	147.7	1.7	0.411
4-2770	4-3250	0.466	47.6	-10.7	-3.80	1.381	71.1	0.477	1.143	61.5	464.6	0.598	1.689	-4.96	1.057	117.7	195.5	-16.2	0.486

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	PHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2770	4-3250	0.575	16.6	-6.8	-3.80	1.170	61.8	0.473	0.708	120.0	883.1	0.373	1.043	-4.96	0.761	104.1	147.5	C.8	0.318
4-2770	4-3260	0.367	58.4	-10.1	-2.75	1.383	76.3	0.434	1.150	46.9	459.7	0.650	1.650	-4.25	1.057	114.8	205.6	-20.7	0.436
4-2770	4-3260	0.526	37.7	-5.5	-2.75	1.169	64.1	0.437	0.707	117.9	890.7	0.398	1.017	-4.25	0.757	97.1	142.1	2.0	0.262
4-2770	4-3270	0.295	70.8	-9.0	-1.94	1.384	80.4	0.409	1.157	33.8	456.4	0.604	1.629	-3.82	1.057	113.1	217.4	-24.5	0.406
4-2770	4-3270	0.802	8.5	-2.1	-1.94	1.133	49.4	0.654	0.668	135.7	918.2	0.231	1.105	-3.82	0.697	61.6	93.7	18.8	0.514
4-2770	4-3270	0.518	17.6	-4.0	-1.94	1.167	64.4	0.432	0.705	118.1	900.6	0.400	1.009	-3.82	0.750	89.6	130.4	6.2	0.268
4-2770	4-3280	0.245	85.7	-7.2	-1.27	1.386	83.8	0.395	1.164	22.0	454.2	0.704	1.623	-3.56	1.058	112.1	227.0	-27.4	0.390
4-2770	4-3290	0.216	103.2	-4.3	-0.67	1.388	86.9	0.389	1.171	11.1	452.8	0.715	1.627	-3.43	1.058	111.6	240.6	-29.7	0.384
4-2770	4-3300	0.208	121.9	-0.7	-0.10	1.390	89.8	0.390	1.179	0.8	452.2	0.719	1.640	-3.39	1.060	111.6	251.9	-31.1	0.387
4-2770	4-3310	0.210	139.5	3.0	0.47	1.393	92.5	0.397	1.188	351.2	812.1	0.717	1.660	-3.45	1.062	111.9	263.1	-31.9	0.396
4-2770	4-3320	0.245	154.4	6.2	1.08	1.395	95.2	0.[illegible]	1.198	342.1	812.5	0.709	1.687	-3.62	1.064	112.5	274.0	-32.1	0.470
4-2770	4-3330	0.283	166.3	8.7	1.78	1.398	97.8	[illegible]4	1.209	333.4	813.3	0.697	1.720	-3.91	1.068	113.4	284.5	-31.7	0.430
4-2770	4-3340	0.680	26.9	4.3	2.61	1.310	58.8	0.556	0.940	100.1	589.5	0.417	1.462	-4.39	0.950	56.5	133.9	10.9	0.559
4-2770	4-3340	0.330	175.7	11.0	2.61	1.401	100.5	0.443	1.220	329.2	814.6	0.680	1.760	-4.39	1.071	114.6	294.7	-31.3	0.455
4-2770	4-3350	0.621	29.9	7.0	3.72	1.315	61.9	0.518	0.951	93.6	592.6	0.458	1.444	-5.14	0.958	59.0	141.0	6.7	0.521
4-2770	4-3350	0.383	183.3	13.4	3.72	1.403	103.3	0.466	1.233	317.2	816.1	0.650	1.807	-5.16	1.076	116.0	304.5	-30.3	0.486
4-2770	4-3360	0.570	32.9	11.3	5.36	1.320	64.7	0.464	0.962	87.1	595.9	0.496	1.428	-6.49	0.965	61.2	147.7	1.0	0.489
4-2770	4-3360	0.445	189.8	16.5	5.36	1.407	106.1	0.492	1.246	309.6	818.0	0.633	1.859	-6.49	1.081	117.6	314.1	-29.8	0.522
4-2770	4-3370	0.534	35.4	19.1	8.23	1.324	67.4	0.453	0.972	80.5	598.4	0.532	1.412	-9.06	0.973	63.2	153.7	-7.4	0.468
4-2770	4-3370	0.519	195.8	21.6	8.23	1.410	109.0	0.521	1.261	302.3	820.2	0.605	1.917	-9.06	1.087	119.4	323.7	-30.5	0.567
4-2780	4-2960	0.769	34.8	1.7	1.31	1.252	53.0	0.610	0.826	117.3	216.5	---	1.330	-3.35	0.870	54.5	128.8	14.4	0.578
4-2780	4-2970	0.718	37.7	2.8	1.90	1.266	55.8	0.576	0.851	111.4	220.1	---	1.341	-3.49	0.890	56.5	135.8	11.9	0.549
4-2780	4-2980	0.670	40.6	4.2	2.55	1.278	58.5	0.544	0.875	105.4	223.6	---	1.351	-3.75	0.908	58.3	142.4	8.5	0.522
4-2780	4-2990	0.625	43.4	6.0	3.34	1.290	61.0	0.514	0.897	99.4	227.1	---	1.359	-4.18	0.925	59.9	149.4	5.3	0.497
4-2780	4-3000	0.583	46.2	8.7	4.37	1.300	63.4	0.488	0.918	93.3	230.6	---	1.366	-4.88	0.940	61.4	156.0	0.9	0.476
4-2780	4-3010	0.547	49.0	12.8	5.85	1.308	65.6	0.464	0.938	87.2	233.1	---	1.373	-6.06	0.954	62.7	162.2	-4.6	0.458
4-2780	4-3020	0.523	51.3	19.9	8.39	1.316	67.8	0.442	0.956	81.0	237.4	---	1.379	-8.30	0.967	64.0	167.9	-12.4	0.449
4-2780	4-3030	0.543	51.4	34.6	14.14	1.323	69.8	0.423	0.974	74.8	240.8	---	1.385	-13.76	0.979	65.1	172.3	-26.0	0.469
4-2780	4-3060	0.412	65.1	-36.1	-10.77	1.340	76.0	0.373	1.017	54.6	250.7	---	1.397	12.01	1.010	68.1	216.4	15.1	0.418
4-2780	4-3070	0.335	72.8	-24.5	-6.07	1.344	77.8	0.362	1.030	47.8	253.7	---	1.402	7.60	1.018	68.9	219.4	5.0	0.378
4-2780	4-3080	0.289	79.7	-17.8	-3.82	1.348	79.7	0.352	1.041	40.8	256.6	---	1.408	5.66	1.026	69.5	225.5	-1.3	0.360
4-2780	4-3090	0.253	87.4	-13.1	-2.45	1.352	81.6	0.344	1.052	33.5	259.2	---	1.414	4.62	1.033	70.1	233.0	-5.7	0.349
4-2780	4-3100	0.223	96.8	-8.9	-1.48	1.355	83.5	0.339	1.061	25.8	261.6	---	1.421	4.00	1.040	70.6	241.2	-9.1	0.342
4-2780	4-3110	0.200	108.6	-4.8	-0.71	1.358	85.6	0.335	1.070	17.8	263.6	---	1.429	3.62	1.045	70.9	250.1	-11.5	0.339
4-2780	4-3120	0.185	123.0	-0.4	-0.05	1.360	87.7	0.335	1.079	9.3	265.3	---	1.439	3.41	1.050	71.1	259.4	-13.0	0.339
4-2780	4-3130	0.182	139.9	4.1	0.55	1.363	89.9	0.337	1.086	0.2	266.3	---	1.453	3.31	1.055	71.0	269.2	-13.8	0.344
4-2780	4-3130	0.549	240.2	1.1	0.55	1.195	116.4	0.486	0.741	246.8	872.9	0.411	1.071	3.31	0.826	108.6	39.7	23.1	0.359
4-2780	4-3140	0.195	157.8	8.0	1.14	1.365	92.4	0.344	1.094	350.5	626.8	0.718	1.470	3.32	1.058	70.7	279.3	-13.7	0.353
4-2780	4-3140	0.474	239.6	2.6	1.14	1.183	112.8	0.388	0.725	246.1	884.4	0.444	1.006	3.32	0.809	99.4	31.6	23.6	0.262
4-2780	4-3150	0.226	174.6	10.6	1.75	1.367	95.3	0.356	1.100	339.9	626.3	0.709	1.492	3.45	1.061	70.0	289.7	-12.8	0.369
4-2780	4-3150	0.453	239.7	4.2	1.75	1.178	111.8	0.371	0.719	248.1	894.5	0.453	0.966	3.45	0.802	93.2	20.8	22.0	0.227
4-2780	4-3160	0.277	189.2	12.0	2.44	1.369	98.5	0.376	1.107	328.2	624.8	0.691	1.523	3.70	1.063	66.8	300.5	-11.0	0.395
4-2780	4-3160	0.458	240.1	5.8	2.44	1.176	112.0	0.375	0.717	247.3	904.0	0.448	0.985	3.70	0.799	87.6	10.2	18.5	0.229
4-2780	4-3170	0.350	201.6	12.5	3.25	1.371	102.6	0.408	1.113	315.1	621.9	0.659	1.567	4.13	1.064	66.8	311.6	-8.3	0.434
4-2780	4-3170	0.488	240.9	7.2	3.25	1.175	113.4	0.397	0.716	245.8	912.6	0.431	1.000	4.15	0.796	81.9	3.3	15.0	0.264
4-2780	4-3180	0.454	212.4	12.5	4.31	1.373	107.8	0.457	1.120	300.2	617.1	0.608	1.632	4.84	1.069	63.6	323.2	-4.7	0.494
4-2780	4-3180	0.548	242.4	8.3	4.31	1.175	116.3	0.443	0.716	243.1	920.0	0.399	1.033	4.84	0.795	75.5	1.2	12.9	0.330
4-2780	4-3190	0.603	222.8	12.2	5.87	1.375	115.0	0.534	1.126	282.7	609.7	0.525	1.728	6.07	1.066	58.5	335.7	-0.0	0.589
4-2780	4-3190	0.652	244.8	9.1	5.87	1.170	121.3	0.520	0.718	238.4	925.3	0.345	1.091	6.07	0.794	67.2	3.5	12.7	0.434
4-2780	4-3190	0.909	262.6	4.4	5.87	1.006	137.8	0.762	0.566	208.4	1255.4	0.135	0.998	6.07	0.509	104.3	66.4	27.3	0.537
4-2780	4-3200	0.829	249.2	9.3	8.58	1.178	130.1	0.644	0.720	229.9	926.9	0.256	1.184	8.47	0.795	55.6	9.9	14.4	0.594
4-2780	4-3200	0.940	263.9	5.9	8.58	0.995	139.5	0.783	0.560	206.8	1263.7	0.122	0.998	8.47	0.483	76.9	49.7	25.6	0.565
4-2780	4-3250	0.759	28.6	-7.0	-5.74	1.372	52.4	0.610	0.713	128.3	875.3	0.278	1.147	-7.30	0.767	119.7	161.3	-2.6	0.502
4-2780	4-3260	0.554	57.4	-8.4	-3.67	1.381	66.7	0.524	1.150	72.4	469.1	0.547	1.753	-5.04	1.057	120.9	200.9	-18.8	0.542
4-2780	4-3260	0.626	32.0	-5.9	-3.67	1.174	59.1	0.514	0.711	121.7	878.3	0.347	1.082	-5.54	0.766	110.0	164.6	-5.0	0.377
4-2780	4-3270	0.428	67.7	-7.4	-2.38	1.383	72.9	0.466	1.157	56.3	462.7	0.618	1.695	-4.57	1.057	116.8	214.0	-23.3	0.472
4-2780	4-3270	0.548	34.0	-4.5	-2.38	1.175	62.9	0.455	0.715	117.8	884.2	0.389	1.041	-4.57	0.764	102.5	163.7	-5.6	0.296
4-2780	4-3280	0.339	79.0	-5.8	-1.46	1.385	77.6	0.429	1.163	42.3	458.3	0.664	1.662	-3.99	1.057	114.4	226.7	-26.8	0.430
4-2780	4-3280	0.508	34.9	-3.1	-1.46	1.174	64.9	0.425	0.715	116.1	892.0	0.411	1.019	-3.99	0.761	95.8	157.8	-3.9	0.248
4-2780	4-3290	0.276	92.2	-3.6	-0.73	1.387	81.5	0.408	1.170	29.7	455.3	0.693	1.648	-3.63	1.058	112.9	239.1	-29.3	0.406
4-2780	4-3290	0.766	26.1	-0.8	-0.73	1.141	51.3	0.628	0.678	133.2	918.7	0.252	1.104	-3.63	0.706	83.6	113.7	16.8	0.483
4-2780	4-3290	0.506	34.7	-1.5	-0.73	1.171	64.9	0.425	0.711	116.6	902.2	0.409	1.014	-3.63	0.754	88.4	145.8	1.6	0.242
4-2780	4-3300	0.234	108.2	-0.6	-0.10	1.389	84.9	0.397	1.178	18.1	453.3	0.710	1.645	-3.42	1.059	112.1	251.3	-30.0	0.395
4-2780	4-3310	0.214	126.4	3.0	0.47	1.391	87.9	0.394	1.185	7.4	452.1	0.718	1.653	-3.32	1.061	111.8	263.2	-31.7	0.392
4-2780	4-3320	0.214	145.0	6.6	1.02	1.393	90.8	0.397	1.194	357.3	811.5	0.720	1.668	-3.31	1.063	111.9	274.6	-31.6	0.397
4-2780	4-3330	0.233	161.8	9.5	1.58	1.395	93.5	0.405	1.203	347.9	811.6	0.711	1.691	-3.40	1.066	112.3	285.6	-31.0	0.409
4-2780	4-3340	0.265	175.6	11.6	2.20	1.398	96.2	0.418	1.213	338.9	812.1	0.706	1.720	-3.60	1.069	113.0	296.1	-29.8	0.425
4-2780	4-3350	0.731	40.9	4.3	2.91	1.308	56.2	0.589	0.927	104.8	587.5	0.385	1.489	-3.93	0.950	55.2	144.5	8.8	0.593
4-2780	4-3350	0.308	186.5	13.2	2.91	1.400	98.9	0.435	1.224	330.3	813.0	0.691	1.757	-3.93	1.073	114.0	306.0	-28.2	0.447
4-2780	4-3360	0.670	43.8	6.4	3.79	1.313	59.4	0.550	0.949	98.5	590.8	0.427	1.471	-4.47	0.958	56.8	151.5	4.0	0.552
4-2780	4-3360	0.358	195.2	14.7	3.79	1.403	101.6	0.456	1.236	322.1	814.4	0.673	1.799	-4.47	1.078	115.2	315.6	-26.5	0.474
4-2780	4-3370	0.614	46.8	9.5	4.99	1.318	62.4	0.514	0.960	92.1	594.5	0.467	1.454	-5.35	0.966	59.2	158.2	-0.2	0.516
4-2780	4-3370	0.415	202.3	16.6	4.99	1.406	104.4	0.480	1.249	314.2	816.1	0.650	1.848	-5.35	1.083	116.7	324.8	-24.9	0.506
4-2780	4-3380	0.567	49.5	14.6	6.86	1.322	65.2	0.481	0.971	85.6	597.0	0.504	1.437	-6.92	0.974	61.4	164.5	-6.7	0.486
4-2780	4-3380	0.480	208.5	19.5	6.86	1.409	107.3	0.507	1.263	306.7	818.1	0.623	1.903	-6.92	1.089	118.4	333.9	-23.9	0.544
4-2790	4-2980	0.773	51.6	3.0	2.30	1.260	53.0	0.613	0.844	116.1	218.2	---	1.361	-3.03	0.885	53.8	146.5	9.6	0.586
4-2790	4-2990	0.722	54.4	4.1	2.84	1.273	55.8	0.579	0.868	110.2	221.8	---	1.372	-3.38	0.905	55.8	153.2	6.5	0.557
4-2790	4-3000	0.674	57.3	5.6	3.46	1.285	58.5	0.548	0.892	104.2	225.4	---	1.380	-3.46	0.923	57.6	159.9	3.0	0.530
4-2790	4-3010	0.629	60.1	7.6	4.22	1.296	61.0	0.519	0.914	98.2	229.0	---	1.388	-3.91	0.939	59.3	166.4	-1.0	0.505
4-2790	4-3020	0.588	62.9	10.5	5.25	1.305	63.4	0.493	0.934	92.2	232.6	---	1.395	-4.65	0.954	60.8	172.9	-5.7	0.484

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SP ZD	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2790	4-3030	0.553	65.5	14.9	6.81	1.313	65.6	0.468	0.954	86.1	236.1	---	1.400	-5.94	0.968	62.2	179.1	-11.6	0.467
4-2790	4-3040	0.534	67.7	22.7	9.71	1.321	67.8	0.447	0.972	79.9	239.6	---	1.406	-8.57	0.981	63.5	184.7	-20.1	0.459
4-2790	4-3050	0.586	65.7	39.9	17.57	1.327	69.9	0.428	0.988	73.7	242.0	---	1.411	-16.17	0.992	64.7	188.8	-36.9	0.497
4-2790	4-3070	0.500	74.4	-43.5	-15.49	1.336	74.2	0.391	1.018	60.0	249.9	---	1.416	17.40	1.013	67.0	230.2	18.1	0.484
4-2790	4-3080	0.368	84.7	-24.2	-6.65	1.343	76.1	0.378	1.031	53.4	253.1	---	1.421	8.82	1.022	67.9	229.6	3.8	0.403
4-2790	4-3090	0.315	91.2	-15.0	-3.55	1.347	78.0	0.366	1.043	46.5	256.1	---	1.426	6.00	1.030	68.7	235.3	-3.8	0.378
4-2790	4-3100	0.277	98.0	-9.2	-1.91	1.351	80.0	0.357	1.055	39.2	258.9	---	1.431	4.64	1.037	69.4	242.8	-8.4	0.364
4-2790	4-3110	0.245	106.1	-4.6	-0.86	1.354	81.9	0.349	1.065	31.7	261.4	---	1.437	3.88	1.043	70.0	251.2	-11.5	0.355
4-2790	4-3120	0.218	116.2	-0.3	-0.06	1.357	84.0	0.343	1.075	23.8	263.7	---	1.443	3.42	1.049	70.5	260.1	-13.4	0.349
4-2790	4-3130	0.198	128.8	4.0	0.59	1.360	86.1	0.340	1.083	15.5	265.5	---	1.452	3.15	1.053	70.8	269.5	-14.4	0.347
4-2790	4-3140	0.188	144.3	8.4	1.15	1.363	88.3	0.340	1.092	6.7	266.9	---	1.463	3.00	1.057	70.9	279.3	-14.5	0.349
4-2790	4-3150	0.191	162.0	12.1	1.68	1.365	90.7	0.344	1.099	357.3	627.6	0.721	1.477	2.96	1.060	70.8	289.2	-13.8	0.355
4-2790	4-3160	0.211	180.0	14.5	3.21	1.367	93.4	0.352	1.106	347.1	627.6	0.716	1.496	3.01	1.063	70.3	299.4	-12.3	0.366
4-2790	4-3160	0.447	254.9	5.5	2.21	1.182	111.4	0.365	0.727	249.8	890.3	0.462	0.992	3.01	0.811	95.5	39.6	26.8	0.227
4-2790	4-3170	0.259	196.3	15.3	2.78	1.369	96.4	0.367	1.113	335.9	626.6	0.704	1.522	3.16	1.064	69.4	309.7	-10.0	0.385
4-2790	4-3170	0.444	255.2	6.9	2.78	1.179	111.2	0.361	0.723	249.3	900.0	0.462	0.985	3.16	0.805	90.0	28.1	24.2	0.216
4-2790	4-3180	0.309	210.2	15.2	3.43	1.371	100.0	0.391	1.120	323.6	624.4	0.682	1.556	3.44	1.065	68.0	320.3	-6.8	0.415
4-2790	4-3180	0.463	255.8	8.1	3.43	1.178	112.1	0.375	0.722	248.1	908.9	0.451	0.993	3.44	0.802	84.7	19.2	20.7	0.237
4-2790	4-3190	0.393	222.0	14.4	4.23	1.373	104.5	0.429	1.126	309.8	620.7	0.643	1.609	3.91	1.066	65.5	331.3	-2.9	0.469
4-2790	4-3190	0.507	257.0	9.0	4.23	1.178	114.1	0.409	0.722	246.0	916.9	0.427	1.017	3.91	0.800	78.9	15.1	18.1	0.287
4-2790	4-3200	0.512	232.6	13.5	5.32	1.375	110.4	0.488	1.133	293.9	614.8	0.580	1.685	4.70	1.066	61.6	342.9	1.7	0.531
4-2790	4-3200	0.584	258.8	9.5	5.32	1.179	117.9	0.468	0.723	242.4	923.3	0.385	1.061	4.70	0.798	72.0	15.6	17.2	0.368
4-2790	4-3210	0.714	262.0	9.6	7.00	1.181	124.2	0.563	0.725	236.2	927.1	0.317	1.133	6.10	0.797	62.8	20.1	18.0	0.491
4-2790	4-3210	0.893	278.5	5.4	7.00	1.004	136.7	0.751	0.567	208.9	1259.8	0.141	0.993	6.10	0.500	90.6	73.7	28.6	0.513
4-2790	4-3270	0.704	46.6	-4.7	-3.42	1.177	65.0	0.573	0.720	125.0	875.3	0.308	1.133	-5.89	0.771	116.6	179.3	-9.4	0.456
4-2790	4-3280	0.506	77.2	-4.8	-1.89	1.383	68.8	0.500	1.163	66.7	466.6	0.575	1.752	-4.62	1.057	119.5	222.5	-24.9	0.520
4-2790	4-3280	0.591	49.6	-3.3	-1.89	1.178	60.7	0.489	0.722	119.2	879.0	0.369	1.076	-4.62	0.770	107.9	182.0	-11.5	0.347
4-2790	4-3290	0.395	87.8	-2.9	-0.87	1.385	74.5	0.456	1.170	51.4	460.8	0.636	1.704	-3.90	1.058	116.1	236.1	-28.0	0.462
4-2790	4-3290	0.523	51.4	-1.8	-0.87	1.179	64.0	0.438	0.723	115.7	885.1	0.406	1.040	-3.90	0.768	101.0	180.7	-12.0	0.276
4-2790	4-3300	0.316	99.8	-0.5	-0.11	1.387	79.0	0.426	1.177	37.8	456.8	0.676	1.678	-3.45	1.059	114.0	249.3	-30.0	0.427
4-2790	4-3300	0.886	38.9	-0.1	-0.11	1.132	44.6	0.714	0.670	139.7	918.7	0.192	1.148	-3.45	0.692	54.8	122.2	16.8	0.587
4-2790	4-3300	0.490	52.2	-0.3	-0.11	1.178	65.7	0.412	0.722	114.1	893.1	0.425	1.020	-3.45	0.766	94.8	174.3	-9.8	0.235
4-2790	4-3310	0.261	114.1	2.6	0.50	1.389	82.7	0.408	1.184	25.5	454.0	0.701	1.667	-3.18	1.060	112.7	262.1	-30.9	0.408
4-2790	4-3310	0.734	43.6	0.6	0.50	1.148	52.9	0.608	0.588	130.8	919.3	0.272	1.103	-3.18	0.717	65.1	132.8	12.9	0.456
4-2790	4-3310	0.493	51.8	1.1	0.50	1.176	65.5	0.415	0.719	114.9	903.5	0.420	1.017	-3.18	0.760	87.5	161.9	-3.6	0.233
4-2790	4-3320	0.228	131.1	6.3	1.04	1.391	86.0	0.400	1.192	14.1	452.2	0.715	1.668	-3.02	1.062	112.1	274.2	-30.8	0.400
4-2790	4-3330	0.217	149.9	9.9	1.54	1.393	89.0	0.399	1.200	3.6	451.2	0.721	1.679	-2.96	1.065	111.9	285.8	-30.0	0.401
4-2790	4-3340	0.226	168.2	12.7	2.03	1.395	91.8	0.404	1.209	353.7	810.8	0.720	1.697	-2.98	1.068	112.1	296.7	-28.5	0.408
4-2790	4-3350	0.251	183.9	14.3	2.55	1.397	94.6	0.414	1.218	344.3	810.9	0.713	1.723	-3.09	1.072	112.6	307.0	-26.6	0.422
4-2790	4-3360	0.388	196.5	15.2	3.12	1.400	97.3	0.429	1.228	335.1	811.6	0.702	1.755	-3.30	1.076	113.5	316.6	-24.3	0.440
4-2790	4-3370	0.719	57.8	5.8	3.80	1.310	56.8	0.582	0.946	103.2	588.9	0.395	1.498	-3.65	0.958	54.6	162.0	2.4	0.585
4-2790	4-3370	0.334	206.4	15.9	3.80	1.402	100.1	0.447	1.240	326.9	812.7	0.685	1.794	-3.65	1.081	114.5	325.8	-21.9	0.464
4-2790	4-3380	0.659	60.7	8.1	4.66	1.315	59.9	0.545	0.958	96.9	592.3	0.436	1.480	-4.21	0.967	57.1	168.8	-2.0	0.546
4-2790	4-3380	0.387	214.4	16.8	4.66	1.405	102.9	0.469	1.252	318.8	814.2	0.664	1.839	-4.21	1.086	115.9	334.7	-19.5	0.492
4-2790	4-3390	0.606	63.6	11.5	5.90	1.320	62.9	0.509	0.969	90.5	595.5	0.476	1.463	-5.16	0.975	59.5	375.4	-7.3	0.511
4-2790	4-3390	0.446	221.1	18.2	5.90	1.408	105.7	.95	1.265	311.1	816.1	0.639	1.891	-5.16	1.092	117.4	343.3	-17.4	0.525
4-2800	4-3120	0.269	116.5	-0.3	-0.07	1.354	80.4	0.360	1.068	37.3	261.0	---	1.453	2.44	1.046	69.3	261.4	-14.0	0.368
4-2800	4-3130	0.240	125.1	3.8	0.68	1.357	82.4	0.353	1.078	29.5	263.4	---	1.459	2.95	1.051	69.9	270.5	-15.4	0.361
4-2800	4-3140	0.216	136.0	7.9	1.26	1.360	84.5	0.348	1.088	21.4	265.5	---	1.466	2.65	1.056	70.4	280.0	-15.7	0.356
4-2800	4-3150	0.200	149.7	12.0	1.75	1.362	86.7	0.345	1.097	12.8	267.0	---	1.475	2.47	1.059	70.7	289.6	-15.2	0.355
4-2800	4-3160	0.194	166.3	15.6	2.19	1.365	89.1	0.346	1.105	3.6	268.1	---	1.487	2.39	1.062	70.7	299.4	-13.9	0.358
4-2800	4-3170	0.203	184.6	17.8	2.61	1.367	91.6	0.351	1.112	353.8	628.4	0.721	1.503	2.39	1.064	70.5	309.2	-11.8	0.365
4-2800	4-3170	0.447	270.1	6.5	2.61	1.186	111.2	0.363	0.735	251.3	885.9	0.468	1.002	2.39	0.819	97.8	59.5	29.0	0.232
4-2800	4-3180	0.230	202.3	18.4	3.05	1.369	94.5	0.362	1.119	343.1	627.9	0.714	1.525	2.46	1.065	69.9	319.2	-9.0	0.379
4-2800	4-3180	0.434	270.3	7.8	3.05	1.183	110.6	0.352	0.730	251.1	895.8	0.473	0.987	2.46	0.812	92.3	47.8	27.8	0.208
4-2800	4-3190	0.276	217.8	17.6	3.52	1.371	97.8	0.380	1.126	331.5	626.3	0.698	1.554	2.62	1.066	68.8	329.3	-5.5	0.401
4-2800	4-3190	0.444	270.8	8.8	3.52	1.181	111.0	0.359	0.729	250.2	905.1	0.467	0.990	2.62	0.807	87.2	37.0	25.0	0.216
4-2800	4-3200	0.475	271.6	9.4	4.08	1.181	112.5	0.383	0.728	248.6	913.5	0.449	1.007	2.90	0.804	81.9	30.6	22.2	0.253
4-2800	4-3310	0.501	68.7	1.3	0.59	1.183	65.1	0.421	0.731	113.5	885.9	0.423	1.038	-3.00	0.775	99.8	198.8	-17.6	0.259
4-2800	4-3320	0.297	121.0	5.3	1.15	1.389	80.3	0.423	1.191	33.2	455.1	0.688	1.694	-2.70	1.062	113.6	272.5	-29.6	0.426
4-2800	4-3320	0.471	69.4	2.7	1.15	1.183	66.6	0.397	0.730	112.6	894.0	0.440	1.020	-2.70	0.773	93.9	192.0	-15.4	0.222
4-2800	4-3330	0.251	136.5	9.0	1.62	1.391	83.9	0.409	1.198	21.1	452.6	0.709	1.688	-2.51	1.064	112.6	284.9	-28.8	0.411
4-2800	4-3330	0.478	68.9	3.7	1.62	1.180	66.3	0.402	0.727	113.0	904.5	0.434	1.019	-2.51	0.769	87.0	179.1	-9.1	0.223
4-2800	4-3340	0.227	154.6	12.6	2.04	1.392	87.2	0.403	1.206	9.9	451.0	0.719	1.692	-2.41	1.067	112.1	296.4	-27.2	0.407
4-2800	4-3350	0.224	173.7	15.4	2.44	1.395	90.1	0.405	1.214	359.5	810.1	0.723	1.706	-2.38	1.070	112.1	307.1	-25.0	0.410
4-2800	4-3360	0.241	191.2	16.7	2.85	1.397	93.0	0.412	1.223	349.7	809.9	0.719	1.727	-2.42	1.074	112.4	317.1	-22.4	0.419
4-2800	4-3370	0.271	205.7	17.0	3.27	1.399	95.8	0.424	1.233	340.5	810.2	0.710	1.756	-2.53	1.079	113.0	326.5	-19.6	0.435
4-2850	4-3210	0.280	203.1	20.3	4.12	1.364	81.8	0.379	1.128	30.5	265.9	---	1.556	-2.36	1.062	68.8	352.5	-9.6	0.403
4-2850	4-3220	0.250	213.8	20.4	3.67	1.367	84.0	0.373	1.138	22.1	267.6	---	1.563	-2.14	1.063	69.2	0.6	-5.6	0.399
4-2850	4-3230	0.227	227.3	20.2	3.29	1.370	86.4	0.370	1.147	13.4	268.8	---	1.572	-2.01	1.064	69.5	8.9	-1.8	0.390
4-2850	4-3230	0.446	346.0	8.3	3.29	1.208	111.2	0.366	0.776	257.9	873.2	0.492	1.060	-2.01	0.846	103.8	142.5	8.1	0.260
4-2850	4-3240	0.215	243.4	19.1	2.94	1.372	88.9	0.371	1.156	4.2	269.4	---	1.585	-1.96	1.064	69.6	17.4	2.0	0.389
4-2850	4-3240	0.402	345.4	8.3	2.94	1.201	109.1	0.331	0.764	259.0	884.2	0.512	1.020	-1.96	0.832	97.5	134.5	8.7	0.199
4-2850	4-3250	0.217	261.2	16.7	2.61	1.374	91.5	0.375	1.164	354.4	629.4	0.727	1.601	-1.96	1.065	69.3	26.2	5.6	0.393
4-2850	4-3250	0.389	345.3	7.6	2.61	1.198	108.5	0.321	0.762	259.0	894.0	0.517	1.006	-1.96	0.825	92.8	124.4	10.3	0.177
4-2850	4-3260	0.237	278.7	13.2	2.27	1.376	94.5	0.385	1.172	343.9	628.7	0.720	1.623	-2.01	1.065	68.8	35.7	8.9	0.403
4-2850	4-3260	0.393	345.7	6.5	2.27	1.197	108.8	0.325	0.760	258.3	903.1	0.513	1.007	-2.01	0.819	88.5	114.6	12.2	0.181
4-2850	4-3270	0.276	294.3	9.4	1.89	1.378	97.8	0.402	1.179	332.5	627.0	0.704	1.653	-2.14	1.065	67.7	45.7	12.0	0.420
4-2850	4-3270	0.412	346.4	5.2	1.89	1.196	109.8	0.341	0.760	256.8	911.3	0.501	1.019	-2.14	0.816	84.3	108.1	13.8	0.206

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2850	4-3280	0.449	347.5	3.6	1.46	1.397	111.6	0.371	0.760	254.5	918.6	0.478	1.042	-2.39	0.814	79.7	105.9	15.0	0.248
4-2850	4-3390	0.475	152.6	10.4	4.44	1.203	67.2	0.390	0.769	105.6	875.1	0.469	1.068	2.56	0.826	104.3	300.1	-13.4	0.292
4-2850	4-3400	0.417	154.8	10.7	3.94	1.204	70.0	0.345	0.770	101.4	880.6	0.504	1.036	2.27	0.831	99.6	302.4	-12.1	0.236
4-2850	4-3410	0.268	219.6	18.6	3.53	1.396	84.5	0.427	1.252	18.3	447.3	0.717	1.787	2.09	1.093	112.7	359.7	5.1	0.440
4-2850	4-3410	0.379	156.3	10.7	3.53	1.204	71.9	0.315	0.771	98.4	887.4	0.528	1.014	2.09	0.835	95.7	301.2	-11.3	0.196
4-2850	4-3420	0.244	239.0	18.5	3.17	1.398	88.0	0.423	1.260	6.6	445.4	0.727	1.793	1.99	1.098	112.2	9.5	9.2	0.433
4-2850	4-3420	0.358	157.2	10.2	3.17	1.204	72.9	0.299	0.771	96.9	895.7	0.540	1.002	1.99	0.838	91.8	295.3	-11.5	0.171
4-2850	4-3430	0.242	258.4	16.6	2.82	1.400	91.2	0.426	1.268	355.9	804.6	0.727	1.809	1.95	1.103	112.2	19.0	13.0	0.435
4-2850	4-3430	0.359	156.9	9.1	2.82	1.203	72.7	0.301	0.769	97.6	906.3	0.537	1.000	1.95	0.839	87.3	282.3	-13.2	0.169
4-2850	4-3440	0.259	275.2	13.5	2.48	1.402	94.2	0.435	1.277	346.0	804.6	0.721	1.832	1.97	1.108	112.6	28.4	16.5	0.443
4-2850	4-3450	0.290	288.7	10.3	2.12	1.404	97.1	0.448	1.287	336.8	805.4	0.710	1.863	2.06	1.113	113.3	37.7	19.7	0.457
4-2900	4-3290	0.293	280.7	3.8	0.81	1.381	81.1	0.410	1.180	31.0	265.6	---	1.664	-3.80	1.061	67.1	66.3	12.8	0.428
4-2900	4-3300	0.262	290.1	0.6	0.11	1.384	83.4	0.404	1.190	23.2	267.3	---	1.671	-3.44	1.063	67.6	74.9	14.5	0.417
4-2900	4-3300	0.381	60.0	0.3	0.11	1.231	108.3	0.329	0.806	268.4	872.5	0.541	1.071	-3.44	0.855	102.1	206.4	-24.2	0.238
4-2900	4-3310	0.238	301.8	-2.8	-0.49	1.386	85.7	0.401	1.199	15.0	268.7	---	1.680	-3.23	1.165	68.0	83.8	15.5	0.408
4-2900	4-3310	0.341	59.0	-1.7	-0.49	1.225	106.5	0.296	0.797	270.3	883.9	0.561	1.033	-3.23	0.845	96.5	198.2	-24.3	0.179
4-2900	4-3320	0.223	316.8	-6.4	-1.02	1.388	88.1	0.400	1.208	6.5	269.7	---	1.691	-3.12	1.068	68.1	93.0	15.7	0.403
4-2900	4-3320	0.328	58.8	-3.7	-1.02	1.222	105.9	0.285	0.793	270.6	893.8	0.566	1.019	-3.12	0.840	92.4	188.5	-22.2	0.156
4-2900	4-3330	0.221	332.3	-9.7	-1.54	1.390	90.7	0.403	1.216	357.5	630.2	0.726	1.706	-3.10	1.070	68.1	102.6	15.3	0.403
4-2900	4-3330	0.330	59.1	-5.5	-1.54	1.221	106.0	0.286	0.791	270.1	902.9	0.565	1.017	-3.10	0.838	88.9	172.3	-18.4	0.154
4-2900	4-3340	0.236	349.4	-12.2	-2.07	1.392	93.5	0.411	1.224	347.9	630.1	0.721	1.726	-3.17	1.073	67.7	112.3	14.0	0.408
4-2900	4-3340	0.344	59.9	-7.0	-2.07	1.221	106.6	0.296	0.791	268.8	911.1	0.557	1.024	-3.17	0.838	85.4	173.3	-14.4	0.169
4-2900	4-3350	0.270	5.7	-13.6	-2.63	1.394	96.7	0.424	1.231	337.4	629.2	0.709	1.752	-3.33	1.075	66.9	122.4	12.0	0.420
4-2900	4-3350	0.369	61.0	-8.3	-2.63	1.221	107.7	0.314	0.791	266.7	918.5	0.542	1.040	-3.33	0.840	81.9	171.0	-13.6	0.197
4-2900	4-3360	0.408	62.7	-9.3	-3.28	1.222	109.6	0.344	0.792	263.7	925.0	0.520	1.064	-3.62	0.842	78.1	171.8	-13.2	0.238
4-2900	4-3370	0.466	64.9	-9.9	-4.08	1.223	112.3	0.387	0.793	259.5	930.3	0.486	1.100	-4.10	0.845	73.6	175.1	-10.2	0.295
4-2900	4-3380	0.300	287.7	2.0	0.42	1.409	82.1	0.457	1.296	25.3	448.9	0.704	1.888	3.59	1.121	113.6	68.8	30.1	0.463
4-2900	4-3480	0.362	240.4	1.4	0.42	1.230	73.2	0.304	0.805	88.7	868.3	0.561	1.050	3.59	0.887	102.1	26.1	24.1	0.252
4-2900	4-3490	0.257	305.8	-1.4	-0.25	1.410	86.1	0.447	1.303	12.7	442.4	0.720	1.885	3.30	1.124	112.7	81.8	31.0	0.445
4-2900	4-3490	0.316	243.2	-1.0	-0.25	1.231	75.5	0.269	0.807	83.3	873.1	0.590	1.024	3.30	0.890	99.1	29.6	27.1	0.208
4-2900	4-3500	0.241	325.2	-4.9	-0.84	1.412	89.6	0.446	1.310	1.4	441.4	0.726	1.894	3.14	1.127	112.5	94.2	30.9	0.438
4-2900	4-3500	0.283	245.4	-3.6	-0.84	1.232	77.1	0.244	0.808	78.8	878.8	0.611	1.005	3.14	0.892	96.5	30.8	29.7	0.175
4-2950	4-3360	0.387	136.3	-13.4	-4.26	1.266	107.5	0.334	0.851	278.6	859.7	0.566	1.135	1.29	0.892	106.2	266.1	-18.8	0.288
4-2950	4-3370	0.291	132.3	-16.9	-3.98	1.253	103.0	0.258	0.827	286.5	877.2	0.614	1.040	1.10	0.875	97.5	277.7	-17.7	0.173
4-2950	4-3380	0.267	131.1	-17.5	-3.77	1.250	101.9	0.238	0.821	288.6	889.0	0.625	1.017	0.98	0.872	93.4	269.6	-17.2	0.136
4-2950	4-3390	0.279	13.6	-18.3	-3.59	1.406	83.8	0.434	1.248	20.5	270.5	---	1.790	0.90	1.087	66.6	162.4	9.8	0.418
4-2950	4-3390	0.259	130.8	-17.2	-3.59	1.248	101.5	0.232	0.818	289.0	899.1	0.628	1.008	0.90	0.872	90.3	259.4	-16.6	0.121
4-2950	4-3400	0.256	26.0	-19.3	-3.44	1.408	86.3	0.431	1.256	12.5	272.2	---	1.798	0.86	1.092	67.0	170.7	6.3	0.411
4-2950	4-3400	0.261	131.2	-16.3	-3.44	1.247	101.7	0.234	0.817	288.2	908.0	0.626	1.009	0.86	0.874	87.6	249.7	-15.9	0.123
4-2950	4-3410	0.242	41.1	-19.5	-3.29	1.410	88.8	0.431	1.264	3.9	273.4	---	1.810	0.85	1.097	67.2	179.3	2.8	0.409
4-2950	4-3410	0.272	132.1	-14.9	-3.29	1.247	102.3	0.243	0.817	286.5	916.0	0.619	1.016	0.85	0.878	85.0	283.3	-15.7	0.137
4-2950	4-3420	0.242	58.3	-18.6	-3.15	1.412	91.6	0.435	1.272	354.7	634.1	0.719	1.825	0.86	1.101	67.2	188.2	-1.2	0.411
4-2950	4-3420	0.290	133.5	-13.3	-3.15	1.248	103.2	0.257	0.818	283.8	923.2	0.608	1.028	0.86	0.881	82.5	240.9	-16.0	0.161
4-2950	4-3430	0.261	76.0	-16.4	-2.99	1.413	94.7	0.443	1.279	344.7	633.9	0.712	1.846	0.90	1.106	66.8	197.6	-5.1	0.420
4-2950	4-3430	0.318	135.3	-11.4	-2.99	1.248	104.7	0.279	0.819	280.3	929.5	0.591	1.047	0.90	0.885	79.7	241.7	-16.8	0.193
4-2950	4-3440	0.358	137.6	-9.4	-2.81	1.249	106.7	0.310	0.820	275.7	934.8	0.566	1.075	0.97	0.890	76.7	245.1	-17.8	0.236
4-2950	4-3450	0.416	140.4	-7.4	-2.60	1.250	109.5	0.354	0.822	269.9	939.0	0.531	1.113	1.09	0.894	72.9	250.6	-19.0	0.292
4-3000	4-3130	0.489	232.2	1.2	0.55	1.185	113.6	0.401	0.727	247.7	521.4	0.436	---	3.39	0.811	101.6	26.9	21.3	0.288
4-3000	4-3140	0.472	233.0	2.7	1.17	1.175	112.8	0.388	0.715	246.3	530.2	0.437	---	3.48	0.797	96.1	20.7	20.8	0.247
4-3000	4-3150	0.472	233.7	4.2	1.85	1.169	112.9	0.389	0.708	245.0	539.0	0.433	---	3.70	0.789	90.6	11.5	18.5	0.236
4-3000	4-3160	0.492	234.5	5.7	2.63	1.167	113.8	0.404	0.705	243.5	547.7	0.420	0.990	4.09	0.784	84.8	3.0	15.0	0.255
4-3000	4-3270	0.547	24.5	-4.0	-2.13	1.157	62.8	0.458	0.694	121.3	535.2	0.376	1.012	-4.18	0.736	94.0	142.6	2.6	0.267
4-3000	4-3420	0.333	209.3	-40.0	-9.84	1.275	101.1	0.254	0.866	299.9	858.4	0.647	1.088	10.71	0.919	101.8	328.1	25.2	0.288
4-3000	4-3430	0.221	199.5	-36.2	-5.98	1.264	97.3	0.195	0.846	312.1	880.4	0.681	1.012	7.15	0.907	94.6	318.2	25.4	0.178
4-3000	4-3440	0.186	196.3	-27.9	-3.98	1.261	96.6	0.184	0.842	315.1	893.2	0.687	0.996	5.48	0.907	91.5	311.4	21.8	0.149
4-3000	4-3450	0.173	195.6	-20.0	-2.71	1.260	96.5	0.181	0.840	315.2	903.3	0.688	0.992	4.54	0.909	89.3	304.6	16.6	0.125
4-3000	4-3460	0.172	196.5	-13.0	-1.78	1.260	96.7	0.184	0.840	313.8	911.8	0.685	0.994	3.98	0.911	87.4	299.6	10.7	0.124
4-3000	4-3470	0.294	89.6	-4.9	-1.02	1.416	81.9	0.461	1.293	25.8	273.9	---	1.890	3.64	1.119	66.0	238.7	-11.9	0.449
4-3000	4-3470	0.180	198.3	-7.1	-1.02	1.261	97.3	0.191	0.840	311.1	919.2	0.680	1.000	3.64	0.914	85.6	297.3	5.4	0.132
4-3000	4-3480	0.265	101.2	-2.0	-0.37	1.418	84.5	0.455	1.302	17.7	275.9	---	1.895	3.45	1.123	66.6	247.9	-13.7	0.442
4-3000	4-3480	0.195	200.8	-2.4	-0.37	1.261	98.1	0.201	0.841	307.4	925.7	0.672	1.010	3.45	0.917	83.9	297.7	1.3	0.147
4-3000	4-3490	0.245	115.7	1.4	0.24	1.420	87.2	0.453	1.310	9.0	277.4	---	1.904	3.38	1.126	67.0	257.5	-14.9	0.439
4-3000	4-3490	0.216	203.6	1.4	0.24	1.262	99.2	0.215	0.843	303.0	931.4	0.662	1.024	3.38	0.919	82.2	300.4	-1.5	0.168
4-3000	4-3500	0.241	133.0	5.6	0.84	1.421	90.1	0.454	1.318	359.3	638.1	0.720	1.916	3.42	1.129	67.1	267.6	-15.3	0.441
4-3000	4-3500	0.245	206.8	4.3	0.84	1.263	100.6	0.234	0.844	297.8	936.3	0.647	1.042	3.42	0.921	80.3	304.8	-3.0	0.195
4-3000	4-3510	0.257	151.7	8.2	1.48	1.423	93.4	0.460	1.325	349.1	637.8	0.716	1.935	3.57	1.131	66.8	278.3	-15.0	0.451
4-3000	4-3510	0.283	210.2	6.4	1.48	1.264	102.4	0.260	0.846	291.8	940.5	0.626	1.066	3.57	0.923	78.1	310.5	-3.5	0.229
4-3000	4-3520	0.300	169.6	10.4	2.20	1.424	97.2	0.473	1.332	317.3	636.2	0.702	1.962	3.86	1.133	65.9	289.4	-13.7	0.471
4-3000	4-3520	0.335	213.9	8.1	2.20	1.265	104.8	0.295	0.848	285.0	943.9	0.598	1.098	3.86	0.925	75.5	317.2	-3.0	0.272
4-3050	4-3180	0.407	303.6	9.3	3.27	1.222	108.8	0.332	0.792	264.9	509.3	0.529	---	0.27	0.875	103.3	97.0	24.2	0.252
4-3050	4-3190	0.385	304.2	10.0	3.32	1.212	107.9	0.313	0.777	263.7	518.2	0.534	---	0.25	0.859	99.3	94.9	24.4	0.208
4-3050	4-3200	0.374	304.8	10.4	3.36	1.206	107.4	0.303	0.768	262.6	527.1	0.535	---	0.25	0.847	95.5	88.7	24.6	0.180
4-3050	4-3210	0.373	305.3	10.5	3.47	1.202	107.4	0.302	0.763	261.5	536.1	0.532	---	0.24	0.839	91.7	79.2	24.3	0.169
4-3050	4-3220	0.383	305.9	10.3	3.45	1.200	107.9	0.310	0.761	260.2	544.8	0.525	0.997	0.25	0.834	87.9	69.7	23.3	0.178
4-3050	4-3230	0.406	306.7	9.8	3.50	1.200	109.0	0.329	0.761	258.5	553.0	0.511	1.011	0.27	0.830	83.8	63.5	22.3	0.206
4-3050	4-3240	0.445	307.9	9.0	3.55	1.201	111.0	0.360	0.762	256.1	560.4	0.487	1.036	0.30	0.828	79.2	61.6	21.9	0.252
4-3050	4-3350	0.467	114.6	7.6	3.18	1.214	67.4	0.390	0.781	103.0	513.2	0.476	1.085	-0.32	0.830	105.1	262.1	-24.1	0.288
4-3050	4-3360	0.410	117.2	9.1	3.24	1.217	70.3	0.344	0.784	97.9	517.7	0.514	1.054	-0.28	0.835	100.9	266.6	-24.4	0.234
4-3050	4-3370	0.368	119.2	10.4	3.29	1.219	72.4	0.312	0.787	93.9	523.2	0.542	1.032	-0.26	0.839	97.3	268.6	-24.6	0.194
4-3050	4-3380	0.341	120.7	11.5	3.34	1.220	73.8	0.290	0.789	90.9	529.9	0.560	1.017	-0.25	0.845	94.1	266.9	-24.7	0.165

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3050	4-3390	0.516	109.7	7.0	3.39	1.187	64.6	0.429	0.742	112.7	561.3	0.424	1.060	-0.24	0.797	75.4	208.2	-12.3	0.288
4-3050	4-3390	0.330	121.1	12.1	3.39	1.219	74.3	0.281	0.788	90.1	538.7	0.567	1.009	-0.24	0.845	90.5	258.2	-24.4	0.148
4-3050	4-3470	0.142	240.8	44.4	4.52	1.265	92.0	0.164	0.865	346.0	873.8	0.726	1.007	-1.16	0.932	94.9	19.3	-1.2	0.125
4-3050	4-3470	0.184	264.2	32.9	4.52	1.274	95.3	0.199	0.883	327.4	855.2	0.707	1.059	-1.16	0.945	99.3	33.7	7.3	0.183
4-3050	4-3480	0.234	225.5	72.5	10.21	1.260	90.5	0.252	0.856	356.3	894.3	0.726	0.987	-6.83	0.928	91.0	21.0	-65.3	0.147
4-3050	4-3490	0.098	223.4	22.4	1.48	1.259	90.5	0.151	0.855	555.8	904.0	0.726	0.984	1.73	0.929	89.3	341.1	11.1	0.092
4-3050	4-3500	0.108	229.1	32.6	2.65	1.260	91.0	0.153	0.856	352.7	911.0	0.725	0.987	0.78	0.930	88.0	340.8	0.3	0.092
4-3050	4-3510	0.116	236.6	38.9	2.94	1.261	91.6	0.156	0.857	348.3	916.8	0.724	0.991	0.51	0.932	87.0	341.0	-2.9	0.100
4-3050	4-3520	0.124	244.6	43.0	3.08	1.262	92.3	0.160	0.859	343.2	921.9	0.722	0.997	0.39	0.933	86.0	342.9	-3.7	0.110
4-3050	4-3530	0.135	252.3	31.1	3.17	1.263	93.2	0.166	0.861	337.5	926.4	0.718	1.005	0.32	0.933	85.0	346.2	-3.2	0.122
4-3050	4-3540	0.149	259.5	28.6	3.24	1.264	94.1	0.174	0.863	331.5	930.5	0.713	1.014	0.28	0.934	84.0	350.6	-1.9	0.136
4-3050	4-3550	0.166	266.1	25.8	3.29	1.265	95.2	0.185	0.866	325.2	934.3	0.706	1.026	0.26	0.934	83.0	355.9	-0.1	0.152
4-3050	4-3560	0.287	181.1	16.7	3.34	1.419	84.2	0.471	1.349	18.3	277.6	---	1.984	0.25	1.132	66.3	330.4	-11.5	0.469
4-3050	4-3560	0.188	271.9	23.0	3.34	1.266	96.5	0.198	0.868	318.6	937.8	0.696	1.040	0.25	0.933	81.8	1.7	2.2	0.170
4-3050	4-3570	0.267	195.9	18.3	3.38	1.421	87.0	0.467	1.357	9.3	278.6	---	1.992	0.24	1.132	66.6	339.3	-8.1	0.464
4-3050	4-3570	0.214	277.3	20.2	3.38	1.268	98.0	0.216	0.870	311.7	941.0	0.683	1.058	0.24	0.932	80.4	8.2	4.8	0.192
4-3050	4-3580	0.262	213.5	18.9	3.43	1.422	90.1	0.468	1.365	359.6	638.9	0.726	2.004	0.25	1.131	66.7	548.3	-4.4	0.465
4-3050	4-3580	0.247	282.2	17.6	3.43	1.269	99.8	0.237	0.875	304.5	943.9	0.666	1.080	0.25	0.931	78.9	15.1	7.6	0.218
4-3050	4-3590	0.278	232.3	18.0	3.47	1.424	93.6	0.474	1.373	348.9	638.2	0.722	2.024	0.26	1.131	66.3	357.6	-0.4	0.473
4-3050	4-3590	0.288	286.9	15.1	3.47	1.270	101.9	0.266	0.875	297.0	948.3	0.643	1.108	0.26	0.930	76.8	22.5	10.4	0.230
4-3050	4-3600	0.341	291.4	12.8	3.52	1.271	104.6	0.303	0.878	288.6	948.1	0.612	1.144	0.28	0.928	74.2	30.5	13 3	0.290
4-3050	4-3600	0.562	318.4	6.3	3.52	1.137	117.6	0.467	0.684	235.71	254.9	0.365	1.003	0.28	0.734	94.5	111.7	22.7	0.272
4-3050	4-3610	0.571	318.8	6.3	3.58	1.135	118.1	0.474	0.682	235.01	264.0	0.359	1.005	0.31	0.727	86.4	99.2	24.0	0.279
4-3100	4-3220	0.363	12.6	27.0	7.74	1.265	104.8	0.301	0.971	287.0	492.6	0.609	---	-7.60	0.928	105.6	143.5	-11.3	0.287
4-3100	4-3230	0.319	12.1	21.4	5.49	1.252	103.7	0.274	0.847	296.2	501.7	0.615	---	-5.66	0.907	102.2	146.4	-10.4	0.229
4-3100	4-3240	0.292	12.0	17.4	4.13	1.243	102.9	0.255	0.832	305.6	510.9	0.620	---	-4.62	0.892	99.1	146.4	-10.2	0.187
4-3100	4-3250	0.276	12.1	14.0	3.17	1.238	102.5	0.244	0.823	285.0	520.1	0.622	---	-4.00	0.881	96.1	143.2	-9.7	0.157
4-3100	4-3260	0.268	12.3	11.0	2.42	1.235	102.3	0.238	0.817	284.3	529.1	0.622	---	-3.62	0.874	93.4	137.3	-8.1	0.139
4-3100	4-3270	0.267	12.7	8.1	1.79	1.233	102.4	0.239	0.815	283.4	537.9	0.620	---	-3.40	0.869	90.7	130.2	-5.1	0.134
4-3100	4-3280	0.274	13.4	5.3	1.21	1.232	102.8	0.245	0.814	282.0	546.2	0.615	1.013	-3.30	0.865	88.0	124.1	-1.4	0.141
4-3100	4-3290	0.289	14.3	2.8	0.66	1.233	103.6	0.256	0.815	280.2	553.9	0.606	1.023	-3.29	0.864	85.3	120.9	1.9	0.159
4-3100	4-3300	0.311	15.7	0.4	0.10	1.234	104.7	0.274	0.816	277.8	561.1	0.592	1.040	-3.37	0.864	82.5	120.6	4.4	0.185
4-3100	4-3310	0.344	17.4	-1.7	-0.51	1.235	106.3	0.300	0.819	274.5	567.4	0.573	1.065	-3.56	0.865	79.3	122.8	5.8	0.220
4-3100	4-3320	0.391	19.6	-3.6	-1.20	1.237	108.5	0.336	0.822	270.4	572.8	0.546	1.098	-3.88	0.867	75.8	127.1	6.3	0.264
4-3100	4-3440	0.347	207.4	10.1	2.88	1.258	74.5	0.305	0.858	76.9	495.5	0.597	1.120	3.84	0.919	105.3	359.8	12.8	0.291
4-3100	4-3450	0.287	212.8	9.3	2.16	1.261	77.5	0.266	0.863	67.3	496.0	0.634	1.093	3.52	0.926	102.9	7.9	17.3	0.252
4-3100	4-3460	0.238	218.9	8.0	1.54	1.264	79.9	0.237	0.869	57.6	496.3	0.663	1.075	3.34	0.933	101.2	16.3	21.9	0.223
4-3100	4-3470	0.197	226.3	6.1	0.95	1.267	82.1	0.215	0.875	47.4	496.1	0.686	1.063	3.28	0.939	100.0	25.1	26.6	0.205
4-3100	4-3480	0.163	236.1	2.9	0.37	1.270	84.2	0.201	0.881	36.3	495.1	0.704	1.058	3.32	0.946	99.4	35.0	31.4	0.191
4-3100	4-3490	0.135	249.9	-2.4	-0.25	1.274	86.2	0.192	0.888	24.0	493.0	0.718	1.059	3.47	0.952	99.2	46.4	36.1	0.185
4-3100	4-3500	0.118	270.2	-10.4	-0.95	1.278	88.3	0.190	0.897	10.4	489.5	0.726	1.068	3.75	0.958	99.5	59.9	40.2	0.188
4-3100	4-3510	0.357	202.5	-6.0	-1.81	1.234	73.4	0.303	0.816	86.5	575.8	0.569	1.064	4.24	0.900	76.7	313.8	-2.3	0.259
4-3100	4-3510	0.121	297.0	-19.5	-1.81	1.283	90.7	0.193	0.907	355.7	844.9	0.728	1.087	4.24	0.965	100.4	75.6	43.4	0.201
4-3100	4-3520	0.298	208.0	-12.1	-2.96	1.242	76.7	0.259	0.831	75.7	575.1	0.615	1.046	5.05	0.911	79.3	322.3	6.6	0.227
4-3100	4-3520	0.153	322.9	-25.7	-2.96	1.289	93.4	0.217	0.920	340.6	840.0	0.721	1.120	5.05	0.973	101.9	92.5	45.2	0.226
4-3100	4-3530	0.259	213.2	-23.0	-4.72	1.249	79.4	0.227	0.842	64.4	574.0	0.651	1.033	6.48	0.919	81.1	329.3	18.4	0.212
4-3100	4-3530	0.213	341.9	-29.9	-4.72	1.296	96.5	0.248	0.935	326.2	835.8	0.704	1.167	6.48	0.981	104.0	109.2	46.3	0.266
4-3100	4-3540	0.260	218.6	-41.7	-8.00	1.255	81.7	0.204	0.852	53.4	573.0	0.678	1.026	9.46	0.925	82.4	333.6	34.1	0.228
4-3100	4-3580	0.233	261.4	66.8	9.72	1.268	88.1	0.173	0.877	12.9	573.3	0.725	1.028	-9.43	0.934	83.7	44.2	-31.3	0.213
4-3100	4-3590	0.172	279.9	56.6	6.51	1.270	89.6	0.174	0.881	4.4	574.7	0.728	1.034	-6.51	0.934	83.4	44.7	-20.2	0.182
4-3100	4-3600	0.145	296.0	46.8	4.77	1.272	90.8	0.177	0.885	356.2	936.3	0.728	1.041	-5.09	0.933	83.0	48.4	-11.6	0.173
4-3100	4-3610	0.135	310.4	36.7	3.64	1.273	91.8	0.183	0.888	348.3	938.2	0.726	1.050	-4.29	0.932	82.5	53.6	-5.1	0.173
4-3100	4-3620	0.137	322.8	26.9	2.80	1.275	93.1	0.191	0.891	340.6	940.3	0.721	1.061	-3.80	0.932	81.8	59.8	-0.0	0.177
4-3100	4-3630	0.149	333.1	18.4	2.11	1.276	94.4	0.201	0.894	333.0	942.4	0.715	1.074	-3.50	0.931	81.0	66.7	3.9	0.186
4-3100	4-3640	0.291	260.3	7.4	1.51	1.425	84.3	0.487	1.397	17.4	276.5	---	2.077	-3.34	1.124	65.4	46.3	10.1	0.486
4-3100	4-3640	0.167	341.7	11.5	1.51	1.278	95.9	0.214	0.897	325.5	944.6	0.705	1.089	-3.34	0.930	80.0	74.2	6.9	0.198
4-3100	4-3650	0.268	274.2	5.1	0.95	1.427	87.1	0.484	1.406	8.8	277.5	---	2.086	-3.28	1.124	65.7	55.1	12.4	0.479
4-3100	4-3650	0.193	349.0	6.3	0.95	1.279	97.5	0.230	0.900	318.0	946.7	0.693	1.107	-3.28	0.930	76.8	82.0	9.1	0.274
4-3100	4-3660	0.260	290.5	2.2	0.40	1.428	90.1	0.485	1.414	359.6	637.8	0.728	2.099	-3.31	1.125	65.7	64.5	14.1	0.476
4-3100	4-3660	0.226	355.3	2.2	0.40	1.281	99.3	0.251	0.903	310.4	948.7	0.677	1.129	-3.31	0.930	77.3	90.3	10.5	0.234
4-3100	4-3670	0.272	308.1	-0.9	-0.18	1.430	93.4	0.491	1.421	349.5	637.4	0.724	2.118	-3.44	1.125	65.4	74.4	15.3	0.480
4-3100	4-3670	0.267	1.1	-0.8	-0.18	1.282	101.5	0.277	0.906	302.6	950.4	0.655	1.156	-3.44	0.930	75.5	98.9	11.2	0.260
4-3100	4-3670	0.542	35.1	-0.3	-0.18	1.157	117.1	0.456	0.710	240.1	1247.9	0.386	1.034	-3.44	0.750	99.8	190.4	-14.4	0.279
4-3100	4-3680	0.319	6.4	-3.2	-0.82	1.283	104.1	0.310	0.908	294.3	951.7	0.627	1.190	-3.69	0.931	73.2	107.8	11.1	0.294
4-3100	4-3680	0.521	35.0	-1.6	-0.82	1.154	116.1	0.440	0.706	240.3	1257.7	0.395	1.017	-3.69	0.743	91.8	178.8	-11.5	0.248
4-3100	4-3690	0.535	35.4	-3.1	-1.59	1.152	116.7	0.450	0.704	239.5	1266.4	0.387	1.022	-4.10	0.740	84.8	169.0	-7.8	0.263
4-3150	4-3210	0.517	63.9	-10.8	-3.77	1.537	105.8	0.733	2.470	322.4	438.1	0.659	---	1.61	1.269	121.9	174.4	5.3	0.661
4-3150	4-3220	0.413	66.1	-14.1	-4.11	1.445	103.7	0.547	1.468	320.8	446.5	0.665	---	1.79	1.152	117.8	179.8	3.9	0.523
4-3150	4-3230	0.341	67.5	-18.4	-4.55	1.383	101.7	0.426	1.170	319.8	455.5	0.672	---	2.08	1.072	113.8	185.3	3.0	0.419
4-3150	4-3240	0.292	68.4	-24.2	-5.18	1.342	100.1	0.345	1.035	319.5	465.0	0.678	---	2.56	1.016	110.1	190.8	3.2	0.338
4-3150	4-3250	0.264	69.8	-32.3	-6.23	1.315	98.7	0.289	0.962	319.7	475.0	0.684	---	3.48	0.976	106.6	196.6	5.8	0.276
4-3150	4-3260	0.268	70.3	-45.1	-8.50	1.296	97.6	0 250	0.919	320.2	485.3	0.689	---	5.63	0.948	103.4	203.3	14.5	0.236
4-3150	4-3270	0.433	87.9	-70.1	-18.60	1.284	96.8	0.223	0.892	321.1	495.7	0.693	---	15.60	0.928	100.5	214.2	42.9	0.311
4-3150	4-3280	0.357	80.4	66.6	14.98	1.275	96.4	0.206	0.876	321.1	505.8	0.695	---	-18.11	0.914	98.0	151.7	-54.0	0.330
4-3150	4-3290	0.162	65.7	21.6	2.71	1.270	96.0	0.195	0.866	321.7	515.8	0.697	---	-5.96	0.905	95.5	176.1	-40.5	0.152
4-3150	4-3300	0.147	65.2	2.1	0.24	1.267	95.8	0.189	0.860	321.7	525.4	0.699	---	-3.62	0.899	93.3	177.2	-31.2	0.115
4-3150	4-3310	0.147	65.9	-7.3	-0.85	1.266	95.8	0.186	0.857	321.1	534.4	0.697	---	-2.65	0.896	91.3	173.1	-23.8	0.100
4-3150	4-3320	0.152	67.1	-12.5	-1.50	1.265	96.0	0.187	0.856	319.9	542.7	0.696	1.017	-2.14	0.894	89.4	168.2	-16.9	0.097
4-3150	4-3330	0.161	69.0	-15.4	-1.95	1.265	96.4	0.191	0.857	318.1	550.4	0.693	1.021	-1.84	0.894	87.6	164.9	-11.3	0.102
4-3150	4-3340	0.172	71.2	-17.8	-2.29	1.266	96.9	0.196	0.858	315.7	557.5	0.689	1.028	-1.65	0.896	85.8	164.0	-7.4	0.113

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3150	4-3350	0.186	73.9	-17.6	-2.58	1.267	97.6	0.207	0.861	312.7	564.1	0.683	1.039	-1.53	0.898	84.1	165.4	-5.4	0.128
4-3150	4-3360	0.205	76.9	-17.7	-2.44	1.269	98.5	0.219	0.864	309.1	570.0	0.675	1.052	-1.47	0.902	82.3	168.5	-4.8	0.147
4-3150	4-3370	0.228	80.1	-17.2	-3.08	1.271	99.6	0.234	0.867	304.8	575.4	0.664	1.070	-1.45	0.906	80.5	172.8	-5.3	0.169
4-3150	4-3380	0.257	83.5	-16.4	-3.33	1.273	101.1	0.254	0.871	300.0	580.1	0.649	1.092	-1.48	0.911	78.5	178.2	-6.6	0.196
4-3150	4-3390	0.294	87.1	-15.4	-3.59	1.275	102.9	0.280	0.874	294.3	584.1	0.630	1.119	-1.54	0.916	76.3	184.4	-8.5	0.228
4-3150	4-3400	0.342	90.9	-14.1	-3.89	1.277	105.2	0.314	0.879	287.9	587.4	0.603	1.154	-1.67	0.922	73.6	191.4	-10.9	0.269
4-3150	4-3410	0.408	95.2	-12.8	-4.26	1.279	108.4	0.360	0.883	280.2	589.5	0.565	1.201	-1.88	0.928	70.3	199.3	-13.6	0.322
4-3150	4-3420	0.499	99.9	-11.3	-4.74	1.282	112.8	0.425	0.888	271.0	590.1	0.511	1.265	-2.22	0.934	65.9	208.2	-16.7	0.395
4-3150	4-3420	0.839	130.8	-4.2	-4.74	1.044	134.1	0.712	0.596	213.6	892.7	0.172	1.021	-2.22	0.567	107.2	304.9	-22.1	0.494
4-3150	4-3430	0.635	105.8	-9.7	-5.48	1.284	119.4	0.519	0.894	259.3	588.3	0.430	1.357	-2.82	0.941	59.4	218.8	-20.0	0.503
4-3150	4-3430	0.825	131.7	-5.0	-5.48	1.028	133.4	0.708	0.585	212.6	901.5	0.171	0.998	-2.82	0.542	86.5	289.6	-25.5	0.463
4-3150	4-3440	0.918	133.6	-5.0	-6.83	1.023	138.7	0.768	0.581	209.2	908.1	0.135	1.028	-4.03	0.538	65.7	279.2	-26.7	0.557
4-3150	4-3490	0.649	274.8	-0.8	-0.48	1.289	60.3	0.525	0.903	100.4	489.7	0.429	1.377	2.96	0.961	121.3	56.0	24.4	0.544
4-3150	4-3500	0.494	282.2	-3.2	-1.31	1.292	68.0	0.421	0.909	85.1	484.6	0.527	1.292	2.28	0.966	114.5	69.4	26.8	0.428
4-3150	4-3510	0.389	289.0	-5.9	-1.84	1.294	73.2	0.353	0.915	72.0	481.7	0.592	1.238	1.90	0.970	110.2	82.1	28.2	0.354
4-3150	4-3520	0.314	296.0	-9.0	-2.23	1.297	77.1	0.307	0.921	59.8	479.7	0.638	1.203	1.68	0.973	107.5	94.4	28.5	0.304
4-3150	4-3530	0.258	303.8	-12.7	-2.54	1.300	80.1	0.276	0.926	48.1	478.2	0.671	1.182	1.54	0.976	105.6	106.5	28.0	0.270
4-3150	4-3540	0.215	313.3	-17.2	-2.82	1.302	82.8	0.256	0.932	36.6	476.9	0.693	1.172	1.47	0.979	104.5	119.4	26.6	0.248
4-3150	4-3550	0.777	263.7	-3.8	-3.08	1.212	52.6	0.610	0.770	122.9	573.2	0.300	1.239	1.45	0.853	55.7	353.4	-0.9	0.580
4-3150	4-3550	0.184	325.5	-22.3	-3.08	1.305	85.1	0.245	0.939	25.2	475.6	0.709	1.169	1.45	0.981	103.9	130.1	24.5	0.234
4-3150	4-3560	0.690	267.3	-5.0	-3.34	1.224	57.2	0.546	0.787	115.6	576.0	0.357	1.216	1.48	0.867	60.1	0.8	2.7	0.516
4-3150	4-3560	0.163	341.7	-27.7	-3.34	1.308	87.3	0.241	0.946	13.8	474.2	0.719	1.174	1.48	0.984	103.7	141.5	21.6	0.228
4-3150	4-3570	0.607	271.0	-6.5	-3.61	1.234	61.5	0.485	0.804	107.9	578.4	0.414	1.193	1.55	0.879	64.1	8.3	6.5	0.455
4-3150	4-3570	0.157	2.1	-31.8	-3.61	1.312	89.5	0.243	0.954	2.3	472.8	0.722	1.186	1.55	0.985	103.9	152.6	18.2	0.230
4-3150	4-3580	0.531	274.8	-8.4	-3.92	1.244	65.6	0.428	0.820	99.8	580.3	0.469	1.170	1.69	0.890	67.7	16.1	10.6	0.399
4-3150	4-3580	0.165	24.1	-33.0	-3.92	1.316	91.8	0.252	0.964	350.9	831.4	0.721	1.206	1.69	0.987	104.5	163.4	14.4	0.239
4-3150	4-3590	0.461	278.8	-11.0	-4.31	1.253	69.2	0.376	0.835	91.3	581.7	0.521	1.149	1.91	0.899	70.8	24.1	15.0	0.350
4-3150	4-3590	0.190	43.4	-31.3	-4.31	1.320	94.2	0.268	0.974	339.8	830.2	0.713	1.236	1.91	0.990	105.5	173.8	10.5	0.255
4-3150	4-3600	0.401	283.0	-14.6	-4.82	1.261	72.5	0.332	0.849	82.3	582.6	0.567	1.131	2.28	0.907	73.4	32.4	19.9	0.308
4-3150	4-3600	0.229	58.3	-28.8	-4.82	1.325	96.8	0.231	0.987	329.0	829.4	0.699	1.274	2.28	0.994	106.9	183.9	6.7	0.280
4-3150	4-3610	0.351	287.5	-19.9	-5.60	1.268	75.4	0.296	0.861	72.9	583.0	0.606	1.116	2.92	0.913	75.5	40.8	25.8	0.274
4-3150	4-3610	0.282	69.3	-27.0	-5.60	1.330	99.7	0.322	1.001	318.8	829.0	0.679	1.323	2.92	0.998	108.8	193.8	3.7	0.313
4-3150	4-3620	0.319	292.0	-28.6	-7.04	1.273	77.9	0.268	0.872	63.3	583.3	0.638	1.105	4.23	0.918	77.2	49.3	34.0	0.251
4-3150	4-3620	0.348	77.8	-27.3	-7.04	1.336	102.7	0.358	1.017	309.3	829.2	0.653	1.382	4.23	1.004	111.0	203.6	2.2	0.356
4-3150	4-3630	0.295	294.5	-45.8	-11.00	1.278	80.2	0.246	0.881	53.8	583.4	0.666	1.099	8.07	0.922	78.4	57.5	50.4	0.257
4-3150	4-3630	0.447	86.0	-33.4	-11.00	1.342	106.0	0.400	1.035	300.5	830.1	0.621	1.449	8.07	1.009	113.5	213.9	5.7	0.417
4-3150	4-3650	0.218	313.1	37.9	6.01	1.285	83.9	0.219	0.896	34.9	584.0	0.699	1.092	-9.19	0.927	79.7	87.0	-13.1	0.245
4-3150	4-3650	0.543	93.0	13.9	6.01	1.356	113.1	0.494	1.075	284.5	833.6	0.543	1.606	-9.19	1.022	119.5	219.9	-32.1	0.523
4-3150	4-3660	0.560	295.4	2.9	1.24	1.429	68.2	0.577	1.378	61.9	260.6	---	2.173	-4.54	1.116	57.8	73.3	15.5	0.609
4-3150	4-3660	0.155	324.4	10.3	1.24	1.286	85.5	0.213	0.901	26.1	584.7	0.710	1.093	-4.54	0.929	80.0	92.9	2.1	0.200
4-3150	4-3660	0.607	96.2	2.5	1.24	1.362	116.7	0.583	1.096	277.3	836.0	0.501	1.691	-4.54	1.029	122.6	233.0	-20.3	0.564
4-3150	4-3670	0.512	299.7	-1.0	-0.36	1.432	70.7	0.561	1.391	55.4	263.7	---	2.172	-3.07	1.116	59.3	81.3	18.1	0.581
4-3150	4-3670	0.135	335.8	-3.4	-0.36	1.291	87.0	0.209	0.907	17.5	585.7	0.717	1.097	-3.07	0.931	80.0	101.3	7.3	0.188
4-3150	4-3680	0.467	304.6	-3.5	-1.19	1.434	73.2	0.547	1.403	48.8	266.6	---	2.171	-2.37	1.120	60.5	89.7	19.5	0.556
4-3150	4-3680	0.126	349.0	-12.4	-1.19	1.293	87.4	0.209	0.911	9.2	587.0	0.721	1.162	-2.37	0.933	79.9	110.2	10.1	0.184
4-3150	4-3690	0.424	310.3	-5.7	-1.73	1.436	75.6	0.535	1.415	42.0	269.3	---	2.171	-1.98	1.123	61.7	98.3	19.6	0.535
4-3150	4-3690	0.124	3.8	-18.4	-1.73	1.295	89.8	0.211	0.915	1.2	588.5	0.723	1.108	-1.98	0.935	79.6	119.1	10.7	0.184
4-3150	4-3700	0.384	316.9	-7.9	-2.12	1.438	78.1	0.525	1.425	34.9	271.8	---	2.172	-1.74	1.125	62.7	107.0	19.1	0.515
4-3150	4-3700	0.129	19.0	-21.9	-2.12	1.296	91.2	0.215	0.919	353.3	950.1	0.722	1.116	-1.74	0.938	79.2	127.9	10.1	0.188
4-3150	4-3710	0.347	325.0	-10.0	-2.43	1.439	80.7	0.516	1.435	27.6	274.0	---	2.176	-1.59	1.128	63.6	115.8	18.1	0.499
4-3150	4-3710	0.140	33.4	-23.1	-2.43	1.298	92.6	0.221	0.922	345.5	951.9	0.718	1.126	-1.59	0.940	78.6	136.6	8.7	0.194
4-3150	4-3720	0.315	334.9	-12.4	-2.70	1.441	83.3	0.510	1.444	20.0	275.9	---	2.181	-1.50	1.130	64.3	124.6	16.4	0.486
4-3150	4-3720	0.157	46.0	-22.9	-2.70	1.299	94.1	0.230	0.926	337.7	953.6	0.712	1.139	-1.50	0.943	77.9	145.1	6.7	0.203
4-3150	4-3730	0.291	347.2	-14.8	-2.95	1.442	86.0	0.506	1.453	12.0	277.4	---	2.188	-1.46	1.133	64.8	133.4	14.2	0.476
4-3150	4-3730	0.181	56.6	-21.7	-2.95	1.301	95.7	0.242	0.929	329.9	955.4	0.703	1.154	-1.46	0.947	77.0	153.6	4.2	0.215
4-3150	4-3740	0.278	2.1	-16.8	-3.20	1.444	88.9	0.506	1.460	3.4	278.4	---	2.199	-1.46	1.137	65.0	142.3	11.5	0.471
4-3150	4-3740	0.210	65.6	-20.0	-3.20	1.302	97.6	0.258	0.931	321.9	956.9	0.691	1.172	-1.46	0.950	75.8	162.7	1.3	0.232
4-3150	4-3740	0.515	112.0	-6.7	-3.20	1.186	115.4	0.429	0.735	246.7	241.8	0.420	1.050	-1.46	0.785	102.8	276.5	-27.2	0.290
4-3150	4-3750	0.281	19.1	-18.0	-3.45	1.445	92.0	0.509	1.468	354.0	638.8	0.721	2.214	-1.50	1.140	65.0	151.5	8.2	0.471
4-3150	4-3750	0.247	73.3	-18.2	-3.45	1.303	99.6	0.279	0.934	313.5	958.3	0.673	1.195	-1.50	0.954	74.4	170.6	-1.9	0.254
4-3150	4-3750	0.470	111.4	-8.0	-3.45	1.181	113.1	0.393	0.729	248.0	1252.7	0.442	1.015	-1.50	0.780	94.7	265.1	-28.5	0.229
4-3160	4-3210	0.575	70.5	-9.5	-3.44	1.637	104.3	0.937	10.713	330.4	430.1	0.676	---	0.55	1.386	123.8	178.2	1.7	0.769
4-3160	4-3220	0.440	73.5	-11.9	-3.55	1.509	102.4	0.662	2.012	328.6	438.3	0.679	---	0.58	1.230	119.8	183.0	-0.2	0.598
4-3160	4-3230	0.348	75.2	-14.9	-3.66	1.426	100.6	0.494	3.352	327.6	447.2	0.684	---	0.63	1.124	115.7	187.9	-2.0	0.472
4-3160	4-3240	0.283	75.9	-18.5	-3.80	1.372	98.9	0.385	1.122	327.4	456.8	0.690	---	0.71	1.052	111.8	192.8	-3.5	0.376
4-3160	4-3250	0.238	75.8	-22.8	-3.98	1.336	97.5	0.313	1.011	327.8	467.0	0.695	---	0.84	1.002	108.2	197.4	-4.5	0.301
4-3160	4-3260	0.208	75.0	-27.8	-4.26	1.311	96.4	0.263	0.949	328.7	477.7	0.699	---	1.06	0.966	104.9	201.6	-4.7	0.241
4-3160	4-3270	0.190	74.0	-34.1	-4.75	1.295	95.5	0.230	0.913	329.8	488.5	0.703	---	1.50	0.942	101.9	205.4	-2.9	0.196
4-3160	4-3280	0.193	73.5	-44.0	-6.00	1.285	94.9	0.208	0.890	331.0	499.3	0.706	---	2.71	0.924	99.1	209.4	4.6	0.161
4-3160	4-3290	0.417	98.9	-76.7	-18.58	1.278	94.4	0.193	0.877	331.9	509.9	0.708	---	15.24	0.913	98.6	222.7	46.5	0.280
4-3160	4-3300	0.127	69.8	7.5	0.74	1.274	94.2	0.185	0.869	332.2	519.8	0.708	---	-4.13	0.905	94.4	184.8	-37.0	0.124
4-3160	4-3310	0.127	70.0	-15.9	-1.58	1.271	94.2	0.180	0.864	332.1	529.2	0.708	---	-1.95	0.901	92.3	186.3	-22.2	0.095
4-3160	4-3320	0.133	71.3	-22.2	-2.26	1.270	94.3	0.179	0.862	331.2	537.9	0.708	---	-1.21	0.899	90.5	181.2	-14.3	0.087
4-3160	4-3330	0.139	73.3	-24.5	-2.61	1.270	94.5	0.181	0.862	329.7	546.0	0.706	1.018	-0.92	0.898	88.7	176.2	-8.6	0.089
4-3160	4-3340	0.146	75.9	-25.2	-2.82	1.271	94.9	0.185	0.863	327.6	553.3	0.704	1.023	-0.76	0.900	87.0	173.4	-4.9	0.097
4-3160	4-3350	0.156	79.1	-24.9	-2.97	1.272	95.4	0.191	0.865	324.8	560.1	0.700	1.030	-0.66	0.902	85.4	172.9	-2.9	0.109
4-3160	4-3360	0.169	82.6	-23.9	-3.09	1.273	96.1	0.199	0.868	321.5	566.3	0.695	1.041	-0.60	0.905	83.9	174.6	-2.5	0.124
4-3160	4-3370	0.184	86.4	-22.5	-3.20	1.275	97.0	0.210	0.871	317.6	572.0	0.688	1.054	-0.57	0.909	82.3	178.0	-3.1	0.141
4-3160	4-3380	0.204	90.3	-20.9	-3.29	1.277	98.1	0.223	0.875	313.1	577.1	0.679	1.070	-0.55	0.914	80.7	182.5	-4.4	0.161
4-3160	4-3390	0.229	94.3	-19.0	-3.39	1.279	99.4	0.240	0.878	308.0	581.7	0.667	1.089	-0.55	0.919	79.0	188.0	-6.3	0.185

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3160	4-3400	0.260	98.4	-17.0	-3.48	1.281	101.0	0.262	0.882	302.2	585.7	0.651	1.113	-0.56	0.925	77.1	194.2	-8.7	0.213
4-3160	4-3410	0.301	102.5	-15.0	-3.58	1.283	103.1	0.290	0.887	295.7	588.9	0.629	1.144	-0.59	0.930	74.9	201.2	-11.3	0.247
4-3160	4-3420	0.355	106.9	-13.0	-3.71	1.285	105.8	0.328	0.895	288.3	591.3	0.599	1.183	-0.65	0.937	72.2	209.0	-14.0	0.291
4-3160	4-3430	0.430	111.7	-11.0	-3.86	1.287	109.4	0.380	0.896	279.5	592.5	0.556	1.236	-0.75	0.943	68.6	217.8	-16.9	0.351
4-3160	4-3430	0.867	145.7	-3.3	-3.86	1.069	135.3	0.721	0.613	214.9	887.8	0.171	1.056	-0.75	0.612	117.3	325.6	-14.6	0.586
4-3160	4-3440	0.537	117.1	-8.9	-4.07	1.290	114.6	0.454	0.901	268.9	591.8	0.492	1.310	-0.90	0.949	63.6	227.9	-19.7	0.435
4-3160	4-3440	0.789	146.2	-4.1	-4.07	1.043	131.2	0.678	0.594	215.0	897.9	0.191	0.996	-0.90	0.571	94.5	310.6	-19.4	0.440
4-3160	4-3450	0.700	123.7	-6.9	-4.41	1.293	122.6	0.565	0.907	255.2	588.0	0.394	1.420	-1.20	0.956	55.9	240.1	-22.3	0.564
4-3160	4-3450	0.830	147.4	-4.0	-4.41	1.036	133.6	0.709	0.588	213.0	905.8	0.171	1.005	-1.20	0.561	76.2	297.8	-22.4	0.478
4-3160	4-3500	0.930	269.2	-1.4	-2.09	0.981	40.4	0.786	0.552	154.2	897.6	0.118	0.987	1.37	0.472	98.8	7.2	4.4	0.555
4-3160	4-3510	0.578	294.8	-5.1	-2.53	1.297	64.0	0.478	0.917	92.3	485.9	0.478	1.356	0.99	0.972	118.3	80.5	24.9	0.489
4-3160	4-3520	0.448	301.8	-7.6	-2.78	1.300	70.5	0.393	0.923	77.8	481.6	0.561	1.286	0.79	0.975	112.8	93.8	25.2	0.394
4-3160	4-3530	0.358	308.8	-10.4	-2.95	1.303	75.1	0.336	0.929	65.0	479.0	0.616	1.242	0.67	0.978	109.4	106.2	24.5	0.333
4-3160	4-3540	0.292	316.3	-13.7	-3.09	1.305	78.6	0.299	0.935	52.9	477.1	0.655	1.214	0.61	0.980	107.1	118.0	22.9	0.291
4-3160	4-3550	0.282	325.0	-17.4	-3.20	1.308	81.5	0.274	0.941	41.3	475.6	0.682	1.199	0.57	0.982	105.7	129.3	20.6	0.268
4-3160	4-3560	0.204	336.0	-21.6	-3.30	1.310	84.0	0.259	0.947	30.0	474.3	0.701	1.192	0.55	0.983	104.8	140.3	17.7	0.247
4-3160	4-3570	0.756	281.1	-4.4	-3.39	1.222	53.9	0.593	0.782	120.1	574.5	0.318	1.245	0.55	0.859	56.7	11.1	5.5	0.566
4-3160	4-3570	0.177	350.3	-26.6	-3.39	1.313	86.3	0.252	0.954	18.7	473.1	0.714	1.194	0.53	0.984	104.4	151.0	14.2	0.237
4-3160	4-3580	0.671	284.6	-5.5	-3.49	1.233	58.3	0.531	0.799	112.7	577.2	0.374	1.223	0.56	0.872	60.9	18.7	8.8	0.503
4-3160	4-3580	0.162	8.8	-29.7	-3.49	1.317	88.5	0.251	0.961	7.5	471.9	0.720	1.203	0.56	0.986	104.4	161.5	10.3	0.234
4-3160	4-3590	0.591	288.3	-6.7	-3.60	1.243	62.5	0.473	0.815	105.1	579.4	0.429	1.200	0.60	0.883	64.7	26.6	12.1	0.445
4-3160	4-3590	0.161	30.2	-30.9	-3.60	1.320	90.8	0.257	0.970	356.3	830.7	0.721	1.219	0.60	0.988	104.8	171.7	6.2	0.241
4-3160	4-3600	0.517	292.1	-8.3	-3.72	1.253	66.3	0.419	0.830	97.0	581.3	0.482	1.179	0.66	0.893	68.0	34.7	15.4	0.391
4-3160	4-3600	0.176	50.6	-29.1	-3.72	1.324	93.1	0.269	0.980	345.4	829.6	0.716	1.244	0.66	0.990	105.6	181.7	2.0	0.254
4-3160	4-3610	0.450	296.2	-10.3	-3.88	1.261	69.8	0.372	0.845	88.5	582.6	0.531	1.159	0.76	0.901	70.9	43.3	18.5	0.348
4-3160	4-3610	0.206	67.1	-25.7	-3.88	1.228	95.6	0.288	0.991	334.7	828.8	0.706	1.277	0.76	0.993	106.7	191.6	-2.1	0.274
4-3160	4-3620	0.391	300.5	-12.8	-4.10	1.268	72.9	0.331	0.858	79.7	583.6	0.574	1.142	0.93	0.908	73.3	52.3	21.7	0.304
4-3160	4-3620	0.248	79.4	-22.3	-4.10	1.333	98.3	0.314	1.005	324.5	828.4	0.689	1.320	0.93	0.997	108.3	201.2	-5.8	0.302
4-3160	4-3630	0.340	305.1	-16.3	-4.45	1.274	75.7	0.298	0.870	70.5	584.2	0.611	1.129	1.23	0.914	75.2	61.7	25.0	0.271
4-3160	4-3630	0.302	88.7	-19.8	-4.45	1.339	101.2	0.346	1.020	314.8	828.5	0.666	1.373	1.23	1.002	110.3	210.8	-8.9	0.337
4-3160	4-3640	0.301	310.0	-22.0	-5.17	1.279	78.1	0.271	0.880	61.3	584.6	0.641	1.119	1.90	0.918	76.7	71.4	29.3	0.246
4-3160	4-3640	0.365	95.9	-18.8	-5.17	1.345	104.3	0.384	1.036	305.8	829.1	0.638	1.434	1.90	1.007	112.6	220.3	-10.8	0.379
4-3160	4-3650	0.293	314.3	-35.8	-7.75	1.284	80.2	0.251	0.889	52.1	585.1	0.665	1.112	4.43	0.922	77.8	81.7	40.5	0.235
4-3160	4-3650	0.467	102.4	-22.8	-7.75	1.351	107.6	0.426	1.054	297.4	830.3	0.605	1.504	4.43	1.014	115.2	230.3	-8.7	0.432
4-3160	4-3660	0.278	320.0	44.1	8.73	1.287	82.2	0.237	0.896	43.0	585.6	0.684	1.108	-12.09	0.926	76.5	95.4	-17.9	0.288
4-3160	4-3660	0.523	107.4	21.6	8.73	1.357	111.1	0.472	1.078	289.4	832.0	0.567	1.581	-12.09	1.020	118.0	228.4	-40.2	0.517
4-3160	4-3670	0.596	308.8	-1.8	-0.81	1.431	66.3	0.593	1.379	66.2	258.3	---	2.196	-2.60	1.116	56.6	83.9	19.5	0.625
4-3160	4-3670	0.179	331.6	-5.8	-0.81	1.291	83.9	0.227	0.903	34.2	586.3	0.698	1.107	-2.60	0.928	79.0	101.2	11.2	0.202
4-3160	4-3670	0.564	104.9	-1.8	-0.81	1.364	114.6	0.519	1.094	202.1	834.2	0.526	1.663	-2.60	1.028	121.0	245.3	-25.8	0.535
4-3160	4-3680	0.549	312.7	-4.8	-1.98	1.434	68.9	0.576	1.392	59.8	261.5	---	2.195	-1.48	1.118	58.1	92.3	21.1	0.597
4-3160	4-3680	0.161	340.9	-16.0	-1.98	1.293	85.5	0.220	0.908	25.6	587.3	0.708	1.109	-1.48	0.931	79.2	110.6	15.0	0.192
4-3160	4-3680	0.644	113.6	-3.7	-1.98	1.370	118.3	0.567	1.116	275.1	836.7	0.488	1.748	-1.48	1.035	124.2	254.9	-24.9	0.592
4-3160	4-3690	0.503	317.1	-6.6	-2.45	1.436	71.4	0.561	1.405	53.4	264.6	---	2.193	-1.05	1.120	59.5	100.9	21.3	0.571
4-3160	4-3690	0.147	352.1	-22.0	-2.45	1.296	86.9	0.217	0.913	17.3	588.5	0.715	1.112	-1.05	0.934	79.3	120.0	15.3	0.188
4-3160	4-3700	0.459	322.2	-8.2	-2.72	1.438	73.8	0.548	1.417	46.7	267.5	---	2.193	-0.84	1.123	60.7	109.8	20.7	0.548
4-3160	4-3700	0.139	5.3	-26.3	-2.72	1.298	88.4	0.236	0.918	9.1	589.9	0.720	1.116	-0.84	0.937	79.1	129.1	14.3	0.187
4-3160	4-3710	0.417	328.1	-7.8	-2.90	1.440	76.3	0.536	1.423	39.9	270.2	---	2.193	-0.71	1.126	61.8	118.2	19.6	0.527
4-3160	4-3710	0.136	20.2	-28.9	-2.90	1.300	89.8	0.218	0.922	1.2	591.5	0.721	1.123	-0.71	0.940	78.8	138.0	12.6	0.188
4-3160	4-3720	0.377	335.1	-11.4	-3.03	1.442	78.8	0.526	1.438	32.8	272.7	---	2.195	-0.63	1.129	62.8	126.7	17.9	0.509
4-3160	4-3720	0.140	35.7	-29.5	-3.03	1.301	91.2	0.222	0.926	353.3	953.1	0.720	1.131	-0.63	0.943	78.4	146.6	10.2	0.192
4-3160	4-3730	0.341	343.6	-13.3	-3.15	1.443	81.4	0.518	1.448	25.5	274.9	---	2.198	-0.58	1.132	63.7	135.3	15.7	0.494
4-3160	4-3730	0.150	50.2	-28.5	-3.15	1.303	92.7	0.228	0.929	345.5	954.9	0.717	1.141	-0.58	0.987	77.9	155.1	7.4	0.199
4-3160	4-3740	0.311	354.2	-15.2	-3.24	1.445	84.0	0.513	1.457	17.8	276.8	---	2.204	-0.56	1.136	64.4	143.8	13.1	0.481
4-3160	4-3740	0.166	62.9	-26.3	-3.24	1.304	94.2	0.238	0.932	337.6	956.6	0.711	1.154	-0.56	0.951	77.1	163.5	4.3	0.209
4-3160	4-3750	0.289	7.2	-16.9	-3.34	1.446	86.8	0.510	1.465	9.6	278.3	---	2.212	-0.55	1.139	64.8	152.4	10.1	0.473
4-3160	4-3750	0.189	73.7	-23.5	-3.34	1.305	96.0	0.250	0.935	329.5	958.2	0.701	1.169	-0.55	0.955	76.2	171.9	1.0	0.223
4-3160	4-3750	0.563	128.3	-6.3	-3.34	1.197	117.6	0.464	0.747	246.2	1234.8	0.400	1.093	-0.55	0.801	108.8	297.4	-22.2	0.357
4-3160	4-3750	0.703	131.1	-4.7	-3.34	1.211	124.4	0.567	0.765	240.4	1229.0	0.331	1.198	-0.55	0.820	119.6	304.7	-20.4	0.501
4-3160	4-3760	0.279	23.0	-18.1	-3.43	1.447	89.7	0.510	1.472	0.8	279.2	---	2.224	-0.55	1.143	65.0	161.2	6.6	0.470
4-3160	4-3760	0.220	82.8	-20.6	-3.43	1.307	97.9	0.267	0.938	321.2	959.6	0.688	1.188	-0.55	0.959	75.1	180.4	-2.5	0.241
4-3170	4-3760	0.470	126.9	-8.0	-3.43	1.188	113.0	0.391	0.735	249.4	1247.8	0.447	1.022	-0.55	0.790	97.7	286.8	-24.3	0.242
4-3170	4-3220	0.480	78.5	-10.9	-3.34	1.589	100.3	0.825	3.979	337.1	430.7	0.694	---	-0.41	1.326	121.4	186.5	-3.5	0.687
4-3170	4-3230	0.363	80.7	-13.3	-3.27	1.477	98.8	0.584	1.677	336.0	439.5	0.697	---	-0.42	1.186	117.4	190.9	-5.6	0.533
4-3170	4-3240	0.283	81.4	-16.0	-3.19	1.405	97.3	0.437	1.244	335.9	449.2	0.701	---	-0.44	1.093	113.5	195.3	-7.7	0.418
4-3170	4-3250	0.227	80.8	-18.8	-3.10	1.358	95.9	0.342	1.071	336.6	459.7	0.705	---	-0.49	1.029	109.7	199.5	-9.8	0.331
4-3170	4-3260	0.187	79.0	-21.6	-2.99	1.327	94.8	0.279	0.983	337.9	470.8	0.709	---	-0.56	0.985	106.2	203.1	-11.8	0.264
4-3170	4-3270	0.160	76.4	-23.8	-2.84	1.306	93.9	0.238	0.934	339.7	482.3	0.711	---	-0.67	0.955	103.0	205.8	-13.9	0.210
4-3170	4-3280	0.140	73.6	-24.7	-2.60	1.293	93.2	0.211	0.904	341.4	493.7	0.714	---	-0.87	0.934	100.1	207.0	-16.3	0.168
4-3170	4-3290	0.125	71.0	-22.5	-2.13	1.284	92.7	0.193	0.886	342.9	504.8	0.715	---	-1.31	0.920	97.5	205.4	-20.0	0.135
4-3170	4-3300	0.109	69.2	-7.7	-0.66	1.279	92.5	0.183	0.876	343.9	515.3	0.716	---	-2.74	0.910	95.2	197.2	-30.7	0.118
4-3170	4-3310	0.542	161.2	-84.3	-25.04	1.276	92.4	0.177	0.870	344.0	525.1	0.716	---	21.67	0.905	93.1	227.2	55.4	0.366
4-3170	4-3320	0.158	71.2	-51.4	-5.55	1.274	92.4	0.174	0.867	343.6	534.2	0.716	---	2.22	0.902	91.2	202.9	14.7	0.091
4-3170	4-3330	0.142	72.7	-44.3	-4.48	1.274	92.6	0.174	0.866	342.4	542.5	0.715	1.017	1.18	0.901	89.5	192.3	8.5	0.085
4-3170	4-3340	0.140	75.8	-40.5	-4.08	1.274	92.9	0.176	0.867	340.4	550.0	0.714	1.020	0.82	0.902	87.9	185.7	6.7	0.089
4-3170	4-3350	0.141	79.7	-37.4	-3.87	1.275	93.3	0.180	0.869	337.8	557.0	0.712	1.025	0.64	0.904	86.4	182.5	5.4	0.097
4-3170	4-3360	0.147	84.3	-34.3	-3.73	1.277	93.9	0.186	0.871	334.6	563.3	0.709	1.033	0.58	0.908	84.9	182.3	3.9	0.109
4-3170	4-3370	0.155	89.1	-31.2	-3.62	1.278	94.6	0.193	0.874	330.8	569.1	0.705	1.044	0.48	0.912	83.5	184.2	2.0	0.123
4-3170	4-3380	0.167	94.1	-28.1	-3.53	1.280	95.5	0.203	0.878	326.5	574.5	0.700	1.056	0.44	0.916	82.1	181.6	-0.2	0.139
4-3170	4-3390	0.183	99.1	-24.9	-3.46	1.282	96.5	0.214	0.882	321.7	579.3	0.693	1.71	0.42	0.921	80.7	192.3	-2.6	0.157
4-3170	4-3400	0.203	104.0	-21.7	-3.39	1.284	97.7	0.229	0.886	316.4	583.7	0.683	1.089	0.41	0.927	79.3	197.8	-5.3	0.178

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3170	4-3410	0.220	108.8	-18.6	-3.32	1.286	99.2	0.247	0.890	310.4	587.5	0.670	1.110	0.41	0.933	77.6	204.2	-8.1	0.202
4-3170	4-3420	0.265	113.6	-15.7	-3.25	1.288	101.1	0.271	0.894	303.8	590.7	0.652	1.137	0.43	0.939	75.8	211.2	-10.9	0.232
4-3170	4-3430	0.310	118.4	-12.9	-3.16	1.290	103.4	0.302	0.899	296.4	593.2	0.627	1.171	0.46	0.945	73.5	219.1	-13.7	0.269
4-3170	4-3440	0.372	123.3	-10.3	-3.07	1.293	106.5	0.345	0.904	287.9	594.6	0.592	1.215	0.51	0.951	70.7	227.8	-16.3	0.318
4-3170	4-3450	0.458	128.6	-7.8	-2.94	1.295	110.8	0.404	0.909	278.0	594.7	0.542	1.276	0.59	0.957	66.7	237.6	-18.7	0.386
4-3170	4-3450	0.774	161.0	-3.1	-2.94	1.059	130.1	0.661	0.604	217.0	893.8	0.205	1.004	0.59	0.601	101.9	330.0	-11.4	0.442
4-3170	4-3460	0.585	134.7	-5.4	-2.75	1.298	116.9	0.491	0.914	265.7	592.5	0.465	1.363	0.74	0.963	60.9	248.9	-20.7	0.485
4-3170	4-3460	0.773	161.8	-2.8	-2.75	1.048	130.2	0.665	0.596	215.9	902.7	0.199	0.992	0.74	0.585	84.8	316.8	-15.5	0.430
4-3170	4-3470	0.863	163.4	-2.1	-2.42	1.044	135.3	0.727	0.593	212.7	909.5	0.162	1.024	1.03	0.582	66.9	307.7	-17.8	0.524
4-3170	4-3520	0.689	306.3	-6.7	-4.15	1.303	58.8	0.552	0.925	101.1	488.8	0.415	1.435	-0.88	0.976	123.3	90.3	22.2	0.570
4-3170	4-3520	0.902	277.3	-3.1	-4.15	0.992	42.3	0.765	0.957	152.6	900.3	0.131	0.983	-0.88	0.489	89.1	18.6	7.0	0.528
4-3170	4-3530	0.522	314.1	-9.0	-3.89	1.305	67.0	0.443	0.931	84.8	482.7	0.519	1.344	-0.66	0.979	116.1	304.3	21.5	0.447
4-3170	4-3540	0.411	321.3	-11.4	-3.74	1.308	72.6	0.372	0.937	71.0	479.0	0.588	1.286	-0.55	0.981	111.7	116.7	19.8	0.369
4-3170	4-3550	0.332	328.6	-14.1	-3.62	1.310	76.6	0.326	0.943	58.5	476.6	0.636	1.250	-0.48	0.983	108.8	128.3	17.4	0.318
4-3170	4-3560	0.272	336.9	-17.0	-3.53	1.313	79.9	0.295	0.949	46.6	474.9	0.669	1.229	-0.44	0.984	107.0	139.2	14.3	0.284
4-3170	4-3570	0.227	346.8	-20.3	-3.45	1.315	82.6	0.276	0.955	35.2	473.5	0.692	1.218	-0.42	0.985	105.9	149.7	10.7	0.262
4-3170	4-3580	0.193	359.5	-23.7	-3.38	1.318	85.1	0.265	0.961	24.0	472.3	0.707	1.216	-0.41	0.986	105.2	159.9	6.8	0.249
4-3170	4-3590	0.735	298.5	-4.6	-3.31	1.232	55.0	0.578	0.794	117.4	575.7	0.335	1.252	-0.41	0.864	57.6	29.2	11.4	0.552
4-3170	4-3590	0.170	16.0	-26.6	-3.31	1.321	87.3	0.260	0.969	12.9	471.2	0.716	1.221	-0.41	0.987	105.0	169.9	2.6	0.245
4-3170	4-3600	0.653	302.0	-5.3	-3.24	1.242	59.3	0.519	0.810	110.0	578.2	0.390	1.231	-0.43	0.876	61.5	37.2	14.0	0.492
4-3170	4-3600	0.160	36.1	-27.8	-3.24	1.324	89.6	0.263	0.977	1.9	470.1	0.720	1.234	-0.43	0.989	105.2	179.8	-1.7	0.247
4-3170	4-3610	0.575	305.7	-6.1	-3.15	1.252	63.3	0.464	0.826	102.4	580.4	0.443	1.209	-0.46	0.886	65.9	45.5	16.3	0.435
4-3170	4-3610	0.166	57.0	-26.1	-3.15	1.328	91.9	0.272	0.966	351.1	829.1	0.718	1.254	-0.46	0.991	105.7	189.7	-6.0	0.256
4-3170	4-3620	0.504	309.5	-7.0	-3.05	1.260	66.9	0.413	0.841	94.4	582.2	0.493	1.188	-0.51	0.895	68.2	54.2	18.2	0.385
4-3170	4-3620	0.187	75.1	-22.2	-3.05	1.332	94.3	0.287	0.997	340.5	828.3	0.711	1.283	-0.51	0.993	106.7	199.5	-10.2	0.273
4-3170	4-3630	0.439	313.6	-8.0	-2.93	1.268	70.3	0.369	0.855	86.0	583.6	0.539	1.170	-0.60	0.903	70.9	65.3	19.6	0.341
4-3170	4-3630	0.222	89.1	-17.8	-2.93	1.537	96.9	0.308	1.009	330.3	827.8	0.698	1.320	-0.60	0.997	108.0	209.3	-14.0	0.296
4-3170	4-3640	0.380	317.9	-8.8	-2.74	1.275	73.2	0.331	0.867	77.4	584.6	0.580	1.154	-0.75	0.909	73.1	72.7	20.3	0.303
4-3170	4-3640	0.267	99.6	-13.7	-2.74	1.342	96.6	0.333	1.023	320.5	827.7	0.679	1.367	-0.75	1.001	109.7	219.0	-17.5	0.327
4-3170	4-3650	0.329	322.6	-9.2	-2.42	1.280	75.8	0.300	0.878	68.6	585.4	0.614	1.142	-1.03	0.915	74.8	82.3	19.9	0.272
4-3170	4-3650	0.322	107.5	-9.9	-2.42	1.347	102.6	0.370	1.038	311.3	828.1	0.654	1.423	-1.03	1.005	111.7	228.6	-20.8	0.365
4-3170	4-3660	0.282	327.9	-7.5	-1.68	1.285	78.2	0.276	0.888	59.7	586.2	0.643	1.133	-1.73	0.920	76.2	91.9	17.2	0.249
4-3170	4-3660	0.383	113.8	-5.7	-1.68	1.353	105.8	0.409	1.055	302.6	829.0	0.624	1.487	-1.73	1.012	114.0	237.9	-24.2	0.409
4-3170	4-3670	0.247	333.6	12.6	2.43	1.289	80.2	0.257	0.896	50.9	586.9	0.666	1.127	-5.82	0.924	77.1	101.0	1.3	0.247
4-3170	4-3670	0.453	119.1	6.9	2.43	1.359	109.7	0.452	1.074	294.5	830.5	0.589	1.559	-5.82	1.019	116.7	245.6	-33.1	0.467
4-3170	4-3680	0.264	337.8	-39.6	-7.55	1.293	82.1	0.243	0.903	42.2	587.8	0.684	1.123	4.20	0.928	77.8	115.3	38.9	0.225
4-3170	4-3680	0.548	124.6	-17.6	-7.55	1.365	112.6	0.497	1.094	286.9	833.4	0.550	1.637	4.20	1.026	119.5	257.9	-15.7	0.515
4-3170	4-3690	0.593	325.6	-10.9	-4.88	1.435	67.0	0.592	1.393	64.2	259.3	---	2.218	1.56	1.118	56.8	104.1	25.2	0.615
4-3170	4-3690	0.209	347.2	-31.6	-4.88	1.296	83.8	0.234	0.910	33.7	586.8	0.697	1.122	1.56	0.932	78.3	122.6	27.2	0.205
4-3170	4-3690	0.609	127.8	-9.9	-4.88	1.371	116.1	0.543	1.134	279.7	834.7	0.509	1.719	1.56	1.034	122.6	266.7	-21.0	0.567
4-3170	4-3700	0.543	329.8	-10.6	-4.26	1.438	69.5	0.576	1.407	57.9	262.5	---	2.216	0.98	1.121	58.3	112.7	23.4	0.588
4-3170	4-3700	0.183	356.8	-31.7	-4.26	1.298	85.4	0.227	0.915	25.4	590.0	0.707	1.123	0.98	0.935	78.5	131.4	22.7	0.198
4-3170	4-3710	0.496	334.5	-11.0	-3.97	1.440	72.0	0.561	1.419	51.4	265.6	---	2.215	0.72	1.124	59.7	121.2	21.6	0.563
4-3170	4-3710	0.164	8.2	-33.2	-3.97	1.300	86.9	0.224	0.920	17.2	591.4	0.714	1.126	0.72	0.939	78.5	140.2	19.1	0.194
4-3170	4-3720	0.452	339.8	-11.7	-3.80	1.442	74.5	0.548	1.430	44.8	268.5	---	2.215	0.59	1.127	60.9	129.6	19.6	0.541
4-3170	4-3720	0.152	21.7	-34.4	-3.80	1.302	88.3	0.223	0.925	9.2	592.9	0.716	1.131	0.59	0.943	78.4	148.8	15.7	0.193
4-3170	4-3730	0.409	345.9	-12.7	-3.67	1.444	76.9	0.537	1.441	37.9	271.2	---	2.215	0.51	1.131	62.0	137.9	17.2	0.521
4-3170	4-3730	0.147	36.8	-34.7	-3.67	1.304	89.8	0.225	0.929	1.3	594.6	0.720	1.137	0.51	0.947	78.1	157.2	12.1	0.195
4-3170	4-3740	0.370	353.4	-13.9	-3.58	1.445	79.5	0.528	1.451	30.8	273.7	---	2.217	0.46	1.135	63.0	146.2	14.6	0.504
4-3170	4-3740	0.148	52.5	-34.4	-3.58	1.306	91.2	0.228	0.932	353.4	956.3	0.719	1.145	0.46	0.951	77.7	165.5	8.5	0.200
4-3170	4-3750	0.335	2.5	-15.1	-3.50	1.447	82.0	0.521	1.460	23.4	275.9	---	2.221	0.43	1.138	63.8	154.4	11.6	0.490
4-3170	4-3750	0.157	67.2	-30.6	-3.50	1.307	92.8	0.235	0.936	345.4	958.0	0.716	1.155	0.43	0.955	77.2	173.7	4.8	0.207
4-3170	4-3760	0.306	13.8	-16.4	-3.43	1.448	84.7	0.516	1.469	15.6	277.8	---	2.227	0.41	1.142	64.5	162.7	8.3	0.479
4-3170	4-3760	0.172	80.1	-26.9	-3.43	1.309	94.4	0.244	0.939	337.3	959.6	0.709	1.168	0.41	0.959	76.5	182.0	1.0	0.218
4-3170	4-3770	0.286	27.8	-17.3	-3.36	1.449	87.6	0.514	1.477	7.2	279.2	---	2.235	0.41	1.146	64.9	171.2	4.8	0.472
4-3170	4-3770	0.196	90.9	-22.9	-3.36	1.310	96.2	0.258	0.942	329.0	961.0	0.699	1.184	0.41	0.964	75.6	190.4	-2.7	0.233
4-3170	4-3770	0.479	142.5	-7.7	-3.36	1.195	113.3	0.397	0.741	250.5	1242.4	0.447	1.035	0.41	0.801	100.9	306.0	-18.1	0.268
4-3180	4-3220	0.546	80.6	-10.6	-3.42	1.695	97.0	1.066	10.769	346.4	423.8	0.709	---	-1.36	1.450	123.0	190.2	-6.6	0.803
4-3180	4-3230	0.389	83.2	-12.6	-3.19	1.538	96.1	0.706	2.411	345.2	432.5	0.709	---	-1.33	1.261	119.0	194.0	-9.6	0.604
4-3180	4-3240	0.289	83.7	-14.9	-2.96	1.442	94.9	0.501	1.426	345.2	442.4	0.711	---	-1.34	1.139	115.0	197.9	-10.8	0.466
4-3180	4-3250	0.222	82.2	-17.1	-2.72	1.381	93.7	0.376	1.144	346.3	453.3	0.714	---	-1.39	1.058	111.0	201.7	-13.2	0.364
4-3180	4-3250	0.222	82.2	-17.1	-2.72	1.381	93.7	0.376	1.144	346.3	453.3	0.714	---	-1.39	1.058	111.0	201.7	-13.2	0.364
4-3180	4-3260	0.177	78.9	-19.0	-2.45	1.342	92.7	0.298	1.019	348.3	465.0	0.716	---	-1.49	1.003	107.3	205.0	-15.7	0.287
4-3180	4-3270	0.146	74.3	-19.7	-2.14	1.316	91.8	0.247	0.953	350.8	477.2	0.717	---	-1.65	0.966	103.9	207.3	-18.6	0.227
4-3180	4-3280	0.125	69.3	-18.5	-1.74	1.300	91.2	0.215	0.915	353.3	489.4	0.718	---	-1.92	0.941	100.9	208.2	-22.1	0.181
4-3180	4-3290	0.110	64.9	-13.9	-1.17	1.289	90.7	0.195	0.893	355.0	501.2	0.719	---	-2.36	0.924	98.2	206.4	-26.8	0.147
4-3180	4-3300	0.100	61.7	-3.0	-0.23	1.282	90.5	0.183	0.880	357.1	512.3	0.719	---	-3.18	0.913	95.8	200.1	-34.2	0.125
4-3180	4-3310	0.103	60.3	22.6	1.78	1.279	90.3	0.176	0.872	357.8	522.6	0.719	---	-5.08	0.907	93.6	185.3	-46.0	0.126
4-3180	4-3320	0.238	61.0	71.9	10.19	1.277	90.3	0.172	0.869	357.7	531.9	0.719	---	-13.38	0.904	91.7	151.9	-60.2	0.235
4-3180	4-3330	0.473	133.1	-88.8	-21.77	1.276	90.6	0.172	0.868	355.9	540.0	0.719	1.017	18.69	0.903	90.0	228.8	53.2	0.316
4-3180	4-3340	0.208	68.8	-67.2	-8.66	1.277	90.8	0.172	0.868	354.3	547.8	0.719	1.018	5.69	0.903	88.4	208.3	38.0	0.126
4-3180	4-3350	0.166	73.3	-57.0	-6.25	1.278	91.2	0.175	0.870	351.7	554.8	0.718	1.023	3.40	0.906	86.9	197.1	25.7	0.107
4-3180	4-3360	0.151	79.2	-50.1	-5.20	1.279	91.7	0.179	0.873	348.6	561.2	0.717	1.029	2.47	0.909	85.6	192.5	17.6	0.109
4-3180	4-3370	0.146	85.7	-44.4	-4.59	1.281	92.3	0.184	0.877	344.8	567.0	0.715	1.038	1.98	0.913	84.3	191.9	11.8	0.117
4-3180	4-3380	0.148	92.6	-39.1	-4.17	1.283	93.1	0.190	0.880	340.6	572.4	0.713	1.048	1.69	0.918	83.1	193.7	7.3	0.128
4-3180	4-3390	0.154	99.4	-34.0	-3.85	1.285	93.9	0.198	0.884	335.9	577.4	0.709	1.060	1.51	0.923	81.9	197.2	3.3	0.142
4-3180	4-3400	0.165	106.0	-29.1	-3.58	1.287	94.9	0.208	0.888	330.7	581.9	0.703	1.074	1.40	0.929	80.6	201.9	-0.4	0.158
4-3180	4-3410	0.181	112.3	-24.4	-3.34	1.289	96.1	0.221	0.893	325.1	586.0	0.696	1.090	1.35	0.935	79.4	207.6	-3.8	0.176
4-3180	4-3420	0.203	118.3	-20.0	-3.11	1.291	97.5	0.236	0.897	318.9	589.6	0.685	1.109	1.33	0.941	78.0	214.0	-7.0	0.197
4-3180	4-3430	0.232	123.9	-16.0	-2.87	1.293	99.2	0.256	0.902	312.1	592.7	0.671	1.133	1.35	0.947	76.4	221.2	-10.1	0.222
4-3180	4-3440	0.271	129.3	-12.4	-2.62	1.295	101.3	0.282	0.907	304.6	595.2	0.651	1.162	1.42	0.953	74.6	229.1	-12.8	0.254

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3180	4-3450	0.323	134.7	-9.2	-2.34	1.298	104.0	0.317	0.911	296.2	596.8	0.623	1.200	1.54	0.959	72.2	237.8	-15.2	0.295
4-3180	4-3460	0.394	140.1	-6.2	-1.98	1.300	107.6	0.365	0.916	286.7	597.3	0.582	1.250	1.75	0.964	69.1	247.4	-17.3	0.350
4-3180	4-3460	0.781	175.9	-2.1	-1.98	1.077	130.3	0.659	0.617	218.7	889.2	0.211	1.023	1.75	0.632	109.2	348.2	-2.6	0.469
4-3180	4-3470	0.496	146.0	-3.6	-1.50	1.302	112.5	0.433	0.921	275.4	596.0	0.522	1.321	2.10	0.970	64.6	258.2	-18.7	0.428
4-3180	4-3470	0.739	176.5	-1.7	-1.50	1.061	128.1	0.635	0.604	218.2	898.9	0.220	0.988	2.10	0.508	91.9	335.3	-6.9	0.407
4-3180	4-3480	0.650	153.0	-1.3	-0.74	1.305	120.0	0.536	0.927	261.3	592.0	0.430	1.425	2.72	0.975	57.7	270.7	-19.3	0.547
4-3180	4-3480	0.783	177.6	-0.8	-0.74	1.055	130.7	0.669	0.600	216.3	907.0	0.198	1.001	2.72	0.661	70.3	324.1	-10.5	0.452
4-3180	4-3530	0.918	294.6	-4.8	-6.46	1.016	41.9	0.764	0.572	151.1	892.9	0.135	1.009	-3.59	0.533	111.4	49.5	14.9	0.555
4-3180	4-3540	0.618	326.0	-9.9	-5.26	1.310	62.5	0.506	0.935	93.2	485.1	0.464	1.414	-2.52	0.982	120.3	113.4	17.5	0.516
4-3180	4-3550	0.477	333.6	-11.9	-4.60	1.313	89.5	0.416	0.945	78.0	480.0	0.552	1.338	-1.99	0.984	114.5	126.1	14.9	0.415
4-3180	4-3560	0.380	340.9	-14.0	-4.16	1.315	74.3	0.358	0.951	64.7	476.9	0.610	1.291	-1.69	0.985	110.9	137.6	11.7	0.351
4-3180	4-3570	0.309	348.7	-16.2	-3.83	1.318	78.0	0.319	0.957	52.5	474.7	0.651	1.262	-1.50	0.986	108.5	148.2	8.0	0.309
4-3180	4-3580	0.254	357.9	-18.5	-3.55	1.320	81.0	0.294	0.963	40.9	473.1	0.679	1.247	-1.40	0.987	107.0	158.5	4.0	0.281
4-3180	4-3590	0.212	9.2	-20.9	-3.31	1.323	83.7	0.279	0.969	29.6	471.7	0.699	1.239	-1.34	0.987	106.1	168.4	-0.3	0.265
4-3180	4-3600	0.182	23.7	-23.0	-3.08	1.325	86.1	0.271	0.976	18.6	470.6	0.711	1.241	-1.33	0.988	105.7	178.3	-4.6	0.256
4-3180	4-3610	0.715	315.9	-4.1	-2.84	1.241	56.1	0.565	0.805	114.9	576.7	0.350	1.261	-1.36	0.868	58.3	48.9	15.9	0.539
4-3180	4-3610	0.164	42.1	-23.8	-2.84	1.328	88.4	0.270	0.984	7.7	469.5	0.718	1.250	-1.36	0.989	105.7	188.1	-9.0	0.255
4-3180	4-3620	0.636	319.4	-4.4	-2.60	1.250	60.2	0.509	0.821	107.6	579.2	0.403	1.239	-1.43	0.879	62.0	56.4	17.5	0.481
4-3180	4-3620	0.160	62.7	-22.2	-2.60	1.332	90.7	0.276	0.993	356.9	828.5	0.719	1.268	-1.43	0.991	106.0	198.0	-13.3	0.262
4-3180	4-3630	0.561	323.0	-4.7	-2.31	1.259	64.0	0.457	0.837	100.0	581.3	0.455	1.232	-1.56	0.888	65.3	65.0	18.5	0.422
4-3180	4-3630	0.173	82.2	-18.2	-2.31	1.336	93.0	0.287	1.002	346.4	827.7	0.715	1.290	-1.56	0.994	106.7	208.0	-17.3	0.275
4-3180	4-3640	0.492	326.8	-4.7	-1.97	1.267	67.4	0.409	0.851	92.1	583.1	0.503	1.199	-1.76	0.897	66.2	74.0	18.7	0.381
4-3180	4-3640	0.200	98.1	-13.2	-1.97	1.340	95.5	0.305	1.014	336.1	827.1	0.705	1.323	-1.76	0.997	107.7	218.1	-21.0	0.295
4-3180	4-3650	0.429	330.9	-4.2	-1.50	1.274	70.6	0.368	0.864	84.0	584.6	0.546	1.182	-2.10	0.905	70.7	83.2	18.0	0.340
4-3180	4-3650	0.241	110.0	-8.3	-1.50	1.344	98.2	0.329	1.027	326.2	826.9	0.689	1.364	-2.10	1.001	109.2	228.2	-24.3	0.322
4-3180	4-3660	0.373	335.2	-2.6	-0.80	1.280	73.4	0.333	0.876	75.6	585.8	0.584	1.168	-2.68	0.911	72.7	92.4	15.8	0.306
4-3180	4-3660	0.291	119.1	-3.6	-0.80	1.349	101.0	0.359	1.041	316.8	827.1	0.668	1.414	-2.68	1.006	111.0	238.2	-27.5	0.357
4-3180	4-3670	0.324	339.8	1.9	0.49	1.286	75.9	0.304	0.886	67.1	586.9	0.617	1.156	-3.85	0.917	74.3	101.3	10.8	0.281
4-3180	4-3670	0.350	126.2	1.9	0.49	1.355	104.0	0.394	1.057	308.0	827.8	0.641	1.473	-3.85	1.012	113.1	248.0	-31.0	0.399
4-3180	4-3680	0.293	344.3	17.2	3.94	1.290	78.2	0.282	0.896	58.5	587.9	0.643	1.148	-7.18	0.923	75.6	109.5	-1.8	0.277
4-3180	4-3680	0.424	132.4	12.2	3.94	1.390	107.2	0.433	1.075	299.7	829.0	0.609	1.540	-7.18	1.019	115.5	257.0	-37.6	0.455
4-3180	4-3700	0.332	350.3	-53.4	-11.99	1.297	82.1	0.250	0.911	41.5	590.1	0.685	1.138	8.97	0.932	77.1	145.5	48.4	0.264
4-3180	4-3700	0.616	144.0	-25.0	-11.99	1.372	114.1	0.521	1.113	284.3	832.8	0.534	1.693	8.97	1.034	121.0	276.3	-9.1	0.563
4-3180	4-3710	0.592	342.4	-16.4	-7.21	1.439	67.7	0.591	1.408	62.4	260.4	---	2.239	4.30	1.122	57.1	125.5	26.3	0.610
4-3180	4-3710	0.240	2.5	-42.5	-7.21	1.500	83.7	0.240	0.917	33.3	591.4	0.696	1.137	4.30	0.937	77.5	146.2	32.7	0.221
4-3180	4-3720	0.538	347.0	-14.4	-5.67	1.441	70.1	0.575	1.420	56.0	263.6	---	2.238	2.87	1.125	58.6	133.3	22.5	0.582
4-3180	4-3720	0.202	12.8	-39.5	-5.67	1.303	85.3	0.234	0.922	25.2	592.8	0.706	1.138	2.87	0.941	77.7	152.9	24.8	0.209
4-3180	4-3730	0.489	351.9	-13.9	-4.88	1.443	72.6	0.561	1.432	49.6	266.7	---	2.237	2.20	1.129	59.9	141.2	19.3	0.558
4-3180	4-3730	0.178	24.6	-38.6	-4.88	1.305	86.8	0.231	0.927	17.2	594.4	0.713	1.141	2.20	0.946	77.8	160.5	19.1	0.204
4-3180	4-3740	0.444	357.5	-13.9	-4.37	1.445	75.1	0.549	1.443	42.9	269.6	---	2.236	1.83	1.133	61.1	149.1	16.1	0.536
4-3180	4-3740	0.162	38.3	-38.1	-4.37	1.307	88.3	0.229	0.931	9.3	596.0	0.717	1.145	1.83	0.950	77.7	168.3	14.2	0.203
4-3180	4-3750	0.401	4.0	-14.3	-4.01	1.447	77.6	0.538	1.454	36.0	272.4	---	2.237	1.60	1.137	62.2	157.1	12.9	0.517
4-3180	4-3750	0.153	53.8	-36.7	-4.01	1.308	89.8	0.231	0.935	1.3	597.7	0.719	1.151	1.60	0.955	77.4	176.1	9.6	0.204
4-3180	4-3760	0.362	12.0	-14.8	-3.71	1.448	80.1	0.530	1.464	28.8	274.9	---	2.239	1.45	1.141	63.2	165.0	9.6	0.501
4-3180	4-3760	0.152	69.7	-33.8	-3.71	1.310	91.3	0.235	0.939	353.3	959.4	0.718	1.159	1.45	0.959	77.1	184.1	5.3	0.209
4-3180	4-3770	0.327	21.7	-15.4	-3.46	1.450	82.7	0.523	1.473	21.3	277.1	---	2.243	1.37	1.145	64.0	173.0	6.2	0.488
4-3180	4-3770	0.160	84.6	-29.6	-3.46	1.311	92.9	0.241	0.942	345.2	961.0	0.715	1.169	1.37	0.964	76.5	192.2	1.2	0.217
4-3180	4-3780	0.299	33.9	-15.8	-3.23	1.451	85.5	0.519	1.481	13.3	278.9	---	2.249	1.33	1.149	64.6	181.3	2.6	0.478
4-3180	4-3780	0.176	97.5	-24.8	-3.23	1.313	94.6	0.251	0.945	336.8	962.4	0.708	1.182	1.33	0.969	75.8	200.5	-2.7	0.229
4-3180	4-3780	0.506	158.6	-7.0	-3.23	1.203	114.5	0.416	0.750	250.7	1236.3	0.438	1.062	1.33	0.814	105.1	323.4	-11.0	0.312
4-3180	4-3780	0.728	163.1	-4.4	-3.23	1.224	125.2	0.580	0.779	241.0	1226.6	0.327	1.231	1.33	0.844	121.8	334.9	-8.5	0.540
4-3190	4-3230	0.443	82.3	-12.4	-3.36	1.616	92.1	0.876	5.807	355.4	426.5	0.718	---	-2.27	1.383	120.8	197.0	-11.3	0.696
4-3190	4-3240	0.310	82.1	-14.4	-2.97	1.484	91.6	0.582	1.719	355.6	436.6	0.718	---	-2.18	1.190	116.5	200.3	-13.4	0.521
4-3190	4-3250	0.229	79.1	-16.2	-2.60	1.404	90.8	0.417	1.232	357.3	448.1	0.718	---	-2.15	1.087	112.3	203.6	-15.7	0.399
4-3190	4-3260	0.178	73.6	-17.2	-2.23	1.354	90.0	0.318	1.054	0.1	100.7	---	---	-2.19	1.019	108.4	206.4	-18.2	0.309
4-3190	4-3270	0.146	66.6	-16.8	-1.84	1.523	89.3	0.258	0.968	3.7	113.9	---	---	-2.29	0.974	104.8	208.4	-21.2	0.242
4-3190	4-3280	0.127	59.6	-14.4	-1.39	1.303	88.7	0.221	0.921	7.2	127.1	---	---	-2.48	0.945	101.5	208.9	-24.7	0.192
4-3190	4-3290	0.115	53.8	-9.6	-0.86	1.291	88.3	0.199	0.895	10.2	139.7	---	---	-2.78	0.925	98.6	207.0	-29.0	0.155
4-3190	4-3300	0.109	50.1	-1.8	-0.15	1.283	88.1	0.186	0.880	12.3	151.3	---	---	-3.28	0.913	96.1	201.5	-34.6	0.130
4-3190	4-3310	0.107	48.3	10.7	0.89	1.279	88.0	0.178	0.871	13.2	161.8	---	---	-4.13	0.906	95.8	191.1	-41.3	0.119
4-3190	4-3320	0.119	48.2	30.8	2.73	1.277	88.1	0.177	0.867	13.1	171.2	---	---	-5.77	0.905	91.9	175.7	-48.7	0.128
4-3190	4-3330	0.184	47.7	59.8	7.15	1.276	88.2	0.173	0.866	12.1	179.6	---	---	-10.01	0.902	90.1	156.2	-56.6	0.184
4-3190	4-3350	0.439	20.5	-86.3	-20.07	1.278	89.1	0.174	0.870	6.4	193.5	---	1.022	17.57	0.905	87.2	228.2	51.9	0.302
4-3190	4-3360	0.234	64.6	-70.4	-9.90	1.280	89.5	0.177	0.873	3.4	199.9	---	1.027	7.68	0.909	85.9	211.0	40.7	0.159
4-3190	4-3370	0.180	73.9	-60.6	-7.03	1.282	90.1	0.180	0.877	359.7	565.7	0.719	1.035	4.90	0.913	84.7	203.3	28.5	0.135
4-3190	4-3380	0.158	83.0	-53.0	-5.63	1.284	90.7	0.185	0.881	355.4	571.0	0.718	1.044	3.69	0.918	83.5	201.6	19.2	0.134
4-3190	4-3390	0.148	92.3	-46.1	-4.76	1.286	91.5	0.190	0.885	350.7	576.0	0.717	1.054	3.02	0.924	82.5	203.1	12.1	0.140
4-3190	4-3400	0.146	101.5	-39.5	-4.13	1.288	92.4	0.197	0.890	345.6	580.5	0.715	1.065	2.62	0.930	81.4	206.5	6.5	0.150
4-3190	4-3410	0.150	110.3	-33.0	-3.64	1.291	93.4	0.205	0.895	340.0	584.7	0.711	1.078	2.30	0.936	80.4	211.2	1.8	0.163
4-3190	4-3420	0.161	118.6	-26.8	-3.22	1.293	94.5	0.215	0.899	334.0	588.6	0.706	1.093	2.23	0.942	79.3	217.0	-2.3	0.178
4-3190	4-3430	0.178	126.2	-21.0	-2.84	1.295	95.9	0.228	0.904	327.5	592.0	0.698	1.111	2.16	0.948	78.2	223.5	-5.9	0.196
4-3190	4-3440	0.203	133.1	-15.8	-2.46	1.297	97.5	0.245	0.909	320.5	594.9	0.686	1.132	2.16	0.954	76.9	230.8	-9.4	0.218
4-3190	4-3450	0.236	139.5	-11.4	-2.08	1.300	99.4	0.266	0.914	312.9	597.2	0.670	1.157	2.22	0.960	75.3	238.8	-14.7	0.245
4-3190	4-3460	0.281	145.6	-7.5	-1.65	1.302	101.8	0.295	0.919	304.5	598.9	0.648	1.190	2.36	0.966	73.4	247.6	-13.9	0.279
4-3190	4-3470	0.341	151.5	-4.3	-1.15	1.304	104.8	0.334	0.924	295.2	599.6	0.615	1.232	2.61	0.971	70.9	257.1	-15.5	0.324
4-3190	4-3470	0.829	191.2	-1.1	-1.15	1.101	132.5	0.682	0.636	219.5	883.9	0.202	1.070	2.61	0.674	118.7	6.6	6.0	0.539
4-3190	4-3480	0.425	157.5	-1.5	-0.51	1.306	108.9	0.389	0.929	284.5	599.0	0.568	1.290	3.02	0.976	67.4	267.5	-16.4	0.387
4-3190	4-3480	0.722	191.4	-0.6	-0.51	1.074	127.0	0.617	0.614	220.2	894.8	0.235	0.992	3.02	0.632	98.3	353.2	2.2	0.404
4-3190	4-3490	0.548	164.1	0.9	0.41	1.309	114.8	0.469	0.935	271.7	596.4	0.496	1.373	3.72	0.981	62.2	279.1	-16.4	0.480
4-3190	4-3490	0.732	192.2	0.5	0.41	1.066	127.6	0.627	0.607	219.0	903.7	0.226	0.988	3.72	0.620	93.9	341.1	-1.9	0.407

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3190	4-3500	0.820	193.7	1.9	1.96	1.065	132.5	0.689	0.605	215.9	910.8	0.188	1.022	5.06	0.617	68.2	333.5	-4.8	0.502
4-3190	4-3550	0.866	312.2	-5.9	-7.06	1.027	45.1	0.727	0.579	148.5	894.4	0.158	0.999	-4.93	0.547	104.3	64.8	16.2	0.503
4-3190	4-3560	0.561	345.5	-12.0	-5.59	1.317	65.5	0.471	0.953	86.2	482.1	0.504	1.401	-3.66	0.986	118.0	134.5	10.2	0.476
4-3190	4-3570	0.439	353.0	-13.5	-4.71	1.319	71.4	0.397	0.959	71.8	477.8	0.578	1.339	-2.99	0.987	113.3	146.1	6.3	0.393
4-3190	4-3580	0.352	0.7	-15.0	-4.08	1.322	75.8	0.348	0.965	59.0	475.0	0.628	1.301	-2.59	0.988	110.3	156.7	2.1	0.340
4-3190	4-3590	0.287	9.2	-16.5	-3.59	1.324	79.2	0.316	0.971	47.1	473.0	0.664	1.278	-2.35	0.988	108.4	166.9	-2.3	0.305
4-3190	4-3600	0.236	19.4	-17.9	-3.17	1.327	82.1	0.296	0.977	35.6	471.4	0.688	1.266	-2.22	0.989	107.2	176.8	-6.7	0.283
4-3190	4-3610	0.198	32.2	-19.0	-2.79	1.329	84.7	0.284	0.984	24.5	470.1	0.704	1.263	-2.16	0.989	106.5	186.7	-11.2	0.271
4-3190	4-3620	0.779	329.8	-3.1	-2.42	1.239	52.7	0.611	0.801	119.6	575.0	0.312	1.290	-2.16	0.861	55.0	59.1	17.8	0.588
4-3190	4-3620	0.171	48.6	-19.2	-2.42	1.332	87.0	0.279	0.991	13.6	469.0	0.714	1.268	-2.16	0.990	106.2	196.7	-15.5	0.267
4-3190	4-3630	0.698	333.2	-3.1	-2.05	1.249	56.9	0.555	0.817	112.6	577.7	0.364	1.270	-2.23	0.872	58.8	67.4	18.6	0.528
4-3190	4-3630	0.159	68.3	-17.5	-2.05	1.335	89.4	0.281	0.999	2.8	468.0	0.718	1.280	-2.23	0.992	106.3	206.9	-19.5	0.270
4-3190	4-3640	0.621	336.7	-2.9	-1.63	1.258	60.9	0.501	0.832	105.4	580.2	0.415	1.249	-2.37	0.882	62.4	76.0	18.9	0.472
4-3190	4-3640	0.163	88.5	-13.5	-1.63	1.339	91.7	0.289	1.009	352.3	827.1	0.717	1.300	-2.37	0.994	106.8	217.2	-23.2	0.280
4-3190	4-3650	0.549	340.3	-2.4	-1.15	1.266	64.5	0.452	0.847	97.9	582.3	0.464	1.229	-2.61	0.892	65.5	84.7	18.3	0.422
4-3190	4-3650	0.184	106.1	-8.4	-1.15	1.342	94.2	0.303	1.019	342.0	826.4	0.710	1.328	-2.61	0.997	107.6	227.8	-26.5	0.297
4-3190	4-3660	0.483	344.0	-1.3	-0.55	1.273	67.8	0.407	0.861	90.2	584.2	0.510	1.211	-2.99	0.900	68.1	93.6	16.8	0.379
4-3190	4-3660	0.219	119.9	-3.4	-0.55	1.347	96.7	0.323	1.031	332.0	826.0	0.698	1.364	-2.99	1.001	108.8	238.4	-29.3	0.320
4-3190	4-3670	0.424	348.0	0.8	0.29	1.280	70.8	0.369	0.873	82.2	585.8	0.551	1.195	-3.62	0.908	70.4	102.3	13.8	0.342
4-3190	4-3670	0.266	130.4	1.4	0.29	1.351	99.5	0.349	1.045	322.5	826.0	0.680	1.409	-3.62	1.006	110.4	249.0	-31.9	0.351
4-3190	4-3680	0.372	352.1	5.4	1.61	1.285	73.5	0.336	0.884	74.1	587.2	0.587	1.181	-4.75	0.915	72.3	110.6	8.6	0.314
4-3190	4-3680	0.323	138.5	6.6	1.61	1.356	102.4	0.380	1.060	313.4	826.5	0.657	1.463	-4.75	1.012	112.2	259.5	-34.6	0.390
4-3190	4-3690	0.336	356.1	16.0	4.24	1.290	75.9	0.309	0.894	66.0	588.6	0.618	1.171	-7.20	0.921	73.8	118.2	-1.1	0.301
4-3190	4-3690	0.393	145.3	14.3	4.24	1.362	105.4	0.416	1.076	304.9	827.5	0.628	1.524	-7.20	1.019	114.4	269.7	-38.8	0.440
4-3190	4-3700	0.393	355.4	45.5	12.77	1.295	78.1	0.288	0.903	58.0	589.9	0.643	1.163	-15.55	0.927	74.9	124.8	-23.5	0.361
4-3190	4-3700	0.526	154.1	33.0	12.77	1.367	108.6	0.456	1.094	296.9	828.9	0.595	1.593	-13.55	1.026	116.8	277.8	-50.6	0.535
4-3190	4-3720	0.354	5.6	-56.2	-13.22	1.301	82.0	0.256	0.917	41.1	592.6	0.683	1.152	10.80	0.938	76.5	168.9	45.1	0.287
4-3190	4-3730	0.587	359.4	-19.1	-8.23	1.442	68.3	0.590	1.422	60.6	261.6	---	2.260	6.00	1.127	57.4	146.2	23.6	0.607
4-3190	4-3730	0.257	18.5	-46.3	-0.23	1.304	83.6	0.247	0.923	33.1	594.1	0.696	1.151	6.00	0.943	76.8	167.8	31.2	0.238
4-3190	4-3740	0.530	4.5	-16.3	-6.27	1.444	70.7	0.575	1.434	54.3	264.9	---	2.259	4.23	1.131	58.9	153.1	18.7	0.578
4-3190	4-3740	0.212	29.3	-42.2	-6.27	1.306	85.2	0.240	0.929	25.1	595.7	0.705	1.152	4.23	0.948	77.1	172.9	22.5	0.222
4-3190	4-3750	0.480	9.5	-15.1	-5.17	1.446	73.2	0.562	1.446	47.8	268.0	---	2.257	3.33	1.135	60.2	160.5	14.7	0.554
4-3190	4-3750	0.183	41.4	-40.0	-5.17	1.308	86.7	0.237	0.933	17.2	597.4	0.713	1.154	3.33	0.954	77.1	179.6	16.0	0.215
4-3190	4-3760	0.433	15.4	-14.5	-4.44	1.448	75.7	0.550	1.457	41.1	270.9	---	2.257	2.81	1.140	61.4	168.0	10.9	0.533
4-3190	4-3760	0.164	55.5	-38.1	-4.44	1.310	88.2	0.235	0.938	9.2	599.1	0.717	1.158	2.81	0.959	77.1	186.8	10.6	0.213
4-3190	4-3770	0.390	22.4	-14.3	-3.89	1.450	78.2	0.540	1.467	34.1	273.7	---	2.258	2.49	1.144	62.5	175.6	7.3	0.514
4-3190	4-3770	0.154	71.2	-35.3	-3.89	1.312	89.8	0.237	0.941	1.2	600.8	0.719	1.164	2.49	0.964	76.8	194.4	5.7	0.215
4-3190	4-3780	0.351	30.9	-14.2	-3.44	1.451	80.8	0.581	1.476	26.8	276.2	---	2.260	2.30	1.148	63.5	183.4	3.7	0.499
4-3190	4-3780	0.152	87.3	-31.1	-3.44	1.313	91.3	0.241	0.945	353.0	962.4	0.718	1.172	2.30	0.969	76.5	202.3	1.3	0.220
4-3190	4-3790	0.317	41.4	-14.0	-3.04	1.452	83.4	0.525	1.485	19.1	278.3	---	2.264	2.19	1.153	64.2	191.5	0.1	0.487
4-3190	4-3790	0.160	102.4	-25.7	-3.04	1.315	93.0	0.248	0.948	344.7	963.9	0.714	1.183	2.19	0.973	76.0	210.6	-2.8	0.229
4-3200	4-3230	0.559	78.7	-12.1	-3.89	1.726	86.2	1.138	5.166	7.2	62.1	---	---	-3.42	1.482	123.3	199.5	-13.7	0.834
4-3200	4-3240	0.365	77.1	-13.7	-3.24	1.533	86.9	0.689	2.299	7.7	72.5	---	---	-3.09	1.250	118.5	202.1	-15.4	0.592
4-3200	4-3250	0.260	72.2	-14.9	-2.70	1.426	86.8	0.464	1.333	10.2	84.8	---	---	-2.90	1.115	113.9	204.7	-17.5	0.439
4-3200	4-3260	0.202	64.8	-15.0	-2.20	1.363	86.4	0.340	1.081	14.3	98.6	---	---	-2.81	1.030	109.5	206.9	-19.9	0.333
4-3200	4-3270	0.171	56.6	-13.5	-1.73	1.325	86.0	0.270	0.973	19.2	113.2	---	---	-2.80	0.977	105.5	208.2	-22.6	0.257
4-3200	4-3280	0.154	49.6	-10.5	-1.24	1.302	85.6	0.230	0.918	23.9	127.5	---	---	-2.88	0.943	102.0	208.0	-25.8	0.201
4-3200	4-3290	0.145	44.6	-6.4	-0.72	1.288	85.4	0.207	0.889	27.6	140.8	---	---	-3.05	0.921	98.9	205.6	-29.4	0.161
4-3200	4-3300	0.140	41.7	-1.1	-0.12	1.280	85.3	0.194	0.872	29.9	152.7	---	---	-3.33	0.908	96.1	200.0	-33.5	0.133
4-3200	4-3310	0.137	40.6	5.9	0.63	1.275	85.3	0.187	0.864	30.8	163.1	---	---	-3.79	0.901	93.8	191.0	-37.6	0.119
4-3200	4-3320	0.138	40.9	15.4	1.65	1.274	85.4	0.183	0.861	30.4	172.2	---	---	-4.53	0.898	91.7	179.8	-41.5	0.117
4-3200	4-3330	0.146	42.0	29.1	3.21	1.274	85.7	0.181	0.861	28.9	180.3	---	1.017	-5.85	0.897	89.9	168.6	-45.5	0.129
4-3200	4-3340	0.181	42.9	48.7	6.16	1.275	86.0	0.181	0.863	26.7	187.5	---	1.018	-8.55	0.899	88.3	158.2	-51.1	0.165
4-3200	4-3350	0.332	32.4	73.4	14.45	1.276	86.4	0.181	0.866	24.1	194.2	---	1.023	-16.60	0.902	86.9	148.7	-59.4	0.288
4-3200	4-3370	0.397	54.8	-81.1	-17.83	1.281	87.7	0.183	0.874	14.9	205.0	---	1.034	16.15	0.912	84.7	227.6	48.2	0.287
4-3200	4-3380	0.236	65.7	-68.0	-9.84	1.283	88.3	0.185	0.879	10.8	210.3	---	1.042	8.39	0.917	83.6	214.9	36.6	0.182
4-3200	4-3390	0.182	77.8	-58.6	-6.95	1.286	89.0	0.188	0.885	6.0	215.2	---	1.051	5.75	0.923	82.7	211.2	25.0	0.160
4-3200	4-3400	0.157	89.1	-50.8	-5.41	1.288	89.9	0.193	0.890	0.8	219.7	---	1.061	4.47	0.930	81.8	212.0	16.0	0.157
4-3200	4-3410	0.144	100.5	-43.4	-4.40	1.291	90.8	0.198	0.895	355.3	583.8	0.778	1.072	3.73	0.936	80.9	215.3	9.0	0.162
4-3200	4-3420	0.141	111.8	-35.8	-3.65	1.294	91.8	0.204	0.900	349.4	587.7	0.716	1.084	3.29	0.943	80.1	220.1	3.4	0.172
4-3200	4-3430	0.145	122.4	-28.3	-3.04	1.296	93.0	0.213	0.906	343.0	591.2	0.713	1.098	3.01	0.949	79.2	226.0	-1.2	0.184
4-3200	4-3440	0.157	132.2	-21.2	-2.51	1.298	94.3	0.223	0.911	336.3	594.4	0.707	1.114	2.86	0.955	78.2	232.7	-5.0	0.198
4-3200	4-3450	0.177	140.9	-14.9	-2.01	1.301	95.8	0.237	0.916	329.0	597.2	0.699	1.135	2.80	0.961	77.1	240.2	-8.2	0.217
4-3200	4-3460	0.206	148.8	-9.6	-1.52	1.303	97.6	0.255	0.921	321.3	599.4	0.686	1.156	2.83	0.967	75.9	248.3	-10.7	0.239
4-3200	4-3470	0.245	155.9	-5.3	-1.00	1.305	99.7	0.278	0.926	312.8	601.0	0.668	1.184	2.95	0.972	74.3	257.1	-12.5	0.268
4-3200	4-3480	0.297	162.5	-1.8	-0.41	1.308	102.4	0.310	0.931	303.6	601.9	0.642	1.220	3.18	0.977	72.2	266.5	-13.7	0.306
4-3200	4-3490	0.368	168.9	1.0	0.30	1.310	106.0	0.354	0.936	293.2	601.7	0.604	1.268	3.57	0.982	69.4	276.6	-14.1	0.357
4-3200	4-3490	0.723	206.5	0.4	0.30	1.088	126.8	0.611	0.625	221.8	890.3	0.243	1.007	3.57	0.656	104.5	11.2	10.7	0.420
4-3200	4-3500	0.468	175.5	3.3	1.26	1.312	110.8	0.418	0.942	281.3	599.9	0.548	1.336	4.23	0.986	65.4	287.6	-13.5	0.430
4-3200	4-3500	0.701	207.0	1.6	1.26	1.076	125.7	0.599	0.615	221.2	899.8	0.247	0.984	4.23	0.639	90.3	358.6	7.1	0.382
4-3200	4-3510	0.617	182.9	5.1	2.70	1.315	117.8	0.513	0.948	266.8	595.6	0.461	1.434	5.40	0.989	59.2	299.7	-12.0	0.541
4-3200	4-3510	0.749	208.1	3.0	2.70	1.072	128.5	0.634	0.612	219.3	908.0	0.224	1.000	5.40	0.632	76.6	348.6	3.4	0.434
4-3200	4-3520	0.887	210.6	4.5	5.35	1.072	135.7	0.726	0.612	214.6	913.5	0.168	1.056	7.79	0.631	60.0	345.3	1.7	0.576
4-3200	4-3560	0.947	327.7	-7.0	-9.71	1.040	40.8	0.770	0.588	150.0	889.9	0.135	1.041	-8.27	0.567	119.3	88.3	16.5	0.589
4-3200	4-3570	0.668	356.9	-11.8	-6.81	1.320	60.4	0.541	0.960	95.8	485.6	0.441	1.479	-5.63	0.988	122.7	141.9	6.1	0.556
4-3200	4-3570	0.832	329.4	-6.2	-6.81	1.037	47.0	0.702	0.585	146.7	896.6	0.174	0.995	-5.63	0.555	98.0	78.9	16.4	0.469
4-3200	4-3580	0.512	4.9	-12.7	-5.29	1.323	67.9	0.445	0.966	79.9	479.7	0.536	1.397	-4.37	0.989	116.4	154.0	1.4	0.447
4-3200	4-3590	0.405	12.6	-13.6	-4.30	1.325	73.1	0.383	0.972	66.2	475.9	0.600	1.345	-3.67	0.989	112.5	164.9	-3.2	0.378
4-3200	4-3600	0.326	20.7	-14.3	-3.57	1.327	77.1	0.342	0.978	53.8	473.4	0.644	1.313	-3.24	0.990	110.0	175.2	-7.8	0.334
4-3200	4-3610	0.266	30.0	-14.8	-2.97	1.330	80.3	0.315	0.985	42.0	471.4	0.674	1.295	-2.99	0.990	108.4	185.4	-12.4	0.305

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3200	4-3620	0.219	41.4	-15.0	-2.46	1.332	83.1	0.299	0.991	30.7	469.9	0.695	1.287	-2.85	0.991	107.4	195.5	-16.8	0.288
4-3200	4-3630	0.184	55.9	-14.4	-1.98	1.335	85.6	0.290	0.999	19.7	468.6	0.709	1.288	-2.80	0.992	106.8	205.8	-20.9	0.280
4-3200	4-3640	0.761	347.1	-2.0	-1.50	1.246	53.6	0.600	0.812	117.4	576.0	0.325	1.300	-2.83	0.865	55.6	78.6	19.5	0.575
4-3200	4-3640	0.184	74.0	-12.4	-1.50	1.338	88.0	0.288	1.006	8.9	467.4	0.717	1.296	-2.83	0.993	106.7	216.4	-24.6	0.280
4-3200	4-3650	0.683	350.4	-1.6	-1.00	1.255	57.7	0.546	0.828	110.5	578.7	0.376	1.280	-2.95	0.876	59.2	87.1	19.1	0.518
4-3200	4-3630	0.159	94.2	-8.5	-1.00	1.341	90.4	0.292	1.015	358.3	826.5	0.718	1.312	-2.95	0.995	107.0	227.3	-27.9	0.286
4-3200	4-3660	0.609	353.8	-0.8	-0.45	1.264	61.4	0.495	0.843	103.4	581.2	0.425	1.260	-3.16	0.886	62.5	95.6	18.0	0.466
4-3200	4-3660	0.173	113.3	-3.5	-0.45	1.345	92.8	0.303	1.025	347.9	825.7	0.715	1.335	-3.16	0.998	107.6	238.3	-30.6	0.300
4-3200	4-3670	0.540	357.9	0.5	0.21	1.272	64.9	0.449	0.857	96.1	583.4	0.473	1.241	-3.52	0.896	65.4	104.0	15.9	0.419
4-3200	4-3670	0.202	129.0	1.4	0.21	1.349	95.3	0.319	1.036	337.8	825.1	0.706	1.367	-3.52	1.002	108.6	249.5	-32.7	0.320
4-3200	4-3680	0.478	1.0	2.7	1.07	1.278	68.1	0.407	0.870	88.5	585.4	0.516	1.224	-4.09	0.905	67.9	112.3	12.7	0.379
4-3200	4-3680	0.245	141.1	5.8	1.07	1.353	98.0	0.341	1.049	328.1	825.0	0.691	1.407	-4.09	1.007	109.9	260.7	-34.4	0.348
4-3200	4-3690	0.423	4.8	6.6	2.29	1.284	71.0	0.370	0.882	80.8	587.2	0.555	1.208	-5.06	0.913	70.1	120.2	7.7	0.346
4-3200	4-3690	0.299	150.4	10.3	2.29	1.358	100.8	0.369	1.063	318.9	825.2	0.671	1.455	-5.06	1.013	111.5	271.7	-36.0	0.382
4-3200	4-3700	0.380	8.5	14.2	4.34	1.290	73.5	0.339	0.892	73.0	588.9	0.590	1.195	-6.85	0.920	71.8	127.4	-0.3	0.326
4-3200	4-3700	0.365	158.0	15.9	4.34	1.363	103.7	0.402	1.078	310.1	826.0	0.645	1.512	-6.85	1.020	113.5	282.5	-38.2	0.426
4-3200	4-3710	0.374	11.0	20.9	8.80	1.294	75.9	0.314	0.902	65.2	590.5	0.619	1.185	-11.08	0.927	73.2	133.3	-14.5	0.334
4-3200	4-3710	0.457	165.3	26.0	8.80	1.368	106.8	0.438	1.095	301.9	827.2	0.615	1.576	-11.08	1.027	115.7	293.1	-43.3	0.490
4-3200	4-3720	0.653	348.3	34.7	27.73	1.298	77.9	0.294	0.910	57.7	592.1	0.642	1.178	-29.77	0.934	74.2	141.8	-43.6	0.550
4-3200	4-3730	0.736	335.3	-70.6	-32.76	1.302	80.2	0.273	0.918	48.1	593.6	0.667	1.168	30.95	0.940	75.3	210.1	50.5	0.560
4-3200	4-3740	0.348	23.2	-55.2	-12.78	1.305	81.9	0.262	0.924	40.7	595.3	0.682	1.166	11.21	0.946	75.8	186.3	38.1	0.297
4-3200	4-3750	0.575	16.8	-19.5	-8.20	1.445	68.9	0.589	1.435	58.9	263.0	---	2.281	6.87	1.133	57.8	165.4	18.2	0.603
4-3200	4-3750	0.257	35.5	-46.0	-8.20	1.307	83.5	0.252	0.930	32.9	597.0	0.695	1.165	6.87	0.952	76.2	186.2	26.0	0.251
4-3200	4-3760	0.518	21.9	-16.4	-6.12	1.447	71.3	0.575	1.447	52.5	266.3	---	2.279	5.05	1.138	59.2	171.8	12.9	0.574
4-3200	4-3760	0.211	46.3	-41.3	-6.12	1.309	85.1	0.246	0.935	25.0	598.7	0.705	1.165	5.05	0.957	76.4	191.0	17.6	0.234
4-3200	4-3770	0.467	27.4	-14.7	-4.88	1.449	73.8	0.562	1.459	46.0	269.4	---	2.278	4.07	1.142	60.5	178.8	8.6	0.550
4-3200	4-3770	0.181	58.8	-38.1	-4.88	1.311	86.7	0.242	0.940	17.0	600.5	0.712	1.167	4.07	0.963	76.5	197.4	11.1	0.227
4-3200	4-3780	0.420	33.7	-13.6	-4.02	1.450	76.3	0.550	1.469	39.2	272.4	---	2.277	3.50	1.147	61.8	186.2	4.6	0.530
4-3200	4-3780	0.161	73.2	-34.9	-4.02	1.313	98.3	0.241	0.944	9.0	602.2	0.717	1.171	3.50	0.968	76.5	204.6	5.7	0.225
4-3200	4-3790	0.377	41.1	-12.7	-3.35	1.452	78.9	0.540	1.479	32.1	275.1	---	2.278	3.14	1.152	62.8	193.8	0.9	0.513
4-3200	4-3790	0.150	89.3	-30.8	-3.35	1.315	89.8	0.242	0.948	0.8	603.8	0.718	1.177	3.14	0.973	76.3	212.2	3.0	0.227
4-3200	4-3800	0.338	50.3	-11.9	-2.78	1.453	81.5	0.532	1.488	24.7	277.6	---	2.280	2.93	1.156	63.7	201.8	-2.6	0.499
4-3200	4-3800	0.149	105.6	-25.3	-2.78	1.316	91.5	0.246	0.951	352.4	965.3	0.717	1.185	2.93	0.978	76.0	220.4	-3.1	0.232
4-3210	4-3240	0.489	71.3	-12.7	-3.91	1.599	79.9	0.844	4.448	22.1	70.7	---	---	-4.30	1.332	121.9	202.6	-16.9	0.704
4-3210	4-3250	0.338	65.1	-13.0	-3.05	1.447	81.2	0.522	1.452	25.9	84.3	---	---	-3.79	1.142	116.3	204.4	-18.6	0.495
4-3210	4-3260	0.264	57.3	-12.2	-2.36	1.366	81.6	0.367	1.090	31.8	99.9	---	---	-3.48	1.034	111.1	205.7	-20.6	0.363
4-3210	4-3270	0.228	50.0	-10.2	-1.76	1.320	81.7	0.288	0.961	38.3	116.1	---	---	-3.30	0.970	106.5	206.1	-22.9	0.274
4-3210	4-3280	0.210	44.6	-7.4	-1.21	1.294	81.7	0.247	0.901	44.0	131.4	---	---	-3.23	0.932	102.5	204.9	-25.0	0.212
4-3210	4-3290	0.199	41.3	-4.2	-0.67	1.279	81.7	0.225	0.871	48.0	145.0	---	---	-3.25	0.909	99.0	201.5	-28.1	0.168
4-3210	4-3300	0.193	39.7	-0.7	-0.10	1.271	81.8	0.212	0.856	50.0	156.5	---	---	-3.36	0.896	96.0	195.4	-30.6	0.139
4-3210	4-3310	0.187	39.4	3.5	0.52	1.267	82.0	0.205	0.849	50.3	166.4	---	---	-3.59	0.889	93.5	187.2	-32.6	0.123
4-3210	4-3320	0.183	40.1	8.6	1.25	1.266	82.3	0.201	0.847	49.2	174.8	---	---	-3.97	0.887	91.3	178.6	-34.1	0.118
4-3210	4-3330	0.181	41.6	15.4	2.18	1.267	82.7	0.198	0.849	47.1	182.3	---	1.017	-4.57	0.888	89.4	171.3	-35.7	0.121
4-3210	4-3340	0.183	43.5	24.8	3.49	1.269	83.2	0.196	0.852	44.3	188.9	---	1.019	-5.58	0.891	87.8	165.9	-36.5	0.134
4-3210	4-3350	0.199	45.3	38.3	5.61	1.271	83.7	0.195	0.857	40.8	194.9	---	1.024	-7.40	0.896	86.5	161.7	-36.7	0.159
4-3210	4-3360	0.261	44.4	57.0	9.94	1.274	84.2	0.194	0.863	37.0	200.6	---	1.030	-11.46	0.901	85.2	157.1	-52.2	0.218
4-3210	4-3370	0.552	1.7	77.6	25.09	1.277	84.7	0.195	0.869	33.3	206.0	---	1.038	-26.33	0.907	84.1	155.9	-64.4	0.446
4-3210	4-3390	0.345	53.0	-74.5	-15.01	1.284	86.6	0.193	0.881	21.5	214.7	---	1.051	14.31	0.921	82.5	228.2	41.8	0.271
4-3210	4-3400	0.223	73.6	-52.1	-8.81	1.287	87.3	0.195	0.887	16.4	219.1	---	1.061	8.38	0.928	81.7	220.9	29.4	0.198
4-3210	4-3410	0.174	86.0	-52.7	-6.16	1.290	88.2	0.198	0.893	10.8	223.2	---	1.070	6.03	0.935	81.0	220.6	18.6	0.180
4-3210	4-3420	0.149	98.3	-44.5	-4.63	1.293	89.2	0.202	0.900	4.9	227.1	---	1.081	4.81	0.942	80.3	223.6	10.5	0.178
4-3210	4-3430	0.137	111.0	-36.4	-3.58	1.296	90.2	0.206	0.905	358.6	590.6	0.719	1.092	4.09	0.949	79.6	228.5	4.2	0.183
4-3210	4-3440	0.134	123.8	-28.1	-2.79	1.298	91.4	0.213	0.911	352.0	593.9	0.717	1.105	3.65	0.956	78.9	234.5	-0.8	0.192
4-3210	4-3450	0.140	136.0	-20.1	-2.12	1.301	92.7	0.221	0.917	345.0	596.9	0.714	1.120	3.39	0.962	78.1	241.5	-4.7	0.203
4-3210	4-3460	0.155	147.0	-12.8	-1.52	1.303	94.2	0.232	0.922	337.5	599.4	0.708	1.137	3.26	0.968	77.2	249.1	-7.7	0.219
4-3210	4-3470	0.180	156.8	-6.9	-0.95	1.306	95.9	0.247	0.928	329.6	601.5	0.699	1.157	3.23	0.973	76.2	257.5	-9.9	0.237
4-3210	4-3480	0.214	165.3	-2.3	-0.37	1.308	97.9	0.266	0.933	321.0	603.1	0.685	1.181	3.30	0.978	74.9	266.3	-11.4	0.262
4-3210	4-3490	0.260	173.0	1.3	0.26	1.311	100.3	0.292	0.939	311.8	604.0	0.665	1.213	3.48	0.983	73.2	275.7	-12.1	0.293
4-3210	4-3500	0.321	180.1	3.9	0.98	1.313	103.4	0.328	0.944	301.7	604.0	0.634	1.253	3.82	0.987	71.0	285.6	-11.9	0.335
4-3210	4-3500	0.746	221.7	1.2	0.98	1.104	127.8	0.620	0.639	223.1	885.5	0.243	1.035	3.82	0.684	111.3	29.9	17.9	0.458
4-3210	3510	0.405	187.0	5.9	1.90	1.315	107.4	0.379	0.949	290.3	602.8	0.590	1.309	4.38	0.990	67.8	296.1	-10.9	0.394
4-3210	4-3510	0.684	222.1	2.5	1.90	1.087	124.6	.581	0.624	223.1	895.6	0.261	0.967	4.38	0.658	96.1	17.0	15.5	0.375
4-3210	4-3520	0.524	194.1	7.4	3.18	1.318	113.1	0.454	0.955	277.0	599.7	0.522	1.388	5.32	0.993	63.1	307.4	-8.8	0.479
4-3210	4-3520	0.702	222.9	4.0	3.18	1.081	125.5	0.595	0.619	221.8	904.5	0.251	0.988	5.32	0.647	83.4	5.1	11.8	0.389
4-3210	4-3540	0.790	224.5	5.5	5.24	1.079	130.1	0.657	0.618	218.9	911.7	0.212	1.023	7.07	0.643	69.5	358.5	9.0	0.483
4-3210	4-3580	0.882	345.7	-7.0	-8.45	1.050	44.5	0.728	0.595	147.0	890.7	0.162	1.029	-8.06	0.577	112.7	105.3	14.5	0.527
4-3210	4-3590	0.605	16.5	-11.7	-5.94	1.325	63.3	0.506	0.974	89.1	482.7	0.481	1.467	-5.84	0.990	120.4	161.4	-2.6	0.516
4-3210	4-3590	0.813	346.4	-5.7	-5.94	1.044	48.0	0.688	0.590	145.6	899.1	0.184	0.997	-5.84	0.560	92.0	91.9	16.2	0.451
4-3210	4-3600	0.470	24.4	-12.0	-4.48	1.328	69.8	0.426	0.980	74.2	477.6	0.562	1.398	-4.70	0.990	115.2	172.9	-7.7	0.426
4-3210	4-3610	0.373	32.3	-12.0	-3.48	1.330	74.5	0.374	0.986	61.0	474.2	0.618	1.355	-4.03	0.991	111.9	183.6	-12.6	0.368
4-3210	4-3620	0.301	41.0	-11.8	-2.71	1.333	78.2	0.339	0.993	48.8	471.8	0.657	1.329	-3.62	0.991	109.8	194.1	-17.2	0.331
4-3210	4-3630	0.246	51.3	-11.2	-2.07	1.335	81.3	0.316	0.999	37.2	469.9	0.684	1.315	-3.38	0.992	108.4	204.7	-21.4	0.308
4-3210	4-3640	0.203	64.1	-9.9	-1.50	1.338	84.0	0.302	1.006	26.0	468.6	0.702	1.310	-3.25	0.993	107.6	215.5	-25.3	0.296
4-3210	4-3650	0.174	80.3	-7.3	-0.95	1.340	86.6	0.297	1.014	15.0	467.0	0.713	1.314	-3.23	0.995	107.3	226.7	-28.5	0.291
4-3210	4-3660	0.745	4.2	-0.6	-0.40	1.252	54.4	0.591	0.823	115.5	577.1	0.537	1.310	-3.29	0.871	56.0	98.2	19.0	0.564
4-3210	4-3680	0.161	99.6	-3.4	-0.40	1.343	89.0	0.297	1.022	4.3	465.8	0.718	1.326	-3.29	0.997	107.3	238.1	-31.1	0.295
4-3210	4-3670	0.670	7.5	0.3	0.18	1.261	58.3	0.539	0.838	108.7	579.8	0.386	1.291	-3.46	0.882	59.5	106.5	17.4	0.510
4-3210	4-3670	0.167	119.6	1.5	0.18	1.347	91.4	0.304	1.031	353.8	824.9	0.718	1.345	-3.46	1.000	107.7	249.7	-33.1	0.305
4-3210	4-3680	0.599	10.9	1.6	0.89	1.269	61.9	0.491	0.853	101.7	582.3	0.434	1.271	-3.75	0.892	62.6	114.6	15.0	0.461
4-3210	4-3680	0.190	137.2	6.0	0.85	1.350	93.9	0.317	1.042	343.6	824.2	0.712	1.372	-3.75	1.004	108.4	261.3	-34.4	0.321

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3210	4-3690	0.534	14.3	3.6	1.66	1.276	65.2	0.446	0.866	94.5	584.6	0.480	1.253	-4.22	0.902	65.3	122.5	11.6	0.417
4-3210	4-3690	0.228	151.1	9.8	1.66	1.354	96.5	0.336	1.054	333.7	823.9	0.700	1.407	-4.22	1.009	109.5	272.8	-35.1	0.345
4-3210	4-3700	0.476	17.9	6.9	2.74	1.283	68.3	0.407	0.879	87.1	586.8	0.521	1.236	-4.98	0.911	67.7	130.0	6.9	0.381
4-3210	4-3700	0.278	161.8	13.3	2.74	1.359	99.2	0.360	1.067	324.3	823.9	0.683	1.451	-4.98	1.015	110.9	284.1	-35.5	0.375
4-3210	4-3710	0.427	21.4	12.5	4.35	1.268	71.1	0.372	0.890	79.6	588.8	0.559	1.221	-6.29	0.919	69.6	137.0	0.2	0.353
4-3210	4-3710	0.338	170.2	17.4	4.35	1.363	102.1	0.389	1.081	315.3	824.4	0.660	1.502	-6.29	1.022	112.7	295.0	-36.1	0.414
4-3210	4-3720	0.398	24.4	23.0	7.21	1.293	73.6	0.343	0.900	72.0	590.7	0.592	1.209	-8.87	0.927	71.3	143.0	-10.1	0.341
4-3210	4-3720	0.415	177.6	23.5	7.21	1.368	105.1	0.423	1.097	306.8	825.4	0.633	1.562	-8.87	1.029	114.7	305.7	-38.0	0.464
4-3210	4-3730	0.444	23.5	44.3	14.28	1.298	75.8	0.319	0.910	64.5	592.5	0.620	1.199	-15.67	0.935	72.6	147.6	-28.6	0.384
4-3210	4-3730	0.545	186.5	36.2	14.28	1.373	108.3	0.460	1.115	298.9	826.9	0.602	1.628	-15.67	1.037	117.0	316.5	-45.0	0.549
4-3210	4-3750	0.562	15.3	-66.8	-23.73	1.305	80.1	0.278	0.925	47.8	596.1	0.667	1.182	22.88	0.948	74.7	212.4	43.6	0.452
4-3210	4-3760	0.324	42.1	-51.5	-11.26	1.307	81.8	0.267	0.931	40.3	598.0	0.683	1.179	10.69	0.955	75.2	200.6	29.6	0.298
4-3210	4-3770	0.558	34.6	-18.1	-7.34	1.447	69.5	0.588	1.449	57.2	264.5	---	2.301	7.05	1.140	58.2	183.2	11.1	0.598
4-3210	4-3770	0.246	53.4	-42.5	-7.34	1.310	83.5	0.257	0.937	32.5	599.8	0.696	1.178	7.05	0.961	75.7	202.4	18.9	0.260
4-3210	4-3780	0.501	39.8	-14.8	-5.35	1.449	71.9	0.574	1.461	50.8	267.8	---	2.299	5.36	1.145	59.6	189.6	6.0	0.571
4-3210	4-3780	0.202	64.3	-37.2	-5.35	1.512	85.1	0.251	0.942	24.6	601.6	0.706	1.178	5.36	0.967	75.9	207.7	11.2	0.244
4-3210	4-3790	0.451	45.6	-12.8	-4.09	1.450	74.4	0.561	1.472	44.1	270.9	---	2.297	4.42	1.150	60.9	196.7	1.7	0.549
4-3210	4-3790	0.172	76.9	-32.9	-4.09	1.314	86.7	0.247	0.946	16.6	603.4	0.713	1.180	4.42	0.972	76.1	214.4	5.2	0.237
4-3210	4-3800	0.405	52.2	-11.2	-3.18	1.452	77.0	0.550	1.482	37.2	273.9	---	2.297	3.86	1.155	62.1	204.2	-2.0	0.528
4-3210	4-3800	0.153	91.7	-28.5	-3.18	1.316	88.3	0.245	0.950	8.4	605.1	0.717	1.184	3.86	0.978	76.1	221.9	0.3	0.235
4-3210	4-3810	0.363	60.2	-9.7	-2.46	1.453	79.6	0.541	1.491	30.0	276.5	---	2.298	3.51	1.159	63.2	212.1	-5.4	0.512
4-3210	4-3810	0.144	108.1	-23.1	-2.46	1.317	90.0	0.247	0.954	360.0	966.6	0.719	1.190	3.51	0.983	75.9	230.0	-3.7	0.238
4-3220	4-3250	0.492	60.7	-11.1	-3.87	1.473	72.9	0.611	1.635	45.9	88.0	---	---	-5.06	1.175	120.9	202.0	-18.5	0.593
4-3220	4-3260	0.377	53.7	-9.8	-2.79	1.360	75.0	0.411	1.075	54.0	105.9	---	---	-4.31	1.028	114.0	202.3	-19.9	0.414
4-3220	4-3270	0.323	48.2	-7.7	-1.96	1.304	76.1	0.324	0.926	61.9	123.5	---	---	-3.86	0.950	108.2	201.6	-21.5	0.303
4-3220	4-3280	0.295	44.6	-5.4	-1.28	1.275	76.7	0.282	0.865	67.7	138.9	---	---	-3.58	0.907	103.3	199.3	-23.1	0.230
4-3220	4-3290	0.279	42.8	-3.0	-0.67	1.260	77.2	0.261	0.838	70.8	151.6	---	---	-3.44	0.883	99.1	194.9	-24.5	0.182
4-3220	4-3300	0.266	42.3	-0.5	-0.10	1.253	77.7	0.248	0.826	71.7	162.0	---	---	-3.39	0.872	95.7	188.7	-25.3	0.152
4-3220	4-3310	0.256	42.7	2.3	0.47	1.251	78.2	0.239	0.823	70.8	170.7	---	---	-3.44	0.868	92.9	181.7	-25.5	0.135
4-3220	4-3320	0.247	43.9	5.4	1.08	1.252	78.7	0.233	0.825	68.8	178.2	---	---	-3.60	0.869	90.5	175.4	-25.5	0.129
4-3220	4-3330	0.238	45.5	9.1	1.76	1.255	79.3	0.227	0.829	65.8	184.7	---	1.018	-3.88	0.872	88.6	171.0	-25.8	0.129
4-3220	4-3340	0.231	47.5	14.0	2.58	1.258	79.9	0.223	0.835	62.2	190.7	---	1.021	-4.33	0.878	87.0	168.5	-27.2	0.135
4-3220	4-3350	0.226	49.8	20.5	3.65	1.263	80.5	0.219	0.843	58.1	196.1	---	1.027	-5.07	0.884	85.6	167.6	-30.2	0.145
4-3220	4-3360	0.229	52.1	29.8	5.21	1.267	81.2	0.215	0.850	53.7	201.2	---	1.033	-6.3	0.892	84.4	167.4	-35.4	0.162
4-3220	4-3370	0.253	53.6	43.2	7.90	1.271	82.0	0.212	0.858	49.0	206.0	---	1.041	-8.70	0.900	83.4	166.8	-43.5	0.194
4-3220	4-3380	0.349	49.1	62.1	14.09	1.275	82.7	0.210	0.866	44.2	210.7	---	1.048	-14.60	0.908	82.5	164.3	-55.9	0.277
4-3220	4-3400	0.625	4.8	-78.3	-28.60	1.283	84.8	0.204	0.882	31.3	218.4	---	1.062	28.67	0.924	81.4	245.2	42.6	0.494
4-3220	4-3410	0.288	71.2	-65.5	-11.79	1.287	85.6	0.205	0.889	26.3	222.6	---	1.072	12.14	0.932	80.7	231.3	32.9	0.255
4-3220	4-3420	0.200	85.8	-52.8	-7.09	1.290	86.5	0.206	0.896	20.4	226.5	---	1.081	7.75	0.940	80.1	228.9	20.4	0.208
4-3220	4-3430	0.160	97.6	-42.9	-4.83	1.294	87.6	0.208	0.903	14.2	230.0	---	1.091	5.80	0.948	79.6	231.5	10.9	0.196
4-3220	4-3440	0.138	110.3	-34.1	-3.43	1.297	88.7	0.211	0.910	7.7	233.4	---	1.102	4.74	0.955	79.0	236.5	4.0	0.196
4-3220	4-3450	0.129	123.9	-25.4	-2.44	1.300	89.9	0.215	0.916	0.8	236.4	---	1.114	4.11	0.962	78.5	242.7	-1.1	0.201
4-3220	4-3460	0.129	137.8	-16.9	-1.65	1.303	91.2	0.221	0.923	353.5	599.2	0.718	1.127	3.72	0.968	77.9	250.0	-5.0	0.210
4-3220	4-3470	0.139	151.2	-9.2	-0.98	1.305	92.6	0.230	0.929	345.9	601.6	0.715	1.142	3.50	0.974	77.2	257.9	-7.8	0.222
4-3220	4-3480	0.159	163.2	-3.0	-0.36	1.308	94.3	0.241	0.934	337.8	603.6	0.709	1.160	3.40	0.979	76.4	266.4	-9.7	0.238
4-3220	4-3490	0.189	173.6	1.6	0.24	1.310	96.2	0.257	0.940	329.1	605.1	0.698	1.182	3.41	0.984	75.3	275.4	-10.7	0.258
4-3220	4-3500	0.229	182.7	4.9	0.87	1.313	98.4	0.278	0.946	319.9	606.0	0.682	1.209	3.53	0.988	74.0	284.8	-10.8	0.284
4-3220	4-3510	0.283	190.8	7.2	1.56	1.315	101.2	0.308	0.951	309.9	606.2	0.658	1.244	3.79	0.991	72.2	294.5	-10.1	0.318
4-3220	4-3520	0.354	198.2	8.7	2.39	1.317	104.7	0.349	0.957	298.8	605.3	0.623	1.291	4.22	0.994	69.6	304.7	-8.5	0.366
4-3220	4-3520	0.683	237.2	3.2	2.39	1.098	124.3	0.575	0.635	224.6	891.1	0.270	0.999	4.22	0.677	101.6	36.6	22.2	0.383
4-3220	4-3530	0.452	205.5	9.6	3.48	1.320	109.3	0.408	0.962	286.4	603.1	0.570	1.355	4.94	0.997	65.9	315.3	-6.1	0.433
4-3220	4-3530	0.673	237.8	4.7	3.48	1.089	123.8	0.569	0.627	223.9	900.5	0.270	0.984	4.94	0.662	89.3	23.5	19.6	0.361
4-3220	4-3540	0.594	213.1	10.2	5.07	1.322	116.0	0.496	0.969	271.8	598.6	0.488	1.449	6.20	0.999	60.3	326.8	-2.6	0.534
4-3220	4-3540	0.724	238.9	6.1	5.07	1.086	126.4	0.606	0.625	222.0	908.8	0.246	1.003	6.20	0.655	77.1	13.9	16.3	0.416
4-3220	4-3550	0.854	241.3	7.3	7.84	1.086	133.2	0.693	0.625	217.7	914.5	0.192	1.058	8.64	0.652	62.2	11.1	14.6	0.550
4-3220	4-3600	0.832	3.4	-6.3	-6.73	1.059	47.1	0.696	0.603	144.7	891.9	0.383	1.022	-7.43	0.585	107.5	121.2	11.5	0.480
4-3220	4-3610	0.552	36.0	-10.2	-4.63	1.330	65.7	0.480	0.988	83.2	480.2	0.514	1.462	-5.64	0.992	118.7	180.7	-11.4	0.486
4-3220	4-3610	0.901	0.5	-3.6	-4.63	1.032	42.6	0.753	0.583	149.5	906.6	0.144	1.022	-5.64	0.530	71.1	90.6	18.2	0.535
4-3220	4-3610	0.812	3.0	-4.4	-4.63	1.048	47.8	0.689	0.594	145.2	902.2	0.185	1.004	-5.64	0.560	85.1	103.4	15.9	0.451
4-3220	4-3620	0.432	43.9	-9.7	-3.31	1.332	71.5	0.412	0.994	68.9	475.7	0.585	1.404	-4.66	0.992	114.3	192.1	-16.4	0.410
4-3220	4-3630	0.345	52.2	-8.9	-2.37	1.335	75.8	0.366	1.001	56.1	472.5	0.634	1.367	-4.07	0.993	111.5	203.3	-20.9	0.362
4-3220	4-3640	0.279	61.6	-7.7	-1.62	1.337	79.3	0.336	1.007	44.0	470.1	0.668	1.346	-3.71	0.993	109.7	214.4	-24.9	0.331
4-3220	4-3650	0.228	73.0	-5.7	-0.98	1.340	82.3	0.317	1.014	32.5	468.2	0.692	1.336	-3.50	0.995	108.5	225.9	-28.3	0.313
4-3220	4-3660	0.191	87.5	-2.8	-0.40	1.342	85.0	0.307	1.021	21.3	466.6	0.708	1.335	-3.40	0.997	107.9	237.6	-31.0	0.305
4-3220	4-3670	0.170	105.3	1.4	0.17	1.345	87.6	0.304	1.029	10.4	465.3	0.717	1.342	-3.40	0.999	107.7	249.5	-32.9	0.304
4-3220	4-3680	0.732	21.3	1.1	0.75	1.258	55.1	0.584	0.834	113.8	578.2	0.347	1.321	-3.50	0.877	56.3	117.4	16.4	0.555
4-3220	4-3680	0.167	125.3	6.1	0.75	1.348	90.1	0.307	1.038	359.7	824.1	0.719	1.357	-3.50	1.002	107.8	261.5	-34.1	0.310
4-3220	4-3690	0.659	24.5	2.3	1.39	1.266	58.8	0.534	0.849	107.0	581.0	0.396	1.302	-3.71	0.888	59.6	125.2	13.7	0.503
4-3220	4-3690	0.182	144.4	10.3	1.39	1.352	92.6	0.316	1.048	349.3	823.2	0.716	1.380	-3.71	1.006	108.4	273.4	-34.4	0.324
4-3220	4-3700	0.591	27.8	4.1	2.12	1.273	62.3	0.487	0.862	100.1	583.6	0.442	1.283	-4.07	0.899	62.6	132.8	10.3	0.457
4-3220	4-3700	0.214	160.3	13.5	2.12	1.356	95.1	0.332	1.059	339.3	822.7	0.708	1.410	-4.07	1.011	109.2	284.9	-34.2	0.343
4-3220	4-3710	0.530	31.2	6.7	3.04	1.280	65.5	0.445	0.875	93.1	586.0	0.486	1.265	-4.64	0.909	65.1	140.1	5.9	0.416
4-3220	4-3710	0.259	172.5	16.0	3.04	1.359	97.8	0.353	1.071	329.6	822.6	0.694	1.449	-4.64	1.017	110.4	296.0	-33.5	0.369
4-3220	4-3720	0.476	34.5	10.9	4.31	1.286	68.5	0.407	0.887	85.8	588.3	0.526	1.249	-5.57	0.918	67.4	147.0	0.1	0.383
4-3220	4-3720	0.314	182.1	18.7	4.31	1.364	100.6	0.379	1.085	320.4	822.9	0.674	1.496	-5.57	1.024	112.0	306.7	-32.8	0.403
4-3220	4-3730	0.435	37.7	17.9	6.28	1.291	71.2	0.374	0.898	78.5	590.5	0.562	1.234	-7.24	0.927	69.3	153.2	-7.9	0.360
4-3220	4-3730	0.382	189.9	22.4	6.28	1.368	103.5	0.410	1.100	311.7	823.7	0.649	1.551	-7.24	1.031	113.8	317.1	-32.7	0.445
4-3220	4-3740	0.424	39.8	30.8	10.07	1.296	73.6	0.346	0.908	71.1	592.6	0.594	1.222	-10.73	0.936	70.8	158.1	-20.4	0.359
4-3220	4-3740	0.472	197.3	29.2	10.07	1.373	106.6	0.445	1.116	303.5	825.0	0.620	1.613	-10.73	1.040	115.9	327.5	-34.7	0.502
4-3220	4-3750	0.556	51.7	55.4	21.30	1.300	75.8	0.323	0.917	63.9	594.7	0.621	1.213	-21.68	0.943	72.1	161.5	-43.4	0.460

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3220	4-3770	0.444	45.2	-59.5	-17.28	1.307	80.1	0.283	0.932	47.4	598.7	0.668	1.195	17.48	0.958	74.2	217.8	33.9	0.388
4-3220	4-3780	0.290	61.5	-44.7	-9.05	1.309	81.8	0.271	0.938	39.8	600.7	0.684	1.192	9.55	0.964	74.8	215.9	20.2	0.294
4-3220	4-3790	0.537	52.6	-15.0	-5.86	1.448	70.1	0.587	1.462	55.4	266.1	---	2.320	6.66	1.148	58.6	200.4	3.4	0.593
4-3220	4-3790	0.226	71.8	-36.0	-5.86	1.312	83.5	0.262	0.943	32.0	602.6	0.697	1.190	6.66	0.971	75.2	217.6	10.9	0.265
4-3220	4-3800	0.483	58.0	-11.8	-4.10	1.450	72.6	0.573	1.474	48.9	269.4	---	2.318	5.23	1.153	60.0	207.1	-1.3	0.567
4-3220	4-3800	0.187	82.7	-29.9	-4.10	1.314	85.2	0.255	0.948	24.0	604.5	0.707	1.190	5.23	0.976	75.5	223.8	4.2	0.251
4-3220	4-3810	0.434	64.0	-9.5	-2.93	1.452	75.1	0.560	1.484	42.1	272.5	---	2.316	4.40	1.157	61.4	214.5	-5.1	0.545
4-3220	4-3810	0.161	95.6	-24.6	-2.93	1.316	86.9	0.251	0.953	15.8	606.2	0.714	1.192	4.40	0.982	75.7	231.2	-0.8	0.246
4-3220	4-3820	0.389	71.1	-7.5	-2.05	1.453	77.7	0.550	1.494	35.1	275.5	---	2.315	3.90	1.162	62.5	222.5	-8.3	0.527
4-3220	4-3820	0.145	110.9	-19.0	-2.05	1.318	88.5	0.250	0.957	7.4	607.8	0.718	1.196	3.90	0.987	75.7	239.4	-4.7	0.245
4-3230	4-3260	0.569	53.5	-8.1	-3.76	1.349	65.1	0.506	1.044	81.1	116.8	---	---	-5.64	1.015	120.4	196.9	-17.5	0.520
4-3230	4-3270	0.469	49.6	-6.1	-2.42	1.274	68.3	0.402	0.866	88.8	134.2	---	---	-4.63	0.910	111.8	195.3	-18.2	0.364
4-3230	4-3280	0.417	47.6	-4.1	-1.47	1.242	70.1	0.355	0.809	92.9	147.9	---	---	-4.02	0.861	105.1	192.2	-18.7	0.271
4-3230	4-3290	0.385	47.0	-2.2	-0.73	1.228	71.5	0.328	0.788	94.1	158.7	---	---	-5.64	0.840	99.7	187.6	-18.7	0.215
4-3230	4-3300	0.363	47.4	-0.3	-0.10	1.225	72.5	0.310	0.783	93.3	167.4	---	---	-3.42	0.833	95.5	182.1	-18.2	0.181
4-3230	4-3310	0.344	48.5	1.6	0.47	1.226	73.4	0.296	0.785	91.1	174.8	---	---	-3.31	0.834	92.2	176.7	-17.4	0.162
4-3230	4-3320	0.328	50.0	3.7	1.02	1.230	74.3	0.284	0.792	87.9	181.2	---	1.017	-3.30	0.839	89.5	172.7	-16.8	0.154
4-3230	4-3330	0.313	51.9	6.0	1.58	1.236	75.2	0.274	0.800	84.1	186.9	---	1.019	-3.37	0.847	87.4	170.4	-16.7	0.152
4-3230	4-3340	0.298	54.1	8.9	2.18	1.242	76.0	0.264	0.810	79.8	192.1	---	1.025	-3.56	0.857	85.7	169.9	-17.6	0.154
4-3230	4-3350	0.285	56.4	12.4	2.87	1.249	76.9	0.256	0.821	75.2	197.0	---	1.031	-3.87	0.867	84.3	170.8	-19.6	0.159
4-3230	4-3360	0.274	58.9	16.9	3.73	1.255	77.8	0.248	0.832	70.3	201.6	---	1.038	-4.38	0.877	83.2	172.6	-22.8	0.165
4-3230	4-3370	0.267	61.5	23.2	4.89	1.261	78.7	0.241	0.842	65.2	206.1	---	1.046	-5.22	0.887	82.3	174.9	-27.7	0.175
4-3230	4-3380	0.270	63.8	32.3	6.66	1.267	79.7	0.236	0.853	59.9	210.4	---	1.054	-6.69	0.898	81.5	177.1	-34.8	0.192
4-3230	4-3390	0.301	64.7	46.0	9.94	1.272	80.6	0.231	0.863	54.5	214.5	---	1.062	-9.68	0.908	80.8	178.0	-45.6	0.227
4-3230	4-3400	0.448	53.9	65.9	18.88	1.277	81.5	0.227	0.872	49.1	218.5	---	1.070	-18.34	0.917	80.2	175.9	-62.2	0.345
4-3230	4-3420	0.416	64.6	-70.9	-17.92	1.286	83.9	0.218	0.890	35.5	225.7	---	1.084	19.03	0.936	79.6	243.9	36.4	0.361
4-3230	4-3430	0.235	86.9	-52.0	-8.39	1.290	84.9	0.217	0.899	29.6	229.3	---	1.094	9.79	0.945	79.1	237.3	21.7	0.242
4-3230	4-3440	0.176	100.2	-39.7	-4.98	1.294	85.9	0.217	0.906	23.1	232.7	---	1.103	6.68	0.953	78.8	239.2	10.5	0.216
4-3230	4-3450	0.146	111.6	-29.3	-3.17	1.297	87.1	0.218	0.914	16.3	235.8	---	1.113	5.18	0.960	78.4	240.2	2.9	0.210
4-3230	4-3460	0.131	124.5	-20.1	-1.98	1.301	88.3	0.220	0.921	9.2	238.7	---	1.124	4.33	0.967	78.0	250.8	-2.4	0.212
4-3230	4-3470	0.125	138.8	-11.6	-1.10	1.304	89.7	0.224	0.928	1.8	241.4	---	1.136	3.82	0.974	77.6	258.4	-6.1	0.218
4-3230	4-3480	0.130	153.7	-3.9	-0.39	1.307	91.1	0.230	0.935	354.0	603.7	0.719	1.150	3.51	0.979	77.1	266.6	-8.5	0.227
4-3230	4-3490	0.144	167.8	2.2	0.24	1.309	92.7	0.239	0.941	345.7	605.6	0.716	1.166	3.34	0.984	76.4	275.3	-9.9	0.240
4-3230	4-3500	0.169	180.5	6.4	0.83	1.312	94.6	0.252	0.947	337.0	607.0	0.709	1.185	3.29	0.989	75.6	284.4	-10.3	0.256
4-3230	4-3510	0.204	191.4	9.1	1.42	1.314	96.7	0.269	0.953	327.8	607.9	0.697	1.209	3.34	0.992	74.5	293.8	-9.9	0.277
4-3230	4-3520	0.251	200.8	10.7	2.05	1.317	99.2	0.293	0.958	317.8	608.2	0.678	1.239	3.51	0.995	73.0	303.4	-8.6	0.306
4-3230	4-3530	0.312	209.0	11.5	2.77	1.319	102.3	0.326	0.964	307.1	607.6	0.650	1.279	3.82	0.998	71.0	313.3	-6.6	0.344
4-3230	4-3530	0.698	252.4	3.6	2.77	1.110	124.9	0.580	0.647	225.9	886.4	0.272	1.022	3.81	0.698	107.3	57.5	26.5	0.408
4-3230	4-3540	0.394	216.7	11.9	3.66	1.322	106.3	0.373	0.970	295.2	605.8	0.608	1.332	4.34	0.999	68.1	323.5	-3.7	0.398
4-3230	4-3540	0.657	252.8	5.1	3.66	1.098	122.8	0.553	0.636	225.6	896.2	0.284	0.988	4.34	0.677	54.6	44.0	25.5	0.349
4-3230	4-3550	0.508	224.3	11.8	4.86	1.324	111.7	0.442	0.976	281.7	602.4	0.544	1.408	5.20	1.001	63.7	334.5	-0.1	0.476
4-3230	4-3550	0.680	253.7	6.5	4.86	1.093	123.9	0.570	0.632	224.4	905.1	0.272	0.992	5.20	0.667	83.5	51.8	22.8	0.370
4-3230	4-3560	0.676	232.5	11.5	6.73	1.326	119.6	0.546	0.982	265.6	596.3	0.446	1.519	6.75	1.002	56.9	346.2	4.4	0.595
4-3230	4-3560	0.764	255.2	7.6	6.73	1.092	128.2	0.629	0.631	221.6	912.4	0.234	1.028	6.75	0.661	70.8	25.4	20.4	0.460
4-3230	4-3610	0.920	18.5	-6.1	-7.82	1.068	42.2	0.750	0.611	147.0	887.9	0.153	1.069	-9.25	0.599	120.5	141.4	6.4	0.573
4-3230	4-3620	0.657	47.1	-8.4	-4.74	1.331	60.5	0.548	0.995	93.5	484.1	0.450	1.541	-6.47	0.993	123.2	188.3	-14.0	0.563
4-3230	4-3620	0.793	20.8	-4.8	-4.74	1.067	49.0	0.670	0.610	142.7	893.3	0.201	1.019	-6.47	0.592	103.1	136.6	7.8	0.443
4-3230	4-3630	0.505	55.4	-7.5	-3.06	1.334	67.8	0.459	1.002	77.7	478.0	0.542	1.462	-5.09	0.993	117.3	200.7	-19.2	0.462
4-3230	4-3640	0.398	63.5	-6.2	-1.94	1.336	73.0	0.400	1.009	63.8	473.8	0.605	1.412	-4.30	0.994	113.6	212.7	-23.6	0.399
4-3230	4-3650	0.319	72.3	-4.5	-1.10	1.339	77.1	0.361	1.015	51.2	470.7	0.649	1.381	-3.82	0.995	111.1	224.6	-27.3	0.359
4-3230	4-3660	0.259	82.6	-2.2	-0.42	1.341	80.5	0.335	1.022	39.2	468.4	0.679	1.364	-3.52	0.997	109.6	236.7	-30.1	0.333
4-3230	4-3670	0.214	95.4	1.1	0.17	1.344	83.4	0.319	1.029	27.7	466.4	0.700	1.357	-3.36	0.999	108.6	248.9	-32.1	0.320
4-3230	4-3680	0.184	111.6	5.3	0.73	1.346	86.1	0.312	1.037	16.5	464.7	0.713	1.360	-3.29	1.002	108.2	261.2	-33.2	0.315
4-3230	4-3690	0.794	35.2	1.6	1.28	1.254	51.8	0.627	0.830	118.7	576.4	0.310	1.350	-3.32	0.873	53.1	128.4	14.8	0.600
4-3230	4-3690	0.172	130.9	10.1	1.28	1.349	88.7	0.312	1.045	5.6	463.4	0.719	1.371	-3.32	1.005	108.1	273.4	-33.5	0.317
4-3230	4-3700	0.720	38.3	2.7	1.86	1.262	55.7	0.577	0.844	112.1	579.4	0.357	1.331	-3.45	0.885	[illegible]	135.8	12.0	0.547
4-3230	4-3700	0.179	150.9	14.1	1.86	1.352	91.2	0.318	1.054	355.0	822.3	0.720	1.389	-3.45	1.009	[illegible]	285.2	-32.9	0.327
4-3230	4-3710	0.650	41.5	4.2	2.50	1.270	59.3	0.529	0.859	105.5	582.3	0.405	1.313	-3.69	0.896	[illegible]	143.1	8.5	0.498
4-3230	4-3710	0.204	168.5	16.8	2.50	1.356	93.8	0.329	1.065	344.8	821.6	0.714	1.415	-3.69	1.014	109.1	296.6	-31.7	0.342
4-3230	4-3720	0.585	44.7	6.3	3.25	1.277	62.7	0.484	0.872	98.7	585.0	0.450	1.294	-4.09	0.907	62.5	150.3	4.4	0.454
4-3230	4-3720	0.243	182.6	18.4	3.25	1.359	96.4	0.346	1.076	334.9	821.2	0.703	1.450	-4.09	1.020	110.1	307.4	-30.1	0.345
4-3230	4-3730	0.527	47.9	9.4	4.23	1.283	65.8	0.443	0.884	91.7	587.6	0.492	1.276	-4.73	0.918	65.0	157.1	-0.6	0.416
4-3230	4-3730	0.292	193.4	19.9	4.23	1.363	99.1	0.370	1.089	325.5	821.4	0.686	1.492	-4.73	1.027	111.4	317.6	-28.4	0.393
4-3230	4-3740	0.477	51.2	14.3	5.62	1.289	69.7	0.407	0.896	84.6	590.0	0.531	1.260	-5.81	0.927	67.1	165.6	-7.1	0.385
4-3230	4-3740	0.352	202.0	21.8	5.62	1.368	102.0	0.398	1.103	316.6	822.0	0.664	1.542	-5.81	1.034	113.0	327.5	-26.9	0.429
4-3230	4-3750	0.443	54.0	22.4	7.92	1.294	71.3	0.375	0.906	77.4	592.4	0.567	1.246	-7.81	0.937	68.9	169.3	-16.0	0.366
4-3230	4-3750	0.426	209.4	25.4	7.92	1.372	105.0	0.430	1.119	308.1	823.1	0.637	1.600	-7.81	1.042	114.9	337.2	-26.5	0.474
4-3230	4-3760	0.454	54.8	37.6	12.84	1.298	73.7	0.348	0.916	70.2	594.7	0.597	1.234	-12.45	0.945	70.4	173.5	-30.7	0.378
4-3230	4-3760	0.531	217.1	33.2	12.84	1.377	108.1	0.466	1.135	300.1	824.7	0.606	1.664	-12.45	1.051	117.1	347.3	-29.4	0.539
4-3230	4-3770	0.752	29.5	63.6	32.27	1.302	75.7	0.326	0.924	63.2	596.9	0.623	1.226	-31.60	0.953	71.6	179.0	-59.5	0.597
4-3230	4-3790	0.353	69.7	-48.8	-11.88	1.508	80.1	0.286	0.939	46.7	601.3	0.670	1.207	13.13	0.968	73.8	226.0	22.4	0.344
4-3230	4-3800	0.573	65.7	-15.3	-6.45	1.447	68.2	0.600	1.463	59.9	264.3	---	2.341	7.99	1.151	57.6	211.1	0.8	0.617
4-3230	4-3800	0.255	80.8	-34.9	-6.45	1.311	81.9	0.274	0.945	39.0	603.4	0.686	1.204	7.99	0.974	74.4	227.3	10.4	0.289
4-3230	4-3810	0.515	73.8	-10.7	-4.01	1.449	70.8	0.585	1.475	53.5	267.8	---	2.338	5.85	1.156	59.1	217.6	-4.4	0.587
4-3230	4-3810	0.206	90.5	26.3	-4.01	1.313	83.7	0.265	0.950	31.0	605.3	0.699	1.202	5.85	0.980	74.9	233.0	2.7	0.267
4-3230	4-3820	0.464	76.3	-7.7	-2.55	1.451	73.3	0.571	1.486	46.8	271.1	---	2.335	4.72	1.160	60.5	225.0	-8.2	0.563
4-3230	4-3820	0.173	101.6	-19.7	-2.55	1.315	85.4	0.258	0.955	22.9	607.1	0.709	1.201	4.72	0.986	75.2	240.3	-2.5	0.257
4-3230	4-3830	0.417	82.6	-5.2	-1.54	1.452	75.9	0.559	1.497	39.9	274.2	---	2.334	4.05	1.164	61.8	233.0	-11.2	0.542
4-3230	4-3830	0.151	115.0	-13.5	-1.54	1.317	87.1	0.254	0.959	14.5	608.7	0.716	1.203	4.05	0.990	75.4	248.6	-6.3	0.253
4-3240	4-3270	0.697	52.5	-5.2	-3.53	1.231	56.3	0.561	0.796	115.7	145.0	---	---	-6.00	0.852	120.7	189.3	-13.5	0.503

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3240	4-3280	0.590	51.8	-3.4	-0.93	1.190	60.9	0.487	0.737	116.9	155.8	---	---	-4.67	0.788	109.7	186.2	-13.2	0.361
4-3240	4-3290	0.528	52.3	-1.8	-0.88	1.179	63.8	0.442	0.724	115.8	164.3	---	---	-3.92	0.769	107.7	182.2	-12.4	0.282
4-3240	4-3300	0.486	53.6	-0.3	-0.12	1.181	65.9	0.409	0.726	115.3	171.3	---	---	-3.45	0.770	95.9	177.9	-11.4	0.236
4-3240	4-3310	0.455	55.1	1.2	0.50	1.189	67.5	0.383	0.735	109.9	177.4	---	---	-3.17	0.780	91.6	174.1	-10.3	0.211
4-3240	4-3320	0.428	57.4	2.7	1.04	1.198	69.0	0.361	0.748	105.8	182.9	---	1.017	-3.01	0.794	88.4	171.7	-9.7	0.197
4-3240	4-3330	0.408	59.6	4.3	1.54	1.208	70.3	0.341	0.762	101.3	187.9	---	1.022	-2.93	0.809	85.9	170.9	-9.7	0.191
4-3240	4-3340	0.382	61.9	6.2	2.03	1.219	71.5	0.324	0.776	96.5	192.6	---	1.028	-2.95	0.825	84.1	171.5	-10.4	0.189
4-3240	4-3350	0.362	64.4	8.3	2.54	1.228	72.7	0.309	0.791	91.4	197.1	---	1.036	-3.04	0.840	82.7	173.4	-11.9	0.189
4-3240	4-3360	0.343	67.0	10.8	3.10	1.238	73.9	0.295	0.806	86.2	201.4	---	1.044	-3.24	0.855	81.5	176.2	-14.2	0.190
4-3240	4-3370	0.325	69.6	14.0	3.75	1.246	75.0	0.283	0.820	80.8	205.6	---	1.052	-3.57	0.869	80.7	179.7	-17.4	0.193
4-3240	4-3380	0.311	72.3	18.3	4.52	1.254	75.2	0.272	0.833	75.2	209.6	---	1.060	-4.10	0.882	80.0	183.6	-21.7	0.207
4-3240	4-3390	0.301	75.1	24.2	5.76	1.261	77.3	0.263	0.846	69.5	213.6	---	1.069	-4.99	0.895	79.4	187.6	-27.5	0.204
4-3240	4-3400	0.302	77.4	33.2	7.66	1.268	78.4	0.255	0.858	63.7	217.4	---	1.077	-6.62	0.907	79.0	191.2	-35.7	0.217
4-3240	4-3410	0.34	77.7	47.6	11.58	1.274	79.5	0.248	0.870	57.8	221.2	---	1.085	-10.28	0.919	78.7	193.2	-42.8	0.255
4-3240	4-3420	0.565	54.0	69.2	25.67	1.279	80.5	0.242	0.880	52.1	224.9	---	1.094	-24.12	0.929	78.3	193.1	-71.2	0.443
4-3240	4-3440	0.287	94.0	-54.5	-10.53	1.289	83.1	0.230	0.900	38.0	231.6	---	1.108	12.59	0.942	78.1	240.3	23.6	0.208
4-3240	4-3450	0.195	105.9	-35.6	-5.07	1.293	84.3	0.228	0.909	31.4	234.9	---	1.116	7.59	0.957	77.9	246.8	9.4	0.236
4-3240	4-3460	0.159	115.9	-22.9	-2.74	1.297	85.5	0.227	0.918	24.5	237.9	---	1.126	5.33	0.965	77.7	252.0	0.8	0.224
4-3240	4-3470	0.139	127.1	-13.0	-1.38	1.301	86.8	0.227	0.925	17.3	240.7	---	1.136	4.26	0.973	77.4	255.0	-4.5	0.222
4-3240	4-3480	0.129	140.4	-4.3	-0.45	1.304	88.2	0.229	0.933	9.7	243.2	---	1.147	3.64	0.978	77.2	256.9	-7.8	0.226
4-3240	4-3490	0.128	155.4	2.7	0.26	1.307	89.7	0.233	0.940	1.8	245.4	---	1.159	3.27	0.984	76.8	275.5	-9.8	0.233
4-3240	4-3500	0.137	171.1	8.3	0.87	1.310	91.3	0.239	0.947	353.4	607.3	0.720	1.173	3.05	0.989	76.3	284.4	-10.6	0.243
4-3240	4-3510	0.156	185.9	11.9	1.41	1.313	93.0	0.249	0.953	344.7	608.7	0.716	1.190	2.95	0.993	75.7	293.6	-10.4	0.256
4-3240	4-3520	0.185	198.8	13.8	1.93	1.316	95.0	0.262	0.960	335.4	609.6	0.708	1.211	2.94	0.996	74.8	303.0	-9.4	0.275
4-3240	4-3530	0.224	209.6	14.5	2.47	1.318	97.4	0.282	0.966	325.6	609.9	0.694	1.238	3.02	0.998	73.7	312.5	-7.5	0.297
4-3240	4-3540	0.277	219.5	14.5	3.05	1.320	100.2	0.309	0.972	315.0	609.5	0.671	1.272	3.22	1.000	72.0	322.1	-5.0	0.328
4-3240	4-3540	0.741	267.9	3.7	3.05	1.126	127.0	0.605	0.665	226.3	881.1	0.262	1.067	3.22	0.725	114.7	79.6	27.7	0.464
4-3240	4-3550	0.346	227.6	11.0	3.74	1.323	103.6	0.347	0.977	303.6	608.2	0.638	1.317	3.56	1.002	69.7	331.9	-1.8	0.371
4-3240	4-3550	0.654	267.9	5.3	3.74	1.107	122.5	0.546	0.646	227.1	891.8	0.293	0.999	3.56	0.692	99.7	66.1	28.6	0.351
4-3240	4-3560	0.439	235.4	13.3	4.62	1.325	108.2	0.402	0.983	296.9	605.6	0.586	1.378	4.12	1.003	66.3	342.2	2.0	0.431
4-3240	4-3570	0.651	268.6	6.6	4.62	1.100	122.3	0.545	0.640	226.3	901.0	0.291	0.989	4.12	0.678	88.8	52.4	27.5	0.339
4-3240	4-3580	0.572	243.3	12.5	5.86	1.328	114.5	0.483	0.990	276.3	661.0	0.512	1.467	5.08	1.004	61.1	353.4	6.5	0.522
4-3240	4-3590	0.702	269.6	7.5	5.86	1.098	124.9	0.582	0.638	224.5	909.2	0.267	1.009	5.08	0.671	77.7	42.6	25.2	0.394
4-3240	4-3600	0.820	271.8	8.0	7.92	1.098	131.1	0.664	0.638	224.4	915.1	0.214	1.062	6.86	0.467	64.3	39.8	23.9	0.516
4-3240	4-3630	0.858	36.5	-4.3	-4.83	1.076	45.4	0.711	0.619	144.1	888.3	0.179	1.060	-7.16	0.608	115.5	158.3	0.9	0.516
4-3240	4-3640	0.599	66.6	-5.3	-2.67	1.335	63.1	0.519	1.010	87.5	481.3	0.486	1.534	-5.27	0.995	121.3	209.2	-21.0	0.529
4-3240	4-3640	0.761	38.1	-2.9	-2.67	1.074	50.6	0.648	0.618	141.0	894.8	0.217	1.018	-5.27	0.601	99.4	151.7	3.5	0.412
4-3240	4-3650	0.465	74.8	-3.7	-1.38	1.338	69.6	0.442	1.016	72.3	475.7	0.567	1.465	-4.26	0.996	116.2	222.2	-25.2	0.445
4-3240	4-3660	0.369	83.3	-1.1	-0.50	1.340	74.5	0.390	1.023	58.8	471.8	0.624	1.422	-3.67	0.997	115.0	234.9	-28.4	0.391
4-3240	4-3670	0.297	92.8	0.9	0.19	1.342	78.3	0.356	1.030	46.2	468.8	0.663	1.396	-3.29	0.999	115.0	247.7	-30.6	0.357
4-3240	4-3680	0.243	104.2	4.2	0.77	1.345	81.6	0.334	1.037	34.2	466.3	0.690	1.383	-3.08	1.002	109.5	260.3	-31.8	0.337
4-3240	4-3690	0.204	118.7	8.4	1.28	1.347	84.5	0.322	1.044	22.7	464.3	0.708	1.380	-2.96	1.005	108.7	272.8	-32.1	0.327
4-3240	4-3700	0.183	136.6	13.2	1.77	1.350	87.2	0.318	1.052	11.5	462.7	0.718	1.386	-2.93	1.008	108.4	284.9	-31.4	0.325
4-3240	4-3710	0.181	52.1	2.9	2.27	1.258	52.5	0.619	0.840	117.0	577.7	0.320	1.360	-2.98	0.882	53.4	146.4	9.7	0.591
4-3240	4-3710	0.181	156.7	17.2	2.27	1.353	89.8	0.320	1.061	0.7	461.3	0.721	1.401	-2.98	1.013	109.5	296.5	-30.0	0.331
4-3240	4-3720	0.709	55.2	4.2	2.79	1.266	56.3	0.570	0.855	110.6	580.8	0.367	1.342	-3.12	0.894	56.8	153.5	6.3	0.540
4-3240	4-3720	0.197	175.9	19.6	2.79	1.356	92.4	0.329	1.071	350.2	820.4	0.719	1.423	-3.12	1.018	109.0	307.5	-28.1	0.343
4-3240	4-3730	0.641	58.3	5.8	3.39	1.273	59.8	0.524	0.868	104.0	583.7	0.414	1.323	-3.38	0.906	59.8	160.5	2.4	0.493
4-3240	4-3730	0.229	191.9	20.5	3.39	1.360	95.0	0.343	1.082	340.1	819.9	0.710	1.453	-3.38	1.024	109.8	317.9	-25.7	0.361
4-3240	4-3740	0.579	61.5	8.1	4.12	1.280	63.1	0.480	0.881	97.2	586.6	0.458	1.304	-3.79	0.917	62.5	167.5	-2.0	0.452
4-3240	4-3740	0.272	204.2	20.9	4.12	1.363	97.7	0.363	1.094	330.5	819.8	0.696	1.491	-3.79	1.031	110.9	327.7	-23.2	0.385
4-3240	4-3750	0.523	64.7	11.5	5.09	1.286	66.1	0.441	0.893	90.3	589.3	0.499	1.287	-4.46	0.928	64.9	174.2	-7.4	0.416
4-3240	4-3750	0.326	213.8	21.5	5.09	1.367	100.6	0.388	1.107	321.3	820.3	0.677	1.537	-4.46	1.038	112.3	337.1	-20.7	0.416
4-3240	4-3760	0.477	67.8	16.7	6.53	1.291	68.9	0.406	0.904	88.3	591.9	0.537	1.271	-5.63	0.938	66.9	180.6	-14.1	0.387
4-3240	4-3760	0.389	221.5	22.9	6.53	1.372	103.5	0.418	1.121	312.6	821.2	0.653	1.590	-5.63	1.046	114.1	346.2	-18.9	0.455
4-3240	4-3770	0.449	70.5	25.6	9.16	1.296	71.5	0.375	0.914	76.2	594.5	0.572	1.257	-7.94	0.947	68.7	186.3	-23.7	0.371
4-3240	4-3770	0.467	228.4	26.5	9.10	1.376	106.5	0.452	1.137	304.4	822.7	0.624	1.651	-7.94	1.054	116.2	355.5	-18.5	0.500
4-3240	4-3780	0.488	69.5	43.3	15.54	1.300	73.9	0.349	0.923	69.0	596.9	0.602	1.245	-14.13	0.956	70.2	190.1	-41.1	0.398
4-3240	4-3780	0.592	236.8	36.1	15.54	1.381	109.7	0.488	1.154	296.6	824.5	0.591	1.717	-14.13	1.063	118.3	5.4	-23.3	0.576
4-3240	4-3800	0.476	73.8	-57.2	-18.23	1.307	78.4	0.303	0.939	53.1	601.6	0.554	1.224	20.15	0.971	72.7	240.8	26.9	0.441
4-3240	4-3810	0.287	90.9	-34.4	-7.24	1.310	80.3	0.289	0.946	45.6	603.8	0.673	1.219	9.41	0.978	73.5	236.9	9.9	0.315
4-3240	4-3820	0.546	83.9	-9.4	-3.78	1.448	69.0	0.597	1.477	57.9	266.0	---	2.358	6.22	1.158	58.1	228.1	-7.4	0.607
4-3240	4-3820	0.226	99.8	-22.2	-3.78	1.312	82.1	0.276	0.952	37.7	605.9	0.689	1.214	6.22	0.984	74.1	242.0	0.7	0.283
4-3240	4-3830	0.494	89.0	-5.6	-2.02	1.450	71.6	0.582	1.488	51.4	269.5	---	2.355	4.75	1.162	59.7	235.6	-11.2	0.581
4-3240	4-3830	0.189	109.3	-14.1	-2.02	1.314	83.9	0.267	0.957	29.6	607.8	0.701	1.212	4.75	0.989	74.6	249.4	-4.9	0.269
4-3240	4-3840	0.446	94.7	-2.8	-0.91	1.451	74.1	0.569	1.499	44.5	272.8	---	2.352	3.93	1.166	61.1	243.8	-13.9	0.559
4-3240	4-3840	0.164	120.9	-7.3	-0.91	1.316	85.7	0.260	0.962	21.2	609.5	0.711	1.212	3.93	0.994	75.0	257.9	-8.4	0.262
4-3250	4-3280	0.854	56.2	-5.0	-3.12	1.125	46.2	0.695	0.665	138.9	161.7	---	---	-6.05	0.689	122.6	183.5	-8.5	0.550
4-3250	4-3290	0.725	57.9	-1.5	-1.24	1.110	52.8	0.611	0.651	135.4	167.8	---	---	-4.37	0.663	107.8	180.4	-7.5	0.409
4-3250	4-3300	0.648	60.0	-0.2	-0.15	1.119	57.0	0.551	0.660	131.3	173.3	---	---	-3.50	0.675	98.1	177.2	-6.5	0.333
4-3250	4-3310	0.593	62.5	1.0	0.60	1.135	60.0	0.504	0.676	126.9	178.4	---	---	-2.99	0.699	91.6	174.5	-5.6	0.289
4-3250	4-3320	0.551	65.1	2.2	1.16	1.152	62.3	0.466	0.694	122.1	183.1	---	1.018	-2.68	0.726	87.3	173.0	-5.0	0.264
4-3250	4-3330	0.515	67.7	3.3	1.63	1.169	64.3	0.434	0.714	117.1	187.7	---	1.024	-2.48	0.753	84.2	172.9	-5.1	0.249
4-3250	4-3340	0.483	70.4	4.6	2.05	1.185	66.1	0.406	0.734	111.9	192.0	---	1.032	-2.38	0.778	82.0	174.0	-5.7	0.240
4-3250	4-3350	0.455	73.1	6.0	2.44	1.200	67.7	0.381	0.753	106.6	196.2	---	1.040	-2.34	0.801	80.5	176.3	-7.0	0.235
4-3250	4-3360	0.428	75.8	7.5	2.84	1.214	69.3	0.359	0.772	101.1	200.2	---	1.050	-2.37	0.823	79.4	179.5	-8.9	0.231
4-3250	4-3370	0.403	78.5	9.4	3.25	1.226	70.7	0.340	0.790	95.5	204.2	---	1.059	-2.47	0.842	78.6	183.4	-11.3	0.228
4-3250	4-3380	0.379	81.3	11.6	3.72	1.237	72.2	0.322	0.807	89.8	208.1	---	1.068	-2.66	0.860	78.0	188.0	-14.3	0.226
4-3250	4-3390	0.358	84.1	14.5	4.29	1.246	73.5	0.307	0.824	84.0	212.0	---	1.076	-2.97	0.877	77.6	192.9	-17.9	0.226
4-3250	4-3400	0.339	87.0	18.3	5.03	1.255	74.8	0.293	0.839	78.1	215.8	---	1.085	-3.48	0.892	77.3	198.2	-22.3	0.226

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3250	4-3410	0.325	89.9	25.8	6.13	1.263	76.2	0.281	0.853	72.0	219.5	---	1.095	-4.45	0.906	77.1	203.5	-28.1	0.229
4-3250	4-3420	0.324	92.3	32.4	8.05	1.270	77.4	0.271	0.866	65.9	223.1	---	1.101	-6.06	0.919	77.0	208.6	-36.7	0.239
4-3250	4-3430	0.369	92.0	48.1	12.67	1.277	78.7	0.262	0.879	59.7	226.7	---	1.108	-10.47	0.931	76.9	212.1	-52.0	0.278
4-3250	4-3440	0.392	96.7	-60.9	-15.58	1.288	81.4	0.246	0.901	45.8	233.4	---	1.122	18.19	0.952	77.0	257.4	28.1	0.374
4-3250	4-3460	0.218	114.1	-31.3	-5.06	1.292	82.7	0.242	0.911	39.2	236.6	---	1.131	7.88	0.961	76.9	254.5	7.7	0.255
4-3250	4-3470	0.176	122.7	-15.3	-2.07	1.297	84.0	0.238	0.920	32.2	239.5	---	1.140	5.10	0.969	76.9	259.9	-2.3	0.237
4-3250	4-3480	0.155	132.3	-5.0	-0.60	1.301	85.3	0.236	0.929	24.8	242.3	---	1.149	3.85	0.976	76.8	267.4	-7.5	0.233
4-3250	4-3490	0.142	143.9	2.9	0.32	1.304	86.8	0.236	0.938	17.2	244.7	---	1.159	3.17	0.982	76.7	275.8	-10.3	0.235
4-3250	4-3500	0.136	157.8	9.5	0.98	1.308	88.2	0.237	0.945	9.2	246.9	---	1.170	2.77	0.988	76.5	284.7	-11.5	0.240
4-3250	4-3510	0.138	173.6	14.5	1.51	1.311	89.8	0.241	0.953	0.8	248.7	---	1.183	2.52	0.992	76.1	293.8	-11.6	0.247
4-3250	4-3520	0.149	189.8	17.6	1.97	1.314	91.6	0.248	0.960	352.0	610.1	0.721	1.198	2.39	0.996	75.7	303.1	-10.8	0.257
4-3250	4-3530	0.171	204.8	18.7	2.39	1.316	93.5	0.259	0.966	342.8	611.1	0.716	1.216	2.34	0.999	75.0	312.4	-9.1	0.271
4-3250	4-3540	0.204	217.8	18.4	2.81	1.319	95.7	0.274	0.973	333.0	611.5	0.706	1.239	2.37	1.001	74.1	321.7	-6.8	0.290
4-3250	4-3550	0.248	228.7	17.4	3.25	1.321	98.3	0.296	0.979	322.7	611.2	0.689	1.269	2.47	1.002	72.8	331.1	-3.8	0.315
4-3250	4-3560	0.306	238.0	16.1	3.74	1.324	101.4	0.327	0.985	311.6	610.2	0.663	1.307	2.67	1.003	70.9	340.7	-0.3	0.350
4-3250	4-3560	0.664	283.1	5.3	3.74	1.117	123.0	0.550	0.658	228.4	887.1	0.296	1.020	2.67	0.709	104.9	88.7	28.4	0.370
4-3250	4-3570	0.383	246.2	14.6	4.34	1.326	105.3	0.371	0.991	299.5	608.2	0.623	1.358	3.00	1.004	68.2	350.6	3.6	0.398
4-3250	4-3570	0.635	283.5	6.5	4.34	1.107	121.5	0.531	0.649	228.0	896.7	0.304	0.993	3.00	0.690	93.7	75.1	29.1	0.324
4-3250	4-3580	0.489	254.1	13.1	5.12	1.328	110.5	0.434	0.997	285.9	604.6	0.564	1.430	3.55	1.005	64.2	1.2	8.0	0.467
4-3250	4-3580	0.659	284.3	7.2	5.12	1.104	122.6	0.549	0.643	226.8	905.5	0.291	0.999	3.55	0.680	83.4	62.6	28.1	0.347
4-3250	4-3590	0.642	262.3	11.6	6.30	1.331	117.8	0.528	1.003	270.1	598.8	0.473	1.534	4.50	1.005	58.1	13.1	12.9	0.572
4-3250	4-3590	0.736	285.7	7.6	6.30	1.105	126.6	0.605	0.644	224.1	912.7	0.255	1.034	4.50	0.675	72.0	56.0	26.7	0.430
4-3250	4-3600	0.890	288.8	7.4	8.40	1.104	134.8	0.710	0.646	218.3	916.8	0.187	1.104	6.39	0.673	57.3	56.8	26.3	0.583
4-3250	4-3630	0.807	54.3	-2.1	-2.07	1.084	48.1	0.677	0.627	141.5	888.8	0.202	1.052	-5.10	0.618	111.3	175.0	-4.7	0.469
4-3250	4-3660	0.549	85.9	-1.5	-0.66	1.338	65.5	0.494	1.024	81.7	478.6	0.518	1.530	-3.90	0.998	119.6	231.6	-25.7	0.502
4-3250	4-3660	0.734	55.3	-0.8	-0.66	1.081	52.0	0.628	0.625	139.3	896.2	0.232	1.018	-3.90	0.610	96.3	166.9	-1.0	0.387
4-3250	4-3670	0.430	94.3	0.7	0.23	1.341	71.4	0.426	1.031	66.9	473.4	0.591	1.471	-3.23	1.000	115.2	245.2	-28.4	0.431
4-3250	4-3680	0.343	103.2	3.3	0.88	1.343	76.0	0.382	1.038	53.5	469.6	0.642	1.433	-2.82	1.002	112.4	258.5	-29.8	0.385
4-3250	4-3690	0.278	113.7	6.7	1.39	1.346	79.7	0.352	1.044	41.0	466.5	0.676	1.412	-2.57	1.005	110.6	271.4	-30.2	0.357
4-3250	4-3700	0.230	126.6	10.7	1.83	1.348	82.8	0.334	1.052	29.0	464.1	0.700	1.403	-2.42	1.008	109.5	283.9	-29.6	0.341
4-3250	4-3710	0.200	142.9	15.3	2.24	1.351	85.7	0.326	1.059	17.5	462.1	0.714	1.404	-2.35	1.012	108.9	295.8	-28.2	0.335
4-3250	4-3720	0.187	162.4	19.3	2.63	1.353	88.5	0.324	1.068	6.3	460.4	0.722	1.414	-2.35	1.017	108.7	307.0	-26.0	0.336
4-3250	4-3730	0.768	69.0	4.0	3.03	1.262	53.2	0.611	0.851	115.4	579.1	0.331	1.370	-2.41	0.893	53.8	163.9	3.7	0.583
4-3250	4-3730	0.194	182.5	21.7	3.03	1.356	91.1	0.330	1.077	355.6	819.3	0.722	1.432	-2.41	1.022	109.0	317.6	-23.4	0.344
4-3250	4-3740	0.698	72.1	5.3	3.47	1.269	56.9	0.563	0.864	109.0	582.3	0.578	1.351	-2.55	0.905	57.0	170.9	0.0	0.535
4-3250	4-3740	0.218	200.3	22.1	3.47	1.359	93.7	0.341	1.087	345.2	818.5	0.717	1.458	-2.55	1.028	109.6	327.6	-20.4	0.359
4-3250	4-3750	0.632	75.2	7.0	3.98	1.276	60.3	0.518	0.878	102.4	585.3	0.423	1.332	-2.79	0.917	59.9	177.9	-4.0	0.490
4-3250	4-3750	0.255	214.3	21.6	3.98	1.363	96.4	0.358	1.098	335.4	818.3	0.705	1.492	-2.79	1.035	110.5	337.0	-17.3	0.379
4-3250	4-3760	0.572	78.4	9.3	4.61	1.282	63.6	0.476	0.890	95.7	588.3	0.466	1.314	-3.18	0.928	62.5	184.8	-8.5	0.450
4-3250	4-3760	0.302	225.1	21.1	4.61	1.367	99.2	0.380	1.111	326.0	818.6	0.689	1.533	-3.18	1.042	111.7	346.1	-14.2	0.405
4-3250	4-3770	0.517	81.6	12.6	5.49	1.288	66.5	0.438	0.902	88.9	591.2	0.507	1.297	-3.83	0.939	64.8	191.8	-13.6	0.415
4-3250	4-3770	0.358	233.6	21.0	5.49	1.371	102.1	0.407	1.125	317.1	819.4	0.667	1.583	-3.83	1.050	113.3	354.9	-11.4	0.437
4-3250	4-3780	0.473	84.7	17.9	6.88	1.293	69.3	0.404	0.913	81.9	593.9	0.544	1.281	-5.00	0.949	66.8	198.6	-20.1	0.387
4-3250	4-3780	0.423	240.5	22.1	6.88	1.375	105.1	0.438	1.139	308.6	820.7	0.640	1.639	-5.00	1.058	115.1	3.7	-9.5	0.475
4-3250	4-3790	0.449	87.2	27.4	9.63	1.298	71.8	0.373	0.922	74.7	596.6	0.578	1.267	-7.54	0.958	68.6	204.8	-30.0	0.372
4-3250	4-3790	0.503	246.9	25.8	9.63	1.379	108.2	0.473	1.156	300.6	822.5	0.609	1.702	-7.54	1.066	117.2	12.7	-9.5	0.523
4-3250	4-3800	0.528	83.4	48.8	18.52	1.302	74.2	0.348	0.931	67.6	599.2	0.407	1.255	-16.22	0.966	70.0	209.3	-51.6	0.424
4-3250	4-3820	0.327	101.7	-35.4	-8.51	1.308	78.6	0.305	0.946	51.9	604.0	0.658	1.235	11.21	0.981	72.5	246.6	10.3	0.347
4-3250	4-3830	0.578	97.3	-7.7	-3.32	1.446	67.2	0.610	1.478	62.2	264.3	---	2.379	6.24	1.160	57.1	238.6	-10.4	0.628
4-3250	4-3830	0.248	110.4	-17.6	-3.32	1.311	80.5	0.289	0.953	44.1	606.2	0.677	1.229	6.24	0.987	73.3	250.9	-2.0	0.299
4-3250	4-3840	0.525	102.0	-3.3	-1.27	1.446	69.8	0.594	1.490	55.7	267.8	---	2.375	4.40	1.164	58.7	246.3	-14.2	0.599
4-3250	4-3840	0.209	118.6	-7.9	-1.27	1.313	82.4	0.277	0.959	36.0	608.2	0.693	1.224	4.40	0.992	74.0	258.6	-7.9	0.281
4-3250	4-3850	0.476	107.2	-0.3	-0.12	1.450	72.4	0.579	1.501	49.0	271.2	---	2.371	3.48	1.168	60.2	254.7	-16.5	0.576
4-3250	4-3850	0.181	128.4	-0.9	-0.12	1.315	84.2	0.268	0.964	27.7	609.9	0.705	1.222	3.48	0.996	74.5	267.4	-11.0	0.271
4-3260	4-3300	0.868	66.1	-0.2	-0.22	1.038	43.9	0.736	0.594	148.0	173.9	---	---	-3.59	0.535	106.2	179.7	-4.0	0.494
4-3260	4-3310	0.772	69.4	0.8	0.80	1.062	49.7	0.662	0.612	142.5	178.0	---	---	-2.71	0.578	94.0	177.7	-3.2	0.410
4-3260	4-3320	0.703	72.7	1.8	1.44	1.090	53.7	0.603	0.635	137.1	182.1	---	1.018	-2.22	0.627	86.8	176.5	-2.7	0.361
4-3260	4-3330	0.649	75.9	2.7	1.89	1.116	56.9	0.553	0.659	131.7	186.2	---	1.024	-1.93	0.671	82.5	176.5	-2.7	0.331
4-3260	4-3340	0.604	79.0	3.7	2.25	1.141	59.5	0.510	0.684	126.2	190.2	---	1.033	-1.75	0.711	79.7	177.7	-3.3	0.311
4-3260	4-3350	0.565	82.0	4.6	2.55	1.162	61.8	0.474	0.708	120.6	194.2	---	1.044	-1.64	0.746	77.9	180.0	-4.4	0.297
4-3260	4-3360	0.529	85.0	5.7	2.82	1.181	63.8	0.441	0.731	115.0	198.1	---	1.054	-1.58	0.777	76.7	183.2	-5.9	0.287
4-3260	4-3370	0.495	87.9	6.8	3.08	1.198	65.7	0.413	0.754	109.3	202.0	---	1.065	-1.57	0.805	75.9	187.2	-7.9	0.278
4-3260	4-3380	0.464	90.7	8.1	3.35	1.213	67.5	0.387	0.775	103.5	205.9	---	1.075	-1.61	0.829	75.5	191.8	-10.2	0.271
4-3260	4-3390	0.435	93.6	9.6	3.64	1.226	69.2	0.365	0.795	97.6	209.7	---	1.084	-1.69	0.851	75.2	196.9	-12.9	0.265
4-3260	4-3400	0.407	96.5	11.5	3.98	1.239	70.8	0.345	0.813	91.7	213.4	---	1.093	-1.85	0.871	75.1	202.6	-15.9	0.260
4-3260	4-3410	0.382	99.5	13.8	4.40	1.248	72.4	0.327	0.831	85.7	217.1	---	1.102	-2.10	0.889	75.1	208.6	-19.3	0.256
4-3260	4-3420	0.359	102.5	17.0	4.97	1.258	73.9	0.311	0.847	79.5	220.8	---	1.110	-2.51	0.905	75.1	215.1	-23.2	0.253
4-3260	4-3430	0.340	105.6	21.6	5.86	1.266	75.3	0.297	0.862	73.2	224.4	---	1.118	-3.26	0.919	75.2	221.7	-28.2	0.252
4-3260	4-3440	0.332	108.4	29.6	7.60	1.273	76.7	0.285	0.876	66.9	227.9	---	1.125	-4.85	0.932	75.4	228.5	-36.0	0.256
4-3260	4-3450	0.382	107.9	47.3	12.97	1.280	78.1	0.274	0.889	60.4	231.4	---	1.133	-10.08	0.944	75.5	234.9	-53.5	0.294
4-3260	4-3470	0.241	124.0	-26.4	-4.83	1.291	81.0	0.257	0.912	46.4	237.8	---	1.147	8.00	0.964	75.9	262.3	5.2	0.273
4-3260	4-3480	0.198	131.6	-6.5	-1.00	1.296	82.4	0.251	0.923	39.3	240.7	---	1.154	4.30	0.972	76.0	268.2	-6.9	0.249
4-3260	4-3490	0.177	139.6	3.3	0.45	1.300	83.9	0.247	0.933	31.9	243.4	---	1.163	3.00	0.979	76.1	276.4	-11.5	0.244
4-3260	4-3500	0.161	149.4	10.1	1.25	1.304	85.3	0.244	0.942	24.2	245.9	---	1.172	2.36	0.986	76.1	285.3	-13.4	0.245
4-3260	4-3510	0.151	161.6	15.6	1.78	1.308	86.9	0.244	0.950	16.1	248.0	---	1.182	2.00	0.991	76.0	294.4	-13.7	0.248
4-3260	4-3520	0.146	176.4	19.9	2.18	1.311	88.5	0.246	0.958	7.8	249.9	---	1.193	1.78	0.995	75.9	303.6	-12.9	0.253
4-3260	4-3530	0.150	192.9	22.5	2.51	1.314	90.2	0.250	0.966	359.0	611.3	0.724	1.207	1.65	0.998	75.5	312.8	-11.3	0.261
4-3260	4-3540	0.164	209.4	23.1	2.80	1.317	92.1	0.258	0.973	349.8	612.3	0.722	1.224	1.58	1.001	75.1	322.0	-9.0	0.272
4-3260	4-3550	0.188	224.4	22.1	3.08	1.320	94.2	0.270	0.979	340.2	612.8	0.715	1.244	1.57	1.003	74.3	331.2	-6.1	0.287
4-3260	4-3560	0.223	237.0	20.2	3.36	1.322	96.6	0.288	0.986	330.0	612.7	0.702	1.269	1.61	1.004	73.3	340.4	-2.8	0.307

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3260	4-3570	0.272	247.6	17.9	3.67	1.323	99.4	0.312	0.992	319.2	411.9	0.682	1.302	1.70	1.005	71.8	349.8	0.9	0.334
4-3260	4-3570	0.694	298.4	4.9	3.67	1.150	124.4	0.569	0.673	229.3	882.0	0.290	1.055	1.70	0.729	111.0	110.4	25.0	0.411
4-3260	4-3580	0.336	256.7	15.7	4.02	1.327	102.8	0.348	0.998	307.6	610.3	0.651	1.345	1.87	1.005	69.7	359.5	4.9	0.372
4-3260	4-3580	0.630	298.5	6.1	4.02	1.115	121.2	0.525	0.658	229.5	892.2	0.313	1.004	1.87	0.703	98.4	98.1	27.2	0.324
4-3260	4-3590	0.422	264.8	13.5	4.46	1.329	107.2	0.398	1.004	294.9	607.6	0.605	1.404	2.14	1.006	66.6	9.7	9.2	0.423
4-3260	4-3590	0.650	299.1	6.7	4.46	1.110	121.2	0.526	0.653	228.7	901.3	0.310	0.997	2.14	0.690	88.5	84.6	28.0	0.317
4-3260	4-3600	0.543	272.8	11.5	5.06	1.332	113.1	0.471	1.011	280.6	603.1	0.535	1.487	2.58	1.006	61.9	20.9	13.7	0.505
4-3260	4-3600	0.676	300.1	6.9	5.06	1.108	123.6	0.561	0.651	226.9	909.4	0.286	1.017	2.58	0.683	78.4	74.8	27.4	0.368
4-3260	4-3610	0.780	302.0	6.6	6.01	1.108	129.1	0.636	0.652	223.1	915.5	0.237	1.066	3.39	0.679	66.3	71.7	26.8	0.477
4-3260	4-3660	0.905	68.9	-0.9	-1.11	1.090	42.7	0.741	0.635	144.7	885.6	0.164	1.105	-4.41	0.630	125.2	193.0	-10.0	0.571
4-3260	4-3670	0.658	96.6	0.6	0.34	1.339	60.2	0.560	1.032	92.3	482.7	0.454	1.610	-3.10	1.000	124.1	240.4	-25.2	0.577
4-3260	4-3670	0.763	71.8	0.4	0.34	1.091	50.5	0.646	0.636	139.1	889.5	0.225	1.046	-3.10	0.630	107.8	192.1	-4.9	0.430
4-3260	4-3680	0.506	105.2	2.8	1.14	1.342	67.7	0.472	1.039	75.8	475.8	0.549	1.528	-2.44	1.003	118.1	255.0	-27.3	0.481
4-3260	4-3680	0.949	65.3	0.8	1.14	1.049	39.5	0.782	0.601	150.0	910.0	0.131	1.072	-2.44	0.553	59.3	150.9	9.8	0.584
4-3260	4-3680	0.709	72.4	1.4	1.14	1.087	53.3	0.608	0.633	137.6	897.6	0.248	1.018	-2.44	0.623	93.7	182.5	-5.6	0.366
4-3260	4-3690	0.399	113.9	5.4	1.67	1.344	73.2	0.413	1.045	61.3	470.9	0.614	1.477	-2.06	1.005	114.3	268.8	-27.9	0.420
4-3260	4-3700	0.320	123.7	8.5	2.07	1.346	77.5	0.374	1.052	48.0	467.1	0.659	1.446	-1.83	1.008	111.9	281.9	-27.5	0.382
4-3260	4-3710	0.262	135.3	12.3	2.59	1.349	81.0	0.349	1.059	35.5	464.1	0.689	1.429	-1.69	1.012	110.3	294.2	-26.1	0.359
4-3260	4-3720	0.221	150.0	16.5	2.68	1.351	84.2	0.335	1.067	23.5	461.6	0.709	1.424	-1.60	1.016	109.4	305.8	-23.9	0.347
4-3260	4-3730	0.198	168.2	20.5	2.95	1.354	87.0	0.330	1.075	11.9	459.6	0.720	1.429	-1.57	1.021	109.0	316.7	-21.2	0.344
4-3260	4-3740	0.195	188.6	22.9	3.21	1.356	89.8	0.332	1.084	0.9	458.2	0.724	1.443	-1.58	1.026	109.0	327.0	-18.0	0.348
4-3260	4-3750	0.755	85.9	4.7	3.49	1.265	54.0	0.602	0.861	113.7	580.7	0.342	1.379	-1.64	0.905	54.2	181.2	-2.8	0.577
4-3260	4-3750	0.210	207.8	23.2	3.49	1.359	92.5	0.340	1.093	350.3	817.2	0.721	1.465	-1.64	1.032	109.4	336.6	-14.6	0.358
4-3260	4-3760	0.686	89.0	5.9	3.80	1.272	57.6	0.556	0.874	107.3	583.9	0.388	1.360	-1.76	0.917	57.3	188.3	-6.4	0.530
4-3260	4-3760	0.239	223.7	22.1	3.80	1.363	95.2	0.354	1.104	340.2	816.8	0.713	1.495	-1.76	1.039	110.2	345.9	-11.0	0.375
4-3260	4-3770	0.621	92.1	7.5	4.17	1.279	60.9	0.512	0.887	100.8	587.1	0.433	1.341	-1.95	0.929	60.1	195.6	-10.1	0.487
4-3260	4-3770	0.280	235.9	20.5	4.17	1.366	97.9	0.374	1.115	330.5	816.9	0.699	1.532	-1.95	1.046	111.2	354.7	-7.5	0.397
4-3260	4-3780	0.562	95.3	9.6	4.64	1.265	64.1	0.471	0.899	94.0	590.2	0.476	1.322	-2.27	0.940	62.6	203.0	-14.1	0.448
4-3260	4-3780	0.330	245.3	19.3	4.64	1.370	100.7	0.398	1.128	321.4	817.6	0.679	1.577	-2.27	1.054	112.6	3.4	-4.2	0.424
4-3260	4-3790	0.508	98.6	12.6	5.34	1.290	67.0	0.433	0.910	87.2	593.2	0.516	1.305	-2.81	0.951	64.9	210.5	-18.6	0.414
4-3260	4-3790	0.387	252.8	18.7	5.34	1.374	103.7	0.427	1.142	312.6	818.8	0.655	1.630	-2.97	1.061	114.3	11.9	-1.3	0.457
4-3260	4-3800	0.463	101.9	17.3	6.52	1.295	69.7	0.400	0.921	80.2	596.0	0.552	1.289	-3.84	0.960	66.9	219.2	-24.3	0.386
4-3260	4-3800	0.452	259.0	19.4	6.52	1.378	106.7	0.460	1.157	304.6	820.5	0.625	1.689	-3.84	1.070	116.3	20.6	0.6	0.496
4-3260	4-3810	0.438	104.6	26.9	9.22	1.299	72.3	0.371	0.930	73.0	598.8	0.585	1.275	-6.45	0.969	68.6	225.6	-33.7	0.370
4-3260	4-3810	0.532	264.9	23.1	9.22	1.382	109.9	0.495	1.174	296.8	822.6	0.592	1.755	-6.41	1.078	118.5	29.7	0.2	0.542
4-3260	4-3820	0.611	93.3	56.2	23.86	1.303	74.6	0.346	0.939	65.8	601.4	0.614	1.264	-20.91	0.976	70.0	235.5	-63.9	0.482
4-3260	4-3830	0.394	111.5	-41.1	-11.73	1.306	76.9	0.322	0.947	57.7	603.9	0.642	1.252	14.82	0.933	71.4	257.6	15.8	0.400
4-3260	4-3840	0.272	121.9	-11.6	-2.43	1.309	79.0	0.304	0.954	50.1	606.2	0.664	1.244	5.66	0.939	72.4	259.9	-5.8	0.313
4-3260	4-3850	0.557	115.2	-0.4	-0.18	1.446	68.1	0.606	1.491	59.8	266.1	---	2.395	3.55	1.166	57.8	257.3	-17.2	0.618
4-3260	4-3850	0.233	129.0	-1.0	-0.18	1.312	80.9	0.289	0.960	42.0	608.3	0.687	1.238	3.55	0.994	73.2	268.1	-11.8	0.292
4-3260	4-3860	0.508	120.0	2.4	0.88	1.448	70.8	0.590	1.503	49.2	269.6	---	2.390	2.65	1.169	59.4	266.0	-18.9	0.593
4-3260	4-3860	0.203	137.4	5.6	0.88	1.314	82.9	0.278	0.966	29.8	610.1	0.697	1.224	2.65	0.999	73.9	277.3	-14.2	0.281
4-3270	4-3320	0.898	79.9	1.6	2.10	1.011	41.8	0.765	0.576	131.2	180.3	---	1.017	-1.41	0.481	89.1	181.9	-2.3	0.503
4-3270	4-3330	0.814	83.8	2.3	2.47	1.048	47.1	0.697	0.602	115.3	183.8	---	1.022	-1.09	0.554	81.3	181.7	-2.2	0.444
4-3270	4-3340	0.749	87.4	3.1	2.71	1.082	51.2	0.638	0.630	119.5	187.6	---	1.032	-0.92	0.617	77.1	182.6	-2.6	0.405
4-3270	4-3350	0.695	90.9	3.8	2.89	1.112	54.5	0.587	0.658	133.7	191.4	---	1.044	-0.81	0.670	74.8	184.6	-3.5	0.379
4-3270	4-3360	0.647	94.1	4.5	3.04	1.139	57.3	0.543	0.685	128.0	195.2	---	1.056	-0.74	0.715	73.4	187.3	-4.8	0.359
4-3270	4-3370	0.604	97.3	5.3	3.16	1.162	59.8	0.503	0.711	122.2	199.0	---	1.069	-0.70	0.754	72.7	191.3	-6.5	0.343
4-3270	4-3380	0.565	100.3	6.1	3.23	1.183	62.1	0.468	0.736	116.4	202.8	---	1.080	-0.68	0.787	72.3	195.7	-8.4	0.330
4-3270	4-3390	0.528	103.3	7.0	3.40	1.200	64.2	0.457	0.759	110.5	206.6	---	1.091	-0.69	0.816	72.2	200.8	-10.6	0.319
4-3270	4-3400	0.493	106.3	8.0	3.52	1.216	66.2	0.409	0.782	104.6	210.4	---	1.102	-0.71	0.84	72.3	206.4	-12.9	0.308
4-3270	4-3410	0.460	109.3	9.1	3.65	1.229	68.0	0.384	0.802	98.5	214.1	---	1.111	-0.76	0.865	72.4	212.5	-15.3	0.299
4-3270	4-3420	0.428	112.3	10.4	3.81	1.241	69.8	0.362	0.822	92.4	217.8	---	1.120	-0.84	0.885	72.7	219.1	-17.8	0.291
4-3270	4-3430	0.398	115.4	12.0	4.01	1.252	71.5	0.342	0.840	86.2	221.5	---	1.128	-0.97	0.903	73.0	226.1	-20.4	0.284
4-3270	4-3440	0.371	118.6	14.2	4.31	1.261	73.2	0.325	0.857	79.9	225.1	---	1.135	-1.20	0.919	73.4	233.6	-23.1	0.277
4-3270	4-3450	0.346	122.0	17.3	4.80	1.270	74.8	0.309	0.873	73.4	228.6	---	1.143	-1.62	0.933	73.7	241.4	-26.3	0.272
4-3270	4-3460	0.327	125.4	23.0	5.91	1.277	76.3	0.296	0.887	66.8	232.1	---	1.150	-2.67	0.946	74.1	249.7	-31.3	0.270
4-3270	4-3470	0.369	125.8	43.1	11.59	1.284	77.8	0.284	0.901	60.1	235.3	---	1.157	-8.29	0.957	74.4	259.4	-49.8	0.297
4-3270	4-3480	0.262	135.4	-18.7	-3.81	1.289	79.4	0.274	0.913	53.0	238.5	---	1.163	7.17	0.966	74.8	270.2	0.6	0.266
4-3270	4-3490	0.225	141.7	5.0	0.38	1.295	80.9	0.266	0.925	45.8	241.4	---	1.170	1.54	0.975	75.0	277.4	-14.0	0.260
4-3270	4-3500	0.206	148.4	12.1	1.91	1.299	82.4	0.259	0.935	38.4	244.2	---	1.178	1.57	0.982	75.3	286.4	-16.7	0.257
4-3270	4-3510	0.187	156.8	16.7	2.38	1.304	83.9	0.255	0.945	30.7	246.6	---	1.186	1.16	0.989	75.4	295.6	-17.0	0.256
4-3270	4-3520	0.172	167.5	20.7	2.67	1.308	85.5	0.252	0.955	22.7	246.8	---	1.195	0.95	0.993	75.5	304.8	-16.0	0.259
4-3270	4-3530	0.161	180.3	24.0	2.87	1.311	87.1	0.252	0.963	14.3	250.7	---	1.206	0.82	0.997	75.5	313.9	-14.2	0.261
4-3270	4-3540	0.157	195.9	26.2	3.03	1.315	88.9	0.254	0.971	5.7	252.2	---	1.218	0.74	1.000	75.3	323.0	-11.8	0.266
4-3270	4-3550	0.162	213.0	26.7	3.16	1.318	90.7	0.259	0.979	356.6	613.2	0.725	1.233	0.70	1.002	75.0	332.0	-8.9	0.274
4-3270	4-3560	0.177	229.6	25.3	3.29	1.320	92.7	0.268	0.986	347.1	613.8	0.721	1.251	0.68	1.004	74.4	340.5	-5.6	0.286
4-3270	4-3570	0.204	244.1	22.6	3.41	1.323	95.0	0.282	0.993	337.1	614.9	0.713	1.273	0.69	1.005	73.6	350.0	-1.9	0.301
4-3270	4-3580	0.243	256.3	19.5	3.53	1.325	97.0	0.302	0.999	326.6	616.4	0.698	1.301	0.71	1.006	72.4	359.1	1.9	0.323
4-3270	4-3590	0.296	266.4	16.9	3.57	1.328	100.6	0.330	1.006	315.5	618.2	0.674	1.338	0.76	1.006	70.7	8.6	5.9	0.353
4-3270	4-3590	0.636	313.6	5.5	3.67	1.124	121.5	0.527	0.670	230.8	887.5	0.317	1.023	0.76	0.717	103.2	119.6	22.3	0.340
4-3270	4-3600	0.367	275.2	3.6	3.83	1.330	104.4	0.310	1.012	303.4	610.1	0.637	1.387	0.85	1.006	68.3	18.6	10.0	0.395
4-3270	4-3600	0.613	313.9	5.0	3.83	1.117	120.4	0.512	0.562	230.4	897.0	0.323	1.001	0.85	0.700	93.1	107.1	24.5	0.302
4-3270	4-3610	0.464	283.3	11.0	4.04	1.332	109.3	0.428	1.018	290.1	605.6	0.583	1.454	0.99	1.007	64.7	29.4	14.1	0.456
4-3270	4-3610	0.634	314.6	6.1	4.04	1.113	121.5	0.530	0.659	229.2	905.6	0.410	1.008	0.99	0.691	83.7	95.3	25.5	0.324
4-3270	4-3620	0.601	291.4	4.7	4.35	1.335	116.0	0.511	1.025	279.9	601.1	0.601	1.549	1.23	1.004	59.3	41.6	18.1	0.546
4-3270	4-3620	0.702	315.9	9.6	4.35	1.113	125.1	0.581	0.658	226.7	912.9	0.276	1.040	1.23	0.686	73.4	88.7	25.5	0.399
4-3270	4-3630	0.836	318.5	4.8	4.86	1.114	132.2	0.676	0.659	221.5	917.5	0.214	1.105	1.68	0.684	60.3	89.0	25.3	0.533
4-3270	4-3680	0.843	86.8	1.7	1.79	1.097	46.2	0.698	0.644	141.3	885.3	0.195	1.093	-1.68	0.644	118.5	211.8	-14.8	0.517
4-3270	4-3690	0.602	115.9	4.6	2.30	1.342	63.1	0.529	1.046	85.7	479.3	0.493	1.599	-1.23	1.006	121.9	264.0	-25.3	0.546

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3270	4-3690	0.725	89.1	2.8	2.30	1.098	52.7	0.615	0.644	136.7	890.3	0.248	1.040	-1.23	0.644	104.7	209.7	-14.2	0.396
4-3270	4-3700	0.467	124.7	7.0	2.60	1.345	69.9	0.451	1.053	69.7	472.8	0.578	1.528	-1.00	1.009	116.8	278.3	-25.2	0.464
4-3270	4-3700	0.914	82.7	2.0	2.60	1.059	41.7	0.757	0.611	147.8	910.9	0.148	1.074	-1.00	0.575	60.8	148.4	4.0	0.557
4-3270	4-3700	0.685	89.5	3.4	2.60	1.094	54.7	0.587	0.641	135.8	898.9	0.264	1.017	-1.00	0.647	91.5	198.6	-9.9	0.547
4-3270	4-3710	0.373	134.0	9.9	2.80	1.347	75.0	0.400	1.060	55.4	468.1	0.636	1.484	-0.86	1.012	113.5	291.5	-23.9	0.412
4-3270	4-3720	0.299	144.7	13.2	2.96	1.349	79.0	0.367	1.067	42.1	464.3	0.675	1.459	-0.77	1.016	111.4	303.8	-21.8	0.389
4-3270	4-3730	0.247	158.0	17.0	3.10	1.352	82.5	0.347	1.074	29.6	461.4	0.701	1.447	-0.72	1.021	110.1	315.1	-19.0	0.361
4-3270	4-3740	0.214	174.7	20.7	3.22	1.354	85.6	0.337	1.082	17.6	459.0	0.717	1.447	-0.69	1.026	109.4	325.7	-15.7	0.353
4-3270	4-3750	0.200	194.4	23.3	3.34	1.357	88.4	0.336	1.090	6.2	457.2	0.724	1.456	-0.68	1.031	109.2	335.7	-12.1	0.353
4-3270	4-3760	0.205	214.6	23.6	3.45	1.359	91.2	0.341	1.099	355.3	816.0	0.725	1.474	-0.69	1.047	109.4	345.2	-8.4	0.359
4-3270	4-3770	0.240	102.8	5.0	3.58	1.268	54.8	0.595	0.871	111.9	582.4	0.354	1.387	-0.73	0.918	54.6	198.9	-9.0	0.572
4-3270	4-3770	0.226	232.3	22.0	3.58	1.362	93.9	0.352	1.109	344.9	815.3	0.719	1.500	-0.73	1.044	109.9	354.3	-4.5	0.372
4-3270	4-3780	0.673	105.9	6.0	3.72	1.275	58.3	0.547	0.884	105.5	585.7	0.400	1.367	-0.79	0.930	57.6	206.3	-12.2	0.526
4-3270	4-3780	0.260	246.1	19.8	3.72	1.366	96.6	0.369	1.120	335.1	815.3	0.707	1.533	-0.79	1.051	110.8	3.2	-0.8	0.390
4-3270	4-3790	0.609	109.1	7.2	3.90	1.281	61.6	0.504	0.896	98.9	589.0	0.444	1.348	-0.89	0.941	60.4	214.1	-15.3	0.484
4-3270	4-3790	0.304	256.6	17.6	3.90	1.369	99.0	0.391	1.132	325.8	815.8	0.690	1.574	-0.89	1.058	112.0	11.8	2.8	0.414
4-3270	4-3800	0.549	112.4	8.8	4.14	1.287	64.7	0.464	0.908	92.2	592.2	0.487	1.330	-1.06	0.952	62.9	222.2	-18.3	0.447
4-3270	4-3800	0.356	264.8	15.8	4.14	1.373	102.3	0.417	1.145	316.9	816.9	0.668	1.623	-1.06	1.065	115.5	20.5	6.1	0.443
4-3270	4-3810	0.494	115.8	10.9	4.50	1.292	67.6	0.428	0.919	85.3	595.2	0.526	1.312	-1.36	0.962	65.1	230.5	-21.5	0.415
4-3270	4-3810	0.413	271.4	14.6	4.50	1.377	105.3	0.447	1.160	308.6	818.5	0.641	1.679	-1.36	1.075	118.4	29.1	8.9	0.472
4-3270	4-3820	0.446	119.4	14.4	5.19	1.297	70.3	0.395	0.929	78.2	598.1	0.562	1.296	-1.99	0.971	67.0	239.2	-25.2	0.384
4-3270	4-3820	0.477	277.0	14.4	5.19	1.381	108.4	0.481	1.175	300.7	820.6	0.610	1.741	-1.99	1.081	117.4	37.9	11.0	0.515
4-3270	4-3830	0.412	122.7	22.2	7.19	1.301	72.8	0.367	0.938	70.9	600.9	0.594	1.282	-3.93	0.979	68.7	248.1	-31.9	0.365
4-3270	4-3830	0.552	282.1	17.0	7.19	1.385	111.6	0.537	1.192	293.1	823.1	0.575	1.808	-3.93	1.088	119.7	47.1	10.7	0.560
4-3270	4-3850	0.297	134.0	-1.9	-0.44	1.308	77.4	0.320	0.954	55.7	605.9	0.649	1.260	3.83	0.994	71.4	269.1	-12.5	0.324
4-3270	4-3860	0.590	128.6	3.3	1.49	1.445	66.5	0.618	1.492	63.8	264.2	---	2.414	1.96	1.167	56.8	260.7	-20.4	0.637
4-3270	4-3860	0.262	140.0	7.4	1.49	1.210	79.5	0.303	0.961	47.7	608.1	0.670	1.252	1.96	0.996	72.4	278.3	-17.1	0.305
4-3270	4-3870	0.541	133.0	5.4	2.17	1.447	69.1	0.601	1.505	57.2	267.8	---	2.409	1.34	1.170	58.4	277.7	-21.1	0.611
4-3270	4-3870	0.231	147.3	12.3	2.17	1.313	81.5	0.288	0.967	39.5	610.1	0.698	1.246	1.34	1.000	73.3	287.9	-18.0	0.293
4-3280	4-3340	0.926	95.3	2.7	3.79	1.009	40.2	0.782	0.576	152.2	184.4	---	1.027	0.48	0.483	74.8	188.8	-3.3	0.532
4-3280	4-3350	0.849	99.3	3.2	3.67	1.050	45.2	0.718	0.605	146.1	187.9	---	1.040	0.38	0.563	71.1	190.3	-4.0	0.485
4-3280	4-3360	0.786	103.1	3.8	3.59	1.085	49.3	0.661	0.635	140.2	191.6	---	1.055	0.33	0.629	69.4	192.7	-5.0	0.456
4-3280	4-3370	0.730	106.6	4.2	3.53	1.117	52.7	0.611	0.664	134.4	195.3	---	1.069	0.29	0.684	68.6	196.0	-6.4	0.424
4-3280	4-3380	0.681	109.9	4.8	3.47	1.148	55.7	0.565	0.692	128.5	199.1	---	1.083	0.27	0.730	68.4	200.1	-8.0	0.403
4-3280	4-3390	0.635	113.1	5.4	3.43	1.167	58.4	0.525	0.719	122.6	202.8	---	1.096	0.26	0.769	68.5	204.9	-9.8	0.385
4-3280	4-3400	0.592	116.2	5.9	3.39	1.187	60.8	0.488	0.744	116.7	206.6	---	1.108	0.25	0.805	68.8	210.3	-11.8	0.369
4-3280	4-3410	0.552	119.3	6.5	3.34	1.205	63.1	0.455	0.769	110.7	210.4	---	1.119	0.26	0.832	69.2	216.2	-13.8	0.355
4-3280	4-3420	0.514	122.3	7.1	3.29	1.221	65.2	0.426	0.792	104.7	214.2	---	1.129	0.27	0.858	69.7	222.6	-15.7	0.342
4-3280	4-3430	0.477	125.4	7.7	3.24	1.234	67.2	0.399	0.813	98.5	217.9	---	1.138	0.29	0.880	70.3	229.6	-17.5	0.330
4-3280	4-3440	0.443	128.5	8.4	3.18	1.246	69.1	0.376	0.833	92.3	221.6	---	1.146	0.33	0.900	70.9	236.9	-19.1	0.319
4-3280	4-3450	0.409	131.7	9.0	3.09	1.257	71.0	0.355	0.852	86.0	225.3	---	1.153	0.39	0.918	71.4	244.8	-20.3	0.310
4-3280	4-3460	0.377	135.2	9.5	2.96	1.266	72.7	0.336	0.869	79.5	228.8	---	1.161	0.5	0.933	72.0	253.0	-21.0	0.301
4-3280	4-3470	0.345	138.9	9.7	2.71	1.274	74.4	0.319	0.885	72.9	232.3	---	1.167	0.6	0.946	72.8	261.5	-21.0	0.294
4-3280	4-3480	0.314	143.0	8.0	2.01	1.281	76.1	0.305	0.900	66.1	235.6	---	1.174	1.40	0.958	73.1	270.2	-19.0	0.288
4-3280	4-3500	0.275	151.9	25.0	4.84	1.294	79.3	0.281	0.926	51.9	241.8	---	1.187	-1.48	0.976	74.0	289.0	-27.3	0.278
4-3280	4-3510	0.244	158.2	21.9	4.08	1.299	80.9	0.273	0.938	44.5	244.5	---	1.194	-0.74	0.984	74.4	297.9	-23.6	0.275
4-3280	4-3520	0.220	165.5	23.1	3.82	1.303	82.5	0.266	0.949	36.8	247.0	---	1.201	-0.50	0.990	74.7	306.9	-20.9	0.271
4-3280	4-3530	0.199	174.6	24.9	3.68	1.308	84.1	0.262	0.959	28.8	249.3	---	1.209	-0.34	0.995	74.9	315.9	-18.3	0.270
4-3280	4-3540	0.181	185.9	26.9	3.59	1.312	85.8	0.259	0.968	20.6	251.2	---	1.219	-0.33	0.998	75.0	324.7	-15.3	0.271
4-3280	4-3550	0.170	199.9	28.4	3.53	1.315	87.5	0.259	0.977	12.0	252.7	---	1.230	-0.29	1.001	75.0	333.5	-12.1	0.274
4-3280	4-3560	0.166	216.3	28.8	3.47	1.318	89.4	0.262	0.985	3.0	253.9	---	1.243	-0.27	1.003	74.8	342.2	-8.6	0.279
4-3280	4-3570	0.171	233.5	27.4	3.43	1.321	91.3	0.269	0.992	353.7	614.6	0.726	1.259	-0.26	1.005	74.4	350.9	-4.9	0.289
4-3280	4-3580	0.189	249.8	24.4	3.38	1.324	93.5	0.279	1.000	344.0	614.9	0.720	1.279	-0.25	1.006	73.8	359.6	-1.1	0.299
4-3280	4-3590	0.218	263.7	20.6	3.34	1.326	95.9	0.295	1.006	333.8	614.7	0.709	1.303	-0.26	1.007	73.8	8.6	2.9	0.316
4-3280	4-3600	0.261	275.2	16.8	3.29	1.329	98.7	0.318	1.013	323.0	613.8	0.691	1.335	-0.27	1.007	73.5	17.9	6.8	0.339
4-3280	4-3600	0.658	328.8	4.8	3.29	1.136	122.6	0.542	0.684	231.8	882.5	0.313	1.054	-0.27	0.734	108.6	139.2	15.3	0.375
4-3280	4-3610	0.319	285.0	13.3	3.23	1.331	102.0	0.349	1.019	311.5	612.1	0.663	1.376	-0.30	1.007	69.6	27.7	10.6	0.372
4-3280	4-3610	0.605	328.8	5.2	3.23	1.124	120.1	0.506	0.672	231.9	892.5	0.352	1.011	-0.30	0.711	97.6	128.2	18.1	0.302
4-3280	4-3620	0.399	293.5	10.2	3.17	1.334	106.1	0.395	1.026	299.1	609.5	0.621	1.431	-0.33	1.007	66.8	38.3	14.3	0.419
4-3280	4-3620	0.606	329.3	5.1	3.17	1.120	120.1	0.538	0.667	231.1	901.5	0.328	1.005	-0.33	0.700	88.5	116.1	20.5	0.297
4-3280	4-3630	0.507	301.6	7.6	3.08	1.636	111.6	0.460	1.032	285.2	605.3	0.558	1.507	-0.40	1.008	62.7	50.0	17.6	0.497
4-3280	4-3630	0.646	339.2	4.5	3.08	1.118	122.3	0.540	0.665	229.4	909.5	0.506	1.024	-0.40	0.694	79.2	107.0	21.7	0.345
4-3280	4-3640	0.463	310.0	5.2	2.95	1.338	119.3	0.555	1.039	268.9	598.7	0.462	1.615	-0.51	1.009	56.3	65.3	20.5	0.592
4-3280	4-3640	0.736	331.9	3.6	2.95	1.118	127.0	0.607	0.665	226.0	915.8	0.262	1.069	-0.51	0.691	68.3	103.8	22.7	0.439
4-3280	4-3650	0.902	335.4	2.3	2.71	1.120	135.9	0.721	0.667	219.1	918.6	0.186	1.149	-0.72	0.691	54.0	107.1	21.8	0.598
4-3280	4-3700	0.788	104.5	4.1	3.88	1.105	49.5	0.656	0.652	138.1	885.3	0.225	1.080	0.56	0.659	114.4	231.2	-17.9	0.472
4-3280	4-3710	0.552	135.3	8.3	3.73	1.346	65.9	0.500	1.061	79.0	475.7	0.531	1.590	0.43	1.013	119.9	286.8	-21.8	0.520
4-3280	4-3710	0.689	106.4	4.9	3.73	1.105	54.8	0.584	0.652	134.4	891.1	0.271	1.033	0.43	0.660	102.1	227.9	-17.1	0.367
4-3280	4-3720	0.431	144.5	10.8	3.63	1.348	72.1	0.433	1.068	63.3	469.6	0.606	1.550	0.35	1.017	115.5	300.3	-19.8	0.450
4-3280	4-3720	0.882	100.0	3.0	3.63	1.068	43.7	0.732	0.620	145.6	911.9	0.166	1.075	0.35	0.598	62.0	185.6	-2.0	0.533
4-3280	4-3720	0.661	106.5	5.0	3.63	1.101	56.2	0.565	0.649	134.0	900.3	0.282	1.015	0.35	0.655	89.7	215.4	-13.4	0.340
4-3280	4-3730	0.345	154.6	13.7	3.56	1.350	76.8	0.389	1.074	49.1	465.0	0.656	1.493	0.31	1.021	112.7	312.5	-17.0	0.406
4-3280	4-3740	0.279	166.7	17.0	3.50	1.352	80.7	0.362	1.081	35.9	461.4	0.690	1.473	0.28	1.026	110.9	323.7	-13.7	0.379
4-3280	4-3750	0.335	181.8	20.2	3.45	1.355	84.0	0.347	1.089	23.4	458.5	0.711	1.467	0.26	1.031	109.9	334.2	-9.9	0.365
4-3280	4-3760	0.209	240.4	22.7	3.41	1.357	87.1	0.341	1.097	11.6	456.4	0.723	1.471	0.26	1.036	109.4	344.1	-6.0	0.360
4-3280	4-3770	0.203	320.9	23.2	3.36	1.360	89.9	0.343	1.105	0.3	454.9	0.726	1.484	0.26	1.042	109.4	353.5	-2.0	0.367
4-3280	4-3780	0.215	240.0	21.5	3.32	1.362	92.7	0.351	1.115	349.6	814.0	0.723	1.506	0.26	1.049	109.8	2.7	1.9	0.371
4-3280	4-3790	0.725	119.8	4.7	3.27	1.272	55.6	0.582	0.880	110.0	584.2	0.368	1.393	0.28	0.931	55.1	217.3	-14.3	0.569
4-3280	4-3790	0.243	255.5	18.6	3.27	1.365	95.4	0.365	1.125	339.3	813.8	0.714	1.536	0.28	1.055	110.5	11.7	5.8	0.386
4-3280	4-3800	0.657	122.9	5.4	3.21	1.278	59.1	0.538	0.893	103.5	587.6	0.413	1.378	0.31	0.943	58.1	225.3	-16.6	0.523

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3280	4-3800	0.282	267.5	15.6	3.21	1.369	98.2	0.384	1.136	330.3	814.1	0.700	1.573	0.31	1.062	111.5	20.5	9.4	0.406
4-3280	4-3810	0.593	126.2	6.0	3.14	1.284	62.4	0.496	0.906	96.9	590.9	0.457	1.354	0.35	0.953	60.8	233.7	-18.6	0.483
4-3280	4-3810	0.428	276.6	13.0	3.14	1.372	101.0	0.408	1.149	321.1	815.1	0.680	1.618	0.35	1.069	112.9	29.4	12.9	0.432
4-3280	4-3820	0.533	129.6	6.7	3.03	1.290	65.4	0.437	0.917	90.1	594.2	0.498	1.336	0.43	0.963	63.2	242.4	-20.2	0.446
4-3280	4-3820	0.381	283.8	10.7	3.03	1.376	103.9	0.436	1.162	312.6	816.6	0.655	1.670	0.43	1.076	114.5	38.2	16.0	0.462
4-3280	4-3830	0.477	133.2	7.2	2.86	1.294	68.3	0.421	0.928	83.1	597.2	0.537	1.319	0.58	0.972	65.4	251.5	-21.1	0.413
4-3280	4-3830	0.439	289.7	8.6	2.86	1.380	107.0	0.468	1.177	304.5	818.6	0.626	1.728	0.58	1.083	116.5	47.2	18.8	0.497
4-3280	4-3840	0.425	137.2	7.2	2.48	1.299	71.0	0.390	0.938	75.9	600.1	0.572	1.303	0.94	0.980	67.3	260.8	-21.0	0.385
4-3280	4-3840	0.501	294.7	6.5	2.48	1.384	110.1	0.503	1.193	296.9	821.1	0.595	1.792	0.94	1.090	118.6	56.2	21.5	0.536
4-3280	4-3850	0.374	141.6	2.7	0.81	1.303	73.4	0.362	0.947	68.5	602.9	0.604	1.289	2.59	0.987	68.9	270.3	-16.9	0.363
4-3280	4-3850	0.565	299.0	1.8	0.81	1.388	113.3	0.540	1.210	289.5	823.9	0.557	1.862	2.59	1.097	121.0	64.9	25.7	0.580
4-3280	4-3860	0.357	145.0	24.0	6.59	1.306	75.8	0.338	0.955	60.9	605.4	0.632	1.277	-4.21	0.993	70.3	280.9	-31.9	0.343
4-3280	4-3870	0.303	151.3	18.7	4.35	1.309	78.0	0.317	0.962	53.0	607.7	0.657	1.267	-4.00	0.997	71.5	290.0	-25.1	0.322
4-3280	4-3880	0.577	146.1	9.1	3.93	1.445	67.5	0.612	1.506	61.1	266.0	---	2.429	-0.60	1.171	57.5	289.9	-23.1	0.631
4-3280	4-3880	0.265	157.9	19.5	3.93	1.312	80.1	0.301	0.969	44.9	609.8	0.678	1.260	-0.60	1.001	72.5	299.7	-22.6	0.308
4-3290	4-3360	0.950	111.6	3.3	4.83	1.020	39.1	0.791	0.585	152.1	187.6	---	1.048	2.01	0.512	64.2	198.8	-6.2	0.567
4-3290	4-3370	0.877	115.6	3.6	4.35	1.060	43.9	0.731	0.615	146.1	191.1	---	1.065	1.65	0.591	63.4	201.6	-7.3	0.525
4-3290	4-3380	0.814	119.3	4.0	4.01	1.095	47.9	0.676	0.645	140.1	194.8	---	1.084	1.43	0.654	63.4	205.2	-8.6	0.492
4-3290	4-3390	0.758	122.8	4.4	3.75	1.125	51.4	0.626	0.674	134.2	198.6	---	1.097	1.30	0.707	63.8	209.5	-10.2	0.465
4-3290	4-3400	0.706	126.1	4.7	3.52	1.152	54.5	0.581	0.703	128.3	202.4	---	1.111	1.22	0.752	64.5	214.5	-11.8	0.442
4-3290	4-3410	0.658	129.3	5.0	3.31	1.175	57.3	0.540	0.730	122.3	206.2	---	1.124	1.18	0.790	65.2	220.1	-13.5	0.421
4-3290	4-3420	0.612	132.4	5.3	3.11	1.195	59.9	0.502	0.756	116.3	210.0	---	1.136	1.17	0.823	66.0	226.3	-15.1	0.403
4-3290	4-3430	0.569	135.5	5.5	2.90	1.212	62.3	0.468	0.781	110.3	213.8	---	1.146	1.20	0.851	66.9	233.0	-16.6	0.386
4-3290	4-3440	0.528	138.6	5.6	2.68	1.227	64.6	0.438	0.804	104.1	217.6	---	1.156	1.27	0.876	67.8	240.2	-17.8	0.371
4-3290	4-3450	0.489	141.8	5.6	2.41	1.240	66.7	0.410	0.825	97.9	221.3	---	1.164	1.40	0.897	68.6	247.7	-18.6	0.358
4-3290	4-3460	0.452	145.0	5.4	2.08	1.252	68.7	0.386	0.846	91.5	225.0	---	1.172	1.61	0.916	69.4	255.7	-18.8	0.345
4-3290	4-3470	0.416	148.3	4.6	1.60	1.262	70.6	0.364	0.864	85.0	228.6	---	1.179	1.97	0.932	70.2	263.9	-18.1	0.334
4-3290	4-3480	0.381	151.9	2.6	0.82	1.271	72.5	0.344	0.882	78.4	232.1	---	1.185	2.64	0.946	71.0	272.2	-16.2	0.325
4-3290	4-3490	0.348	155.7	-3.0	-0.85	1.279	74.3	0.327	0.898	71.7	235.5	---	1.192	4.20	0.958	71.7	280.5	-11.1	0.321
4-3290	4-3500	0.357	157.8	-28.6	-7.89	1.286	76.0	0.312	0.913	64.8	238.7	---	1.198	11.14	0.969	72.3	288.7	7.8	0.358
4-3290	4-3510	0.485	151.4	56.1	18.58	1.293	77.8	0.298	0.927	57.3	241.7	---	1.203	-15.43	0.977	73.0	320.3	-56.8	0.396
4-3290	4-3520	0.305	167.7	34.2	7.72	1.298	79.4	0.288	0.940	50.1	244.5	---	1.210	-4.68	0.985	73.5	312.6	-33.0	0.303
4-3290	4-3530	0.260	175.1	29.6	5.74	1.303	81.1	0.279	0.951	42.6	247.1	---	1.217	-2.81	0.991	73.9	319.6	-25.3	0.291
4-3290	4-3540	0.230	183.2	28.6	4.87	1.308	82.8	0.273	0.962	34.6	249.4	---	1.225	-2.05	0.995	74.2	327.6	-20.4	0.287
4-3290	4-3550	0.206	193.0	28.9	4.36	1.312	84.5	0.268	0.972	26.4	251.4	---	1.233	-1.66	0.999	74.4	335.9	-16.1	0.284
4-3290	4-3560	0.187	205.2	29.4	4.01	1.316	86.2	0.267	0.982	18.0	253.0	---	1.243	-1.43	1.002	74.5	344.1	-12.0	0.285
4-3290	4-3560	0.187	205.2	29.4	4.01	1.316	86.2	0.267	0.982	18.0	253.0	---	1.243	-1.43	1.002	74.5	344.1	-12.0	0.285
4-3290	4-3570	0.174	220.1	29.5	3.73	1.319	88.1	0.268	0.990	9.2	254.3	---	1.255	-1.29	1.004	74.5	352.4	-8.0	0.287
4-3290	4-3580	0.171	236.9	28.2	3.50	1.322	90.0	0.271	0.998	0.1	255.2	---	1.270	-1.21	1.005	74.2	0.8	-4.0	0.292
4-3290	4-3590	0.178	254.1	25.2	3.29	1.325	92.0	0.279	1.006	350.6	615.7	0.725	1.287	-1.17	1.006	73.8	9.4	-0.1	0.300
4-3290	4-3600	0.198	269.7	21.1	3.09	1.328	94.3	0.291	1.013	340.7	615.7	0.718	1.308	-1.17	1.007	73.1	18.2	3.8	0.313
4-3290	4-3610	0.232	283.0	16.6	2.88	1.330	96.9	0.309	1.020	330.4	615.1	0.705	1.335	-1.21	1.008	72.0	27.3	7.5	0.330
4-3290	4-3610	0.723	344.4	3.7	2.88	1.155	125.9	0.587	0.706	231.7	876.5	0.392	1.121	-1.21	0.761	116.9	158.1	7.3	0.458
4-3290	4-3610	0.858	346.1	2.9	2.88	1.179	132.4	0.676	0.735	228.1	872.9	0.238	1.233	-1.21	0.797	127.8	164.1	5.4	0.598
4-3290	4-3620	0.279	294.0	12.6	2.65	1.333	99.8	0.354	1.027	319.4	613.9	0.683	1.370	-1.29	1.008	70.5	37.0	11.0	0.356
4-3290	4-3620	0.608	343.8	4.3	2.65	1.133	120.3	0.507	0.682	233.3	887.8	0.336	1.028	-1.29	0.724	102.0	147.4	10.1	0.317
4-3290	4-3630	0.304	302.3	9.0	2.39	1.335	103.5	0.370	1.033	307.6	611.9	0.651	1.415	-1.41	1.008	68.3	47.4	14.2	0.392
4-3290	4-3630	0.588	344.1	4.0	2.39	1.127	119.3	0.494	0.675	232.9	897.2	0.342	1.009	-1.41	0.710	92.8	136.1	13.1	0.284
4-3290	4-3640	0.432	311.8	6.1	2.06	1.337	108.0	0.421	1.039	294.7	608.7	0.602	1.477	-1.62	1.009	65.2	58.7	16.9	0.444
4-3290	4-3640	0.607	344.7	1.3	2.06	1.124	120.3	0.510	0.673	231.8	905.7	0.330	1.015	-1.62	0.702	84.2	125.6	15.6	0.304
4-3290	4-3650	0.555	320.5	3.5	1.60	1.339	114.1	0.494	1.046	280.1	603.7	0.529	1.563	-1.97	1.010	60.4	71.2	19.0	0.522
4-3290	4-3650	0.665	345.9	2.3	1.60	1.123	123.4	0.555	0.672	229.5	913.0	0.299	1.045	-1.97	0.698	74.8	119.6	17.0	0.370
4-3290	4-3660	0.779	348.2	1.0	0.88	1.124	129.4	0.638	0.673	224.9	918.1	0.243	1.102	-2.59	0.697	63.2	119.5	17.3	0.487
4-3290	4-3710	0.696	118.5	5.4	6.24	1.110	43.9	0.724	0.659	141.8	882.7	0.182	1.136	3.27	0.671	124.9	248.0	-18.8	0.584
4-3290	4-3720	0.659	145.6	9.3	5.17	1.347	60.9	0.561	1.068	89.3	479.8	0.469	1.667	2.31	1.017	124.0	294.3	-18.3	0.594
4-3290	4-3720	0.737	122.0	6.2	5.17	1.112	52.5	0.614	0.661	135.0	885.5	0.255	1.067	2.31	0.676	110.8	250.9	-18.9	0.432
4-3290	4-3730	0.505	155.0	11.4	4.58	1.343	68.6	0.473	1.075	71.9	472.0	0.566	1.584	1.82	1.021	118.1	308.1	-15.4	0.498
4-3290	4-3730	0.654	123.6	6.5	4.58	1.112	56.9	0.553	0.661	131.9	892.0	0.295	1.026	1.82	0.678	99.7	246.5	-18.1	0.342
4-3290	4-3740	0.396	164.8	13.8	4.18	1.351	74.2	0.416	1.082	56.6	466.2	0.631	1.532	1.53	1.026	114.3	320.4	-12.0	0.439
4-3290	4-3740	0.850	117.3	3.8	4.18	1.077	49.7	0.707	0.629	143.3	913.0	0.185	1.074	1.53	0.623	63.0	202.9	-7.6	0.512
4-3290	4-3740	0.636	123.6	6.2	4.18	1.108	57.7	0.542	0.657	132.0	901.6	0.301	1.012	1.53	0.673	88.1	232.6	-15.6	0.316
4-3290	4-3750	0.317	176.0	16.5	3.88	1.353	78.7	0.380	1.089	42.5	461.8	0.675	1.503	1.36	1.031	112.0	331.7	-8.2	0.401
4-3290	4-3760	0.260	189.8	19.1	3.64	1.355	82.4	0.359	1.096	29.4	458.3	0.703	1.489	1.25	1.036	110.5	342.2	-4.1	0.380
4-3290	4-3770	0.223	206.9	21.3	3.42	1.358	86.6	0.348	1.104	17.0	455.7	0.719	1.488	1.12	1.041	109.8	352.1	0.1	0.369
4-3290	4-3780	0.205	226.9	21.8	3.22	1.360	88.6	0.346	1.112	5.4	453.9	0.727	1.497	1.17	1.047	109.5	1.7	4.2	0.367
4-3290	4-3790	0.208	247.0	20.2	3.02	1.363	91.5	0.352	1.121	354.4	812.8	0.727	1.515	1.18	1.053	109.7	11.1	8.2	0.372
4-3290	4-3800	0.228	264.2	17.0	2.80	1.366	94.2	0.363	1.130	344.1	812.3	0.720	1.541	1.23	1.060	110.2	20.4	12.0	0.386
4-3290	4-3810	0.707	136.8	3.9	2.56	1.275	56.6	0.571	0.890	107.9	586.1	0.382	1.399	1.33	0.943	55.7	236.6	-18.0	0.504
4-3290	4-3810	0.261	277.7	13.4	2.56	1.369	97.0	0.380	1.141	334.4	812.6	0.708	1.574	1.33	1.066	111.1	29.6	15.6	0.400
4-3290	4-3820	0.640	140.0	3.9	2.27	1.282	60.0	0.527	0.903	101.3	589.6	0.427	1.379	1.49	0.955	58.6	245.2	-19.1	0.521
4-3290	4-3820	0.304	288.0	10.1	2.27	1.372	99.8	0.401	1.153	325.2	813.4	0.690	1.615	1.49	1.073	112.3	38.8	18.9	0.423
4-3290	4-3830	0.577	143.4	3.7	1.88	1.287	63.2	0.486	0.915	94.6	592.9	0.470	1.360	1.76	0.964	61.3	254.0	-19.5	0.482
4-3290	4-3830	0.353	296.0	7.1	1.88	1.375	102.6	0.437	1.165	316.6	814.8	0.668	1.663	1.76	1.079	113.8	48.1	21.9	0.450
4-3290	4-3840	0.517	146.9	2.9	1.29	1.292	66.2	0.448	0.926	87.7	596.1	0.511	1.341	2.23	0.973	63.6	263.1	-18.9	0.467
4-3290	4-3840	0.408	302.3	4.2	1.29	1.379	105.6	0.456	1.179	308.4	816.8	0.641	1.717	2.23	1.086	115.6	57.5	24.7	0.482
4-3290	4-3850	0.461	150.7	0.6	0.22	1.297	69.1	0.414	0.937	70.7	599.2	0.549	1.324	3.19	0.981	65.7	272.2	-16.6	0.417
4-3290	4-3850	0.468	307.9	0.6	0.22	1.383	108.6	0.489	1.194	300.6	819.1	0.610	1.778	3.19	1.092	117.6	66.9	27.8	0.514
4-3290	4-3860	0.413	154.5	-7.9	-2.64	1.301	71.7	0.383	0.946	73.4	602.0	0.583	1.309	5.95	0.988	67.6	281.2	-9.3	0.399
4-3290	4-3860	0.535	312.7	-6.4	-2.64	1.387	111.8	0.524	1.210	293.2	821.9	0.576	1.844	5.95	1.098	119.9	75.9	32.9	0.565
4-3290	4-3890	0.388	160.6	36.6	10.47	1.308	76.5	0.333	0.963	58.0	607.1	0.642	1.283	-7.37	0.998	70.6	307.0	19.1	0.364
4-3290	4-3890	0.311	168.6	28.0	6.53	1.311	78.7	0.314	0.970	50.0	609.3	0.665	1.274	-3.54	1.001	71.7	313.1	-28.2	0.350

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3300	4-3390	0.898	132.1	3.7	4.57	1.075	43.1	0.738	0.628	145.3	193.9	---	1.092	2.66	0.626	57.9	214.8	-11.2	0.561
4-3300	4-3400	0.835	135.8	3.9	3.98	1.098	47.1	0.685	0.658	139.4	197.7	---	1.109	2.36	0.685	59.1	219.3	-12.6	0.529
4-3300	4-3410	0.777	139.2	4.0	3.55	1.137	50.6	0.636	0.688	133.4	201.5	---	1.125	2.15	0.735	60.3	224.6	-14.1	0.501
4-3300	4-3420	0.724	142.5	4.1	3.13	1.162	53.8	0.591	0.716	127.5	205.3	---	1.139	2.04	0.777	61.5	230.4	-15.5	0.476
4-3300	4-3430	0.674	145.8	4.2	2.83	1.184	56.7	0.549	0.744	121.5	209.2	---	1.152	2.00	0.813	62.8	236.8	-16.7	0.453
4-3300	4-3440	0.626	148.9	4.1	2.48	1.203	59.4	0.511	0.770	115.4	213.1	---	1.163	2.01	0.843	64.0	243.6	-17.7	0.433
4-3300	4-3450	0.581	152.0	3.9	2.11	1.220	61.9	0.477	0.794	109.2	216.9	---	1.173	2.09	0.870	65.1	250.9	-18.3	0.415
4-3300	4-3460	0.538	155.2	3.5	1.70	1.235	64.2	0.446	0.818	103.0	220.7	---	1.182	2.25	0.893	66.3	258.6	-18.4	0.398
4-3300	4-3470	0.497	158.5	2.8	1.20	1.247	66.4	0.418	0.839	96.7	224.4	---	1.190	2.52	0.913	67.4	266.5	-17.8	0.382
4-3300	4-3480	0.458	161.6	1.4	0.54	1.259	68.5	0.393	0.860	90.2	228.1	---	1.197	2.97	0.930	68.4	274.6	-16.4	0.369
4-3300	4-3490	0.421	166.0	-1.3	-0.45	1.269	70.5	0.370	0.879	83.6	231.6	---	1.204	3.76	0.945	69.3	282.7	-13.6	0.358
4-3300	4-3500	0.388	168.5	-7.0	-2.23	1.277	72.5	0.350	0.896	76.9	235.0	---	1.210	5.36	0.958	70.2	290.5	-8.1	0.352
4-3300	4-3510	0.381	171.1	-23.0	-6.89	1.280	74.3	0.333	0.912	70.0	238.3	---	1.216	9.84	0.968	71.0	297.7	4.5	0.369
4-3300	4-3520	0.434	173.0	51.0	15.41	1.298	78.0	0.304	0.941	55.2	244.2	---	1.227	-12.82	0.985	72.5	336.2	-46.0	0.380
4-3300	4-3540	0.315	184.7	37.1	8.53	1.303	79.7	0.291	0.954	47.8	246.8	---	1.234	-6.11	0.991	73.0	334.2	-30.3	0.322
4-3300	4-3550	0.267	192.7	32.3	6.32	1.308	81.4	0.285	0.966	40.0	249.2	---	1.241	-4.09	0.995	73.5	340.0	-22.2	0.308
4-3300	4-3560	0.233	201.5	30.4	5.19	1.313	83.2	0.279	0.976	32.0	251.3	---	1.249	-3.15	0.999	73.8	347.2	-16.5	0.301
4-3300	4-3570	0.207	212.0	29.6	4.46	1.317	84.9	0.275	0.986	23.7	253.0	---	1.258	-2.63	1.002	74.0	354.8	-11.6	0.297
4-3300	4-3580	0.187	225.0	28.9	3.93	1.320	86.7	0.274	0.996	15.2	254.5	---	1.269	-2.32	1.004	74.1	2.7	-7.1	0.297
4-3300	4-3590	0.175	240.5	27.5	3.50	1.324	88.6	0.276	1.004	6.3	255.5	---	1.282	-2.13	1.006	74.0	10.8	-2.9	0.299
4-3300	4-3600	0.173	257.6	24.8	3.13	1.327	90.6	0.281	1.012	357.1	616.2	0.728	1.297	-2.03	1.007	73.7	19.1	1.1	0.303
4-3300	4-3610	0.183	274.4	20.6	2.78	1.329	92.8	0.290	1.020	347.5	616.4	0.724	1.316	-1.99	1.007	73.2	27.7	4.8	0.317
4-3300	4-3620	0.207	289.4	15.8	2.44	1.332	95.2	0.304	1.027	337.5	616.2	0.715	1.339	-2.02	1.008	72.4	36.8	8.3	0.3..
4-3300	4-3630	0.245	301.9	11.3	2.08	1.334	97.9	0.324	1.034	327.0	615.4	0.699	1.369	-2.10	1.009	71.2	46.3	11.3	0.344
4-3300	4-3630	0.624	358.9	3.3	2.08	1.344	121.1	0.518	0.695	234.5	882.9	0.335	1.056	-2.10	0.739	106.8	165.2	1.7	0.349
4-3300	4-3640	0.299	312.4	7.4	1.68	1.337	101.1	0.352	1.040	315.8	613.9	0.674	1.407	-2.26	1.009	69.5	56.5	14.0	0.372
4-3300	4-3640	0.579	358.9	2.9	1.68	1.134	118.9	0.487	0.625	234.6	892.7	0.352	1.010	-2.26	0.721	96.8	155.0	4.3	0.285
4-3300	4-3650	0.371	321.6	4.2	1.20	1.339	105.0	0.392	1.047	303.8	611.5	0.637	1.457	-2.52	1.010	67.0	67.4	16.1	0.412
4-3300	4-3650	0.579	359.3	2.1	1.20	1.130	119.0	0.488	0.680	233.9	901.6	0.348	1.013	-2.52	0.712	88.5	144.1	7.5	0.281
4-3300	4-3660	0.470	330.0	1.6	0.58	1.341	110.2	0.448	1.053	290.4	607.7	0.581	1.525	-2.94	1.011	63.4	79.3	17.4	0.471
4-3300	4-3660	0.614	0.1	0.9	0.58	1.129	120.8	0.516	0.679	232.3	909.6	0.329	1.029	-2.94	0.707	80.1	136.0	10.1	0.321
4-3300	4-3670	0.609	338.4	-6.6	-0.31	1.343	116.8	0.530	1.060	275.0	601.9	0.498	1.622	-3.65	1.013	58.1	92.5	17.8	0.560
4-3300	4-3670	0.692	1.7	-0.4	-0.31	1.129	124.9	0.575	0.679	229.2	916.1	0.289	1.069	-3.65	0.705	70.4	132.9	11.4	0.406
4-3300	4-3680	0.833	4.8	-1.8	-1.82	1.131	132.3	0.675	0.681	223.3	919.7	0.221	1.140	-4.99	0.706	56.0	135.3	11.2	0.344
4-3300	4-3730	0.825	136.5	7.2	7.17	1.118	48.1	0.671	0.668	137.6	881.9	0.220	1.116	4.85	0.690	119.9	268.6	-18.0	0.529
4-3300	4-3740	0.597	165.4	11.7	5.72	1.350	64.3	0.525	1.082	81.5	475.4	0.515	1.650	3.58	1.026	121.4	315.1	-11.2	0.561
4-3300	4-3740	0.690	139.6	7.6	5.72	1.120	55.3	0.574	0.669	131.9	885.8	0.285	1.054	3.58	0.695	107.6	270.2	-17.5	0.398
4-3300	4-3750	0.460	175.2	13.6	4.85	1.363	71.2	0.450	1.089	64.6	468.1	0.599	1.580	2.90	1.031	116.4	327.8	-7.1	0.480
4-3300	4-3750	0.619	140.9	7.5	4.85	1.119	58.9	0.522	0.669	129.4	892.9	0.320	1.018	2.90	0.697	97.6	264.9	-17.1	0.320
4-3300	4-3760	0.362	185.8	15.6	4.24	1.355	76.4	0.403	1.096	49.5	462.7	0.655	1.537	2.49	1.036	113.3	339.2	-2.8	0.429
4-3300	4-3760	0.317	134.6	4.2	4.24	1.087	47.8	0.680	0.638	141.0	914.2	0.204	1.073	2.49	0.648	65.9	220.7	-12.7	0.493
4-3300	4-3760	0.610	140.7	6.7	4.24	1.115	59.2	0.518	0.665	129.9	903.0	0.320	1.009	2.49	0.693	86.7	250.0	-16.4	0.303
4-3300	4-3770	0.290	198.4	17.6	3.77	1.357	80.5	0.374	1.103	35.6	458.5	0.691	1.515	2.24	1.041	111.4	349.9	1.6	0.398
4-3300	4-3780	0.241	214.0	19.2	3.37	1.359	84.1	0.358	1.111	22.7	455.4	0.713	1.508	2.09	1.047	110.2	0.1	5.9	0.381
4-3300	4-3790	0.212	232.9	19.7	3.01	1.361	87.2	0.352	1.118	10.6	453.1	0.725	1.512	2.01	1.053	109.7	10.0	10.1	0.373
4-3300	4-3800	0.204	253.3	18.1	2.66	1.364	90.2	0.354	1.127	359.3	811.7	0.728	1.525	2.00	1.058	109.7	19.8	14.1	0.374
4-3300	4-3810	0.216	272.1	14.8	2.31	1.366	93.0	0.362	1.136	348.7	811.1	0.724	1.547	2.04	1.064	110.0	29.5	17.7	0.382
4-3300	4-3820	0.243	287.2	10.9	1.93	1.369	95.8	0.376	1.146	338.7	811.1	0.714	1.577	2.16	1.070	110.8	39.2	21.1	0.396
4-3300	4-3830	0.688	153.9	2.3	1.48	1.279	57.6	0.559	0.900	105.6	588.0	0.397	1.404	2.36	0.955	56.4	256.7	-19.5	0.561
4-3300	4-3830	0.281	298.9	7.1	1.48	1.372	98.5	0.395	1.157	329.4	811.9	0.699	1.614	2.36	1.076	111.8	49.0	24.0	0.415
4-3300	4-3840	0.622	157.2	1.7	0.92	1.285	61.0	0.516	0.913	98.9	591.5	0.442	1.384	2.71	0.965	59.2	265.6	-19.1	0.519
4-3300	4-3840	0.328	307.9	3.8	0.92	1.375	101.3	0.419	1.169	320.6	813.2	0.675	1.658	2.71	1.082	113.2	58.9	26.6	0.439
4-3300	4-3850	0.560	160.6	0.3	0.13	1.291	64.2	0.476	0.924	92.1	594.8	0.484	1.364	3.29	0.974	61.8	274.4	-17.5	0.482
4-3300	4-3850	0.387	215.0	0.5	0.13	1.379	104.2	0.446	1.182	312.3	815.0	0.655	1.709	3.29	1.088	114.8	68.8	29.0	0.469
4-3300	4-3860	0.50	1.1	-2.7	-1.14	1.295	67.1	0.439	0.935	85..	598.0	0.525	1.346	4.37	0.902	64.1	283.2	-14.3	0.450
4-3300	4-3860	0.435	320.9	-3.4	-1.14	1.382	107.2	0.476	1.196	304.5	817.3	0.626	1.766	4.37	1.094	116.7	78.8	31.6	0.504
4-3300	4-3870	0.454	167.6	-10.2	-3.77	1.300	69.9	0.406	0.945	78.0	600.9	0.561	1.329	6.82	0.988	66.1	291.5	-7.3	0.429
4-3300	4-3870	0.506	326.2	-9.7	-3.77	1.386	110.2	0.510	1.211	297.0	820.0	0.594	1.828	6.82	1.099	118.9	88.6	35.5	0.548
4-3300	4-3880	0.491	167.0	-36.8	-13.66	1.304	72.4	0.377	0.955	70.7	603.7	0.594	1.315	16.52	0.993	67.9	299.8	13.5	0.477
4-3300	4-3900	0.384	178.2	39.0	10.92	1.310	77.3	0.329	0.971	54.7	608.5	0.652	1.290	-8.41	1.001	70.8	330.0	-35.6	0.371
4-3310	4-3410	0.912	148.9	3.4	4.17	1.093	42.7	0.741	0.644	144.2	196.5	---	1.121	3.37	0.664	54.0	229.6	-15.1	0.594
4-3310	4-3420	0.850	152.5	3.4	3.51	1.124	46.6	0.689	0.674	138.2	200.3	---	1.138	3.02	0.718	55.9	235.0	-16.3	0.561
4-3310	4-3430	0.791	155.9	3.3	2.97	1.151	50.2	0.641	0.703	132.3	204.2	---	1.154	2.81	0.764	57.7	241.1	-17.3	0.531
4-3310	4-3440	0.736	159.2	3.2	2.48	1.175	53.4	0.596	0.732	126.2	208.1	---	1.168	2.69	0.802	59.4	247.6	-18.1	0.505
4-3310	4-3450	0.685	162.4	2.9	2.01	1.195	56.4	0.555	0.759	120.2	212.0	---	1.180	2.67	0.836	60.9	254.6	-18.6	0.481
4-3310	4-3460	0.636	165.5	2.5	1.54	1.213	59.1	0.517	0.785	114.0	215.9	---	1.191	2.73	0.864	62.5	261.9	-18.7	0.459
4-3310	4-3470	0.589	168.7	1.9	1.03	1.229	61.7	0.483	0.809	107.8	219.7	---	1.200	2.88	0.889	63.9	269.6	-18.2	0.439
4-3310	4-3480	0.546	171.8	0.9	0.43	1.243	64.1	0.451	0.833	101.4	223.5	---	1.208	3.15	0.910	65.2	277.4	-17.1	0.421
4-3310	4-3490	0.503	175.0	-0.7	-0.32	1.255	66.4	0.423	0.854	95.0	227.2	---	1.216	3.60	0.928	66.5	285.3	-15.1	0.404
4-3310	4-3500	0.464	178.3	-3.5	-1.36	1.266	68.5	0.398	0.875	88.4	230.8	---	1.223	4.37	0.943	67.6	293.1	-11.8	0.391
4-3310	4-3510	0.430	181.6	-8.5	-3.03	1.276	70.6	0.375	0.893	81.7	234.2	---	1.229	5.78	0.956	68.7	300.5	-6.6	0.382
4-3310	4-3520	0.412	184.4	-19.5	-6.45	1.284	72.5	0.356	0.911	74.9	237.5	---	1.235	8.96	0.967	69.6	307.3	3.1	0.387
4-3310	4-3530	0.528	178.8	-48.8	-18.63	1.291	74.4	0.339	0.927	68.1	240.6	---	1.242	20.89	0.977	70.5	313.9	26.6	0.492
4-3310	4-3550	0.401	192.9	46.8	13.24	1.304	78.3	0.309	0.956	52.8	246.3	---	1.251	-11.45	0.990	72.1	352.2	-36.0	0.377
4-3310	4-3560	0.311	202.7	36.4	8.24	1.309	80.1	0.299	0.966	45.2	248.7	---	1.258	-6.69	0.995	72.6	353.1	-24.0	0.336
4-3310	4-3570	0.264	211.0	31.7	6.13	1.314	81.8	0.291	0.980	37.4	250.9	---	1.265	-4.83	0.999	73.1	358.6	-16.5	0.321
4-3310	4-3580	0.230	220.2	29.2	4.91	1.318	83.6	0.286	0.991	29.3	252.8	---	1.274	-3.88	1.002	73.4	5.4	-10.7	0.313
4-3310	4-3590	0.203	231.5	27.5	4.08	1.322	85.4	0.283	1.001	20.9	254.4	---	1.284	-3.32	1.004	73.6	12.8	-5.8	0.308
4-3310	4-3600	0.184	245.1	25.6	3.44	1.325	87.3	0.282	1.010	12.3	255.6	---	1.295	-2.98	1.005	73.6	20.6	-3.3	0.307
4-3310	4-3610	0.173	261.0	22.9	2.91	1.328	89.3	0.285	1.018	3.3	256.5	---	1.309	-2.79	1.007	73.5	28.7	2.4	0.309

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3310	4-3620	0.174	278.0	18.9	2.43	1.331	91.3	0.291	1.026	354.1	617.0	0.727	1.325	-2.69	1.008	73.1	37.2	6.0	0.314
4-3310	4-3630	0.189	294.3	14.1	1.98	1.344	93.6	0.302	1.034	344.5	617.1	0.722	1.346	-2.67	1.009	72.5	46.2	9.1	0.323
4-3310	4-3640	0.217	308.6	9.3	1.52	1.356	96.1	0.317	1.041	334.4	616.7	0.711	1.371	-2.73	1.010	71.6	55.6	11.7	0.337
4-3310	4-3640	0.667	14.4	2.2	1.52	1.160	123.3	0.549	0.714	235.0	877.3	0.322	1.105	-2.73	0.761	113.2	182.7	-6.2	0.410
4-3310	4-3650	0.261	320.6	5.2	1.03	1.359	98.9	0.339	1.048	323.7	615.7	0.693	1.403	-2.88	1.011	70.5	65.6	13.8	0.358
4-3310	4-3650	0.579	13.9	1.8	1.03	1.144	119.0	0.486	0.695	236.1	888.1	0.357	1.033	-2.88	0.733	100.8	172.9	-4.5	0.299
4-3310	4-3660	0.320	330.7	1.9	0.46	1.341	102.3	0.370	1.054	312.4	613.9	0.664	1.444	-3.13	1.012	68.4	76.3	15.2	0.388
4-3310	4-3660	0.561	14.1	0.8	0.46	1.138	118.1	0.473	0.689	235.8	897.3	0.363	1.015	-3.13	0.722	92.4	162.2	-1.5	0.270
4-3310	4-3670	0.401	339.7	-0.7	-0.23	1.343	106.5	0.414	1.061	300.0	611.1	0.622	1.500	-3.54	1.013	65.7	87.6	15.9	0.433
4-3310	4-3670	0.577	14.6	-0.4	-0.23	1.135	118.9	0.487	0.686	234.7	905.8	0.352	1.020	-3.54	0.716	84.9	152.6	1.8	0.287
4-3310	4-3680	0.512	348.2	-2.8	-1.15	1.345	112.0	0.477	1.067	286.1	606.7	0.558	1.576	-4.20	1.015	61.6	99.8	15.6	0.499
4-3310	4-3680	0.628	15.8	-1.8	-1.15	1.135	121.6	0.526	0.686	232.6	913.2	0.325	1.046	-4.20	0.714	76.1	147.2	4.3	0.345
4-3310	4-3690	0.727	17.9	-3.2	-2.55	1.136	126.6	0.599	0.686	228.7	918.8	0.275	1.097	-5.36	0.714	66.0	146.7	5.1	0.447
4-3310	4-3750	0.759	154.5	8.4	7.17	1.126	52.0	0.619	0.677	133.6	881.4	0.258	1.095	5.73	0.709	115.5	288.3	-14.7	0.481
4-3310	4-3760	0.538	185.6	13.1	5.59	1.354	67.5	0.493	1.096	75.5	470.9	0.556	1.637	4.39	1.036	119.2	334.6	-2.5	0.532
4-3310	4-3760	0.643	157.1	8.3	5.59	1.127	57.9	0.535	0.678	128.9	886.3	0.315	1.040	4.39	0.714	104.8	288.8	-14.0	0.366
4-3310	4-3770	0.415	195.9	14.5	4.58	1.357	73.7	0.490	1.103	57.9	464.1	0.628	1.578	3.64	1.041	115.0	346.5	2.3	0.463
4-3310	4-3770	0.585	158.2	7.7	4.58	1.127	60.8	0.492	0.677	126.9	894.0	0.344	1.010	3.64	0.717	95.7	282.6	-14.2	0.300
4-3310	4-3780	0.327	207.7	15.9	3.84	1.359	78.5	0.592	1.110	42.2	459.1	0.675	1.545	3.18	1.047	112.4	357.6	7.0	0.420
4-3310	4-3780	0.782	151.9	4.1	3.84	1.096	49.9	0.652	0.648	138.5	915.5	0.226	1.070	3.18	0.672	65.0	239.2	-16.2	0.474
4-3310	4-3780	0.585	157.8	6.4	3.84	1.122	60.7	0.495	0.672	127.7	904.6	0.340	1.005	3.18	0.713	85.5	267.0	-15.7	0.293
4-3310	4-3790	0.265	221.9	16.8	5.25	1.361	82.4	0.579	1.117	28.6	455.3	0.704	1.530	2.90	1.052	110.9	6.2	11.4	0.395
4-3310	4-3800	0.224	239.4	16.8	7.73	1.363	85.8	0.659	1.125	16.0	452.6	0.721	1.529	2.74	1.058	110.0	18.6	15.6	0.382
4-3310	4-3810	0.205	259.4	15.2	2.26	1.365	88.9	0.758	1.133	4.3	450.9	0.728	1.538	2.67	1.063	109.8	28.8	19.4	0.378
4-3310	4-3820	0.207	279.1	11.9	1.79	1.368	91.8	0.862	1.141	353.4	810.0	0.727	1.556	2.68	1.069	110.0	39.1	22.7	0.382
4-3310	4-3830	0.228	296.0	7.8	1.30	1.370	94.5	0.374	1.151	343.2	809.9	0.720	1.582	2.78	1.074	110.5	49.5	25.7	0.392
4-3310	4-3840	0.262	309.1	3.9	0.76	1.373	97.3	0.391	1.161	333.7	810.5	0.707	1.615	2.99	1.080	111.4	59.9	28.1	0.408
4-3310	4-3850	0.670	171.0	0.2	0.10	1.284	58.7	0.546	0.910	103.0	589.9	0.413	1.408	3.33	0.965	57.2	277.0	-18.4	0.557
4-3310	4-3850	0.305	319.6	0.4	0.10	1.376	100.1	0.412	1.172	324.8	811.7	0.689	1.655	3.33	1.085	112.5	70.4	30.1	0.429
4-3310	4-3860	0.605	174.3	-1.4	-0.76	1.289	62.0	0.504	0.922	96.3	593.3	0.457	1.388	3.91	0.974	59.9	285.7	-16.2	0.517
4-3310	4-3860	0.355	327.3	-2.9	-0.76	1.379	102.9	0.437	1.185	316.4	813.4	0.667	1.702	3.91	1.090	114.1	80.9	31.8	0.456
4-3310	4-3870	0.495	177.7	-4.4	-2.04	1.294	65.1	0.465	0.934	89.4	596.6	0.499	1.368	4.92	0.981	62.4	294.0	-12.6	0.482
4-3310	4-3870	0.417	333.8	-6.6	-2.04	1.383	105.8	0.445	1.198	308.4	815.6	0.641	1.755	4.92	1.095	115.9	91.4	33.4	0.488
4-3310	4-3880	0.349	181.0	-10.5	-4.29	1.299	68.0	0.430	0.944	82.4	599.7	0.538	1.351	6.95	0.988	64.6	301.9	-6.3	0.457
4-3310	4-3880	0.478	339.5	-11.9	-4.29	1.386	108.7	0.496	1.212	300.9	818.2	0.611	1.814	6.93	1.100	117.9	101.8	35.9	0.529
4-3310	4-3890	0.481	182.9	-20.1	-9.89	1.303	70.7	0.399	0.954	75.1	602.5	0.574	1.335	12.28	0.993	66.6	308.9	7.1	0.461
4-3310	4-3890	0.571	345.7	-22.8	-9.89	1.390	111.8	0.530	1.228	293.7	821.1	0.578	1.878	12.28	1.104	120.1	112.0	42.2	0.591
4-3310	4-3910	0.548	181.1	54.3	20.49	1.310	75.9	0.344	0.972	59.2	607.6	0.637	1.306	-18.58	1.000	69.9	356.0	-44.6	0.479
4-3320	4-3440	0.859	169.4	2.6	2.69	1.140	46.5	0.690	0.691	136.7	202.8	---	1.168	3.43	0.751	55.7	252.1	-18.9	0.588
4-3320	4-3450	0.800	172.7	2.3	2.07	1.166	50.0	0.642	0.720	130.7	206.8	---	1.183	3.23	0.792	55.8	258.7	-19.2	0.558
4-3320	4-3460	0.744	176.0	1.9	1.51	1.188	53.3	0.598	0.748	124.6	210.7	---	1.196	3.15	0.828	57.8	265.8	-19.2	0.530
4-3320	4-3470	0.692	179.2	1.4	0.96	1.207	56.3	0.557	0.776	118.5	214.6	---	1.208	3.16	0.858	59.7	273.1	-18.8	0.504
4-3320	4-3480	0.642	182.3	0.6	0.38	1.224	59.1	0.520	0.801	112.3	218.5	---	1.218	3.27	0.884	61.4	280.7	-17.8	0.481
4-3320	4-3490	0.595	185.4	-0.5	-0.26	1.239	61.7	0.486	0.826	105.9	222.3	---	1.227	3.50	0.906	63.0	288.4	-16.2	0.459
4-3320	4-3500	0.550	188.6	-2.1	-1.03	1.252	64.1	0.455	0.849	99.5	226.1	---	1.235	3.91	0.925	64.4	296.1	-13.7	0.440
4-3320	4-3510	0.508	191.8	-4.7	-2.04	1.264	66.5	0.427	0.870	93.0	229.7	---	1.242	4.58	0.941	65.8	303.6	-10.3	0.423
4-3320	4-3520	0.471	194.9	-8.9	-3.52	1.274	68.7	0.402	0.890	86.3	233.2	---	1.248	5.75	0.954	67.1	310.7	-5.4	0.410
4-3320	4-3530	0.446	197.8	-16.8	-6.12	1.283	70.8	0.379	0.909	79.6	236.5	---	1.254	8.04	0.966	68.2	317.5	2.4	0.406
4-3320	4-3540	0.469	198.3	-34.4	-12.40	1.291	72.7	0.360	0.926	72.7	239.7	---	1.260	14.04	0.975	69.2	322.7	17.4	0.438
4-3320	4-3560	0.591	192.0	59.7	23.69	1.305	76.9	0.325	0.957	57.4	245.6	---	1.268	-22.60	0.989	71.1	17.7	-41.9	0.512
4-3320	4-3570	0.370	212.5	41.8	11.07	1.310	78.6	0.314	0.971	50.1	248.0	---	1.276	-10.27	0.994	71.7	7.1	-26.1	0.376
4-3320	4-3580	0.299	221.2	33.3	7.27	1.315	80.4	0.305	0.983	42.5	250.3	---	1.283	-6.74	0.998	72.3	10.1	+16.3	0.344
4-3320	4-3590	0.255	229.6	28.6	5.36	1.320	82.3	0.298	0.995	34.6	252.3	---	1.291	-5.14	1.001	72.7	15.9	-8.5	0.330
4-3320	4-3600	0.222	239.3	25.5	4.17	1.324	84.1	0.293	1.005	26.5	254.0	---	1.300	-4.25	1.003	73.0	22.7	-4.2	0.322
4-3320	4-3610	0.196	251.0	22.9	3.31	1.327	85.9	0.291	1.015	18.1	255.5	---	1.310	-3.73	1.005	73.1	30.2	0.2	0.317
4-3320	4-3620	0.179	265.1	19.9	2.62	1.331	87.9	0.291	1.024	9.5	256.6	---	1.312	-3.41	1.007	73.1	38.2	4.0	0.315
4-3320	4-3630	0.171	281.3	16.0	2.03	1.334	89.9	0.295	1.033	0.5	257.4	---	1.337	-3.22	1.008	72.9	46.6	7.3	0.317
4-3320	4-3640	0.176	298.1	11.3	1.49	1.336	92.0	0.302	1.040	351.3	617.8	0.726	1.354	-3.14	1.009	72.5	55.5	10.0	0.322
4-3320	4-3650	0.196	313.9	6.5	0.96	1.339	94.4	0.313	1.048	341.6	617.7	0.719	1.376	-3.16	1.011	71.8	64.9	12.1	0.332
4-3320	4-3660	0.230	327.5	2.4	0.41	1.341	97.0	0.330	1.055	331.5	617.2	0.706	1.403	-3.26	1.012	70.8	74.7	13.6	0.347
4-3320	4-3660	0.590	28.9	0.7	0.41	1.155	119.5	0.493	0.707	237.5	883.2	0.359	1.056	-3.26	0.747	105.1	190.5	-12.4	0.327
4-3320	4-3670	0.279	339.1	-0.9	-0.19	1.343	100.0	0.355	1.061	320.7	616.0	0.685	1.438	-3.47	1.014	69.4	85.0	14.4	0.370
4-3320	4-3670	0.550	28.9	-0.3	-0.19	1.146	117.6	0.465	0.698	237.7	892.9	0.374	1.022	-3.47	0.733	98.1	180.4	-10.4	0.271
4-3320	4-3680	0.345	349.0	-3.4	-0.89	1.346	103.6	0.339	1.068	309.1	613.9	0.653	1.483	-3.82	1.016	67.3	95.9	14.4	0.404
4-3320	4-3680	0.550	29.3	-1.6	-0.89	1.143	117.6	0.465	0.694	237.0	901.8	0.371	1.017	-3.82	0.726	88.4	169.9	-7.1	0.265
4-3320	4-3690	0.435	357.9	-5.2	-1.77	1.348	108.2	0.437	1.074	296.3	610.6	0.605	1.544	-4.39	1.018	64.3	107.5	13.5	0.454
4-3320	4-3690	0.501	30.1	-3.0	-1.77	1.141	119.2	0.489	0.692	235.6	909.9	0.354	1.031	-4.39	0.723	80.8	162.2	-3.8	0.301
4-3320	4-3700	0.559	6.6	-6.6	-3.00	1.350	114.2	0.507	1.081	281.7	605.5	0.533	1.629	-5.32	1.021	59.7	119.8	11.6	0.530
4-3320	4-3700	0.649	31.6	-4.5	-3.00	1.141	122.6	0.540	0.692	232.8	916.6	0.318	1.066	-5.32	0.723	72.2	159.2	-1.8	0.375
4-3320	4-3710	0.712	34.4	-5.7	-4.96	1.143	128.8	0.628	0.694	227.7	921.0	0.258	1.130	-7.00	0.726	61.5	161.0	-1.7	0.496
4-3320	4-3760	0.867	168.3	8.7	9.19	1.132	46.6	0.689	0.683	137.4	879.2	0.212	1.153	8.50	0.722	124.5	302.1	-11.4	0.592
4-3320	4-3770	0.697	172.5	8.6	6.45	1.134	55.4	0.570	0.685	129.8	881.2	0.294	1.076	6.03	0.729	111.7	306.8	-9.5	0.437
4-3320	4-3780	0.480	206.2	13.1	4.89	1.359	70.5	0.465	1.110	65.3	466.4	0.594	1.627	4.77	1.047	137.2	353.6	6.8	0.506
4-3320	4-3780	0.599	174.7	8.1	4.89	1.135	60.3	0.498	0.686	125.8	887.0	0.344	1.027	4.77	0.734	102.3	306.1	-9.8	0.337
4-3320	4-3790	0.372	217.4	13.8	3.84	1.361	76.1	0.415	1.117	49.3	460.3	0.654	1.581	4.04	1.052	113.8	5.3	11.8	0.448
4-3320	4-3790	0.552	175.6	7.0	3.84	1.134	62.7	0.463	0.685	124.3	895.2	0.368	1.002	4.08	0.736	94.1	299.2	-9.9	0.282
4-3320	4-3800	0.295	230.4	14.0	3.05	1.363	80.5	0.385	1.124	34.9	455.7	0.692	1.556	3.59	1.057	111.7	16.5	16.3	0.415
4-3320	4-3800	0.745	169.4	3.6	3.05	1.107	52.1	0.620	0.657	135.8	916.7	0.249	1.065	3.59	0.697	66.3	258.5	-17.9	0.454
4-3320	4-3800	0.562	174.9	5.4	3.05	1.129	62.0	0.474	0.680	125.6	906.5	0.358	1.002	3.59	0.733	84.2	283.2	-13.7	0.286
4-3320	4-3810	0.241	246.4	13.6	2.39	1.365	84.2	0.369	1.131	21.7	452.5	0.714	1.548	3.32	1.063	110.5	27.5	20.4	0.392

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3320	4-3820	0.211	265.3	11.8	1.80	1.367	87.5	0.363	1.139	9.5	450.3	0.725	1.552	3.18	1.068	110.0	38.4	23.9	0.383
4-3320	4-3830	0.205	285.5	8.4	1.25	1.369	90.5	0.365	1.147	358.3	809.1	0.728	1.566	3.14	1.073	110.0	49.4	26.8	0.383
4-3320	4-3840	0.216	303.8	4.4	0.69	1.372	93.3	0.374	1.156	347.9	808.8	0.724	1.588	3.20	1.078	110.4	60.5	29.2	0.389
4-3320	4-3850	0.245	318.6	0.5	0.08	1.374	96.1	0.388	1.166	338.2	809.2	0.714	1.618	3.36	1.083	111.1	71.5	30.9	0.402
4-3320	4-3860	0.718	184.9	-0.9	-0.61	1.283	56.4	0.577	0.908	107.0	588.2	0.384	1.431	3.67	0.965	55.0	288.5	-17.4	0.595
4-3320	4-3860	0.285	330.2	-2.9	-0.61	1.377	98.8	0.406	1.176	329.1	810.3	0.698	1.654	3.67	1.087	112.2	82.6	32.1	0.420
4-3320	4-3870	0.651	188.1	-2.5	-1.47	1.288	59.9	0.533	0.920	100.3	591.7	0.429	1.411	4.18	0.973	58.0	296.8	-14.8	0.553
4-3320	4-3870	0.332	339.1	-6.0	-1.47	1.380	101.6	0.429	1.188	320.6	811.9	0.678	1.697	4.18	1.092	113.5	93.5	32.9	0.444
4-3320	4-3880	0.590	191.4	-5.2	-2.66	1.294	63.1	0.493	0.932	93.5	595.1	0.473	1.391	5.05	0.980	60.6	304.8	-11.0	0.515
4-3320	4-3880	0.387	346.4	-9.2	-2.66	1.383	104.4	0.455	1.200	312.5	814.3	0.654	1.746	5.05	1.096	115.1	104.2	33.5	0.473
4-3320	4-3890	0.536	194.6	-10.1	-4.54	1.299	66.1	0.455	0.943	86.6	598.2	0.514	1.372	6.62	0.986	63.0	312.4	-5.2	0.484
4-3320	4-3890	0.450	352.5	-13.5	-4.54	1.387	107.3	0.484	1.214	304.9	816.5	0.626	1.801	6.62	1.100	117.0	114.8	34.5	0.509
4-3320	4-3900	0.502	197.2	-20.4	-8.27	1.303	69.0	0.421	0.954	79.4	601.1	0.552	1.355	10.06	0.991	65.2	319.0	4.6	0.470
4-3320	4-3900	0.529	358.5	-20.8	-8.27	1.390	110.2	0.515	1.229	297.6	819.4	0.595	1.862	10.06	1.103	119.0	125.4	37.5	0.559
4-3320	4-3910	0.599	192.1	-46.1	-20.35	1.307	71.6	0.392	0.963	72.2	603.8	0.586	1.341	21.86	0.995	67.0	325.0	27.0	0.550
4-3330	4-3470	0.805	189.6	1.1	0.96	1.181	50.1	0.641	0.738	126.9	209.2	---	1.212	3.42	0.819	54.6	277.2	-19.3	0.580
4-3330	4-3480	0.749	192.9	0.5	0.56	1.202	53.4	0.598	0.766	122.7	213.2	---	1.224	3.37	0.851	56.8	284.5	-18.4	0.550
4-3330	4-3490	0.696	196.0	-0.4	-0.24	1.220	56.4	0.558	0.793	116.5	217.1	---	1.235	3.43	0.878	58.8	291.9	-16.9	0.523
4-3330	4-3500	0.646	199.1	-1.5	-0.89	1.236	59.2	0.521	0.819	110.2	220.9	---	1.245	3.61	0.901	60.7	299.4	-14.9	0.499
4-3330	4-3510	0.598	202.2	-3.0	-1.63	1.250	61.9	0.487	0.843	103.8	224.7	---	1.253	3.93	0.921	62.4	306.8	-12.2	0.476
4-3330	4-3520	0.554	205.3	-5.2	-2.55	1.262	64.3	0.456	0.866	97.3	228.4	---	1.261	4.47	0.937	63.9	314.1	-8.7	0.456
4-3330	4-3530	0.514	208.4	-8.7	-3.81	1.273	66.7	0.429	0.887	90.7	231.9	---	1.267	5.39	0.951	65.3	321.1	-4.0	0.439
4-3330	4-3540	0.482	211.4	-14.5	-5.79	1.283	68.9	0.404	0.907	84.0	235.3	---	1.273	7.04	0.963	66.6	327.6	2.5	0.427
4-3330	4-3550	0.472	213.4	-25.7	-9.65	1.291	71.0	0.383	0.925	77.2	238.5	---	1.279	10.59	0.972	67.8	333.1	15.1	0.432
4-3330	4-3560	0.598	206.6	-49.9	-21.63	1.299	73.0	0.365	0.942	70.4	241.5	---	1.286	22.26	0.980	68.8	337.6	35.1	0.531
4-3330	4-3580	0.466	220.2	49.8	16.14	1.312	77.2	0.331	0.972	54.9	247.3	---	1.294	-16.10	0.992	70.7	23.4	-29.2	0.443
4-3330	4-3590	0.340	231.8	35.5	8.78	1.317	79.0	0.320	0.986	47.5	249.5	---	1.301	-9.04	0.996	71.4	21.6	-16.2	0.373
4-3330	4-3600	0.283	239.9	28.0	5.84	1.322	80.9	0.311	0.998	39.8	251.6	---	1.309	-6.41	1.000	71.9	26.1	-8.2	0.349
4-3330	4-3610	0.244	248.4	23.5	4.20	1.326	82.7	0.305	1.009	31.9	253.5	---	1.317	-5.09	1.002	72.3	32.5	-2.4	0.336
4-3330	4-3620	0.213	258.4	19.6	3.09	1.330	84.6	0.300	1.020	23.8	255.1	---	1.326	-4.32	1.005	72.5	39.8	2.1	0.328
4-3330	4-3630	0.190	270.5	16.0	2.26	1.333	86.5	0.299	1.029	15.4	256.5	---	1.337	-3.85	1.007	72.6	47.6	5.8	0.323
4-3330	4-3640	0.175	285.0	12.1	1.57	1.336	88.4	0.300	1.038	6.8	257.5	---	1.350	-3.57	1.008	72.6	56.0	8.8	0.322
4-3330	4-3650	0.172	301.2	7.6	0.97	1.339	90.5	0.305	1.047	357.9	618.2	0.728	1.365	-3.42	1.010	72.3	64.8	11.1	0.324
4-3330	4-3660	0.182	317.8	2.9	0.40	1.342	92.7	0.313	1.054	348.7	618.5	0.724	1.384	-3.37	1.012	71.9	74.1	12.7	0.330
4-3330	4-3670	0.206	333.1	-1.1	-0.17	1.344	95.1	0.326	1.062	339.0	618.4	0.716	1.407	-3.42	1.014	71.1	83.8	13.6	0.340
4-3330	4-3670	0.619	44.3	-0.3	-0.17	1.168	120.9	0.513	0.723	238.5	877.9	0.352	1.094	-3.42	0.766	110.2	200.6	-18.7	0.374
4-3330	4-3680	0.245	346.3	-4.2	-0.77	1.346	97.9	0.344	1.068	328.3	617.7	0.701	1.436	-3.57	1.016	70.0	93.8	13.8	0.357
4-3330	4-3680	0.548	43.9	-1.4	-0.77	1.156	117.4	0.461	0.708	239.5	888.4	0.381	1.034	-3.57	0.745	99.6	199.0	-18.1	0.282
4-3330	4-3690	0.300	357.5	-6.4	-1.44	1.348	101.1	0.371	1.075	317.8	616.3	0.677	1.473	-3.84	1.018	68.5	104.3	13.2	0.382
4-3330	4-3690	0.532	44.1	-2.8	-1.44	1.151	116.6	0.450	0.702	239.2	897.7	0.386	1.017	-3.84	0.756	91.9	188.1	-15.6	0.255
4-3330	4-3700	0.373	7.3	-7.9	-2.25	1.551	104.9	0.408	1.081	305.9	613.9	0.640	1.522	-4.28	1.021	66.2	115.3	11.7	0.420
4-3330	4-3700	0.546	44.6	-4.2	-2.25	1.148	117.4	0.461	0.699	238.2	906.2	0.377	1.022	-4.28	0.733	84.8	178.5	-12.1	0.269
4-3330	4-3710	0.473	16.2	-8.9	-3.30	1.553	109.9	0.461	1.088	292.6	610.1	0.586	1.590	-5.00	1.024	62.8	126.7	9.3	0.477
4-3330	4-3710	0.592	45.7	-5.6	-3.30	1.148	119.6	0.495	0.699	236.2	913.8	0.353	1.045	-5.00	0.733	77.2	173.0	-9.2	0.321
4-3330	4-3720	0.613	25.1	-9.5	-4.82	1.355	116.6	0.539	1.094	277.1	604.1	0.504	1.685	-6.20	1.028	57.6	139.0	5.9	0.565
4-3330	4-3720	0.676	47.7	-6.8	-4.82	1.148	123.9	0.559	0.699	232.7	919.1	0.309	1.090	-6.20	0.735	68.3	172.5	-7.9	0.411
4-3330	4-3730	0.829	51.2	-7.7	-7.41	1.190	131.5	0.664	0.701	226.0	922.6	0.236	1.167	-8.49	0.740	56.7	176.1	-8.6	0.554
4-3330	4-3730	1.003	66.8	-4.1	-7.41	0.968	144.9	0.838	0.552	202.5	1259.0	0.089	1.015	-8.49	0.401	95.2	226.8	-23.5	0.596
4-3330	4-3780	0.783	186.9	8.5	7.51	1.141	51.2	0.628	0.691	132.5	878.0	0.257	1.125	7.87	0.741	119.4	321.0	-5.2	0.530
4-3330	4-3790	0.562	216.6	11.6	5.18	1.362	66.6	0.510	1.117	74.6	469.8	0.547	1.688	5.86	1.052	120.1	0.6	10.7	0.561
4-3330	4-3790	0.639	190.4	7.9	5.18	1.143	58.5	0.524	0.693	126.1	881.3	0.330	1.057	5.86	0.748	108.4	324.2	-3.1	0.396
4-3330	4-3800	0.427	227.4	11.6	3.76	1.364	73.3	0.444	1.124	57.1	462.2	0.625	1.623	4.77	1.057	115.6	13.2	15.9	0.482
4-3330	4-3800	0.558	192.3	6.8	3.76	1.143	62.5	0.463	0.694	122.8	887.9	0.372	1.015	4.77	0.753	100.1	322.5	-2.7	0.310
4-3330	4-3810	0.332	239.6	11.2	2.75	1.365	78.4	0.403	1.131	41.7	456.7	0.675	1.587	4.12	1.063	112.8	25.1	20.4	0.434
4-3330	4-3810	0.884	181.6	2.4	2.75	1.096	44.5	0.719	0.647	142.5	917.5	0.182	1.112	4.12	0.683	55.4	264.5	-19.4	0.582
4-3330	4-3810	0.521	193.0	5.4	2.75	1.142	64.3	0.436	0.693	121.7	896.7	0.391	0.995	4.12	0.755	92.6	314.6	-4.9	0.265
4-3330	4-3820	0.265	254.1	10.1	1.96	1.367	82.4	0.381	1.138	27.7	452.7	0.705	1.571	3.72	1.068	111.2	36.9	24.3	0.405
4-3330	4-3820	0.702	187.1	2.5	1.96	1.118	54.6	0.584	0.667	132.7	917.7	0.277	1.057	3.72	0.721	68.2	278.4	-17.4	0.428
4-3330	4-3820	0.544	191.9	3.7	1.96	1.137	63.0	0.457	0.686	123.7	908.7	0.372	1.000	3.72	0.750	82.8	298.1	-10.9	0.283
4-3330	4-3830	0.223	271.6	7.9	1.29	1.369	85.9	0.370	1.145	15.1	450.1	0.721	1.569	3.49	1.072	110.3	48.7	27.4	0.390
4-3330	4-3840	0.205	291.4	4.5	0.68	1.372	89.1	0.369	1.153	3.4	448.6	0.727	1.578	3.38	1.077	110.1	60.4	29.8	0.385
4-3330	4-3850	0.209	310.7	0.5	0.08	1.374	92.0	0.375	1.161	352.7	808.0	0.726	1.596	3.39	1.081	110.3	72.1	31.4	0.387
4-3330	4-3860	0.231	327.3	-3.2	-0.54	1.376	94.8	0.386	1.170	342.8	808.2	0.719	1.622	3.50	1.085	110.9	83.7	32.3	0.396
4-3330	4-3870	0.267	340.3	-6.3	-1.22	1.379	97.5	0.402	1.180	333.6	809.1	0.706	1.655	3.74	1.089	111.8	95.1	32.6	0.411
4-3330	4-3880	0.699	202.0	-3.2	-2.04	1.288	57.7	0.563	0.918	104.2	589.9	0.401	1.435	4.15	0.972	56.0	307.9	-13.0	0.588
4-3330	4-3880	0.311	350.5	-8.9	-2.04	1.382	100.2	0.422	1.191	324.9	810.6	0.688	1.694	4.15	1.095	113.0	106.1	32.4	0.432
4-3330	4-3890	0.635	205.2	-5.5	-3.09	1.294	61.0	0.521	0.930	97.5	593.4	0.446	1.414	4.85	0.979	58.8	315.6	-9.1	0.547
4-3330	4-3890	0.363	358.6	-11.6	-3.09	1.385	103.0	0.446	1.203	316.7	812.6	0.667	1.739	4.85	1.096	114.4	116.8	31.9	0.458
4-3330	4-3900	0.577	208.4	-9.4	-4.62	1.299	64.2	0.481	0.942	90.6	596.6	0.489	1.395	6.04	0.985	61.4	322.9	-3.9	0.512
4-3330	4-3900	0.422	5.3	-14.8	-4.62	1.388	105.8	0.473	1.216	309.0	815.0	0.641	1.791	6.04	1.099	116.2	127.3	31.6	0.490
4-3330	4-3910	0.532	211.3	-16.5	-7.24	1.304	67.2	0.445	0.953	83.5	599.6	0.529	1.377	8.34	0.989	63.6	329.5	3.9	0.486
4-3330	4-3910	0.492	11.5	-19.7	-7.24	1.391	108.7	0.502	1.230	301.7	817.7	0.612	1.847	8.34	1.102	118.1	137.6	32.4	0.532
4-3330	4-3920	0.535	212.0	-31.9	-13.30	1.308	69.9	0.493	0.963	76.4	602.4	0.565	1.361	14.09	0.993	65.6	334.8	18.1	0.494
4-3330	4-3920	0.598	18.4	-29.9	-13.30	1.595	111.9	0.534	1.245	294.7	820.7	0.580	1.909	14.09	1.105	120.2	148.2	37.3	0.598
4-3340	4-3490	0.807	206.6	-0.3	-0.24	1.196	50.4	0.638	0.757	126.8	211.5	---	1.241	3.36	0.843	53.8	295.9	-17.4	0.597
4-3340	4-3500	0.751	209.8	-1.1	-0.83	1.216	53.7	0.596	0.785	120.6	215.5	---	1.253	3.36	0.871	56.1	305.2	-15.6	0.567
4-3340	4-3510	0.698	212.9	-2.1	-1.45	1.233	56.7	0.556	0.811	114.3	219.4	---	1.263	3.47	0.895	58.2	310.4	-13.2	0.538
4-3340	4-3520	0.647	216.0	-3.5	-2.13	1.248	59.5	0.520	0.837	107.9	223.2	---	1.272	3.70	0.916	60.2	317.6	-10.3	0.512
4-3340	4-3530	0.600	219.1	-5.4	-2.93	1.261	62.1	0.487	0.861	101.5	226.9	---	1.280	4.11	0.933	61.9	324.7	-6.7	0.489
4-3340	4-3540	0.557	222.1	-8.2	-3.96	1.273	64.6	0.457	0.883	94.9	230.4	---	1.287	4.78	0.947	63.5	331.6	-2.4	0.468

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3340	4-3550	0.520	225.1	-12.5	-5.45	1.283	67.0	0.431	0.904	88.3	233.9	---	1.293	5.94	0.959	65.0	338.1	3.2	0.451
4-3340	4-3560	0.494	227.7	-19.8	-7.97	1.292	69.2	0.407	0.923	81.5	237.1	---	1.299	8.14	0.969	66.3	344.0	11.1	0.442
4-3340	4-3570	0.513	228.1	-34.5	-13.64	1.300	71.3	0.386	0.942	74.7	240.2	---	1.305	13.51	0.978	67.5	348.5	24.8	0.462
4-3340	4-3600	0.394	242.4	39.5	11.16	1.319	77.5	0.336	0.988	52.4	248.5	---	1.320	-12.17	0.994	70.3	33.7	-17.0	0.412
4-3340	4-3610	0.514	250.8	27.6	6.41	1.324	79.4	0.326	1.001	45.0	250.7	---	1.327	-7.72	0.998	71.0	36.5	-6.8	0.370
4-3340	4-3620	0.267	256.4	20.9	4.16	1.328	81.3	0.318	1.013	37.3	252.8	---	1.335	-5.77	1.001	71.5	42.1	-0.3	0.351
4-3340	4-3630	0.233	267.0	16.0	2.79	1.332	83.1	0.312	1.024	29.4	254.6	---	1.344	-4.72	1.004	71.8	49.2	4.3	0.339
4-3340	4-3640	0.206	277.3	11.8	1.81	1.336	85.0	0.309	1.034	21.3	256.2	---	1.353	-4.16	1.006	72.1	57.0	7.8	0.332
4-3340	4-3650	0.186	289.8	7.6	1.05	1.339	86.9	0.308	1.044	13.0	257.5	---	1.365	-3.71	1.009	72.2	65.4	10.4	0.328
4-3340	4-3660	0.175	304.6	3.2	0.41	1.342	88.9	0.310	1.052	4.5	258.5	---	1.378	-3.48	1.011	72.1	74.2	12.3	0.327
4-3340	4-3670	0.176	320.9	-1.3	-0.17	1.345	91.1	0.315	1.060	355.6	619.2	0.726	1.395	-3.37	1.013	71.8	83.4	13.4	0.329
4-3340	4-3680	0.190	337.2	-5.2	-0.73	1.347	93.3	0.324	1.068	346.3	619.4	0.722	1.414	-3.35	1.016	71.3	92.9	13.8	0.335
4-3340	4-3690	0.219	352.1	-8.0	-1.30	1.350	95.9	0.338	1.075	336.5	619.2	0.712	1.439	-3.43	1.018	70.5	102.7	13.4	0.347
4-3340	4-3690	0.553	58.9	-2.4	-1.30	1.166	117.6	0.468	0.719	241.1	883.8	0.385	1.052	-3.43	0.759	103.2	218.0	-23.8	0.303
4-3340	4-3700	0.263	4.9	-9.8	-1.91	1.352	98.7	0.358	1.082	326.2	618.3	0.694	1.469	-3.62	1.021	69.5	112.8	12.2	0.366
4-3340	4-3700	0.520	58.9	-3.8	-1.91	1.159	116.0	0.439	0.710	241.3	893.4	0.399	1.022	-3.62	0.748	95.1	207.5	-22.7	0.254
4-3340	4-3710	0.323	15.9	-10.8	-2.62	1.354	102.1	0.387	1.088	315.0	616.7	0.667	1.509	-3.94	1.024	67.6	123.3	10.2	0.394
4-3340	4-3710	0.520	59.3	-5.2	-2.62	1.156	116.0	0.439	0.707	240.7	902.3	0.396	1.017	-3.94	0.744	88.2	196.5	-19.8	0.249
4-3340	4-3720	0.404	25.6	-11.3	-3.49	1.356	106.3	0.428	1.095	302.7	613.9	0.627	1.563	-4.45	1.028	65.0	134.3	7.4	0.437
4-3340	4-3720	0.548	60.1	-6.5	-3.49	1.155	117.5	0.460	0.705	239.3	910.5	0.381	1.030	-4.45	0.743	81.3	188.4	-16.5	0.280
4-3340	4-3730	0.516	34.7	-11.4	-4.66	1.358	111.8	0.487	1.101	288.6	609.4	0.565	1.657	-5.30	1.032	61.2	145.5	3.7	0.403
4-3340	4-3740	0.609	61.5	-7.6	-4.66	1.155	120.3	0.505	0.705	236.7	917.5	0.349	1.061	-5.30	0.745	73.7	185.2	-14.2	0.346
4-3340	4-3740	0.716	64.0	-8.5	-6.44	1.156	125.6	0.583	0.706	232.1	922.4	0.294	1.118	-6.77	0.749	64.3	186.6	-13.8	0.454
4-3340	4-3800	0.706	205.4	7.3	5.45	1.150	55.2	0.571	0.700	128.0	877.2	0.300	1.099	6.87	0.761	115.0	339.0	2.0	0.473
4-3340	4-3810	0.496	237.6	9.3	3.57	1.367	69.9	0.481	1.131	65.6	465.0	0.388	1.674	5.31	1.063	117.9	21.2	19.2	0.525
4-3340	4-3810	0.587	208.3	6.1	3.57	1.151	61.2	0.483	0.701	126.6	876.9	0.363	1.040	5.31	0.766	105.6	340.9	3.8	0.357
4-3340	4-3820	0.378	249.1	8.3	2.35	1.369	75.8	0.427	1.138	49.1	462.3	0.652	1.624	4.43	1.067	114.2	34.2	23.6	0.460
4-3340	4-3820	0.521	209.8	4.7	2.35	1.152	64.5	0.432	0.702	119.8	889.0	0.398	1.005	4.43	0.770	98.2	338.0	3.7	0.284
4-3340	4-3830	0.297	262.4	6.6	1.45	1.370	80.4	0.396	1.144	64.3	453.5	0.691	1.598	3.90	1.072	112.1	46.9	27.2	0.421
4-3340	4-3830	0.847	199.1	1.4	1.45	1.108	46.8	0.690	0.656	139.8	919.0	0.204	1.108	3.90	0.705	57.2	284.0	-18.7	0.561
4-3340	4-3840	0.494	210.3	3.1	1.45	1.150	65.7	0.413	0.700	119.1	898.3	0.411	0.989	3.90	0.771	91.2	329.2	0.4	0.249
4-3340	4-3840	0.243	278.3	4.3	0.72	1.372	84.3	0.580	1.151	21.0	450.5	0.714	1.589	3.58	1.076	110.9	59.5	29.7	0.398
4-3340	4-3840	0.651	205.0	1.1	0.72	1.130	57.5	0.541	0.678	128.9	918.2	0.311	1.045	3.58	0.745	70.8	298.8	-14.3	0.393
4-3340	4-3840	0.538	208.6	1.4	0.72	1.143	63.4	0.449	0.692	122.3	911.6	0.381	1.003	3.58	0.763	80.8	311.7	-8.2	0.288
4-3340	4-3850	0.213	297.1	0.5	0.08	1.374	87.6	0.375	1.159	8.9	448.3	0.724	1.593	3.41	1.080	110.3	71.9	31.4	0.388
4-3340	4-3860	0.207	316.9	-3.5	-0.52	1.376	90.6	0.377	1.167	357.9	807.4	0.727	1.607	3.35	1.084	110.3	84.1	32.2	0.386
4-3340	4-3870	0.221	334.9	-7.0	-1.12	1.379	93.4	0.385	1.175	347.7	807.4	0.722	1.628	3.40	1.088	110.7	96.0	32.2	0.392
4-3340	4-3880	0.251	349.7	-9.7	-1.76	1.381	96.2	0.399	1.185	338.3	808.1	0.712	1.657	3.56	1.091	111.5	107.5	31.5	0.403
4-3340	4-3890	0.291	1.2	-11.7	-2.49	1.384	98.9	0.417	1.195	329.4	809.5	0.697	1.692	3.87	1.094	112.5	118.4	30.4	0.421
4-3340	4-3900	0.681	219.1	-5.5	-3.38	1.294	58.9	0.549	0.928	101.3	591.5	0.418	1.438	4.39	0.977	56.8	326.3	-7.0	0.580
4-3340	4-3900	0.340	10.3	-13.6	-3.38	1.387	101.6	0.438	1.206	321.1	811.3	0.678	1.734	4.39	1.096	113.9	128.8	28.9	0.444
4-3340	4-3910	0.619	222.2	-8.5	-4.59	1.299	62.2	0.508	0.940	94.5	594.8	0.463	1.418	5.25	0.982	59.6	333.5	-2.1	0.540
4-3340	4-3910	0.395	17.6	-15.9	-4.59	1.390	104.3	0.463	1.218	313.3	813.6	0.655	1.782	5.25	1.099	115.4	138.8	27.6	0.472
4-3340	4-3920	0.567	225.3	-13.6	-6.46	1.304	65.3	0.470	0.952	87.6	597.9	0.504	1.399	6.79	0.987	62.0	340.2	4.3	0.507
4-3340	4-3920	0.458	24.0	-19.1	-6.46	1.393	107.2	0.490	1.231	305.8	816.2	0.628	1.835	6.79	1.101	117.2	148.6	26.8	0.507
4-3340	4-3930	0.536	227.6	-23.1	-9.98	1.309	68.2	0.436	0.962	80.4	600.8	0.543	1.382	10.00	0.991	64.2	345.9	14.1	0.489
4-3340	4-3930	0.538	30.1	-25.0	-9.98	1.396	110.0	0.520	1.246	298.8	819.1	0.598	1.893	10.00	1.103	119.2	158.5	28.0	0.555
4-3340	4-3940	0.611	223.8	-44.2	-20.09	1.313	70.8	0.406	0.972	73.3	603.4	0.577	1.367	19.82	0.993	66.1	350.2	33.9	0.541
4-3350	4-3630	0.292	269.4	18.3	4.04	1.331	79.7	0.333	1.016	42.6	251.9	---	1.354	-6.28	1.000	70.6	51.6	1.9	0.367
4-3350	4-3640	0.256	276.8	12.3	2.36	1.335	81.6	0.325	1.028	35.0	253.9	---	1.362	-4.89	1.004	71.0	58.5	6.7	0.351
4-3350	4-3650	0.226	285.5	7.5	1.27	1.339	83.5	0.320	1.039	27.1	255.7	---	1.371	-4.10	1.006	71.4	66.4	10.0	0.341
4-3350	4-3660	0.202	296.0	3.1	0.47	1.342	85.4	0.317	1.049	19.1	257.3	---	1.381	-3.62	1.009	71.6	74.8	12.2	0.334
4-3350	4-3670	0.185	308.9	-1.3	-0.18	1.346	87.4	0.317	1.058	10.9	258.6	---	1.393	-3.32	1.012	71.7	83.6	13.6	0.331
4-3350	4-3680	0.178	323.9	-5.7	-0.75	1.348	89.4	0.319	1.066	2.3	259.6	---	1.407	-3.15	1.015	71.6	92.8	14.2	0.330
4-3350	4-3690	0.183	340.3	-9.4	-1.27	1.351	91.6	0.325	1.074	353.4	620.2	0.725	1.424	-3.08	1.018	71.2	102.2	14.0	0.333
4-3350	4-3700	0.202	356.5	-12.0	-1.78	1.353	94.0	0.335	1.082	344.1	620.4	0.719	1.444	-3.09	1.021	70.7	111.8	13.1	0.341
4-3350	4-3710	0.235	11.0	-13.4	-2.32	1.355	96.6	0.350	1.088	334.3	620.1	0.707	1.470	-3.19	1.024	69.8	121.6	11.4	0.354
4-3350	4-3710	0.514	73.9	-4.7	-2.32	1.168	115.6	0.432	0.719	243.3	889.1	0.408	1.030	-3.19	0.760	98.1	22749	-27.4	0.261
4-3350	4-3720	0.283	23.6	-13.9	-2.90	1.357	99.6	0.372	1.095	323.7	619.1	0.688	1.503	-3.40	1.028	68.5	131.6	8.9	0.375
4-3350	4-3720	0.501	74.1	-6.1	-2.90	1.164	115.0	0.422	0.714	243.0	898.4	0.413	1.015	-3.40	0.755	91.2	216.4	-25.9	0.247
4-3350	4-3730	0.515	74.7	-7.3	-3.59	1.162	115.6	0.432	0.712	242.1	907.0	0.404	1.019	-3.75	0.754	84.7	206.0	-22.9	0.250
4-3350	4-3740	0.556	75.7	-8.3	-4.47	1.162	117.6	0.463	0.711	240.2	914.7	0.382	1.040	-4.31	0.755	78.0	200.0	-20.1	0.296
4-3350	4-3840	0.489	227.3	1.8	0.84	1.160	66.1	0.405	0.709	116.9	890.3	0.422	0.996	3.83	0.785	96.5	353.2	9.7	0.260
4-3350	4-3850	0.270	285.7	0.4	0.09	1.376	82.4	0.393	1.158	27.4	450.9	0.703	1.613	3.43	1.080	111.6	70.6	30.8	0.409
4-3350	4-3850	0.474	227.4	0.2	0.09	1.158	66.9	0.393	0.707	116.7	900.4	0.429	0.985	3.43	0.785	89.9	343.2	5.3	0.236
4-3350	4-3860	0.228	303.0	-3.3	-0.54	1.377	85.9	0.383	1.165	14.8	448.4	0.719	1.610	3.20	1.084	110.7	83.6	31.6	0.393
4-3350	4-3870	0.211	322.4	-7.3	-1.11	1.379	89.1	0.381	1.172	3.4	447.2	0.725	1.619	3.09	1.087	110.5	96.2	31.5	0.386
4-3350	4-3880	0.216	341.5	-10.7	-1.66	1.382	92.0	0.386	1.180	352.9	806.9	0.724	1.636	3.08	1.089	110.7	108.1	30.6	0.388
4-3350	4-3890	0.239	358.0	-12.9	-2.22	1.384	94.8	0.397	1.189	343.2	807.4	0.717	1.661	3.17	1.092	111.3	119.3	29.0	0.396
4-3350	4-3900	0.274	11.1	-14.4	-2.83	1.386	97.5	0.412	1.199	334.2	808.5	0.705	1.693	3.37	1.094	112.2	130.0	27.0	0.411
4-3400	4-3730	0.288	357.4	-19.9	-4.18	1.364	81.0	0.369	1.088	33.9	258.6	---	1.490	1.29	1.027	68.7	144.8	17.6	0.366
4-3400	4-3740	0.260	5.9	-20.9	-3.92	1.367	83.0	0.363	1.098	26.5	260.8	---	1.497	1.11	1.033	69.2	153.0	14.3	0.357
4-3400	4-3750	0.236	16.3	-22.0	-3.71	1.370	85.0	0.360	1.108	18.8	262.8	---	1.506	1.01	1.038	69.5	161.3	10.9	0.351
4-3400	4-3760	0.217	29.2	-22.9	-3.54	1.373	87.1	0.359	1.116	10.9	264.5	---	1.517	0.94	1.044	69.7	169.7	7.3	0.348
4-3400	4-3770	0.208	44.5	-22.9	-3.38	1.375	89.4	0.360	1.124	2.4	265.9	---	1.529	0.91	1.049	69.7	178.2	3.6	0.348
4-3400	4-3770	0.479	149.5	-7.9	-3.38	1.208	113.1	0.395	0.758	253.6	877.0	0.458	1.057	0.91	0.819	103.6	313.3	-14.9	0.289
4-3400	4-3780	0.210	61.5	-21.6	-3.22	1.377	91.7	0.365	1.132	353.5	626.7	0.718	1.545	0.91	1.055	69.6	187.0	-0.3	0.352
4-3400	4-3780	0.431	149.1	-8.4	-3.22	1.201	110.8	0.358	0.747	254.7	887.9	0.480	1.014	0.91	0.811	96.6	306.1	-15.9	0.222
4-3400	4-3790	0.228	78.4	-18.8	-3.06	1.379	94.4	0.375	1.139	343.9	626.9	0.712	1.566	0.93	1.060	69.1	196.2	-4.1	0.362
4-3400	4-3790	0.416	149.1	-8.3	-3.06	1.197	110.2	0.346	0.743	254.7	897.7	0.486	0.999	0.93	0.810	91.2	296.0	-17.4	0.195

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3400	4-3800	0.263	93.7	-15.2	-2.89	1.381	97.4	0.391	1.145	333.3	626.2	0.698	1.593	0.98	1.065	68.2	205.9	-8.0	0.380
4-3400	4-3800	0.421	149.4	-7.7	-2.89	1.196	110.4	0.350	0.741	253.9	906.9	0.481	1.000	0.98	0.811	86.3	285.2	-18.7	0.198
4-3400	4-3810	0.445	150.2	-6.7	-2.69	1.195	111.7	0.370	0.740	252.3	915.2	0.466	1.014	1.08	0.814	81.4	277.4	-19.5	0.229
4-3400	4-3820	0.493	151.5	-5.4	-2.43	1.195	114.1	0.408	0.740	249.5	922.5	0.438	1.043	1.23	0.817	75.9	274.5	-19.9	0.285
4-3400	4-3920	0.458	311.7	-9.6	-3.92	1.198	68.4	0.369	0.744	106.9	881.3	0.469	1.018	-1.11	0.825	100.3	90.3	19.7	0.243
4-3400	4-3930	0.286	8.4	-18.2	-3.70	1.397	82.7	0.421	1.208	25.0	449.4	0.700	1.716	-1.00	1.092	112.7	156.7	7.1	0.409
4-3400	4-3930	0.425	312.7	-9.8	-3.70	1.198	70.0	0.343	0.744	104.9	889.4	0.488	0.999	-1.00	0.812	95.4	84.5	19.3	0.203
4-3400	4-3940	0.248	25.5	-20.2	-3.52	1.399	84.1	0.412	1.215	15.3	447.8	0.714	1.716	-0.94	1.092	112.1	167.0	3.0	0.396
4-3400	4-3940	0.418	312.7	-9.5	-3.52	1.196	70.3	0.338	0.742	104.9	899.4	0.491	0.992	-0.94	0.817	90.3	72.1	18.4	0.192
4-3400	4-3950	0.232	44.3	-20.7	-3.36	1.401	89.2	0.412	1.222	2.7	447.2	0.719	1.725	-0.91	1.092	111.9	176.7	-1.1	0.392
4-3400	4-3950	0.484	309.8	-7.6	-3.36	1.188	66.9	0.392	0.731	110.9	915.4	0.444	1.018	-0.91	0.801	80.5	49.8	15.5	0.261
4-3400	4-3960	0.235	62.6	-19.4	-3.20	1.402	92.1	0.416	1.230	353.0	807.4	0.718	1.743	-0.91	1.092	112.2	185.9	-5.1	0.396
4-3400	4-3970	0.254	78.2	-17.0	-3.04	1.405	94.8	0.426	1.239	343.9	808.2	0.711	1.767	-0.93	1.092	112.8	194.8	-8.8	0.407
4-3400	4-3980	0.284	90.7	-14.2	-2.87	1.407	97.4	0.440	1.249	335.4	809.5	0.700	1.798	-0.89	1.092	113.7	203.6	-12.4	0.422
4-3450	4-3820	0.290	80.6	-10.7	-2.26	1.381	80.5	0.402	1.145	33.7	265.6	---	1.605	4.29	1.070	67.9	228.5	-7.0	0.402
4-3450	4-3830	0.257	89.9	-7.6	-1.42	1.383	82.7	0.395	1.155	26.1	268.0	---	1.610	3.82	1.076	68.2	236.9	-10.0	0.393
4-3450	4-3840	0.231	101.5	-4.3	-0.71	1.386	85.0	0.390	1.164	18.0	270.0	---	1.618	3.55	1.081	68.7	245.9	-12.2	0.388
4-3450	4-3840	0.373	224.3	-2.2	-0.71	1.222	107.5	0.309	0.778	266.0	877.9	0.538	1.019	3.55	0.862	99.2	10.2	18.9	0.228
4-3450	4-3850	0.213	115.9	-0.5	-0.08	1.388	87.4	0.388	1.172	9.4	271.5	---	1.627	3.40	1.085	69.0	255.3	-13.8	0.386
4-3450	4-3850	0.345	223.8	-0.3	-0.08	1.218	106.2	0.286	0.772	266.9	889.0	0.551	0.992	3.40	0.857	94.3	1.8	18.2	0.184
4-3450	4-3860	0.208	132.9	3.5	0.52	1.390	89.9	0.390	1.180	0.2	272.4	---	1.640	3.37	1.089	69.0	265.3	-14.5	0.389
4-3450	4-3860	0.338	223.9	1.8	0.52	1.216	105.9	0.280	0.769	266.8	899.0	0.553	0.984	3.37	0.855	90.4	352.0	15.3	0.170
4-3450	4-3870	0.222	151.2	7.1	1.13	1.392	92.8	0.396	1.187	350.1	632.5	0.717	1.657	3.45	1.092	68.7	275.7	-14.5	0.399
4-3450	4-3870	0.347	224.4	3.8	1.13	1.215	106.3	0.286	0.768	265.8	908.2	0.548	0.987	3.45	0.855	86.7	343.7	11.2	0.179
4-3450	4-3880	0.258	168.7	9.7	1.79	1.393	96.1	0.409	1.194	339.0	631.6	0.706	1.682	3.65	1.094	68.0	286.5	-13.6	0.416
4-3450	4-3880	0.370	225.4	5.6	1.79	1.215	107.4	0.304	0.768	263.9	916.5	0.534	1.001	3.65	0.855	83.0	339.4	7.7	0.207
4-3450	4-3890	0.411	226.8	7.2	2.56	1.216	109.3	0.335	0.768	261.0	923.8	0.511	1.026	4.01	0.856	79.0	338.9	5.6	0.252
4-3450	4-4000	0.455	35.6	-5.5	-2.20	1.222	68.1	0.379	0.777	101.4	873.9	0.483	1.072	-4.25	0.834	104.2	176.0	-12.2	0.272
4-3450	4-4010	0.300	86.6	-6.5	-1.40	1.409	81.1	0.450	1.259	28.9	451.0	0.692	1.825	-3.82	1.088	114.4	230.3	-27.3	0.442
4-3450	4-4010	0.405	37.6	-4.0	-1.40	1.223	70.5	0.341	0.778	97.5	879.6	0.513	1.044	-3.82	0.833	99.9	176.6	-14.1	0.222
4-3450	4-4020	0.255	102.9	-4.0	-0.73	1.410	84.8	0.439	1.266	17.2	448.9	0.710	1.822	-3.55	1.088	113.5	242.2	-29.4	0.429
4-3450	4-4020	0.373	39.0	-2.3	-0.73	1.223	72.0	0.317	0.719	94.8	886.5	0.532	1.026	-3.55	0.831	96.1	173.9	-14.7	0.187
4-3450	4-4030	0.234	121.0	-0.8	-0.13	1.412	88.0	0.436	1.273	6.6	447.8	0.718	1.829	-3.41	1.089	113.2	253.9	-30.7	0.426
4-3450	4-4030	0.358	39.5	-0.4	-0.13	1.223	72.7	0.306	0.779	93.6	894.9	0.541	1.016	-3.41	0.829	92.2	166.7	-12.9	0.168
4-3450	4-4040	0.234	139.2	2.6	0.44	1.414	91.0	0.439	1.282	356.7	807.5	0.710	1.844	-3.37	1.090	115.3	265.2	-31.2	0.430
4-3450	4-4040	0.368	38.8	1.4	0.44	1.220	72.2	0.313	0.775	95.2	906.0	0.533	1.018	-3.37	0.824	87.3	154.1	-6.5	0.175
4-3450	4-4050	0.253	155.3	5.6	1.01	1.416	93.8	0.446	1.290	347.5	807.9	0.714	1.866	-3.43	1.092	113.7	276.0	-31.1	0.441
4-3500	4-3900	0.349	299.7	11.1	3.25	1.234	105.8	0.290	0.812	274.8	867.5	0.576	1.048	0.24	0.894	101.7	86.9	24.3	0.223
4-3500	4-3910	0.287	168.3	16.0	3.29	1.387	81.8	0.417	1.203	28.1	271.0	---	1.705	0.21	1.094	67.5	318.8	-15.4	0.428
4-3500	4-3910	0.307	298.4	12.9	3.29	1.228	103.7	0.254	0.802	277.4	880.3	0.598	1.006	0.21	0.884	96.4	78.5	24.2	0.163
4-3500	4-3920	0.259	179.9	18.1	3.33	1.389	64.3	0.411	1.212	19.7	272.7	---	1.711	0.20	1.095	68.0	327.8	-12.5	0.421
4-3500	4-3920	0.294	298.1	13.7	3.33	1.225	103.1	0.243	0.798	278.0	891.0	0.604	0.992	0.20	0.878	92.9	67.7	23.1	0.139
4-3500	4-3930	0.240	194.3	19.8	3.37	1.391	86.9	0.408	1.221	10.8	273.9	---	1.719	0.19	1.096	68.4	336.7	-9.2	0.418
4-3500	4-3930	0.295	298.4	13.7	3.37	1.224	103.2	0.243	0.796	277.5	900.6	0.602	0.990	0.19	0.874	89.8	57.0	21.2	0.137
4-3500	4-3940	0.234	211.6	20.6	3.40	1.393	89.7	0.409	1.229	1.2	274.3	---	1.732	0.19	1.096	68.4	345.7	-5.6	0.419
4-3500	4-3940	0.306	299.1	13.3	3.40	1.224	103.7	0.252	0.796	276.0	909.1	0.595	0.997	0.19	0.871	86.9	49.5	19.4	0.151
4-3500	4-3950	0.246	230.3	19.9	3.43	1.395	92.7	0.415	1.237	350.8	633.9	0.723	1.750	0.19	1.096	68.1	354.9	-1.7	0.426
4-3500	4-3950	0.327	300.3	12.5	3.43	1.225	104.8	0.269	0.796	273.7	916.8	0.582	1.011	0.19	0.868	84.0	46.4	18.4	0.177
4-3500	4-3960	0.278	248.0	17.6	3.47	1.397	96.1	0.427	1.244	339.5	632.5	0.712	1.776	0.20	1.096	67.3	4.5	2.5	0.440
4-3500	4-3960	0.360	301.8	11.4	3.47	1.225	106.4	0.295	0.797	270.6	923.6	0.562	1.033	0.20	0.866	80.8	47.0	18.4	0.214
4-3500	4-3970	0.407	303.9	10.1	3.51	1.226	108.7	0.332	0.799	266.4	929.3	0.534	1.064	0.22	0.864	77.1	50.2	19.2	0.262
4-3500	4-4090	0.393	121.8	9.8	3.27	1.236	71.4	0.335	0.814	90.7	869.0	0.541	1.088	-0.22	0.862	103.6	277.2	-24.0	0.258
4-3500	4-4100	0.281	181.6	16.8	3.31	1.413	84.2	0.458	1.318	18.6	446.5	0.714	1.922	-0.20	1.103	114.0	326.1	-14.1	0.459
4-3500	4-4100	0.344	124.6	11.5	3.31	1.237	73.9	0.298	0.816	85.2	873.1	0.573	1.059	-0.20	0.866	100.4	283.1	-23.7	0.215
4-3550	4-3690	0.588	40.0	-2.6	-1.57	1.128	119.7	0.500	0.678	232.9	538.9	0.339	---	-4.07	0.702	91.1	186.0	-13.4	0.288
4-3550	4-3970	0.278	11.4	19.0	4.26	1.244	102.2	0.244	0.834	288.4	872.3	0.630	1.038	-4.76	0.894	98.3	143.3	-11.3	0.178
4-3550	4-3980	0.250	9.8	16.1	3.25	1.241	101.1	0.225	0.828	290.7	884.3	0.641	1.015	-4.09	0.886	94.5	134.6	-10.5	0.142
4-3550	4-3990	0.300	247.5	11.5	2.48	1.396	81.8	0.439	1.253	27.3	270.7	---	1.802	-3.68	1.090	66.4	35.6	5.6	0.456
4-3550	4-3990	0.241	9.5	12.6	2.48	1.239	100.8	0.221	0.826	290.9	894.3	0.643	1.008	-3.68	0.881	91.6	125.9	-7.6	0.128
4-3550	4-4000	0.268	258.5	9.5	1.83	1.398	84.2	0.433	1.262	19.1	272.2	---	1.809	-3.44	1.091	66.9	43.8	8.6	0.446
4-3550	4-4000	0.242	9.9	9.2	1.83	1.239	101.0	0.224	0.825	290.0	903.1	0.640	1.009	-3.44	0.877	89.1	119.0	-3.7	0.130
4-3550	4-4010	0.245	272.0	7.1	1.25	1.400	86.8	0.430	1.271	10.6	273.2	---	1.818	-3.32	1.091	67.2	52.4	11.1	0.439
4-3550	4-4010	0.252	10.9	6.0	1.25	1.239	101.6	0.232	0.825	288.2	910.9	0.634	1.017	-3.32	0.875	86.8	115.1	0.1	0.141
4-3550	4-4020	0.235	287.9	4.1	0.69	1.402	89.6	0.431	1.280	1.5	273.7	---	1.831	-3.30	1.092	67.3	61.6	13.1	0.436
4-3550	4-4020	0.270	12.3	3.1	0.69	1.240	102.5	0.246	0.826	285.6	917.9	0.623	1.029	-3.30	0.874	84.4	114.4	3.2	0.161
4-3550	4-4030	0.241	305.3	0.8	0.13	1.404	92.5	0.436	1.287	351.7	635.6	0.726	1.849	-3.37	1.093	67.0	71.2	14.5	0.439
4-3550	4-4030	0.295	14.2	0.5	0.13	1.240	103.8	0.265	0.827	282.3	924.1	0.608	1.047	-3.37	0.873	81.9	116.2	5.3	0.187
4-3550	4-4040	0.269	322.5	-2.4	-0.47	1.405	95.8	0.447	1.295	341.1	632.5	0.716	1.874	-3.54	1.094	66.3	81.5	15.3	0.449
4-3550	4-4040	0.330	16.4	-1.7	-0.47	1.241	105.5	0.292	0.829	278.2	929.6	0.587	1.071	-3.54	0.873	79.1	119.9	6.4	0.220
4-3550	4-4050	0.377	19.0	-3.6	-1.15	1.242	107.8	0.327	0.831	273.4	934.3	0.559	1.102	-3.84	0.874	75.8	125.2	6.7	0.263
4-3600	4-3730	0.482	109.7	-6.8	-2.96	1.205	113.5	0.402	0.760	253.0	517.5	0.455	---	-1.41	0.811	103.7	272.2	-27.3	0.284
4-3600	4-3740	0.460	110.4	-7.7	-3.19	1.194	112.5	0.384	0.745	251.7	525.9	0.459	---	-1.40	0.797	98.5	268.8	-28.1	0.239
4-3600	4-3750	0.450	111.1	-8.4	-3.44	1.188	112.1	0.376	0.736	250.6	534.3	0.459	---	-1.44	0.789	93.4	261.2	-28.6	0.213
4-3600	4-3760	0.454	111.7	-9.0	-3.70	1.184	112.3	0.379	0.731	249.4	542.8	0.454	1.008	-1.53	0.786	88.3	250.8	-28.1	0.209
4-3600	4-3770	0.475	112.5	-9.2	-4.01	1.182	113.3	0.395	0.729	247.9	551.1	0.441	1.017	-1.67	0.786	82.9	241.5	-26.6	0.231
4-3600	4-3780	0.518	113.6	-9.1	-4.40	1.182	115.4	0.429	0.729	245.6	558.6	0.416	1.041	-1.91	0.790	77.0	236.4	-25.3	0.281
4-3600	4-3880	0.462	270.8	-4.9	-2.06	1.184	67.9	0.376	0.732	110.3	523.8	0.457	1.007	1.74	0.817	99.3	43.2	22.4	0.250
4-3600	4-3890	0.433	271.4	-6.1	-2.40	1.183	69.4	0.352	0.731	108.9	532.7	0.473	0.988	1.56	0.815	94.0	35.7	20.6	0.211
4-3600	4-3900	0.453	269.9	-6.5	-2.69	1.176	68.4	0.369	0.721	111.8	545.7	0.455	0.987	1.46	0.803	86.7	18.2	13.4	0.221
4-3600	4-4030	0.202	78.8	2.1	0.34	1.269	98.9	0.222	0.863	307.4	869.6	0.671	1.055	-3.70	0.901	97.9	204.5	-32.8	0.161

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3600	4-4040	0.174	74.7	-6.0	-0.83	1.264	97.4	0.200	0.854	312.5	884.3	0.683	1.025	-2.66	0.893	95.8	193.6	-28.5	0.116
4-3600	4-4050	0.169	73.9	-11.2	-1.50	1.263	97.1	0.195	0.852	313.6	894.9	0.686	1.017	-2.12	0.891	91.2	184.3	-22.8	0.101
4-3600	4-4060	0.173	74.6	-14.2	-1.95	1.262	97.2	0.195	0.851	312.8	903.7	0.685	1.017	-1.81	0.890	89.1	177.4	-18.8	0.099
4-3600	4-4070	0.182	76.5	-16.0	-2.30	1.262	97.6	0.200	0.851	311.0	911.3	0.681	1.021	-1.61	0.890	87.2	173.8	-17.2	0.106
4-3600	4-4080	0.296	332.8	-12.4	-2.58	1.416	83.1	0.462	1.311	23.0	271.9	---	1.917	-1.49	1.098	65.6	121.4	16.9	0.490
4-3600	4-4080	0.195	78.5	-16.7	-2.58	1.263	98.2	0.208	0.852	308.3	918.1	0.675	1.029	-1.49	0.892	85.4	173.0	-9.3	0.119
4-3600	4-4090	0.272	344.4	-14.9	-2.83	1.418	85.6	0.458	1.320	14.1	273.5	---	1.925	-1.42	1.102	66.0	130.3	14.9	0.441
4-3600	4-4090	0.212	81.1	-16.9	-2.83	1.264	99.1	0.218	0.853	304.8	924.3	0.667	1.040	-1.42	0.894	83.6	174.6	-7.9	0.135
4-3600	4-4100	0.257	358.7	-17.2	-3.07	1.420	88.2	0.457	1.329	5.6	274.7	---	1.938	-1.40	1.105	66.3	139.2	12.4	0.435
4-3600	4-4100	0.234	83.9	-16.5	-3.07	1.264	100.1	0.233	0.855	300.7	929.8	0.656	1.054	-1.40	0.897	81.8	177.9	-7.8	0.156
4-3600	4-4110	0.256	15.3	-18.7	-3.31	1.421	91.1	0.460	1.330	356.6	635.3	0.722	1.950	-1.42	1.109	66.3	148.3	9.3	0.455
4-3600	4-4110	0.262	87.0	-15.9	-3.31	1.265	101.5	0.251	0.850	296.1	934.8	0.641	1.071	-1.42	0.900	79.8	182.4	-8.6	0.181
4-3600	4-4120	0.272	32.9	-18.9	-3.56	1.423	94.2	0.467	1.341	346.8	635.1	0.716	1.970	-1.48	1.113	65.9	157.6	5.7	0.441
4-3600	4-4120	0.297	90.2	-14.9	-3.56	1.266	103.2	0.276	0.858	290.8	939.1	0.622	1.095	-1.48	0.904	77.5	188.0	-10.1	0.212
4-3600	4-4130	0.342	93.7	-13.8	-3.84	1.267	105.4	0.308	0.860	284.7	942.7	0.596	1.125	-1.59	0.908	74.9	194.4	-12.2	0.251
4-3600	4-4140	0.589	120.7	-7.0	-3.18	1.129	119.6	0.499	0.669	232.5	1260.3	0.336	1.003	-1.77	0.707	89.7	272.6	-27.7	0.291
4-3650	4-3780	0.377	180.5	-13.0	-4.07	1.250	107.1	0.316	0.818	274.7	506.9	0.560	---	3.58	0.880	105.2	329.6	-0.0	0.266
4-3650	4-3790	0.348	180.9	-11.6	-3.38	1.239	106.0	0.292	0.801	273.8	535.9	0.567	---	3.20	0.868	99.3	329.4	1.0	0.219
4-3650	4-3800	0.330	181.2	-10.1	-2.80	1.232	105.3	0.278	0.790	273.0	525.0	0.571	---	2.98	0.861	95.6	326.3	1.3	0.184
4-3650	4-3810	0.321	181.6	-8.4	-2.28	1.228	105.0	0.271	0.783	272.2	534.1	0.571	---	2.86	0.858	92.2	320.0	0.4	0.163
4-3650	4-3820	0.322	182.0	-6.6	-1.78	1.225	105.1	0.271	0.780	271.2	543.0	0.568	0.991	2.83	0.858	88.9	311.7	-1.8	0.155
4-3650	4-3830	0.332	182.2	-4.5	-1.28	1.224	105.7	0.280	0.778	269.7	551.6	0.560	0.996	2.89	0.859	85.6	304.3	-4.4	0.171
4-3650	4-3840	0.355	183.6	-2.4	-0.73	1.225	106.8	0.298	0.779	267.6	559.6	0.546	1.011	3.05	0.862	82.1	300.2	-7.1	0.199
4-3650	4-3850	0.393	185.1	-0.3	-0.09	1.226	108.6	0.328	0.780	264.6	566.7	0.524	1.036	3.34	0.865	78.2	299.7	-8.8	0.245
4-3650	4-3960	0.429	359.0	-10.9	-3.98	1.239	70.2	0.353	0.801	93.8	507.2	0.518	1.084	-3.52	0.870	105.2	146.8	1.8	0.273
4-3650	4-3970	0.373	1.8	-10.5	-3.30	1.242	72.8	0.313	0.805	88.0	511.3	0.553	1.057	-3.17	0.869	101.7	150.6	-1.0	0.223
4-3650	4-3980	0.333	4.3	-9.9	-2.74	1.245	74.7	0.284	0.808	83.2	516.3	0.578	1.037	-2.96	0.869	90.8	152.6	-3.4	0.186
4-3650	4-3990	0.303	6.3	-8.9	-2.23	1.245	76.1	0.264	0.810	79.4	522.2	0.596	1.024	-2.85	0.867	86.1	152.1	-5.3	0.159
4-3650	4-4000	0.285	7.5	-7.5	-1.75	1.245	76.9	0.252	0.810	77.0	529.5	0.606	1.014	-2.83	0.865	83.5	147.7	-5.7	0.141
4-3650	4-4010	0.406	357.7	-3.6	-1.26	1.224	70.7	0.338	0.777	97.0	559.2	0.515	1.040	-2.90	0.832	80.7	104.2	12.2	0.227
4-3650	4-4010	0.288	6.8	-5.3	-1.26	1.243	76.7	0.253	0.807	78.4	540.6	0.602	1.011	-2.90	0.859	89.8	135.1	-2.0	0.139
4-3650	4-4020	0.285	102.6	76.6	12.51	1.279	90.5	0.175	0.871	356.3	885.1	0.738	1.023	-14.66	0.906	93.1	134.7	-75.7	0.259
4-3650	4-4110	0.246	105.4	-72.6	-10.58	1.277	90.8	0.172	0.867	354.8	912.9	0.718	1.016	9.15	1.908	87.4	239.1	37.4	0.174
4-3650	4-4120	0.184	111.3	-61.4	-7.28	1.278	91.3	0.174	0.869	351.1	918.8	0.717	1.020	6.10	0.912	86.2	232.4	27.0	0.138
4-3650	4-4130	0.159	118.6	-51.6	-5.59	1.279	92.0	0.178	0.870	346.8	928.1	0.716	1.025	4.67	0.916	85.0	231.1	17.8	0.129
4-3650	4-4140	0.149	126.2	-42.5	-4.51	1.280	92.8	0.183	0.872	342.0	929.0	0.713	1.031	3.87	0.920	84.0	231.4	10.3	0.131
4-3650	4-4150	0.148	133.5	-34.1	-3.72	1.281	93.6	0.189	0.874	336.7	933.6	0.709	1.039	3.38	0.925	82.9	233.8	4.4	0.139
4-3650	4-4160	0.155	140.3	-26.4	-3.09	1.282	94.6	0.197	0.876	331.1	937.8	0.704	1.049	3.00	0.929	81.9	237.7	-0.5	0.151
4-3650	4-4170	0.293	58.4	-12.5	-2.55	1.432	83.7	0.484	1.366	19.5	276.1	---	2.027	2.91	1.131	65.4	207.1	-4.2	0.458
4-3650	4-4170	0.169	146.7	-19.7	-2.55	1.283	95.8	0.207	0.878	325.1	941.7	0.696	1.061	2.91	0.934	80.7	242.8	-4.4	0.166
4-3650	4-4180	0.267	71.6	-11.0	-2.04	1.434	86.4	0.480	1.374	11.2	277.8	---	2.034	2.84	1.135	65.9	215.8	-7.4	0.452
4-3650	4-4180	0.189	152.6	-13.9	-2.04	1.284	97.2	0.221	0.881	318.6	945.2	0.686	1.075	2.84	0.938	79.5	248.8	-7.6	0.185
4-3650	4-4190	0.254	87.7	-8.7	-1.54	1.435	89.3	0.480	1.382	2.2	278.9	---	2.045	2.85	1.139	66.2	225.1	-10.2	0.451
4-3650	4-4190	0.216	158.1	-9.1	-1.54	1.285	98.8	0.239	0.883	311.7	948.3	0.672	1.094	2.85	0.942	78.0	255.8	-10.0	0.208
4-3650	4-4200	0.260	105.7	-5.7	-1.02	1.437	92.5	0.484	1.389	352.4	639.1	0.716	2.061	2.96	1.142	66.1	235.0	-12.6	0.457
4-3650	4-4200	0.253	163.3	-5.1	-1.02	1.286	100.7	0.262	0.885	304.2	950.9	0.653	1.117	2.96	0.946	76.3	263.4	-11.8	0.238
4-3650	4-4210	0.290	123.9	-2.2	-0.44	1.438	96.2	0.494	1.396	341.3	638.1	0.706	2.085	3.17	1.146	65.4	245.9	-14.5	0.472
4-3650	4-4210	0.302	168.4	-1.8	-0.44	1.287	103.2	0.294	0.887	296.0	952.8	0.627	1.148	3.17	0.950	74.1	271.8	-12.9	0.276
4-3650	4-4210	0.516	197.6	-0.9	-0.44	1.155	115.4	0.431	0.690	239.6	1256.5	0.393	0.987	3.17	0.761	92.7	346.8	4.4	0.262
4-3650	4-4220	0.523	197.9	0.5	0.26	1.153	115.8	0.437	0.688	239.0	1265.9	0.387	0.989	3.54	0.760	85.4	335.9	0.7	0.269
4-3700	4-3830	0.246	246.4	-17.8	-3.47	1.263	99.9	0.229	0.854	301.5	502.6	0.659	---	6.39	0.923	99.6	8.6	33.4	0.223
4-3700	4-3840	0.219	246.0	-7.4	-1.30	1.255	99.2	0.210	0.839	301.5	512.7	0.663	---	4.44	0.914	96.8	10.7	30.5	0.175
4-3700	4-3850	0.207	246.1	-0.7	-0.12	1.250	98.8	0.199	0.831	301.3	522.6	0.665	---	3.48	0.909	94.2	8.1	28.1	0.144
4-3700	4-3860	0.204	246.5	4.0	0.67	1.248	98.6	0.194	0.826	300.8	532.2	0.665	---	2.94	0.906	91.9	2.2	24.7	0.126
4-3700	4-3870	0.207	247.2	7.5	1.26	1.246	98.8	0.194	0.823	299.7	541.3	0.663	0.983	2.61	0.905	89.7	355.1	19.9	0.120
4-3700	4-3880	0.216	248.2	10.0	1.74	1.246	99.1	0.199	0.823	298.0	549.8	0.659	0.987	2.42	0.905	87.6	349.6	14.7	0.126
4-3700	4-3890	0.230	249.7	11.7	2.17	1.247	99.8	0.209	0.824	295.7	557.6	0.652	0.996	2.32	0.905	85.5	347.2	10.7	0.142
4-3700	4-3900	0.252	251.5	12.7	2.58	1.248	100.8	0.224	0.826	292.5	564.7	0.641	1.010	2.30	0.906	83.3	347.7	8.4	0.166
4-3700	4-3910	0.281	253.6	13.1	3.00	1.249	102.1	0.245	0.829	288.6	570.9	0.626	1.031	2.35	0.906	81.0	350.5	7.6	0.197
4-3700	4-3920	0.321	256.2	13.1	3.45	1.251	104.0	0.273	0.832	283.8	576.2	0.604	1.059	2.49	0.907	78.3	355.1	8.1	0.235
4-3700	4-3930	0.375	259.2	12.8	3.96	1.253	106.6	0.313	0.836	277.9	580.4	0.574	1.098	2.72	0.908	75.1	0.9	9.6	0.284
4-3700	4-4050	0.353	90.2	4.0	1.15	1.275	73.7	0.326	0.875	75.5	495.1	0.589	1.160	-2.67	0.908	106.7	246.2	-29.9	0.285
4-3700	4-4060	0.297	95.4	6.8	1.62	1.277	76.6	0.290	0.880	66.4	495.5	0.625	1.136	-2.46	0.912	104.4	257.0	-31.6	0.251
4-3700	4-4070	0.252	101.4	10.2	2.04	1.280	79.1	0.262	0.886	57.2	495.8	0.654	1.119	-2.34	0.916	102.7	268.2	-32.7	0.226
4-3700	4-4080	0.214	108.7	14.5	2.42	1.283	81.3	0.241	0.893	47.4	495.6	0.677	1.108	-2.30	0.921	101.5	279.9	-33.1	0.210
4-3700	4-4090	0.182	118.4	20.1	2.81	1.287	83.5	0.226	0.900	36.8	494.5	0.696	1.103	-2.32	0.927	100.9	292.3	-32.5	0.201
4-3700	4-4100	0.158	132.6	27.1	3.21	1.291	85.6	0.217	0.908	25.0	492.3	0.711	1.105	-2.41	0.934	100.7	305.2	-31.0	0.200
4-3700	4-4110	0.147	153.7	34.3	3.67	1.295	87.9	0.215	0.917	11.9	488.8	0.720	1.114	-2.58	0.942	101.0	318.1	-28.3	0.207
4-3700	4-4120	0.403	82.6	12.4	4.20	1.247	71.2	0.343	0.824	89.0	575.5	0.542	1.106	-2.86	0.877	74.6	189.4	-13.9	0.267
4-3700	4-4120	0.154	181.0	38.2	4.20	1.300	90.4	0.222	0.929	357.7	844.2	0.723	1.134	-2.86	0.952	101.3	330.8	-24.8	0.223
4-3700	4-4130	0.349	87.1	17.2	4.90	1.254	74.2	0.302	0.837	79.9	576.2	0.534	1.090	-3.32	0.891	76.7	197.6	-20.9	0.234
4-3700	4-4130	0.185	206.4	37.1	4.90	1.306	93.2	0.239	0.942	343.1	839.3	0.717	1.167	-3.32	0.963	103.3	342.8	-20.9	0.250
4-3700	4-4140	0.310	91.6	24.1	5.91	1.261	76.8	0.270	0.848	70.8	576.8	0.620	1.077	-4.11	0.903	78.4	205.6	-29.4	0.211
4-3700	4-4140	0.237	224.4	34.5	5.91	1.313	96.4	0.268	0.958	329.2	835.2	0.701	1.215	-4.11	0.974	105.3	354.1	-17.3	0.288
4-3700	4-4150	0.290	95.9	34.6	7.62	1.266	79.0	0.245	0.858	61.8	577.6	0.648	1.068	-5.61	0.913	79.5	212.9	-40.5	0.204
4-3700	4-4160	0.319	97.7	51.4	11.47	1.270	80.9	0.227	0.866	53.2	578.7	0.669	1.062	-9.26	0.922	80.2	218.2	-57.4	0.228
4-3700	4-4190	0.180	127.8	-44.0	-5.62	1.279	85.6	0.197	0.883	27.6	583.5	0.709	1.056	8.43	0.942	81.0	264.7	17.0	0.211
4-3700	4-4200	0.129	141.0	-22.9	-2.25	1.281	86.9	0.193	0.887	19.6	585.5	0.716	1.058	5.27	0.948	81.0	269.9	4.9	0.181
4-3700	4-4210	0.111	155.0	-7.8	-0.67	1.283	88.2	0.191	0.891	11.5	587.5	0.720	1.062	3.91	0.952	80.8	277.2	-1.7	0.175
4-3700	4-4220	0.108	170.3	3.4	0.29	1.284	89.4	0.192	0.895	3.4	589.5	0.723	1.067	3.19	0.956	80.5	285.3	-5.3	0.177

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3700	4-4230	0.114	185.9	10.9	0.96	1.386	90.8	0.196	0.898	355.2	951.4	0.722	1.074	2.76	0.959	80.1	293.7	-7.0	0.183
4-3700	4-4240	0.128	200.4	15.2	1.50	1.288	92.2	0.202	0.901	346.8	953.2	0.720	1.083	2.51	0.961	79.6	302.2	-7.4	0.192
4-3700	4-4250	0.149	212.9	17.1	1.95	1.289	93.7	0.211	0.904	338.2	954.8	0.714	1.095	2.36	0.965	78.9	310.9	-8.8	0.205
4-3700	4-4260	0.280	150.5	12.2	2.37	1.436	85.6	0.495	1.419	13.4	280.2	---	2.122	2.30	1.152	65.9	297.4	-15.9	0.479
4-3700	4-4260	0.177	223.4	17.5	2.37	1.290	95.4	0.224	0.907	329.4	956.2	0.704	1.110	2.30	0.964	78.0	319.5	-9.4	0.221
4-3700	4-4270	0.269	166.9	15.0	2.78	1.438	88.6	0.494	1.427	4.1	281.1	-	2.131	2.32	1.153	66.1	307.2	-13.0	0.478
4-3700	4-4270	0.211	232.1	17.1	2.78	1.292	97.4	0.241	0.910	320.4	957.4	0.690	1.129	2.32	0.965	78.9	328.2	-9.3	0.245
4-3700	4-4280	0.277	185.5	16.8	3.23	1.439	92.0	0.497	1.434	353.8	640.9	0.721	2.147	2.40	1.153	66.0	317.1	-11.0	0.484
4-3700	4-4280	0.255	239.6	16.2	3.21	1.293	99.7	0.265	0.913	311.0	958.1	0.671	1.155	2.40	0.965	75.3	336.9	-9.7	0.270
4-3700	4-4280	0.485	275.4	7.1	3.21	1.167	113.3	0.396	0.712	244.3	1251.7	0.439	0.994	2.40	0.788	95.3	62.8	26.1	0.240
4-3700	4-4290	0.484	275.6	8.2	3.68	1.165	113.2	0.394	0.709	244.3	1261.5	0.438	0.989	2.58	0.784	89.0	49.8	27.3	0.235
4-3700	4-4300	0.511	276.4	8.8	4.25	1.165	114.5	0.415	0.709	245.0	1270.3	0.415	1.002	2.39	0.779	82.9	40.8	24.7	0.264
4-3710	4-3780	0.535	253.2	12.1	4.57	1.478	108.3	0.636	1.732	312.3	447.3	0.631	---	-2.16	1.191	121.6	-7.2	-2.6	0.643
4-3710	4-3790	0.441	255.5	16.1	5.21	1.401	105.8	0.489	1.252	310.4	459.4	0.640	---	-2.65	1.097	117.0	13.1	0.2	0.518
4-3710	4-3800	0.378	257.0	22.3	6.28	1.350	103.6	0.389	1.062	309.2	464.1	0.649	---	-3.59	1.033	112.6	19.3	-0.7	0.421
4-3710	4-3810	0.351	259.2	33.5	8.66	1.314	101.8	0.319	0.966	308.5	473.3	0.658	---	-5.82	0.989	108.5	26.3	-6.0	0.351
4-3710	4-3820	0.490	273.6	60.8	19.66	1.290	100.3	0.269	0.911	308.4	483.3	0.666	---	-16.71	0.960	104.8	35.9	-31.8	0.391
4-3710	4-3830	0.372	266.4	-54.1	-13.86	1.274	99.3	0.236	0.876	307.9	493.1	0.671	---	16.96	0.940	101.6	353.7	51.5	0.361
4-3710	4-3840	0.213	257.6	-15.3	-2.58	1.263	98.4	0.212	0.857	308.2	503.4	0.676	---	5.82	0.928	98.7	17.2	37.0	0.203
4-3710	4-3850	0.192	257.2	-1.2	-0.19	1.256	97.8	0.196	0.845	308.4	513.7	0.679	---	3.56	0.920	96.0	19.9	-31.5	0.156
4-3710	4-3860	0.184	257.4	6.1	0.90	1.252	97.5	0.182	0.837	308.3	523.7	0.681	---	2.62	0.915	93.7	17.0	27.8	0.128
4-3710	4-3870	0.184	257.9	10.5	1.55	1.250	97.4	0.183	0.833	307.7	533.3	0.683	---	2.13	0.913	91.5	10.6	23.5	0.113
4-3710	4-3880	0.188	258.8	13.3	2.00	1.249	97.6	0.183	0.831	306.5	542.3	0.679	0.983	1.84	0.911	89.5	3.5	18.3	0.110
4-3710	4-3890	0.198	260.1	14.9	2.36	1.249	98.0	0.188	0.831	304.6	550.6	0.675	0.988	1.66	0.911	87.6	358.4	13.4	0.118
4-3710	4-3900	0.212	261.8	15.7	2.66	1.249	98.6	0.197	0.832	302.0	558.2	0.668	0.997	1.57	0.911	85.7	356.4	10.1	0.134
4-3710	4-3910	0.232	263.8	15.8	2.94	1.251	99.5	0.221	0.835	298.7	565.0	0.658	1.011	1.52	0.911	83.7	357.3	8.5	0.156
4-3710	4-3920	0.258	266.2	15.5	3.21	1.252	100.8	0.230	0.837	294.6	571.8	0.645	1.030	1.53	0.911	81.6	0.4	8.4	0.184
4-3710	4-3930	0.292	269.9	14.8	3.49	1.254	102.5	0.255	0.841	289.7	576.2	0.627	1.055	1.59	0.912	79.3	5.0	9.3	0.218
4-3710	4-3940	0.338	272.0	13.8	3.79	1.256	104.7	0.289	0.845	284.0	580.5	0.601	1.089	1.70	0.912	76.5	10.8	11.0	0.259
4-3710	4-3950	0.400	275.5	12.6	4.16	1.259	107.7	0.334	0.849	277.2	583.7	0.565	1.133	1.89	0.912	73.1	17.8	13.2	0.313
4-3710	4-3960	0.487	279.5	11.2	4.63	1.262	111.8	0.398	0.854	269.0	585.4	0.514	1.194	2.20	0.913	68.5	25.9	15.9	0.384
4-3710	4-3970	0.612	284.6	9.7	5.31	1.265	117.9	0.489	0.860	258.7	584.9	0.440	1.280	2.74	0.914	62.2	35.5	19.0	0.484
4-3710	4-3970	0.903	311.9	4.0	5.31	1.012	137.5	0.758	0.575	209.2	895.4	0.139	1.011	2.74	0.509	163.9	120.5	23.2	0.517
4-3710	4-3980	0.936	313.4	4.5	6.46	0.998	139.6	0.782	0.566	207.4	903.1	0.123	1.009	3.75	0.476	79.0	106.1	25.9	0.542
4-3710	4-4040	0.605	93.0	1.4	0.78	1.272	61.3	0.503	0.873	101.3	495.4	0.434	1.312	-2.72	0.907	118.8	236.8	-24.6	0.473
4-3710	4-4040	0.605	93.0	1.4	0.78	1.272	61.3	0.503	0.873	101.3	495.4	0.434	1.312	-2.72	0.907	118.8	236.8	-24.6	0.473
4-3710	4-4050	0.483	98.9	3.5	1.44	1.275	67.4	0.418	0.879	89.6	493.2	0.512	1.246	-2.21	0.911	113.1	248.6	-26.8	0.365
4-3710	4-4060	0.395	104.3	5.8	1.89	1.278	71.8	0.357	0.885	79.2	492.3	0.569	1.201	-1.90	0.915	109.2	260.0	-28.2	0.329
4-3710	4-4070	0.328	109.8	8.5	2.25	1.281	75.2	0.313	0.891	69.4	492.0	0.612	1.170	-1.71	0.919	106.4	271.2	-28.8	0.283
4-3710	4-4080	0.275	115.9	11.7	2.55	1.284	78.1	0.280	0.897	59.5	491.7	0.646	1.148	-1.60	0.924	104.4	282.6	-28.6	0.255
4-3710	4-4090	0.790	80.2	3.3	2.81	1.196	50.8	0.633	0.751	126.7	568.4	0.275	1.226	-1.54	0.800	55.8	168.1	3.1	0.548
4-3710	4-4090	0.232	123.3	15.6	2.81	1.287	80.6	0.255	0.903	49.3	491.1	0.673	1.134	-1.54	0.930	103.0	294.0	-27.7	0.233
4-3710	4-4100	0.703	83.7	4.3	3.07	1.208	55.5	0.569	0.768	119.8	571.1	0.531	1.205	-1.52	0.820	60.2	175.3	-0.4	0.484
4-3710	4-4100	0.196	132.9	20.5	3.07	1.290	82.9	0.238	0.910	38.5	489.8	0.694	1.127	-1.52	0.936	102.2	305.6	-25.9	0.221
4-3710	4-4110	0.620	87.3	5.7	3.33	1.220	59.9	0.507	0.785	112.6	573.4	0.387	1.183	-1.55	0.839	64.2	182.7	-4.2	0.424
4-3710	4-4110	0.169	146.4	26.3	3.33	1.293	85.1	0.227	0.918	26.8	487.7	0.710	1.126	-1.55	0.943	101.8	317.2	-23.3	0.217
4-3710	4-4120	0.542	91.0	7.4	3.61	1.231	63.9	0.448	0.801	104.9	575.5	0.448	1.160	-1.62	0.857	67.8	190.5	-8.3	0.369
4-3710	4-4120	0.153	165.9	32.3	3.61	1.298	87.5	0.223	0.927	14.0	484.6	0.720	1.134	-1.62	0.951	101.9	328.8	-20.0	0.220
4-3710	4-4130	0.471	94.9	9.6	3.92	1.240	67.7	0.3	0.817	96.9	577.1	0.495	1.139	-1.76	0.874	70.9	198.5	-12.8	0.320
4-3710	4-4130	0.153	191.3	35.6	3.92	1.302	89.9	0.2	0.937	0.5	480.8	0.724	1.151	-1.76	0.960	102.5	340.2	-16.1	0.232
4-3710	4-4140	0.408	99.0	12.6	4.31	1.249	73.0	0.347	0.881	88.5	578.5	0.542	1.120	-1.99	0.889	75.4	207.0	-17.6	0.279
4-3710	4-4140	0.174	216.1	34.3	4.31	1.307	92.6	0.241	0.950	346.7	836.8	0.720	1.179	-1.99	0.970	103.6	351.2	-11.9	0.252
4-3710	4-4150	0.355	103.3	16.6	4.84	1.256	73.9	0.308	0.843	79.9	579.7	0.584	1.103	-2.36	0.902	75.5	215.7	-23.0	0.247
4-3710	4-4150	0.215	234.9	30.8	4.84	1.313	95.5	0.265	0.964	335.4	833.2	0.708	1.220	-2.36	0.981	105.2	1.8	-7.9	0.283
4-3710	4-4160	0.314	107.8	22.5	5.64	1.262	76.5	0.276	0.854	71.1	580.8	0.618	1.090	-3.01	0.913	77.1	224.6	-29.6	0.223
4-3710	4-4160	0.273	247.8	28.0	5.64	1.320	98.7	0.299	0.980	321.0	830.7	0.687	1.273	-3.01	0.992	107.4	12.0	-4.5	0.322
4-3710	4-4170	0.291	112.2	32.0	7.13	1.267	78.7	0.252	0.863	62.4	582.0	0.646	1.081	-4.37	0.923	78.3	233.5	-38.8	0.212
4-3710	4-4170	0.348	257.2	27.6	7.13	1.327	102.1	0.341	0.998	309.8	829.4	0.658	1.338	-4.37	1.004	109.9	22.1	-2.8	0.471
4-3710	4-4180	0.321	114.0	50.0	11.31	1.271	80.6	0.233	0.871	53.7	583.3	0.668	1.074	-8.41	0.932	79.1	242.5	-56.7	0.233
4-3710	4-4190	0.456	265.8	33.5	11.31	1.334	105.8	0.388	1.018	299.9	829.4	0.622	1.413	-8.41	1.016	112.8	32.7	-6.2	0.439
4-3710	4-4200	0.199	133.9	-39.4	-5.71	1.277	84.0	0.208	0.884	36.3	586.1	0.700	1.067	8.86	0.945	80.1	270.8	15.5	0.229
4-3710	4-4200	0.563	272.8	-12.6	-5.71	1.349	113.5	0.494	1.060	262.5	832.4	0.537	1.584	8.88	1.040	119.4	39.6	30.9	0.552
4-3710	4-4210	0.545	114.2	-2.8	-1.16	1.424	68.1	0.572	1.359	62.7	262.7	---	2.136	4.46	1.137	58.5	253.8	-15.2	0.591
4-3710	4-4210	0.140	145.6	-10.6	-1.16	1.279	85.4	0.201	0.889	27.8	587.8	0.710	1.067	4.46	0.951	80.2	276.9	-0.3	0.187
4-3710	4-4210	0.635	276.1	-2.2	-1.16	1.356	117.5	0.541	1.083	275.0	834.9	0.490	1.675	4.46	1.051	122.8	52.7	25.9	0.598
4-3710	4-4220	0.496	118.7	1.1	0.41	1.426	70.6	0.556	1.372	56.1	266.2	---	2.134	3.03	1.141	60.1	262.3	-17.9	0.566
4-3710	4-4220	0.123	157.9	4.3	0.41	1.282	86.8	0.197	0.893	19.4	589.5	0.717	1.069	3.03	0.955	80.3	285.3	-6.5	0.180
4-3710	4-4230	0.450	123.9	3.8	1.24	1.428	73.2	0.540	1.383	49.3	269.5	---	2.131	2.35	1.145	61.5	271.2	-19.1	0.544
4-3710	4-4230	0.116	172.3	13.8	1.24	1.284	88.2	0.195	0.897	10.9	591.1	0.722	1.073	2.35	0.959	80.2	294.2	-9.0	0.180
4-3710	4-4240	0.406	130.1	6.1	1.78	1.430	75.7	0.527	1.394	42.2	272.6	---	2.130	1.97	1.148	62.8	280.4	-19.3	0.525
4-3710	4-4240	0.117	188.4	19.9	1.78	1.285	89.6	0.196	0.901	2.3	592.7	0.724	1.078	1.97	0.961	79.9	303.1	-9.6	0.185
4-3710	4-4250	0.365	137.5	8.4	2.18	1.432	78.3	0.516	1.405	34.7	275.4	---	2.129	1.74	1.150	63.9	289.7	-18.6	0.509
4-3710	4-4250	0.126	204.7	22.9	2.18	1.287	91.1	0.200	0.904	353.6	954.2	0.723	1.086	1.74	0.953	79.6	311.9	-8.9	0.192
4-3710	4-4260	0.329	146.7	10.9	2.51	1.434	81.0	0.507	1.414	26.9	277.7	---	2.131	1.61	1.151	64.8	299.0	-17.3	0.496
4-3710	4-4260	0.141	219.4	23.5	2.51	1.289	92.6	0.207	0.908	344.8	955.6	0.720	1.096	1.61	0.965	79.0	320.7	-7.4	0.203
4-3710	4-4270	0.298	158.3	13.5	2.79	1.435	83.8	0.500	1.423	18.6	279.6	---	2.135	1.54	1.152	65.5	308.3	-15.4	0.487
4-3710	4-4270	0.164	231.8	22.5	2.79	1.290	94.3	0.218	0.911	335.8	956.8	0.713	1.109	1.54	0.966	78.3	329.4	-5.3	0.216
4-3710	4-4280	0.278	172.9	16.0	3.06	1.437	86.8	0.496	1.431	9.7	280.8	---	2.142	1.52	1.152	65.9	317.7	-12.8	0.483
4-3710	4-4280	0.193	242.1	20.8	3.06	1.292	96.1	0.232	0.914	326.7	957.8	0.702	1.126	1.52	0.966	77.4	338.0	-2.6	0.234
4-3710	4-4280	0.602	292.5	5.3	3.06	1.182	119.1	0.486	0.732	242.0	1233.1	0.376	1.088	1.52	0.815	111.2	99.8	26.2	0.382
4-3710	4-4280	0.701	294.3	4.3	3.06	1.191	124.0	0.559	0.744	238.4	1229.5	0.328	1.161	1.52	0.827	118.7	105.6	25.0	0.483

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3710	4-4290	0.274	190.5	17.8	3.34	1.438	90.0	0.497	1.439	340.0	641.1	0.724	2.154	1.55	1.152	66.0	327.1	-9.7	0.483
4-3710	4-4290	0.231	250.6	18.8	3.34	1.293	98.2	0.252	0.917	317.3	958.5	0.685	1.148	1.55	0.965	76.1	346.7	0.4	0.257
4-3710	4-4290	0.495	291.0	7.2	3.34	1.170	113.7	0.403	0.718	245.2	1246.4	0.429	1.007	1.55	0.794	98.9	86.3	28.2	0.253
4-3710	4-4300	0.291	209.5	18.2	3.63	1.439	93.6	0.502	1.446	349.2	640.4	0.720	2.173	1.63	1.152	65.6	336.8	-5.9	0.492
4-3710	4-4300	0.278	257.9	16.8	3.65	1.294	100.7	0.330	0.920	307.6	958.8	0.662	1.177	1.63	0.965	74.4	355.4	3.8	0.287
4-3710	4-4300	0.477	291.0	8.2	3.63	1.167	112.8	0.388	0.715	245.4	1256.6	0.437	0.992	1.63	0.787	92.1	72.9	28.3	0.225
4-3710	4-4310	0.336	227.8	17.1	3.96	1.440	97.8	0.515	1.453	337.0	638.3	0.705	2.202	1.78	1.151	64.6	346.9	-1.7	0.511
4-3710	4-4310	0.338	264.4	14.9	3.96	1.295	103.8	0.317	0.922	297.4	958.6	0.630	1.215	1.78	0.964	72.0	4.5	7.4	0.327
4-3710	4-4310	0.489	291.4	8.7	3.96	1.166	113.4	0.398	0.713	244.6	1265.8	0.429	0.997	1.78	0.781	86.2	61.3	26.8	0.238
4-3720	4-3780	0.588	262.3	9.4	3.69	1.563	108.0	0.796	3.172	319.3	438.4	0.647	---	-0.72	1.297	123.9	10.5	3.4	0.744
4-3720	4-3790	0.468	264.8	11.6	3.85	1.457	105.6	0.585	1.577	317.2	446.3	0.654	---	-0.83	1.170	119.4	15.8	5.2	0.591
4-3720	4-3800	0.382	266.6	14.5	4.06	1.387	103.3	0.448	1.200	315.8	454.8	0.662	---	-0.96	1.084	114.9	21.3	6.8	0.474
4-3720	4-3810	0.320	267.8	16.2	4.38	1.340	101.4	0.356	1.040	315.0	464.0	0.670	---	-1.22	1.026	110.7	26.7	7.7	0.382
4-3720	4-3820	0.278	268.6	23.6	4.97	1.308	99.8	0.292	0.956	314.7	473.7	0.677	---	-1.75	0.986	106.9	32.0	7.3	0.309
4-3720	4-3830	0.262	269.7	33.8	6.57	1.287	98.5	0.247	0.908	314.9	483.9	0.683	---	-3.30	0.960	103.4	37.8	2.0	0.254
4-3720	4-3850	0.178	267.3	-3.5	-0.49	1.263	96.8	0.196	0.860	315.7	505.0	0.692	---	3.88	0.931	97.6	29.0	34.5	0.173
4-3720	4-3860	0.169	267.3	11.6	1.56	1.257	96.4	0.182	0.849	316.0	515.5	0.694	---	1.88	0.924	95.2	30.8	26.4	0.134
4-3720	4-3870	0.167	267.6	16.9	2.23	1.253	96.2	0.175	0.842	315.9	525.6	0.695	---	1.27	0.920	93.0	26.5	22.1	0.112
4-3720	4-3880	0.168	268.3	19.5	2.58	1.251	96.2	0.173	0.839	315.2	535.0	0.694	---	0.98	0.918	91.0	19.3	17.7	0.102
4-3720	4-3890	0.173	269.5	20.6	2.81	1.251	96.4	0.174	0.838	313.8	543.8	0.692	0.984	0.82	0.917	89.2	12.1	13.2	0.102
4-3720	4-3900	0.182	271.1	20.7	2.98	1.251	96.8	0.179	0.839	311.6	551.8	0.688	0.989	0.72	0.916	87.5	7.4	9.7	0.112
4-3720	4-3910	0.195	273.1	20.2	3.11	1.252	97.5	0.188	0.840	308.7	559.1	0.682	0.998	0.67	0.916	85.7	5.9	7.8	0.128
4-3720	4-3920	0.213	275.5	19.2	3.23	1.253	98.4	0.201	0.843	305.1	565.6	0.674	1.012	0.64	0.916	84.0	7.2	7.3	0.149
4-3720	4-3930	0.236	278.2	17.8	3.34	1.255	99.5	0.217	0.845	300.8	571.4	0.662	1.030	0.63	0.916	82.1	10.4	8.9	0.174
4-3720	4-3940	0.266	281.2	16.2	3.45	1.257	101.1	0.240	0.850	295.8	576.4	0.646	1.053	0.62	0.916	80.0	15.1	9.5	0.204
4-3720	4-3950	0.305	284.4	14.5	3.57	1.259	103.0	0.269	0.854	290.1	580.6	0.625	1.083	0.67	0.916	77.6	21.0	11.5	0.240
4-3720	4-3960	0.357	287.9	12.7	3.73	1.262	105.6	0.307	0.858	283.5	584.0	0.595	1.122	0.73	0.916	74.7	27.9	13.9	0.285
4-3720	4-3970	0.428	291.9	10.9	3.87	1.264	109.0	0.359	0.863	275.8	586.2	0.553	1.173	0.82	0.916	71.0	35.8	16.4	0.343
4-3720	4-3980	0.527	296.4	9.0	4.09	1.267	113.9	0.432	0.868	266.6	586.7	0.493	1.243	0.98	0.917	65.9	45.0	19.1	0.422
4-3720	4-3980	0.930	326.6	3.0	4.09	1.037	138.8	0.767	0.594	210.3	840.4	0.139	1.050	0.98	0.557	117.6	144.2	15.1	0.558
4-3720	4-3990	0.672	302.3	7.2	4.42	1.270	121.0	0.535	0.874	254.9	584.8	0.406	1.343	1.25	0.919	58.7	55.9	21.6	0.535
4-3720	4-3990	0.983	327.5	3.5	4.42	1.011	136.5	0.747	0.576	209.7	899.6	0.146	1.006	1.25	0.502	91.1	127.6	20.3	0.492
4-3720	4-4000	0.971	329.4	3.2	5.02	1.004	141.7	0.802	0.572	206.3	905.9	0.113	1.031	1.80	0.484	67.6	117.6	22.4	0.579
4-3720	4-4050	0.718	105.1	3.1	2.14	1.274	55.9	0.579	0.882	109.4	497.0	0.371	1.393	-1.35	0.913	124.4	247.1	-23.6	0.564
4-3720	4-4060	0.559	111.8	5.2	2.51	1.278	63.8	0.471	0.889	95.6	492.8	0.470	1.307	-1.04	0.928	116.9	260.2	-25.0	0.448
4-3720	4-4070	0.448	117.8	7.4	2.74	1.281	69.4	0.394	0.895	83.9	490.6	0.542	1.248	-0.86	0.922	111.9	272.3	-25.4	0.371
4-3720	4-4080	0.367	123.6	9.8	2.92	1.284	73.5	0.340	0.901	73.1	489.3	0.595	1.207	-0.75	0.927	108.5	283.8	-24.9	0.318
4-3720	4-4090	0.304	129.9	12.7	3.05	1.286	76.8	0.300	0.907	62.6	488.4	0.635	1.179	-0.69	0.932	106.1	295.0	-23.7	0.282
4-3720	4-4100	0.254	137.3	16.1	3.17	1.289	79.6	0.271	0.913	52.8	487.4	0.666	1.161	-0.65	0.938	104.5	306.0	-21.7	0.257
4-3720	4-4110	0.778	97.1	4.0	3.28	1.202	51.5	0.623	0.761	125.1	570.1	0.287	1.236	-0.63	0.815	55.9	185.1	-3.1	0.545
4-3720	4-4110	0.213	146.6	20.2	3.28	1.293	82.1	0.250	0.920	40.9	485.9	0.690	1.151	-0.63	0.944	103.4	316.9	-19.0	0.242
4-3720	4-4120	0.694	100.6	4.9	3.39	1.213	56.0	0.561	0.778	118.2	572.8	0.341	1.215	-0.63	0.835	60.0	192.5	-6.4	0.484
4-3720	4-4120	0.181	159.4	25.0	3.39	1.296	84.5	0.237	0.928	29.2	483.8	0.708	1.148	-0.63	0.951	102.8	327.7	-15.7	0.234
4-3720	4-4130	0.613	104.1	6.1	3.50	1.224	60.3	0.501	0.795	111.0	575.4	0.396	1.193	-0.65	0.854	63.8	200.1	-9.7	0.427
4-3720	4-4130	0.159	177.4	29.8	3.50	1.300	86.9	0.231	0.936	16.7	481.0	0.720	1.153	-0.65	0.959	102.7	338.4	-11.9	0.234
4-3720	4-4140	0.538	107.8	7.5	3.62	1.234	64.2	0.445	0.810	103.5	577.6	0.450	1.171	-0.69	0.871	67.2	208.2	-13.2	0.375
4-3720	4-4140	0.153	200.9	32.5	3.62	1.304	89.3	0.233	0.946	3.6	477.7	0.725	1.167	-0.69	0.968	103.1	349.0	-7.7	0.241
4-3720	4-4150	0.469	111.6	9.3	3.76	1.243	67.8	0.394	0.825	95.7	579.6	0.500	1.150	-0.76	0.887	70.2	216.7	-16.6	0.329
4-3720	4-4150	0.166	225.4	31.1	3.76	1.309	91.9	0.244	0.957	350.4	834.3	0.723	1.191	-0.76	0.977	103.9	359.4	-3.3	0.257
4-3720	4-4160	0.407	115.7	11.5	3.94	1.251	71.0	0.349	0.838	87.5	581.3	0.546	1.131	-0.87	0.901	72.6	225.7	-19.9	0.290
4-3720	4-4160	0.198	245.0	27.1	3.94	1.314	94.7	0.264	0.970	337.4	831.2	0.714	1.226	-0.87	0.987	105.2	9.6	0.9	0.281
4-3720	4-4170	0.354	120.0	14.4	4.19	1.257	73.9	0.311	0.850	79.1	582.9	0.586	1.115	-1.06	0.913	74.7	235.2	-23.3	0.258
4-3720	4-4170	0.245	258.9	22.9	4.19	1.320	97.7	0.293	0.985	325.2	829.0	0.696	1.273	-1.06	0.997	107.0	19.6	4.8	0.313
4-3720	4-4180	0.310	124.6	18.5	4.61	1.263	76.4	0.280	0.861	70.6	584.3	0.619	1.102	-1.42	0.924	76.2	245.0	-27.0	0.234
4-3720	4-4180	0.306	268.7	20.0	4.61	1.326	100.9	0.330	1.001	314.1	827.8	0.671	1.332	-1.42	1.009	109.3	29.5	8.0	0.353
4-3720	4-4190	0.278	129.5	25.3	5.49	1.268	78.6	0.256	0.870	61.9	585.6	0.647	1.092	-2.24	0.933	77.4	255.1	-32.2	0.217
4-3720	4-4190	0.377	276.2	19.1	5.49	1.333	104.4	0.374	1.019	304.0	827.7	0.638	1.401	-2.24	1.020	111.9	39.4	9.8	0.401
4-3720	4-4200	0.291	132.9	43.2	9.13	1.272	80.6	0.237	0.877	53.2	587.0	0.670	1.085	-5.83	0.941	78.3	266.8	-48.2	0.223
4-3720	4-4200	0.475	283.1	25.2	9.13	1.340	108.0	0.422	1.039	294.9	828.7	0.601	1.477	-5.83	1.031	114.8	49.9	6.1	0.461
4-3720	4-4210	0.221	142.4	-34.2	-5.64	1.275	82.4	0.222	0.884	44.4	588.4	0.688	1.080	9.00	0.947	79.0	277.2	13.3	0.245
4-3720	4-4210	0.527	286.5	-13.5	-5.64	1.347	111.8	0.473	1.060	286.5	830.5	0.559	1.561	9.00	1.042	118.0	51.1	35.0	0.529
4-3720	4-4220	0.578	127.7	1.9	0.84	1.422	66.4	0.586	1.360	66.7	260.9	---	2.156	2.57	1.138	57.5	264.9	-19.3	0.610
4-3720	4-4220	0.161	152.5	6.7	0.84	1.278	84.0	0.211	0.890	35.6	589.8	0.702	1.078	2.57	0.953	79.4	285.0	-10.0	0.191
4-3720	4-4220	0.596	290.0	1.7	0.84	1.354	115.7	0.525	1.081	278.8	832.9	0.514	1.649	2.57	1.052	121.3	65.3	25.6	0.566
4-3720	4-4230	0.529	131.0	4.9	1.95	1.424	69.0	0.568	1.373	60.2	264.5	---	2.153	1.52	1.142	59.1	273.8	-20.8	0.564
4-3720	4-4230	0.145	162.8	17.3	1.95	1.281	85.5	0.204	0.895	26.9	591.2	0.712	1.078	1.52	0.957	79.6	294.6	-13.7	0.186
4-3720	4-4240	0.483	136.6	6.8	2.42	1.427	71.6	0.552	1.385	53.4	267.9	---	2.150	1.11	1.146	60.6	282.9	-20.9	0.562
4-3720	4-4240	0.134	175.6	23.8	2.42	1.283	87.0	0.200	0.900	18.1	592.6	0.719	1.080	1.11	0.960	79.7	304.0	-14.0	0.186
4-3720	4-4250	0.437	142.2	8.5	2.70	1.429	74.1	0.537	1.397	46.4	271.1	---	2.147	0.89	1.148	62.0	292.1	-20.2	0.541
4-3720	4-4250	0.129	190.9	28.0	2.70	1.285	88.5	0.199	0.904	9.2	593.9	0.724	1.084	0.89	0.963	79.7	313.2	-12.9	0.189
4-3720	4-4260	0.394	148.9	10.3	2.89	1.431	76.7	0.525	1.408	39.2	274.0	---	2.146	0.77	1.150	63.2	301.5	-18.8	0.524
4-3720	4-4260	0.130	207.8	30.0	2.89	1.287	90.0	0.201	0.908	0.2	595.1	0.725	1.090	0.77	0.965	79.5	322.2	-11.0	0.194
4-3720	4-4270	0.355	157.0	12.2	3.04	1.432	79.4	0.514	1.418	31.5	276.6	---	2.146	0.69	1.151	64.3	310.3	-16.8	0.509
4-3720	4-4270	0.139	224.4	29.5	3.04	1.288	91.5	0.205	0.911	351.2	956.2	0.724	1.098	0.69	0.966	79.1	330.9	-8.4	0.203
4-3720	4-4280	0.320	167.2	14.2	3.17	1.434	82.2	0.506	1.427	23.5	278.6	---	2.149	0.65	1.152	65.1	319.3	-14.4	0.497
4-3720	4-4280	0.155	238.9	27.4	3.17	1.290	93.1	0.214	0.915	342.1	957.3	0.719	1.110	0.65	0.966	78.5	339.5	-6.5	0.214
4-3720	4-4290	0.292	180.0	16.3	3.28	1.436	85.0	0.500	1.436	14.9	280.2	---	2.154	0.63	1.152	65.6	328.3	-11.4	0.489
4-3720	4-4290	0.178	251.0	24.4	3.28	1.291	94.9	0.226	0.918	332.9	958.1	0.711	1.125	0.63	0.966	77.7	348.1	-2.3	0.228
4-3720	4-4300	0.277	195.9	17.8	3.39	1.437	88.1	0.498	1.444	5.7	281.0	---	2.163	0.63	1.151	65.9	337.3	-8.0	0.486
4-3720	4-4300	0.210	260.8	21.3	3.39	1.293	96.9	0.242	0.921	323.5	958.8	0.698	1.144	0.63	0.965	76.7	356.6	1.2	0.247

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3720	4-4300	0.518	306.8	7.0	3.39	1.175	114.9	0.421	0.726	245.3	1240.6	0.420	1.032	0.63	0.801	103.1	108.8	24.1	0.284
4-3720	4-4310	0.280	214.3	18.3	3.51	1.438	91.5	0.501	1.451	355.5	640.9	0.725	2.178	0.65	1.151	65.8	346.5	-4.3	0.489
4-3720	4-4310	0.250	268.9	18.3	3.51	1.294	99.2	0.265	0.924	313.9	959.2	0.679	1.169	0.65	0.964	75.2	5.3	4.7	0.272
4-3720	4-4310	0.477	306.4	7.9	3.51	1.170	112.9	0.389	0.720	246.2	1251.5	0.440	1.001	0.65	0.790	95.3	96.4	25.6	0.227
4-3720	4-4320	0.307	233.1	17.2	3.63	1.439	95.3	0.509	1.458	344.3	639.6	0.716	2.201	0.69	1.150	65.2	356.1	-0.1	0.501
4-3720	4-4320	0.301	276.0	15.5		1.295	101.9	0.296	0.927	303.9	959.2	0.652	1.201	0.69	0.963	73.3	14.3	8.4	0.304
4-3720	4-4320	0.475	306.6	8.3	3	1.168	112.8	0.388	0.718	245.9	1261.1	0.440	0.997	0.69	0.784	89.3	83.6	25.8	0.221
4-3730	4-4000	0.862	341.9	2.5	2.96	1.027	135.2	0.729	0.589	211.7	895.4	0.160	1.018	-0.52	0.532	102.0	148.9	12.0	0.480
4-3730	4-4010	0.888	343.1	2.2	2.76	1.015	136.9	0.750	0.580	209.8	903.2	0.145	1.016	-0.69	0.505	80.4	136.1	16.0	0.500
4-3730	4-4070	0.657	124.1	6.5	3.90	1.280	59.2	0.537	0.898	103.0	493.8	0.416	1.380	0.61	0.924	121.7	270.4	-22.5	0.527
4-3730	4-4080	0.515	130.8	8.6	3.75	1.283	66.3	0.440	0.904	89.5	489.9	0.506	1.302	0.48	0.929	115.2	283.2	-21.9	0.426
4-3730	4-4090	0.415	137.0	10.8	3.64	1.286	71.4	0.372	0.911	77.7	487.5	0.572	1.250	0.41	0.934	110.9	294.9	-20.5	0.360
4-3730	4-4100	0.339	143.5	13.2	3.56	1.289	75.3	0.324	0.917	66.4	485.9	0.620	1.214	0.36	0.940	107.9	305.9	-18.3	0.314
4-3730	4-4110	0.280	150.8	16.0	3.50	1.292	78.5	0.289	0.923	55.3	484.4	0.656	1.190	0.33	0.946	105.9	316.6	-15.5	0.283
4-3730	4-4120	0.232	159.8	19.3	3.44	1.295	81.2	0.264	0.930	43.9	482.6	0.684	1.175	0.32	0.953	104.5	327.0	-12.1	0.263
4-3730	4-4130	0.765	114.0	4.2	3.39	1.207	52.3	0.613	0.772	123.3	571.8	0.299	1.245	0.31	0.832	56.0	202.5	-9.0	0.543
4-3730	4-4150	0.194	171.8	23.1	3.59	1.298	83.8	0.248	0.937	32.0	480.5	0.705	1.170	0.31	0.960	103.7	337.2	-8.3	0.251
4-3730	4-4140	0.683	117.4	5.0	3.34	1.218	56.7	0.553	0.788	116.5	574.7	0.353	1.224	0.31	0.851	60.0	210.2	-11.8	0.484
4-3730	4-4140	0.167	188.3	26.9	3.34	1.302	86.2	0.240	0.945	19.7	477.9	0.718	1.172	0.31	0.967	103.4	347.4	-4.1	0.248
4-3730	4-4150	0.604	121.0	5.8	3.20	1.229	60.8	0.495	0.804	109.3	577.4	0.406	1.202	0.33	0.869	63.7	218.3	-14.4	0.430
4-3730	4-4150	0.154	210.1	29.0	3.28	1.306	88.7	0.240	0.954	6.9	474.9	0.726	1.183	0.33	0.975	103.6	357.5	0.3	0.251
4-3730	4-4160	0.531	124.7	6.8	3.22	1.238	64.6	0.440	0.819	101.9	579.8	0.459	1.180	0.35	0.886	66.9	226.8	-16.8	0.380
4-3730	4-4160	0.159	234.1	27.5	3.22	1.310	91.2	0.247	0.964	354.0	831.9	0.726	1.203	0.35	0.984	104.2	7.6	4.7	0.263
4-3730	4-4170	0.463	128.5	7.9	3.14	1.246	68.1	0.391	0.833	94.2	582.0	0.507	1.159	0.39	0.900	69.7	235.9	-16.7	0.337
4-3730	4-4170	0.183	254.7	23.1	3.14	1.315	93.9	0.264	0.976	341.4	829.2	0.719	1.234	0.39	0.993	105.3	17.8	9.0	0.282
4-3730	4-4180	0.402	132.6	9.0	3.04	1.253	71.2	0.348	0.846	86.1	584.0	0.551	1.141	0.46	0.913	72.1	245.4	-20.2	0.300
4-3730	4-4180	0.223	269.7	18.1	3.04	1.320	96.7	0.289	0.990	329.4	827.3	0.704	1.276	0.46	1.003	106.8	27.9	13.0	0.308
4-3730	4-4190	0.348	137.1	10.1	2.89	1.260	74.0	0.312	0.858	77.8	585.7	0.590	1.125	0.58	0.925	74.1	255.2	-20.8	0.269
4-3730	4-4190	0.276	280.4	13.8	2.89	1.326	99.8	0.322	1.005	318.3	826.2	0.682	1.328	0.58	1.013	108.7	37.9	16.6	0.343
4-3730	4-4200	0.300	341.9	10.8	2.61	1.265	76.5	0.282	0.868	69.3	587.3	0.623	1.112	0.83	0.934	75.6	265.3	-20.3	0.245
4-3730	4-4200	0.337	288.3	10.1	2.61	1.332	103.1	0.361	1.022	308.2	826.1	0.653	1.391	0.83	1.023	111.1	47.8	20.0	0.384
4-3730	4-4210	0.257	147.5	9.3	1.91	1.270	78.7	0.258	0.876	60.6	588.7	0.651	1.102	1.50	0.942	76.9	275.2	-17.3	0.228
4-3730	4-4210	0.405	294.4	6.1	1.91	1.338	106.5	0.406	1.040	298.9	827.0	0.618	1.462	1.50	1.033	113.8	57.5	23.5	0.431
4-3730	4-4220	0.259	151.8	-34.0	-6.61	1.274	80.7	0.239	0.884	51.9	590.1	0.673	1.095	10.00	0.949	77.2	284.5	13.7	0.272
4-3730	4-4220	0.499	300.4	-17.0	-6.61	1.345	110.1	0.454	1.060	290.5	828.7	0.579	1.540	10.00	1.043	116.7	62.6	39.3	0.511
4-3730	4-4230	0.220	159.7	33.4	5.48	1.277	82.5	0.224	0.891	42.9	593.4	0.691	1.091	-2.12	0.954	78.5	297.5	-30.8	0.207
4-3730	4-4230	0.569	304.4	12.0	5.48	1.352	113.9	0.504	1.080	282.6	831.0	0.536	1.625	-2.12	1.052	119.9	78.1	19.4	0.539
4-3730	4-4240	0.185	169.2	31.1	4.30	1.280	84.2	0.214	0.897	34.0	592.6	0.705	1.088	-0.97	0.958	78.9	306.2	-24.0	0.199
4-3730	4-4240	0.645	308.0	8.0	4.30	1.358	117.7	0.554	1.102	275.2	833.8	0.491	1.712	-0.97	1.061	123.2	87.5	22.0	0.595
4-3730	4-4250	0.163	180.5	32.7	3.94	1.282	85.8	0.207	0.902	25.0	593.8	0.715	1.089	-0.64	0.962	79.2	315.3	-20.2	0.195
4-3730	4-4260	0.148	194.4	34.6	3.76	1.284	87.3	0.204	0.906	15.9	594.9	0.722	1.091	-0.49	0.964	79.3	324.3	-16.7	0.197
4-3730	4-4270	0.141	210.7	35.5	3.65	1.286	88.9	0.203	0.911	6.8	595.9	0.726	1.096	-0.41	0.965	79.3	333.0	-13.2	0.200
4-3730	4-4280	0.141	228.2	34.6	3.56	1.288	90.4	0.206	0.914	357.6	956.8	0.726	1.101	-0.36	0.966	79.0	341.5	-9.6	0.205
4-3730	4-4290	0.149	244.6	31.7	3.50	1.290	92.0	0.211	0.918	348.3	957.7	0.724	1.112	-0.33	0.966	78.6	350.0	-5.9	0.213
4-3730	4-4300	0.166	258.6	27.7	3.44	1.291	93.8	0.221	0.922	339.0	958.5	0.718	1.125	-0.32	0.966	78.0	358.3	-2.2	0.225
4-3730	4-4310	0.191	270.0	23.4	3.38	1.293	95.6	0.235	0.925	329.6	959.1	0.708	1.142	-0.31	0.965	77.1	6.8	1.6	0.240
4-3730	4-4310	0.586	323.4	6.0	3.38	1.184	118.3	0.475	0.740	243.6	1233.1	0.389	1.091	-0.31	0.813	110.4	131.0	17.5	0.363
4-3730	4-4310	0.695	325.5	4.8	3.38	1.194	123.7	0.556	0.754	239.4	1228.9	0.335	1.173	-0.31	0.828	118.7	137.2	15.9	0.474
4-3730	4-4320	0.224	279.3	19.4	3.33	1.294	97.8	0.254	0.928	320.1	959.5	0.692	1.163	-0.31	0.964	75.9	15.4	5.3	0.260
4-3730	4-4320	0.485	321.9	7.4	3.33	1.174	113.4	0.397	0.727	246.7	1246.1	0.439	1.016	-0.31	0.795	98.8	118.6	19.8	0.242
4-3730	4-4330	0.268	287.1	15.8	3.27	1.296	100.2	0.280	0.931	310.3	959.6	0.671	1.191	-0.33	0.963	74.3	24.3	9.0	0.287
4-3730	4-4330	0.468	321.8	7.6	3.27	1.171	112.5	0.383	0.724	246.9	1256.2	0.446	1.001	-0.33	0.787	92.3	106.1	21.4	0.215
4-3740	4-3790	0.564	279.3	8.5	3.01	1.624	103.9	0.924	9.015	332.1	429.5	0.687	---	1.23	1.375	123.2	23.3	11.7	0.784
4-3740	4-3800	0.428	282.4	9.6	2.79	1.494	101.5	0.643	1.932	330.3	437.6	0.690	---	1.28	1.221	118.9	27.9	13.9	0.610
4-3740	4-3810	0.332	284.3	10.7	2.54	1.410	99.7	0.471	1.313	329.3	446.5	0.695	---	1.37	1.119	114.6	32.6	16.3	0.481
4-3740	4-3820	0.264	285.0	11.4	2.24	1.355	98.1	0.360	1.093	329.0	456.3	0.700	---	1.54	1.051	110.4	37.2	18.9	0.383
4-3740	4-3830	0.214	285.8	11.3	1.84	1.318	96.7	0.286	0.988	329.5	466.8	0.705	---	1.80	1.005	106.6	41.3	21.9	0.306
4-3740	4-3840	0.177	283.8	9.2	1.25	1.294	95.5	0.237	0.929	330.5	477.9	0.709	---	2.27	0.975	103.2	44.2	26.0	0.245
4-3740	4-3850	0.150	282.5	1.8	0.21	1.278	94.7	0.203	0.895	331.8	489.4	0.713	---	3.20	0.955	100.2	44.7	32.8	0.200
4-3740	4-3860	0.143	281.4	-22.1	-2.44	1.267	94.0	0.182	0.874	333.2	500.9	0.715	---	5.74	0.943	97.6	37.6	47.6	0.182
4-3740	4-3870	0.588	358.7	-80.4	-27.44	1.261	93.6	0.168	0.862	334.6	512.2	0.717	---	30.63	0.935	95.3	336.4	64.7	0.528
4-3740	4-3880	0.273	290.4	68.3	11.66	1.257	93.5	0.161	0.855	334.0	522.2	0.717	---	-8.58	0.930	93.3	57.2	-32.6	0.178
4-3740	4-3890	0.186	283.9	53.6	6.85	1.255	93.5	0.158	0.851	333.6	532.0	0.717	---	-3.86	0.927	91.5	46.6	-17.6	0.113
4-3740	4-3900	0.165	284.3	45.8	5.42	1.254	93.7	0.158	0.850	332.2	540.7	0.716	0.985	-2.56	0.925	89.9	36.7	-11.1	0.101
4-3740	4-3910	0.159	286.3	40.1	4.69	1.255	94.0	0.161	0.851	330.0	548.6	0.714	0.988	-1.96	0.924	88.4	29.3	-7.1	0.103
4-3740	4-3920	0.160	289.2	35.2	4.24	1.256	94.6	0.167	0.853	327.0	555.7	0.711	0.995	-1.62	0.923	86.9	25.4	-3.9	0.113
4-3740	4-3930	0.167	292.5	30.7	3.91	1.257	95.2	0.175	0.856	323.3	562.1	0.706	1.005	-1.43	0.923	85.5	24.8	-0.9	0.127
4-3740	4-3940	0.179	296.2	26.4	3.64	1.259	96.1	0.186	0.859	319.0	567.9	0.699	1.019	-1.31	0.923	84.1	26.7	2.1	0.144
4-3740	4-3950	0.195	300.1	22.4	3.41	1.261	97.2	0.200	0.863	314.1	573.0	0.691	1.035	-1.25	0.922	82.6	30.3	4.9	0.164
4-3740	4-3960	0.218	304.0	18.7	3.19	1.263	98.5	0.217	0.867	308.8	577.5	0.679	1.055	-1.22	0.922	80.9	35.3	7.8	0.187
4-3740	4-3970	0.247	307.9	15.2	2.98	1.266	100.1	0.239	0.871	302.9	581.5	0.663	1.080	-1.24	0.922	79.1	41.3	10.5	0.214
4-3740	4-3980	0.285	311.9	12.1	2.76	1.268	102.1	0.267	0.876	296.4	584.8	0.642	1.110	-1.29	0.923	76.9	48.2	13.0	0.246
4-3740	4-3990	0.334	316.0	9.3	2.51	1.271	104.6	0.303	0.881	289.2	587.4	0.614	1.148	-1.39	0.923	74.3	56.0	15.3	0.286
4-3740	4-4000	0.400	320.4	6.7	2.22	1.273	107.9	0.351	0.886	281.2	589.1	0.575	1.197	-1.55	0.924	71.0	64.7	17.3	0.337
4-3740	4-4010	0.491	325.2	4.4	1.83	1.276	112.3	0.416	0.891	271.8	589.4	0.520	1.263	-1.81	0.925	66.6	74.4	18.9	0.406
4-3740	4-4010	0.877	356.6	1.5	1.83	1.048	136.0	0.732	0.605	213.0	890.6	0.162	1.049	-1.81	0.571	113.4	169.8	2.4	0.513
4-3740	4-4020	0.621	330.8	2.3	1.27	1.279	118.7	0.508	0.897	260.4	587.6	0.461	1.354	-2.25	0.927	60.3	85.5	19.8	0.505
4-3740	4-4020	0.840	357.3	1.1	1.27	1.028	134.1	0.716	0.590	212.4	899.6	0.168	1.013	-2.25	0.530	91.1	155.5	7.4	0.458
4-3740	4-4030	0.912	358.9	0.2	0.32	1.022	138.4	0.765	0.586	209.5	906.3	0.138	1.034	-3.10	0.515	70.8	146.0	10.6	0.531
4-3740	4-4090	0.601	143.1	9.5	4.97	1.286	62.4	0.497	0.913	96.3	490.4	0.459	1.367	2.18	0.936	119.2	292.6	-18.2	0.495

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3740	4-4100	0.475	149.9	11.4	4.45	1.289	68.7	0.412	0.920	83.0	486.7	0.541	1.299	1.77	0.942	113.7	304.7	-15.8	0.409
4-3740	4-4110	0.381	156.6	13.4	4.08	1.292	73.4	0.352	0.926	70.8	484.1	0.600	1.252	1.52	0.948	110.0	315.7	-12.8	0.351
4-3740	4-4120	0.310	164.0	15.6	3.79	1.295	77.1	0.309	0.932	59.1	482.0	0.644	1.221	1.37	0.954	107.4	326.1	-9.3	0.312
4-3740	4-4130	0.254	172.7	18.1	3.55	1.298	80.2	0.280	0.939	47.3	479.9	0.676	1.202	1.28	0.961	105.7	336.2	-5.5	0.286
4-3740	4-4140	0.210	183.9	20.9	3.33	1.301	82.9	0.260	0.946	35.3	477.7	0.700	1.192	1.23	0.968	104.7	346.2	-1.3	0.269
4-3740	4-4150	0.751	131.0	4.0	3.12	1.213	53.2	0.601	0.782	121.4	573.6	0.312	1.253	1.22	0.849	56.3	220.5	-14.1	0.541
4-3740	4-4150	0.677	199.1	23.6	3.12	1.304	85.5	0.249	0.954	22.9	475.2	0.716	1.191	1.22	0.975	104.2	356.1	3.1	0.262
4-3740	4-4160	0.670	134.4	4.5	2.91	1.224	57.5	0.542	0.798	114.6	576.6	0.365	1.231	1.25	0.867	60.2	228.7	-16.0	0.485
4-3740	4-4160	0.157	219.2	24.9	2.91	1.308	88.0	0.246	0.962	10.3	472.4	0.725	1.199	1.25	0.983	104.1	6.1	7.6	0.262
4-3740	4-4170	0.593	137.9	4.9	2.67	1.233	61.5	0.486	0.814	107.4	579.5	0.418	1.209	1.32	0.884	63.7	237.3	-17.6	0.433
4-3740	4-4170	0.154	242.4	23.3	2.67	1.312	90.5	0.252	0.972	357.7	829.7	0.727	1.216	1.32	0.991	104.5	16.2	12.0	0.269
4-3740	4-4180	0.521	141.6	5.2	2.40	1.242	65.2	0.434	0.828	100.0	582.0	0.469	1.188	1.44	0.899	66.8	246.3	-18.5	0.386
4-3740	4-4180	0.171	263.7	18.8	2.40	1.316	93.1	0.265	0.983	345.4	827.4	0.723	1.243	1.44	0.999	105.3	26.5	16.2	0.284
4-3740	4-4190	0.454	145.5	5.3	2.07	1.250	68.6	0.387	0.842	92.3	584.8	0.516	1.168	1.65	0.913	69.5	255.7	-18.7	0.344
4-3740	4-4190	0.205	280.1	13.4	2.07	1.321	95.8	0.286	0.995	333.6	825.6	0.711	1.280	1.65	1.008	106.6	36.9	20.1	0.306
4-3740	4-4200	0.394	149.7	4.8	1.60	1.257	71.6	0.345	0.854	84.3	586.4	0.559	1.149	1.99	0.924	71.8	265.2	-17.7	0.310
4-3740	4-4200	0.252	291.9	8.3	1.60	1.326	98.7	0.315	1.009	322.5	824.6	0.692	1.326	1.99	1.017	108.3	47.3	23.6	0.336
4-3740	4-4210	0.340	154.2	3.0	0.85	1.263	74.3	0.310	0.865	76.0	588.2	0.597	1.134	2.62	0.934	73.7	274.8	-15.0	0.282
4-3740	4-4210	0.309	300.6	3.6	0.85	1.332	101.8	0.350	1.024	312.4	824.6	0.666	1.383	2.62	1.026	110.4	57.7	27.1	0.373
4-3740	4-4220	0.293	159.2	-2.9	-0.68	1.268	76.8	0.281	0.875	67.5	589.8	0.629	1.121	4.04	0.943	75.3	284.0	-8.7	0.264
4-3740	4-4220	0.374	307.6	-2.3	-0.68	1.338	105.1	0.391	1.042	305.0	825.4	0.634	1.449	4.04	1.035	112.8	67.8	31.2	0.418
4-3740	4-4230	0.283	163.2	-28.1	-6.13	1.272	79.0	0.258	0.884	58.8	591.3	0.655	1.112	9.38	0.950	76.5	292.1	10.3	0.285
4-3740	4-4230	0.464	313.7	-17.1	-6.13	1.344	108.6	0.436	1.060	294.5	826.9	0.598	1.522	9.38	1.044	115.5	76.2	41.3	0.487
4-3740	4-4240	0.605	133.1	70.8	26.95	1.276	81.1	0.239	0.891	49.5	592.5	0.678	1.104	-23.81	0.955	77.5	557.1	-64.5	0.459
4-3740	4-4250	0.258	175.4	46.5	8.46	1.279	82.8	0.226	0.898	40.7	593.7	0.695	1.100	-5.43	0.959	78.1	323.1	-38.3	0.233
4-3740	4-4250	0.625	322.8	16.7	8.46	1.357	115.9	0.533	1.100	278.9	831.9	0.514	1.687	-5.43	1.061	121.7	98.5	14.6	0.574
4-3740	4-4260	0.557	162.3	14.4	6.02	1.425	68.4	0.575	1.389	61.2	264.4	---	2.188	-3.11	1.146	58.8	307.8	-24.7	0.603
4-3740	4-4260	0.204	186.7	41.0	6.02	1.282	84.5	0.216	0.904	31.6	594.8	0.708	1.099	-3.11	0.962	78.6	328.7	-27.3	0.215
4-3740	4-4270	0.505	167.3	13.5	5.03	1.427	71.1	0.559	1.401	54.4	267.8	---	2.184	-2.22	1.147	60.3	316.2	-20.7	0.578
4-3740	4-4270	0.175	199.2	39.8	5.03	1.284	86.2	0.210	0.909	22.4	595.7	0.718	1.100	-2.22	0.964	78.9	336.3	-20.7	0.209
4-3740	4-4280	0.456	172.9	13.5	4.46	1.429	73.7	0.544	1.413	47.4	270.9	---	2.182	-1.78	1.149	61.7	324.6	-17.5	0.556
4-3740	4-4280	0.157	214.2	39.5	4.46	1.286	87.8	0.207	0.913	13.1	596.6	0.724	1.103	-1.78	0.965	79.0	344.3	-15.5	0.208
4-3740	4-4290	0.411	179.5	13.9	4.07	1.431	76.3	0.531	1.424	40.1	273.7	---	2.180	-1.52	1.149	62.9	332.9	-14.3	0.537
4-3740	4-4290	0.148	231.3	38.2	4.07	1.288	89.3	0.208	0.918	3.8	597.4	0.727	1.108	-1.52	0.966	78.9	352.4	-10.6	0.211
4-3740	4-4300	0.368	187.4	14.5	3.77	1.433	79.0	0.520	1.434	32.5	276.1	---	2.180	-1.36	1.149	63.9	341.1	-10.9	0.521
4-3740	4-4300	0.148	248.9	35.1	3.77	1.290	91.0	0.211	0.922	354.5	958.1	0.727	1.116	-1.36	0.966	78.6	0.5	-6.3	0.216
4-3740	4-4310	0.331	197.2	15.3	3.53	1.434	81.7	0.512	1.444	24.6	278.2	---	2.182	-1.27	1.149	64.7	349.4	-7.4	0.508
4-3740	4-4310	0.157	264.8	30.4	3.53	1.292	92.7	0.218	0.925	345.1	958.7	0.723	1.127	-1.27	0.965	78.1	8.6	-2.1	0.224
4-3740	4-4320	0.300	209.5	15.9	3.30	1.436	84.6	0.506	1.453	16.1	279.6	---	2.187	-1.23	1.148	65.3	357.7	-3.8	0.498
4-3740	4-4320	0.175	278.0	25.2	3.30	1.293	94.5	0.229	0.929	335.7	959.3	0.715	1.142	-1.23	0.964	77.4	17.0	1.9	0.236
4-3740	4-4330	0.281	224.7	16.0	3.09	1.437	87.7	0.503	1.461	7.0	280.5	---	2.196	-1.22	1.148	65.6	6.3	-0.1	0.493
4-3740	4-4330	0.202	288.8	20.1	3.09	1.295	96.5	0.245	0.932	326.3	959.7	0.703	1.160	-1.22	0.963	76.4	25.5	5.7	0.252
4-3740	4-4330	0.508	337.7	6.5	3.09	1.179	114.6	0.416	0.735	246.8	1240.2	0.429	1.041	-1.22	0.801	103.0	138.9	12.3	0.275
4-3740	4-4330	0.816	343.7	3.5	3.09	1.208	129.8	0.642	0.775	234.5	1227.9	0.278	1.273	-1.22	0.844	126.8	158.4	7.5	0.587
4-3740	4-4340	0.278	242.4	15.0	2.88	1.438	90.9	0.505	1.469	357.2	640.5	0.727	2.210	-1.26	1.147	65.5	15.2	3.6	0.494
4-3740	4-4340	0.238	297.6	15.7	2.88	1.296	98.7	0.266	0.935	316.7	960.0	0.686	1.184	-1.26	0.962	75.1	34.3	9.2	0.274
4-3740	4-4340	0.467	337.1	6.7	2.88	1.174	112.6	0.384	0.729	247.8	1251.1	0.449	1.010	-1.26	0.790	95.5	127.5	14.3	0.220
4-3750	4-3800	0.467	287.1	8.9	2.66	1.570	99.6	0.802	3.556	338.4	429.9	0.705	---	2.04	1.314	120.5	31.8	16.4	0.697
4-3750	4-3810	0.348	289.5	9.6	2.30	1.457	98.1	0.558	1.600	337.2	438.7	0.708	---	2.08	1.178	116.2	36.2	18.7	0.540
4-3750	4-3820	0.266	290.4	9.9	1.91	1.384	96.6	0.408	1.202	337.0	446.5	0.711	---	2.19	1.089	112.0	40.6	21.2	0.424
4-3750	4-3830	0.208	289.8	9.4	1.46	1.337	95.3	0.313	1.041	337.7	459.2	0.715	---	2.39	1.031	108.0	44.7	24.3	0.336
4-3750	4-3840	0.167	288.0	7.1	0.90	1.306	94.1	0.251	0.959	339.1	470.7	0.718	---	2.73	0.992	104.5	47.9	28.1	0.267
4-3750	4-3850	0.138	285.5	1.2	0.13	1.285	93.3	0.210	0.913	341.0	482.8	0.721	---	3.29	0.967	101.3	49.5	33.4	0.216
4-3750	4-3860	0.122	282.8	-11.6	-1.10	1.272	92.6	0.184	0.886	343.0	494.9	0.724	---	4.33	0.951	98.5	47.6	41.9	0.180
4-3750	4-3870	0.132	281.0	-36.8	-3.58	1.264	92.2	0.168	0.870	344.6	506.6	0.724	---	6.62	0.941	96.1	36.7	55.7	0.173
4-3750	4-3880	0.274	287.9	-73.7	-12.06	1.259	91.9	0.158	0.861	345.7	517.8	0.725	---	14.91	0.934	94.0	354.0	69.6	0.274
4-3750	4-3900	0.266	291.5	72.9	11.70	1.256	92.2	0.153	0.855	343.6	536.5	0.724	---	-9.21	0.928	90.6	55.8	-38.7	0.179
4-3750	4-3910	0.190	288.4	60.3	7.55	1.256	92.4	0.154	0.855	341.7	544.6	0.723	0.986	-5.24	0.927	89.2	44.8	-27.2	0.127
4-3750	4-3920	0.165	290.9	51.1	5.86	1.257	92.8	0.158	0.857	338.9	551.9	0.721	0.992	-3.75	0.926	87.8	37.3	-18.1	0.117
4-3750	4-3930	0.156	294.9	43.4	4.90	1.258	93.4	0.164	0.859	335.4	558.4	0.719	1.000	-2.99	0.925	86.5	33.9	-11.1	0.122
4-3750	4-3940	0.157	299.6	36.5	4.25	1.260	94.1	0.171	0.863	331.2	564.3	0.715	1.011	-2.55	0.925	85.2	33.7	-5.6	0.133
4-3750	4-3950	0.164	304.4	30.2	3.75	1.262	95.0	0.181	0.867	326.5	569.5	0.710	1.024	-2.29	0.925	83.9	35.9	-1.0	0.147
4-3750	4-3960	0.176	309.3	24.5	3.34	1.264	96.0	0.194	0.871	321.3	574.3	0.702	1.040	-2.13	0.925	82.6	39.8	2.9	0.164
4-3750	4-3970	0.195	314.0	19.5	2.97	1.267	97.2	0.209	0.875	315.7	578.5	0.692	1.058	-2.06	0.925	81.1	44.9	6.3	0.184
4-3750	4-3980	0.220	318.7	15.1	2.62	1.269	98.7	0.228	0.880	309.6	582.3	0.679	1.081	-2.04	0.925	79.5	51.0	9.3	0.206
4-3750	4-3990	0.253	323.1	11.3	2.27	1.272	100.5	0.252	0.885	303.1	585.5	0.662	1.108	-2.09	0.926	77.7	58.0	11.9	0.234
4-3750	4-4000	0.296	327.6	8.0	1.89	1.274	102.7	0.283	0.890	296.1	588.2	0.638	1.141	-2.20	0.926	75.4	65.8	14.1	0.267
4-3750	4-4010	0.351	332.1	5.1	1.45	1.277	105.5	0.322	0.895	288.3	590.0	0.606	1.183	-2.40	0.928	72.7	74.3	15.7	0.309
4-3750	4-4020	0.426	336.9	2.6	0.92	1.279	109.2	0.375	0.900	279.6	590.9	0.562	1.238	-2.72	0.929	69.1	83.7	16.8	0.364
4-3750	4-4030	0.528	342.1	0.4	0.20	1.282	114.2	0.448	0.906	269.4	590.3	0.500	1.311	-3.24	0.931	64.3	94.1	17.2	0.441
4-3750	4-4030	0.819	11.8	0.2	0.20	1.042	132.9	0.698	0.602	214.4	895.3	0.182	1.022	-3.24	0.557	100.6	175.1	-2.2	0.450
4-3750	4-4040	0.678	348.4	-1.4	-0.89	1.285	121.5	0.550	0.912	256.7	587.2	0.410	1.414	-4.14	0.934	57.2	105.8	16.7	0.552
4-3750	4-4040	0.839	12.9	-0.8	-0.89	1.032	134.2	0.715	0.595	212.8	903.3	0.169	1.020	-4.14	0.536	81.8	163.1	2.1	0.464
4-3750	4-4050	0.953	15.1	-2.0	-2.89	1.030	140.7	0.787	0.593	208.7	908.7	0.126	1.060	-3.96	0.530	61.8	157.2	4.4	0.580
4-3750	4-4100	0.712	154.8	10.0	6.57	1.289	57.3	0.569	0.922	104.6	492.5	0.397	1.446	4.36	0.943	124.3	300.8	-14.5	0.584
4-3750	4-4110	0.547	162.4	11.6	5.37	1.292	65.4	0.460	0.929	89.4	486.8	0.501	1.356	3.35	0.949	117.0	313.4	-11.2	0.469
4-3750	4-4120	0.432	169.5	13.2	4.61	1.295	71.1	0.386	0.935	76.0	483.1	0.574	1.296	2.78	0.956	112.3	324.6	-7.5	0.394
4-3750	4-4130	0.347	176.9	14.8	4.05	1.298	75.4	0.534	0.942	63.5	480.3	0.627	1.256	2.44	0.962	109.1	335.0	-3.5	0.344
4-3750	4-4140	0.281	185.4	16.6	3.60	1.301	78.9	0.298	0.949	51.2	477.8	0.666	1.230	2.22	0.969	107.0	345.0	0.8	0.310
4-3750	4-4150	0.229	195.9	18.4	3.21	1.304	81.9	0.274	0.955	38.9	475.3	0.693	1.216	2.10	0.976	105.7	354.9	5.2	0.289

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3750	4-4160	0.618	144.6	3.2	2.85	1.208	49.8	0.648	0.777	126.0	572.2	0.274	1.280	2.04	0.847	52.6	231.2	-16.3	0.597
4-3750	4-4160	0.189	209.8	20.0	2.85	1.307	84.6	0.260	0.962	26.5	472.8	0.712	1.212	2.04	0.983	104.9	4.8	9.7	0.277
4-3750	4-4170	0.735	148.0	3.4	2.49	1.219	54.2	0.589	0.793	119.3	575.5	0.326	1.260	2.05	0.866	56.7	239.4	-17.7	0.540
4-3750	4-4170	0.163	228.1	20.5	2.49	1.310	87.2	0.254	0.970	14.0	470.2	0.724	1.217	2.05	0.990	104.7	14.9	14.2	0.273
4-3750	4-4180	0.655	151.4	3.4	2.12	1.229	56.4	0.531	0.809	112.4	578.6	0.379	1.238	2.12	0.883	60.5	248.0	-18.5	0.485
4-3750	4-4180	0.153	250.3	18.6	2.12	1.314	89.7	0.256	0.979	1.5	467.7	0.728	1.230	2.12	0.997	104.8	25.3	18.4	0.276
4-3750	4-4190	0.579	155.0	3.2	1.71	1.238	62.3	0.477	0.824	105.3	581.5	0.431	1.216	2.27	0.898	63.8	257.0	-18.7	0.435
4-3750	4-4190	0.162	272.2	14.0	1.71	1.318	92.2	0.267	0.989	349.4	825.6	0.725	1.253	2.27	1.005	105.5	35.9	22.4	0.287
4-3750	4-4200	0.509	158.7	2.7	1.22	1.246	65.9	0.426	0.838	97.9	584.1	0.481	1.195	2.53	0.912	66.9	266.1	-18.0	0.390
4-3750	4-4200	0.190	289.9	8.5	1.22	1.322	94.9	0.284	1.001	337.7	824.0	0.716	1.285	2.53	1.013	106.5	46.7	25.9	0.305
4-3750	4-4210	0.444	162.6	1.5	0.57	1.254	69.1	0.381	0.853	70.1	586.5	0.527	1.175	2.96	0.924	69.5	275.3	-16.1	0.352
4-3750	4-4210	0.232	303.0	3.2	0.57	1.327	97.7	0.309	1.013	326.8	823.2	0.700	1.327	2.96	1.021	108.0	57.7	29.1	0.331
4-3750	4-4220	0.386	166.8	-1.2	-0.37	1.260	72.1	0.341	0.863	82.1	588.6	0.569	1.157	3.70	0.934	71.7	284.4	-12.4	0.320
4-3750	4-4220	0.286	312.6	-1.7	-0.37	1.332	100.6	0.341	1.028	316.6	823.1	0.677	1.378	3.70	1.029	109.8	68.8	32.0	0.364
4-3750	4-4230	0.337	171.2	-7.4	-2.02	1.266	74.8	0.308	0.874	73.7	590.4	0.605	1.142	5.16	0.943	73.6	293.0	-5.8	0.299
4-3750	4-4230	0.349	320.1	-7.5	-2.02	1.338	103.8	0.378	1.044	307.2	823.9	0.649	1.438	5.16	1.037	112.0	79.7	35.4	0.405
4-3750	4-4240	0.315	175.1	-24.4	-6.02	1.271	77.2	0.280	0.883	65.2	592.0	0.636	1.130	8.96	0.949	75.1	300.4	8.2	0.304
4-3750	4-4240	0.433	326.9	-18.1	-6.02	1.343	107.1	0.420	1.061	298.6	825.4	0.616	1.506	8.96	1.045	114.5	90.0	42.0	0.465
4-3750	4-4260	0.438	172.2	64.2	18.17	1.278	81.5	0.239	0.899	46.8	594.5	0.684	1.114	-15.59	0.959	77.2	355.2	-53.3	0.351
4-3750	4-4260	0.679	341.6	34.6	18.17	1.356	114.3	0.513	1.099	282.6	830.2	0.535	1.663	-15.59	1.060	120.4	104.8	-1.6	0.600
4-3750	4-4270	0.266	193.0	49.6	9.15	1.282	83.3	0.227	0.905	37.9	595.5	0.700	1.111	-6.75	0.962	77.9	344.9	-35.0	0.251
4-3750	4-4280	0.543	180.0	16.4	6.60	1.426	69.6	0.570	1.403	58.2	265.9	---	2.203	-4.39	1.146	59.3	328.4	-20.4	0.601
4-3750	4-4280	0.210	205.2	44.4	6.60	1.284	85.0	0.218	0.911	28.6	596.4	0.712	1.110	-4.39	0.964	78.3	349.2	-24.6	0.230
4-3750	4-4290	0.490	185.4	15.0	5.35	1.429	72.2	0.554	1.415	51.3	269.1	---	2.200	-3.33	1.147	60.8	336.3	-16.1	0.576
4-3750	4-4290	0.179	218.8	42.1	5.35	1.287	86.6	0.213	0.916	19.3	597.1	0.721	1.111	-3.33	0.965	78.6	355.9	-17.4	0.222
4-3750	4-4300	0.441	197.4	14.4	4.56	1.431	74.8	0.540	1.427	44.2	272.0	---	2.198	-2.75	1.148	62.1	344.0	-12.3	0.554
4-3750	4-4300	0.159	234.7	40.1	4.56	1.289	88.3	0.211	0.921	10.0	597.8	0.726	1.115	-2.75	0.965	78.6	3.2	-11.6	0.219
4-3750	4-4310	0.395	198.5	14.3	4.00	1.432	77.5	0.528	1.438	36.8	274.6	---	2.197	-2.41	1.148	63.2	351.9	-8.5	0.535
4-3750	4-4310	0.149	252.2	37.0	4.00	1.291	89.9	0.213	0.925	0.6	598.4	0.728	1.122	-2.41	0.965	78.5	10.9	-6.6	0.221
4-3750	4-4320	0.354	207.1	14.3	3.55	1.434	80.2	0.519	1.448	29.1	276.8	---	2.198	-2.20	1.147	64.1	359.8	-4.9	0.519
4-3750	4-4320	0.150	269.5	32.2	3.55	1.292	91.6	0.218	0.929	331.2	959.0	0.727	1.131	-2.20	0.965	78.1	18.9	-2.0	0.226
4-3750	4-4330	0.31	217.8	14.3	3.16	1.436	82.9	0.511	1.457	20.9	278.6	---	2.202	-2.09	1.147	64.8	7.9	-1.3	0.507
4-3750	4-4330	0.161	284.6	26.3	3.16	1.294	93.3	0.226	0.932	341.9	959.5	0.721	1.143	-2.09	0.964	77.6	27.0	2.2	0.234
4-3750	4-4340	0.291	231.2	14.0	2.80	1.437	85.7	0.507	1.465	12.3	279.8	---	2.208	-2.04	1.146	65.3	16.2	2.3	0.499
4-3750	4-4340	0.181	297.1	20.4	2.80	1.296	95.2	0.239	0.936	332.5	960.0	0.712	1.159	-2.04	0.963	76.8	35.5	5.9	0.247
4-3750	4-4340	0.580	354.4	5.1	2.80	1.189	119.2	0.474	0.750	244.91	232.4	0.395	1.105	-2.04	0.814	110.8	159.5	4.0	0.362
4-3750	4-4340	0.670	356.2	4.2	2.80	1.198	122.7	0.541	0.762	241.31	228.8	0.350	1.173	-2.04	0.826	117.6	164.6	3.0	0.453
4-3750	4-4350	0.276	247.3	12.9	2.45	1.438	89.0	0.506	1.473	3.0	280.3	---	2.219	-2.06	1.145	65.5	24.9	5.7	0.495
4-3750	4-4350	0.211	307.2	15.1	2.45	1.297	97.3	0.256	0.939	323.0	960.3	0.698	1.180	-2.06	0.962	75.7	44.3	9.2	0.264
4-3750	4-4350	0.475	352.6	5.6	2.45	1.179	113.1	0.392	0.736	248.41	245.7	0.447	1.025	-2.06	0.795	98.9	147.4	5.9	0.237
4-3760	4-3800	0.532	288.9	8.6	2.75	1.672	96.4	1.035	20.574	347.3	423.0	0.719	---	2.79	1.434	122.1	36.0	18.7	0.809
4-3760	4-3810	0.375	291.8	9.1	2.26	1.515	95.7	0.675	2.212	346.0	431.6	0.720	---	2.71	1.250	117.8	39.9	20.7	0.609
4-3760	4-3820	0.273	292.6	9.3	1.79	1.418	94.5	0.470	1.361	345.8	441.5	0.721	---	2.71	1.153	113.5	44.0	23.0	0.469
4-3760	4-3830	0.206	291.3	8.6	1.30	1.357	93.4	0.346	1.106	346.8	452.5	0.723	---	2.81	1.058	109.3	47.9	25.8	0.366
4-3760	4-3840	0.160	288.1	6.2	0.75	1.318	92.4	0.268	0.991	348.8	464.6	0.725	---	3.00	1.009	105.6	51.2	29.2	0.288
4-3760	4-3850	0.129	283.6	1.0	0.00	1.293	91.5	0.219	0.930	351.5	477.4	0.727	---	3.34	0.978	102.2	53.2	33.6	0.230
4-3760	4-3860	0.112	278.7	-8.6	-0.75	1.277	90.9	0.188	0.896	354.2	490.3	0.728	---	3.89	0.957	99.2	52.8	39.8	0.187
4-3760	4-3870	0.108	274.6	-24.0	-1.99	1.267	90.5	0.169	0.876	356.6	502.8	0.728	---	4.86	0.945	96.7	47.8	48.7	0.161
4-3760	4-3880	0.128	272.0	-45.2	-4.13	1.261	90.3	0.158	0.865	358.0	514.4	0.728	---	6.75	0.937	95.6	35.1	60.2	0.160
4-3760	4-3890	0.215	271.6	-69.8	-9.21	1.258	90.2	0.152	0.859	358.5	524.9	0.728	---	11.59	0.932	92.7	35.7	69.4	0.218
4-3760	4-3910	0.491	30.3	87.6	23.00	1.257	90.8	0.151	0.857	354.0	541.5	0.728	0.986	-21.11	0.928	89.7	63.1	-47.1	0.366
4-3760	4-3920	0.245	287.7	73.0	10.74	1.258	91.1	0.153	0.859	351.8	549.1	0.727	0.990	-9.10	0.927	88.4	52.8	-38.1	0.180
4-3760	4-3930	0.182	291.4	61.2	7.29	1.259	91.6	0.157	0.862	348.3	555.7	0.726	0.997	-5.89	0.927	87.1	44.9	-26.7	0.143
4-3760	4-3940	0.158	297.4	51.1	5.60	1.261	92.2	0.163	0.865	344.2	561.5	0.724	1.006	-4.48	0.927	86.0	41.7	-17.1	0.137
4-3760	4-3950	0.149	303.9	42.1	4.55	1.263	92.9	0.170	0.869	339.5	566.8	0.722	1.017	-3.68	0.927	84.8	41.9	-9.6	0.143
4-3760	4-3960	0.151	310.5	33.8	3.80	1.266	93.8	0.179	0.874	334.4	571.5	0.717	1.030	-3.21	0.927	83.7	44.5	-3.7	0.153
4-3760	4-3970	0.159	316.8	26.4	3.20	1.268	94.8	0.190	0.878	328.8	575.9	0.712	1.045	-2.93	0.927	82.5	48.6	1.0	0.167
4-3760	4-3970	0.159	316.8	26.4	3.20	1.268	94.8	0.190	0.878	328.8	575.9	0.712	1.045	-2.93	0.927	82.5	48.6	1.0	0.167
4-3760	4-3980	0.174	322.8	19.9	2.69	1.271	96.0	0.204	0.883	323.0	579.8	0.703	1.063	-2.77	0.928	81.2	54.0	4.9	0.183
4-3760	4-3990	0.195	328.4	14.5	2.22	1.273	97.4	0.220	0.888	316.8	583.3	0.693	1.084	-2.71	0.928	79.8	60.3	8.1	0.202
4-3760	4-4000	0.224	333.6	9.9	1.76	1.275	99.1	0.241	0.893	310.2	586.4	0.678	1.108	-2.72	0.929	78.2	67.4	10.6	0.225
4-3760	4-4010	0.261	338.6	6.2	1.28	1.278	101.0	0.267	0.898	303.1	589.0	0.659	1.138	-2.81	0.930	76.3	75.2	12.6	0.252
4-3760	4-4020	0.309	343.5	3.1	0.76	1.280	103.5	0.300	0.903	295.5	591.1	0.633	1.174	-2.99	0.931	74.0	83.7	13.9	0.287
4-3760	4-4030	0.371	348.4	0.5	0.16	1.283	106.6	0.343	0.909	287.2	592.3	0.597	1.220	-3.30	0.933	71.1	92.8	14.6	0.332
4-3760	4-4040	0.455	353.6	-1.6	-0.62	1.286	110.6	0.400	0.914	277.8	592.4	0.548	1.280	-3.80	0.935	67.2	102.6	14.5	0.392
4-3760	4-4040	0.827	26.5	-0.6	-0.62	1.061	133.2	0.697	0.617	215.9	890.6	0.167	1.047	-3.80	0.590	110.1	195.2	-11.3	0.476
4-3760	4-4050	0.572	359.3	-3.4	-1.69	1.288	116.3	0.481	0.920	266.6	590.0	0.478	1.363	-4.62	0.939	61.9	113.4	13.6	0.477
4-3760	4-4050	0.796	27.2	-1.7	-1.69	1.045	131.7	0.682	0.604	215.4	899.5	0.192	1.017	-4.62	0.559	91.0	181.5	-7.2	0.429
4-3760	4-4060	0.855	28.6	-2.9	-3.41	1.040	135.0	0.723	0.600	213.0	906.6	0.166	1.034	-6.10	0.549	73.5	172.0	-3.7	0.489
4-3760	4-4110	0.961	142.1	5.6	8.83	0.989	38.4	0.804	0.565	154.5	896.3	0.111	1.020	7.29	0.457	104.8	253.2	-16.8	0.568
4-3760	4-4120	0.641	174.3	11.5	6.49	1.296	61.1	0.523	0.937	96.9	488.4	0.449	1.425	5.19	0.857	121.1	321.2	-7.0	0.544
4-3760	4-4130	0.494	182.0	12.7	5.16	1.299	68.2	0.427	0.944	82.0	483.1	0.541	1.347	4.11	0.964	115.0	332.8	-2.5	0.445
4-3760	4-4140	0.390	189.6	13.7	4.26	1.302	73.4	0.363	0.950	68.5	479.3	0.606	1.295	3.48	0.970	111.0	343.5	2.0	0.380
4-3760	4-4150	0.312	197.9	14.8	3.58	1.304	77.4	0.319	0.957	55.6	476.2	0.652	1.262	3.10	0.977	108.4	353.7	6.6	0.337
4-3760	4-4160	0.251	207.9	15.7	3.01	1.307	80.7	0.290	0.963	43.0	473.5	0.684	1.242	2.87	0.983	106.7	3.7	11.2	0.309
4-3760	4-4170	0.205	220.6	16.2	2.51	1.310	83.6	0.272	0.970	30.4	470.8	0.707	1.234	2.74	0.990	105.7	13.8	15.7	0.292
4-3760	4-4180	0.799	161.7	2.4	2.04	1.215	50.9	0.633	0.788	123.7	574.1	0.289	1.287	2.70	0.864	53.3	250.5	-19.1	0.594
4-3760	4-4180	0.171	237.3	15.8	2.04	1.313	86.3	0.263	0.978	17.9	468.3	0.721	1.235	2.70	0.997	105.2	24.2	20.0	0.284
4-3760	4-4190	0.717	165.0	2.2	1.56	1.226	55.3	0.575	0.804	117.0	577.4	0.342	1.266	2.75	0.881	57.2	259.1	-19.3	0.538
4-3760	4-4190	0.154	258.0	13.4	1.56	1.316	88.9	0.262	0.986	5.5	465.9	0.728	1.245	2.75	1.004	105.2	35.0	23.9	0.284
4-3760	4-4200	0.639	168.5	1.7	1.05	1.235	59.3	0.519	0.819	110.1	580.6	0.394	1.244	2.88	0.897	60.9	267.9	-18.8	0.485

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THE12	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3760	4-4200	0.157	280.0	8.8	1.05	1.320	91.4	0.270	0.9[illegible]	353.5	824.0	0.727	1.264	2.88	1.010	105.6	46.1	27.4	0.291
4-3760	4-4210	0.165	172.1	0.9	0.46	1.244	63.1	0.466	0.833	202.9	583.5	0.445	1.222	3.14	0.910	64.2	276.8	-17.4	0.437
4-3760	4-4210	0.179	299.0	3.4	0.46	1.324	94.0	0.284	1.006	342.0	822.5	0.720	1.292	3.14	1.017	106.5	57.6	30.4	0.305
4-3760	4-4220	0.497	175.8	-0.6	-0.27	1.251	66.6	0.417	0.847	95.4	586.1	0.494	1.201	3.57	0.923	67.1	285.6	-18.9	0.394
4-3760	4-4220	0.216	313.5	-1.7	-0.27	1.328	96.7	0.306	1.018	331.1	821.8	0.707	1.329	3.57	1.024	107.7	69.2	32.9	0.326
4-3760	4-4230	0.435	179.7	-3.4	-1.27	1.258	69.8	0.374	0.860	87.6	588.5	0.538	1.181	4.26	0.933	69.6	294.2	-10.9	0.359
4-3760	4-4230	0.266	324.3	-6.3	-1.27	1.333	99.5	0.333	1.031	320.9	821.8	0.688	1.375	4.28	1.031	109.3	80.9	35.0	0.355
4-3760	4-4240	0.382	183.8	-9.0	-2.83	1.265	72.7	0.336	0.872	79.5	590.5	0.579	1.165	5.58	0.942	71.7	302.3	-4.6	0.354
4-3760	4-4240	0.327	332.7	-11.4	-2.83	1.338	102.5	0.367	1.046	311.5	822.5	0.662	1.430	5.58	1.038	111.3	92.5	37.3	0.393
4-3760	4-4250	0.350	187.5	-21.1	-5.89	1.270	75.3	0.305	0.882	71.1	592.3	0.613	1.150	8.39	0.949	72.5	309.3	6.5	0.324
4-3760	4-4250	0.404	339.8	-19.2	-5.89	1.344	105.6	0.405	1.062	302.7	823.9	0.632	1.493	8.39	1.045	113.5	103.9	41.3	0.444
4-3760	4-4260	0.432	184.6	-50.4	-15.49	1.274	77.6	0.279	0.891	62.6	593.7	0.642	1.140	17.75	0.954	74.9	315.1	29.6	0.403
4-3760	4-4260	0.558	349.9	-37.7	-15.49	1.349	108.9	0.447	1.080	294.7	825.8	0.597	1.562	17.75	1.052	116.1	113.7	53.5	0.553
4-3760	4-4280	0.374	196.4	59.7	14.74	1.282	81.9	0.240	0.906	43.8	595.9	0.689	1.124	-12.97	0.961	77.1	5.9	-42.4	0.324
4-3760	4-4290	0.586	192.7	20.0	8.73	1.426	88.1	0.582	1.405	61.9	264.0	---	2.222	-7.20	1.185	58.3	341.3	-20.1	0.627
4-3760	4-4290	0.257	212.1	49.0	8.73	1.285	83.7	0.228	0.913	34.7	596.8	0.704	1.121	-7.20	0.963	77.7	3.1	-25.3	0.260
4-3760	4-4300	0.525	198.0	16.6	6.37	1.429	70.7	0.566	1.417	55.1	267.2	---	2.219	-5.09	1.146	59.8	347.8	-14.4	0.597
4-3760	4-4300	0.205	224.8	43.9	6.37	1.287	85.5	0.221	0.918	25.4	597.5	0.736	1.121	-5.09	0.964	78.1	7.6	-19.1	0.240
4-3760	4-4310	0.471	203.6	14.8	5.05	1.431	73.3	0.551	1.429	48.2	270.2	---	2.217	-4.03	1.146	61.2	355.0	-9.9	0.572
4-3760	4-4310	0.174	239.1	40.7	5.05	1.290	87.2	0.217	0.923	16.1	598.1	0.723	1.124	-4.03	0.964	78.3	14.0	-12.2	0.231
4-3760	4-4320	0.423	210.1	13.8	4.11	1.433	75.9	0.538	1.441	41.0	272.9	---	2.215	-3.43	1.146	62.4	2.4	-5.9	0.551
4-3760	4-4320	0.155	255.5	37.3	4.11	1.292	88.8	0.216	0.928	6.7	598.7	0.727	1.128	-3.43	0.964	78.2	21.2	-6.5	0.229
4-3760	4-4330	0.378	217.7	13.1	3.50	1.434	78.6	0.527	1.451	33.5	275.3	---	2.215	-3.06	1.146	63.4	10.1	-2.1	0.532
4-3760	4-4330	0.147	273.1	32.5	3.50	1.294	90.5	0.219	0.932	357.4	959.2	0.728	1.136	-3.06	0.964	78.0	28.8	-1.7	0.230
4-3760	4-4340	0.339	227.1	12.5	2.95	1.436	91.3	0.518	1.461	25.6	277.3	---	2.218	-2.85	1.145	64.3	17.9	1.5	0.517
4-3760	4-4340	0.150	289.7	26.4	2.95	1.295	92.2	0.225	0.936	348.1	959.8	0.725	1.147	-2.85	0.963	77.6	36.9	2.5	0.235
4-3760	4-4350	0.305	238.6	11.6	2.46	1.437	84.1	0.512	1.470	17.4	278.9	---	2.223	-2.73	1.144	64.9	26.1	4.8	0.506
4-3760	4-4350	0.164	304.0	19.8	2.46	1.297	94.0	0.235	0.943	338.7	960.2	0.719	1.160	-2.73	0.962	77.0	45.3	6.1	0.244
4-3760	4-4360	0.282	252.9	10.2	2.00	1.439	87.1	0.509	1.478	8.6	279.8	---	2.231	-2.70	1.144	65.2	34.6	7.9	0.499
4-3760	4-4360	0.188	315.8	13.9	2.00	1.298	96.0	0.249	0.943	329.4	960.6	0.708	1.178	-2.70	0.961	76.1	54.0	9.2	0.257
4-3760	4-4360	0.497	8.3	1.3	2.00	1.185	114.3	0.412	0.745	248.5	1239.7	0.438	1.051	-2.70	0.801	103.1	166.3	-2.5	0.273
4-3760	4-4360	0.792	14.4	2.4	2.00	1.[illegible]	128.8	0.629	0.783	236.2	1227.4	0.291	1.276	-2.70	0.842	125.7	185.3	-5.8	0.370
4-3770	4-3810	0.427	290.8	9.0	2.40	1.589	91.9	0.839	4.527	355.8	425.6	0.727	---	3.37	1.339	119.6	43.5	22.5	0.698
4-3770	4-3820	0.294	291.0	9.0	1.81	1.458	91.5	0.548	1.609	355.7	435.6	0.727	---	3.21	1.182	115.0	47.0	24.5	0.521
4-3770	4-3830	0.213	289.3	8.1	1.25	1.379	90.8	0.384	1.182	357.3	447.1	0.728	---	3.16	1.085	110.6	50.6	26.9	0.399
4-3770	4-3840	0.162	283.0	5.6	0.69	1.330	90.0	0.287	1.021	0.1	100.1	---	---	3.23	1.024	106.6	53.6	29.8	0.309
4-3770	4-3850	0.132	276.1	0.8	0.08	1.299	89.3	0.228	0.943	3.7	113.9	---	---	3.36	0.985	103.0	55.6	33.5	0.242
4-3770	4-3860	0.11	269.2	-2.7	-0.60	1.280	88.8	0.193	0.901	7.5	127.8	---	---	3.66	0.961	99.8	55.6	38.4	0.193
4-3770	4-3870	0.11	263.7	-6.9	-1.45	1.268	88.4	0.172	0.878	10.6	141.0	---	---	4.15	0.946	97.1	52.1	44.9	0.160
4-3770	4-3880	0.115	260.2	-30.0	-2.61	1.261	88.3	0.161	0.865	12.5	153.1	---	---	4.98	0.937	94.9	42.9	58.0	0.142
4-3770	4-3890	0.135	258.7	-45.7	-4.41	1.258	88.3	0.154	0.858	13.0	163.7	---	---	6.47	0.932	92.9	25.7	60.9	0.146
4-3770	4-3900	0.192	257.6	-63.8	-7.87	1.256	88.4	0.152	0.856	12.3	173.1	---	---	9.64	0.929	91.2	1.3	66.7	0.185
4-3770	4-3910	0.398	229.9	-84.1	-18.35	1.257	88.6	0.152	0.856	10.9	181.6	---	0.986	19.84	0.928	89.7	339.4	70.5	0.345
4-3770	4-3930	0.361	272.4	83.6	16.53	1.260	89.7	0.155	0.862	2.0	192.9	---	0.995	-15.61	0.927	87.5	61.4	-43.8	0.281
4-3770	4-3940	0.217	286.7	69.1	9.24	1.262	90.3	0.159	0.866	358.1	559.7	0.728	1.003	-8.59	0.927	86.4	52.4	-32.7	0.182
4-3770	4-3950	0.167	295.9	57.4	6.40	1.264	90.9	0.164	0.870	353.3	564.9	0.728	1.013	-6.05	0.928	85.4	49.0	-21.5	0.158
4-3770	4-3960	0.146	305.0	46.7	4.83	1.267	91.7	0.171	0.875	348.1	569.6	0.726	1.025	-4.78	0.928	84.3	[illegible]	-12.5	0.156
4-3770	4-3970	0.140	313.8	36.7	3.78	1.269	92.6	0.179	0.880	342.6	573.9	0.724	1.038	-4.05	0.929	83.3	[illegible]	-5.7	0.161
4-3770	4-3980	0.143	322.1	27.6	2.99	1.272	93.6	0.188	0.886	336.7	577.8	0.719	1.052	-3.61	0.929	82.3	[illegible]	-0.4	0.171
4-3770	4-3990	0.154	329.8	19.7	2.34	1.275	94.8	0.200	0.891	330.6	581.4	0.713	1.069	-3.35	0.930	81.1	[illegible]6	3.8	0.184
4-3770	4-4000	0.172	336.8	13.2	1.77	1.277	96.1	0.215	0.896	324.2	584.7	0.704	1.088	-3.20	0.931	79.9	[illegible]0.1	7.0	0.200
4-3770	4-4010	0.198	343.1	8.0	1.24	1.280	97.6	0.232	0.901	317.5	587.6	0.692	1.111	-3.16	0.932	78.5	[illegible]9.4	9.5	0.218
4-3770	4-4020	0.230	348.9	3.9	0.70	1.282	99.4	0.254	0.907	310.4	590.1	0.676	1.137	-3.21	0.933	76.9	84.3	11.2	0.241
4-3770	4-4030	0.272	354.4	0.6	0.13	1.285	101.6	[illegible]282	0.912	302.9	592.2	0.655	1.169	-3.35	0.935	74.9	[illegible]0.7	12.1	0.270
4-3770	4-4040	0.325	359.7	-1.9	-0.50	1.287	104.2	[illegible]317	0.917	294.8	593.7	0.627	1.208	-3.61	0.937	72.5	[illegible]3.6	12.4	0.306
4-3770	4-4050	0.395	5.0	-3.9	-1.26	1.290	107.6	0.364	0.923	285.9	594.3	0.587	1.258	-4.03	0.940	69.[illegible]	[illegible]	11.9	0.354
4-3770	4-4060	0.489	10.6	-5.5	-2.26	1.292	112.2	0.427	0.928	275.7	593.6	0.532	1.325	-4.71	0.943	65.[illegible]	[illegible]	10.5	0.421
4-3770	4-4060	0.776	41.7	-2.3	-2.26	1.059	130.4	0.663	0.615	217.4	895.3	0.207	1.023	-4.71	585	99.[illegible]	[illegible]	-15.9	0.421
4-3770	4-4070	0.622	16.9	-6.8	-3.70	1.295	118.5	0.516	0.935	263.6	590.9	0.455	1.417	-5.87	0.947	59.3	[illegible]	8.2	0.517
4-3770	4-4070	0.791	42.7	-3.7	-3.70	1.051	131.3	0.677	0.609	216.1	903.4	0.[illegible]97	1.020	-5.87	0.569	82.9	[illegible]	-12.3	0.431
4-3770	4-4080	0.888	44.6	-5.0	-6.17	1.048	136.6	0.740	0.607	212.7	909.5	0.158	1.055	-8.05	0.566	65.7	[illegible]	[illegible]7	0.520
4-3770	4-4130	0.899	160.0	6.0	7.92	1.003	42.4	0.760	0.575	157.3	896.7	0.138	1.011	7.39	0.498	100.4	[illegible]	-16.5	0.533
4-3770	4-4140	0.573	194.1	11.9	5.75	1.303	64.6	0.479	0.952	89.0	484.1	0.496	1.408	5.50	0.971	118.4	[illegible]6	1.8	0.507
4-3770	4-4150	0.443	202.1	12.4	4.42	1.305	70.9	0.398	0.959	74.2	479.1	0.577	1.340	4.48	0.978	113.3	[illegible]8	6.8	0.423
4-3770	4-4160	0.349	210.3	12.7	3.48	1.308	75.6	0.344	0.965	60.6	475.3	0.633	1.297	3.87	0.984	110.0	[illegible]3	11.7	0.368
4-3770	4-4170	0.276	219.8	12.8	2.74	1.311	79.4	0.300	0.972	47.5	472.1	0.673	1.271	3.50	0.991	107.9	128.8	36.3	0.331
4-3770	4-4180	0.224	231.4	12.4	2.11	1.313	82.5	0.285	0.978	34.7	469.2	0.699	1.257	3.28	0.997	106.6	[illegible]3	20.7	0.309
4-3770	4-4190	0.184	246.5	11.1	1.54	1.316	85.3	0.273	0.986	22.0	466.6	0.717	1.255	3.17	1.003	105.8	94.2	4.7	0.296
4-3770	4-4200	0.779	178.7	1.2	0.98	1.223	52.2	0.618	0.799	121.8	576.0	0.306	1.292	3.17	0.880	54.0	270.4	-19.6	0.590
4-3770	4-4200	0.160	265.7	3.1	0.98	1.319	87.9	0.269	0.994	94.[illegible]	464.4	0.726	1.261	3.17	1.009	105.6	45.5	28.3	0.291
4-3770	4-4210	0.699	182.1	0.6	0.41	1.232	56.4	0.561	0.814	114.6	579.3	0.358	1.271	3.27	0.895	57.9	279.0	-18.5	0.535
4-3770	4-4210	0.155	287.2	3.[illegible]	0.41	1.323	90.5	0.274	1.002	357.8	822.5	0.728	1.277	3.27	1.015	105.9	57.3	31.2	0.294
4-3770	4-4220	0.622	185.6	-0.[illegible]	-0.23	1.241	60.4	0.506	0.829	107.5	582.5	0.410	1.249	3.48	0.909	61.4	287.6	-16.7	0.484
4-3770	4-4220	0.171	307.3	-1.8	-0.23	1.326	93.0	0.285	1.012	346.3	821.2	0.724	1.301	3.48	1.022	106.5	69.3	33.5	0.305
4-3770	4-4230	0.551	189.2	-2.0	-0.98	1.250	64.0	0.455	0.844	100.2	585.3	0.460	1.227	3.86	0.921	64.6	290.1	-13.8	0.437
4-3770	4-4230	0.203	323.4	-6.4	-0.98	1.330	95.6	0.303	1.023	335.5	820.6	0.713	1.333	3.86	1.028	107.5	81.5	35.1	0.322
4-3770	4-4240	0.486	192.9	-4.7	-1.95	1.257	67.4	0.408	0.857	92.7	587.9	0.507	1.206	4.49	0.931	67.4	304.3	-9.7	0.397
4-3770	4-4240	0.249	335.5	-10.4	-1.95	1.335	98.4	0.327	1.035	325.3	820.6	0.696	1.374	4.49	1.034	108.9	93.7	36.2	0.347
4-3770	4-4250	0.429	196.7	-9.3	-3.35	1.264	70.5	0.367	0.869	84.8	590.1	0.551	1.188	5.57	0.940	69.8	312.0	-23.8	0.365
4-3770	4-4250	0.305	344.8	-14.5	-3.35	1.339	101.2	0.357	1.049	315.9	821.2	0.674	1.424	5.57	1.039	110.7	105.6	37.2	0.379

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3770	4-4260	0.387	200.4	-18.2	-5.72	1.269	73.4	0.331	0.880	76.6	592.1	0.589	1.172	7.64	0.947	71.8	318.9	5.3	0.346
4-3770	4-4260	0.376	352.4	-20.2	-5.72	1.344	104.2	0.392	1.064	307.0	822.5	0.647	1.482	7.64	1.045	112.7	117.3	39.0	0.423
4-3770	4-4270	0.395	201.9	-37.0	-11.10	1.274	75.9	0.301	0.890	68.2	593.7	0.622	1.159	12.74	0.952	73.5	324.1	21.4	0.365
4-3770	4-4270	0.481	0.3	-31.0	-11.10	1.350	107.4	0.431	1.081	298.9	824.4	0.815	1.547	12.74	1.051	115.1	128.9	44.7	0.493
4-3770	4-4290	0.642	178.9	70.2	28.51	1.282	80.6	0.254	0.907	49.2	596.1	0.677	1.138	-27.43	0.959	76.2	35.1	-45.7	0.528
4-3770	4-4300	0.325	218.6	54.7	12.01	1.286	82.5	0.241	0.914	40.6	597.0	0.694	1.134	-11.22	0.961	76.9	18.2	-31.9	0.308
4-3770	4-4310	0.562	215.8	18.4	7.64	1.429	69.2	0.578	1.419	58.9	265.2	---	2.239	-7.13	1.144	58.8	359.4	-12.6	0.621
4-3770	4-4310	0.238	232.0	45.7	7.64	1.289	84.3	0.231	0.920	31.4	597.8	0.708	1.133	-7.13	0.962	77.5	19.2	-20.4	0.264
4-3770	4-4320	0.504	216.2	15.2	5.56	1.431	71.8	0.562	1.432	52.0	268.3	---	2.236	-5.35	1.144	60.3	5.8	-7.3	0.591
4-3770	4-4320	0.192	244.8	40.4	5.56	1.291	86.0	0.224	0.926	22.2	598.4	0.718	1.134	-5.35	0.963	77.8	24.4	-12.3	0.246
4-3770	4-4330	0.452	222.1	13.2	4.29	1.433	74.4	0.548	1.443	45.0	271.1	---	2.234	-4.39	1.144	61.5	12.8	-3.0	0.567
4-3770	4-4330	0.164	259.6	36.1	4.29	1.293	87.7	0.721	0.931	12.9	599.0	0.725	1.137	-4.39	0.963	77.9	31.1	-6.2	0.238
4-3770	4-4340	0.405	228.9	11.8	3.38	1.435	77.0	0.536	1.454	37.8	273.7	---	2.234	-3.82	1.144	62.7	20.2	0.9	0.546
4-3770	4-4340	0.147	276.3	31.2	3.38	1.295	89.4	0.222	0.935	3.6	599.5	0.728	1.143	-3.82	0.963	77.8	38.5	-1.1	0.235
4-3770	4-4350	0.362	237.1	10.5	2.67	1.437	79.7	0.526	1.464	30.2	275.9	---	2.235	-3.47	1.145	63.6	28.0	4.3	0.529
4-3770	4-4350	0.143	293.5	25.1	2.67	1.297	91.0	0.226	0.939	354.3	960.0	0.728	1.151	-3.47	0.962	77.6	46.4	3.0	0.237
4-3770	4-4360	0.324	247.1	9.1	2.07	1.438	82.4	0.519	1.474	22.3	277.7	---	2.238	-3.26	1.145	64.3	36.0	7.4	0.515
4-3770	4-4360	0.150	309.4	18.2	2.07	1.299	92.8	0.233	0.943	345.1	960.5	0.724	1.163	-3.26	0.962	77.1	54.8	6.4	0.242
4-3770	4-4370	0.295	259.5	7.4	1.52	1.440	85.3	0.514	1.483	13.9	279.0	---	2.244	-3.17	1.143	64.8	44.5	10.1	0.504
4-3770	4-4370	0.168	323.0	11.8	1.52	1.300	94.7	0.244	0.947	335.9	961.0	0.716	1.178	-3.17	0.961	76.4	63.6	9.2	0.252
4-3770	4-4370	0.581	25.4	2.7	1.52	1.197	118.3	0.478	0.761	246.1	1231.2	0.397	1.125	-3.17	0.816	111.6	187.5	-10.3	0.372
4-3770	4-4370	0.634	26.5	2.5	1.52	1.202	121.0	0.518	0.768	243.9	1228.9	0.370	1.165	-3.17	0.823	115.6	190.7	-10.6	0.426
4-3780	4-3810	0.540	287.3	8.8	2.79	1.696	86.3	1.093	-7.188	7.1	61.2	---	---	4.17	1.463	122.1	46.6	24.0	0.831
4-3780	4-3820	0.347	286.2	8.6	1.98	1.505	87.1	0.650	2.072	7.3	71.4	---	---	3.76	1.239	117.0	49.5	25.6	0.589
4-3780	4-3830	0.243	281.7	7.5	1.30	1.400	87.1	0.429	1.269	9.6	83.7	---	---	3.51	1.111	112.1	52.4	27.5	0.436
4-3780	4-3840	0.186	274.5	4.9	0.68	1.336	86.8	0.308	1.045	13.6	97.8	---	---	3.40	1.034	107.7	54.9	30.0	0.331
4-3780	4-3850	0.155	266.4	0.7	0.08	1.301	86.4	0.240	0.947	18.7	113.0	---	---	3.39	0.987	103.7	56.4	33.1	0.255
4-3780	4-3860	0.141	259.3	-4.9	-0.54	1.279	86.1	0.201	0.898	23.6	128.0	---	---	3.49	0.959	100.3	56.1	37.0	0.199
4-3780	4-3870	0.135	254.4	-11.4	-1.22	1.266	85.9	0.180	0.872	27.4	142.0	---	---	3.72	0.942	97.4	52.6	41.8	0.161
4-3780	4-3880	0.135	251.8	-19.1	-2.02	1.259	85.9	0.168	0.859	29.5	154.3	---	---	4.11	0.932	94.9	44.9	47.4	0.137
4-3780	4-3890	0.140	250.9	-28.3	-3.04	1.255	85.9	0.162	0.852	29.9	164.8	---	---	4.77	0.927	92.9	32.5	52.6	0.129
4-3780	4-3900	0.154	251.4	-39.8	-4.51	1.254	86.2	0.159	0.850	28.8	173.8	---	---	5.90	0.925	91.2	17.7	56.9	0.135
4-3780	4-3910	0.188	252.1	-54.1	-6.98	1.255	86.5	0.158	0.852	26.5	181.6	---	0.986	8.06	0.924	89.7	3.4	61.1	0.164
4-3780	4-3920	0.286	247.2	-71.3	-12.48	1.256	86.9	0.158	0.855	23.4	188.5	---	0.990	13.24	0.924	88.4	349.5	66.9	0.243
4-3780	4-3940	0.665	142.9	81.2	31.43	1.261	88.4	0.160	0.864	11.9	198.4	---	1.002	-31.26	0.926	86.6	72.0	-43.1	0.531
4-3780	4-3950	0.278	276.3	75.0	12.28	1.264	88.9	0.164	0.869	7.9	203.8	---	1.012	-12.41	0.927	85.5	60.5	-36.8	0.240
4-3780	4-3960	0.185	291.5	61.4	7.38	1.267	89.6	0.168	0.875	2.7	208.4	---	1.022	-7.81	0.928	84.6	56.1	-24.5	0.184
4-3780	4-3970	0.148	303.1	49.4	5.08	1.270	90.4	0.174	0.881	357.0	572.5	0.728	1.034	-5.83	0.929	83.7	56.6	-14.3	0.171
4-3780	4-3980	0.133	314.2	38.0	3.69	1.273	91.4	0.181	0.887	351.1	576.4	0.726	1.047	-4.76	0.930	82.9	59.8	-6.7	0.171
4-3780	4-3990	0.130	324.8	27.5	2.70	1.276	92.4	0.189	0.892	344.9	579.9	0.724	1.061	-4.13	0.931	81.9	64.7	-1.0	0.177
4-3780	4-4000	0.137	334.6	18.3	1.93	1.279	93.5	0.199	0.898	339.5	583.2	0.719	1.077	-3.74	0.932	80.9	70.7	3.3	0.186
4-3780	4-4010	0.152	343.4	10.8	1.28	1.282	94.8	0.211	0.904	331.9	586.2	0.713	1.095	-3.51	0.933	79.9	77.5	6.4	0.199
4-3780	4-4020	0.174	351.2	5.1	0.69	1.284	96.2	0.226	0.909	325.1	589.0	0.703	1.115	-3.40	0.935	78.7	85.0	8.6	0.214
4-3780	4-4030	0.203	358.2	0.8	0.13	1.287	97.9	0.245	0.915	318.0	591.5	0.691	1.139	-3.38	0.937	77.3	93.0	10.0	0.233
4-3780	4-4040	0.239	4.5	-2.4	-0.45	1.289	99.8	0.268	0.920	310.5	593.5	0.674	1.166	-3.47	0.939	75.6	101.4	10.6	0.256
4-3780	4-4050	0.285	10.4	-4.7	-1.07	1.292	102.2	0.297	0.926	302.6	595.1	0.651	1.200	-3.66	0.942	73.6	110.2	10.4	0.286
4-3780	4-4060	0.344	16.1	-6.5	-1.79	1.294	105.1	0.335	0.931	294.0	596.1	0.619	1.243	-3.99	0.945	71.1	119.3	9.5	0.325
4-3780	4-4070	0.422	21.8	-7.8	-2.67	1.297	108.8	0.385	0.937	284.4	596.0	0.576	1.297	-4.52	0.949	67.8	128.9	7.7	0.377
4-3780	4-4070	0.777	56.4	-2.8	-2.67	1.076	130.4	0.659	0.628	219.1	890.7	0.215	1.042	-4.52	0.613	106.9	222.5	-22.6	0.440
4-3780	4-4080	0.528	27.8	-8.7	-3.86	1.299	113.9	0.455	0.942	273.4	594.5	0.514	1.371	-5.38	0.953	63.3	139.1	5.2	0.452
4-3780	4-4090	0.752	57.1	-4.2	-3.86	1.063	129.0	0.645	0.618	218.6	899.6	0.219	1.016	-5.38	0.591	90.6	208.6	-20.2	0.400
4-3780	4-4090	0.681	34.8	-9.3	-5.68	1.302	121.1	0.554	0.949	260.0	590.6	0.423	1.474	-6.89	0.958	56.6	350.3	1.7	0.562
4-3780	4-4090	0.802	58.3	-5.6	-5.68	1.058	131.7	0.680	0.614	216.5	907.1	0.196	1.031	-6.89	0.585	75.5	198.3	-17.1	0.451
4-3780	4-4100	0.938	61.0	-6.7	-9.04	1.058	139.1	0.766	0.614	211.8	911.8	0.144	1.083	-9.96	0.587	58.0	195.0	-15.6	0.587
4-3780	4-4150	0.674	205.7	10.8	6.42	1.307	59.9	0.544	0.960	97.5	486.6	0.438	1.482	6.96	0.978	122.9	348.0	5.5	0.586
4-3780	4-4150	0.843	177.8	5.6	6.42	1.017	45.9	0.719	0.584	148.4	897.5	0.164	1.003	6.96	0.534	96.3	289.1	-14.6	0.483
4-3780	4-4160	0.509	214.2	10.8	4.52	1.309	67.8	0.442	0.967	80.9	479.9	0.540	1.394	5.38	0.985	116.2	360.0	11.0	0.474
4-3780	4-4170	0.395	222.5	10.6	3.29	1.312	73.4	0.374	0.973	66.2	475.1	0.609	1.337	4.49	0.992	111.9	11.2	16.0	0.403
4-3780	4-4180	0.311	231.6	9.9	2.38	1.315	77.7	0.329	0.980	52.5	471.3	0.657	1.303	3.95	0.998	109.2	22.2	20.6	0.356
4-3780	4-4190	0.247	242.4	8.7	1.65	1.317	81.2	0.301	0.986	39.3	468.1	0.690	1.283	3.62	1.004	107.5	33.4	24.8	0.326
4-3780	4-4200	0.200	256.0	5.6	1.00	1.320	84.2	0.295	0.993	26.6	465.4	0.711	1.276	3.44	1.009	106.5	44.9	28.4	0.308
4-3780	4-4210	0.170	273.4	3.1	0.39	1.323	86.9	0.278	1.001	14.2	463.1	0.723	1.279	3.38	1.015	106.1	56.9	31.3	0.299
4-3780	4-4220	0.759	195.9	-0.3	-0.21	1.231	53.4	0.601	0.810	118.8	577.9	0.523	1.297	3.42	0.893	54.9	290.2	-17.8	0.584
4-3780	4-4220	0.158	294.1	-1.8	-0.21	1.326	89.5	0.279	1.009	2.3	461.3	0.728	1.290	3.42	1.020	106.1	69.2	33.5	0.298
4-3780	4-4230	0.680	199.2	-1.3	-0.85	1.240	57.6	0.546	0.825	111.9	581.1	0.375	1.275	3.58	0.906	58.6	298.5	-15.5	0.530
4-3780	4-4230	0.166	314.9	-6.8	-0.85	1.329	92.0	0.287	1.018	350.9	820.1	0.726	1.311	3.58	1.025	106.6	81.7	34.9	0.305
4-3780	4-4240	0.606	202.7	-2.8	-1.57	1.240	61.4	0.492	0.840	104.8	584.2	0.426	1.253	3.88	0.918	62.0	306.7	-12.4	0.481
4-3780	4-4240	0.193	332.5	-10.9	-1.57	1.333	94.6	0.302	1.028	340.1	819.5	0.718	1.339	3.88	1.030	107.4	94.2	35.5	0.318
4-3780	4-4250	0.538	206.3	-5.2	-2.46	1.256	65.0	0.443	0.854	97.4	587.0	0.475	1.232	4.39	0.929	65.1	314.6	-8.3	0.436
4-3780	4-4250	0.233	346.1	-14.1	-2.46	1.337	97.2	0.323	1.040	329.9	819.5	0.704	1.375	4.39	1.035	108.6	106.5	35.5	0.339
4-3780	4-4260	0.477	209.9	-9.1	-3.66	1.263	68.3	0.399	0.867	89.7	589.4	0.521	1.212	5.23	0.937	67.8	322.0	-2.9	0.399
4-3780	4-4260	0.285	356.9	-17.2	-3.66	1.341	100.0	0.350	1.052	320.4	820.1	0.684	1.420	5.23	1.040	110.1	118.3	35.2	0.367
4-3780	4-4270	0.427	213.5	-15.6	-5.50	1.269	71.3	0.359	0.879	81.7	591.6	0.563	1.194	6.74	0.944	70.1	328.8	4.7	0.371
4-3780	4-4270	0.349	4.7	-21.1	-5.50	1.346	102.8	0.381	1.066	311.5	821.3	0.660	1.473	6.74	1.045	112.0	129.8	35.4	0.404
4-3780	4-4280	0.405	216.3	-28.1	-8.94	1.275	74.0	0.326	0.890	73.5	593.4	0.600	1.180	9.86	0.950	72.0	334.4	16.6	0.383
4-3780	4-4280	0.483	12.2	-27.8	-8.94	1.351	105.9	0.417	1.082	305.2	823.1	0.631	1.533	9.86	1.050	114.2	141.1	37.5	0.456
4-3780	4-4290	0.500	211.5	-52.5	-19.61	1.279	76.4	0.299	0.899	65.2	594.9	0.630	1.168	19.23	0.954	75.5	338.1	38.5	0.439
4-3780	4-4290	0.600	23.5	-43.0	-18.61	1.356	109.0	0.456	1.099	295.5	825.2	0.598	1.599	19.23	1.055	116.5	152.7	47.1	0.567
4-3780	4-4310	0.449	220.4	62.6	18.26	1.287	81.1	0.255	0.915	46.2	597.0	0.684	1.149	-18.24	0.959	76.1	36.0	-35.8	0.401
4-3780	4-4320	0.281	239.9	48.1	9.40	1.290	83.0	0.242	0.922	37.3	597.9	0.693	1.146	-9.67	0.961	76.7	30.9	-21.8	0.296

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3780	4-4330	0.537	229.0	19.5	6.12	1.432	70.2	0.574	1.434	55.9	266.2	---	2.256	-6.70	1.142	59.2	16.5	-4.7	0.612
4-3780	4-4330	0.215	252.0	39.7	6.12	1.293	84.8	0.234	0.928	28.2	598.6	0.911	1.145	-6.70	0.961	77.2	38.5	-12.2	0.264
4-3780	4-4340	0.482	234.5	12.4	4.35	1.434	72.8	0.559	1.446	49.0	269.2	---	2.254	-5.25	1.142	60.6	23.1	0.0	0.584
4-3780	4-4340	0.176	265.0	33.8	4.35	1.295	86.5	0.228	0.934	19.0	599.2	0.720	1.147	-5.25	0.962	77.5	40.6	-5.4	0.249
4-3780	4-4350	0.433	240.6	10.3	3.18	1.436	75.4	0.546	1.457	42.0	271.9	---	2.253	-4.42	1.142	61.8	30.4	3.9	0.561
4-3780	4-4350	0.152	279.9	28.3	3.18	1.297	88.2	0.227	0.938	9.9	599.7	0.726	1.151	-4.42	0.961	77.5	47.8	-0.3	0.242
4-3780	4-4360	0.387	247.8	8.4	2.32	1.438	78.1	0.535	1.468	34.7	274.3	---	2.253	-3.92	1.142	62.8	38.0	7.2	0.541
4-3780	4-4360	0.140	296.6	22.1	2.32	1.299	89.9	0.228	0.943	0.7	600.3	0.728	1.158	-3.92	0.961	77.4	55.7	3.8	0.240
4-3780	4-4370	0.347	256.5	6.6	1.61	1.439	80.7	0.526	1.478	27.3	276.3	---	2.255	-3.61	1.142	63.7	46.0	10.0	0.524
4-3780	4-4370	0.140	313.4	15.2	1.61	1.301	91.6	0.233	0.947	351.6	960.8	0.726	1.167	-3.61	0.961	77.1	64.1	7.0	0.242
4-3780	4-4380	0.312	267.2	4.6	1.00	1.441	82.5	0.520	1.487	19.1	278.0	---	2.260	-3.44	1.142	64.3	54.4	12.3	0.511
4-3780	4-4380	0.152	328.6	8.6	1.00	1.303	93.4	0.241	0.950	342.5	961.4	0.721	1.180	-3.44	0.961	76.5	72.9	9.3	0.248
4-3790	4-3820	0.466	280.6	8.0	2.39	1.571	80.5	0.800	3.524	21.3	69.5	---	---	4.48	1.317	120.3	50.7	26.1	0.696
4-3790	4-3830	0.315	274.7	6.6	1.47	1.422	81.0	0.485	1.368	24.8	85.1	---	---	3.93	1.137	114.4	52.8	27.7	0.488
4-3790	4-3840	0.243	267.0	4.0	0.73	1.342	82.5	0.334	1.053	30.6	98.9	---	---	3.60	1.038	109.2	54.5	29.6	0.358
4-3790	4-3850	0.208	259.6	0.5	0.08	1.298	82.6	0.256	0.936	37.4	115.9	---	---	3.41	0.981	104.6	55.1	32.0	0.269
4-3790	4-3860	0.192	254.1	-3.4	-0.52	1.272	82.7	0.217	0.883	43.4	132.0	---	---	3.34	0.949	100.7	53.7	34.9	0.207
4-3790	4-3870	0.184	250.8	-7.6	-1.12	1.259	82.7	0.196	0.856	47.4	146.1	---	---	3.38	0.931	97.4	49.6	38.3	0.165
4-3790	4-3880	0.180	249.4	-12.7	-1.75	1.252	82.9	0.185	0.844	49.1	158.0	---	---	3.53	0.921	94.8	42.0	41.6	0.138
4-3790	4-3890	0.177	249.4	-17.5	-2.46	1.249	83.1	0.178	0.839	48.8	167.9	---	---	3.82	0.917	92.6	32.0	44.2	0.125
4-3790	4-3900	0.178	250.5	-24.0	-3.34	1.249	83.5	0.174	0.839	47.0	176.2	---	---	4.31	0.916	90.8	22.0	46.1	0.123
4-3790	4-3910	0.183	252.2	-32.3	-4.50	1.251	83.9	0.172	0.842	44.0	183.3	---	0.986	5.13	0.917	89.3	14.0	48.4	0.132
4-3790	4-3920	0.199	254.2	-43.3	-6.27	1.253	84.4	0.171	0.846	40.1	189.5	---	0.991	6.58	0.918	88.0	8.1	52.4	0.152
4-3790	4-3930	0.246	254.6	-57.6	-9.54	1.256	85.0	0.170	0.852	35.7	195.1	---	0.997	9.54	0.920	87.0	2.2	59.5	0.195
4-3790	4-3940	0.410	237.5	-75.2	-18.38	1.260	85.6	0.171	0.858	31.0	200.2	---	1.005	18.08	0.922	86.0	353.6	70.3	0.325
4-3790	4-3960	0.405	251.7	00.1	18.40	1.267	87.4	0.172	0.872	17.6	207.8	---	1.022	-19.28	0.926	84.6	70.5	-39.8	0.348
4-3790	4-3970	0.216	287.2	63.5	8.76	1.270	88.2	0.176	0.879	12.1	211.9	---	1.033	-9.93	0.928	83.8	63.2	-26.9	0.217
4-3790	4-3980	0.156	300.5	49.4	5.33	1.274	89.1	0.180	0.885	6.1	215.5	---	1.045	-6.81	0.929	83.0	61.3	-15.2	0.187
4-3790	4-3990	0.131	312.8	36.8	3.51	1.277	90.0	0.185	0.892	359.8	579.0	0.727	1.057	-5.29	0.951	82.3	66.8	-6.7	0.181
4-3790	4-4000	0.122	325.0	25.2	2.32	1.280	91.1	0.192	0.899	353.3	582.2	0.726	1.071	-4.44	0.932	81.5	72.1	-0.7	0.183
4-3790	4-4010	0.124	336.9	15.1	1.45	1.283	92.2	0.200	0.905	346.7	585.2	0.724	1.086	-3.92	0.934	80.6	78.5	3.5	0.189
4-3790	4-4020	0.135	347.3	7.1	0.74	1.286	93.4	0.210	0.911	339.9	588.0	0.719	1.102	-3.60	0.936	79.7	85.6	6.5	0.199
4-3790	4-4030	0.154	357.5	1.1	0.13	1.289	94.8	0.223	0.917	333.0	590.6	0.712	1.121	-3.42	0.938	78.6	93.3	8.3	0.211
4-3790	4-4040	0.179	6.1	-3.1	-0.44	1.291	96.4	0.238	0.922	325.8	593.0	0.703	1.142	-3.34	0.941	77.5	101.5	9.3	0.226
4-3790	4-4050	0.211	13.7	-6.1	-1.00	1.294	98.2	0.257	0.928	318.3	595.0	0.689	1.167	-3.36	0.943	76.1	109.9	9.4	0.245
4-3790	4-4060	0.251	20.5	-8.0	-1.58	1.296	100.3	0.281	0.934	310.5	596.7	0.671	1.196	-3.48	0.947	74.4	118.6	8.8	0.270
4-3790	4-4070	0.302	26.8	-9.3	-2.22	1.299	102.8	0.312	0.939	302.1	597.8	0.646	1.232	-3.71	0.950	72.4	127.6	7.4	0.301
4-3790	4-4080	0.366	32.8	-10.2	-2.97	1.301	105.9	0.353	0.945	293.0	598.2	0.611	1.278	-4.09	0.954	69.8	136.8	5.3	0.343
4-3790	4-4080	0.812	71.5	-3.0	-2.97	1.098	132.0	0.675	0.647	220.2	885.4	0.210	1.083	-4.09	0.650	116.1	245.2	-26.4	0.498
4-3790	4-4090	0.453	38.9	-10.7	-3.92	1.304	110.1	0.408	0.950	282.7	597.5	0.562	1.338	-4.71	0.959	66.2	146.5	2.5	0.401
4-3790	4-4090	0.730	71.7	-4.6	-3.92	1.076	127.8	0.625	0.628	220.7	895.5	0.235	1.020	-4.71	0.615	97.4	230.2	-26.0	0.391
4-3790	4-4100	0.573	45.4	-10.9	-5.27	1.306	115.8	0.485	0.956	270.7	595.0	0.492	1.420	-5.74	0.964	61.1	156.9	-1.1	0.485
4-3790	4-4100	0.744	72.5	-5.9	-5.27	1.069	128.5	0.636	0.622	219.5	903.8	0.226	1.017	-5.74	0.605	83.4	217.0	-23.8	0.399
4-3790	4-4110	0.828	74.2	-7.0	-7.44	1.067	132.9	0.692	0.620	216.6	910.5	0.191	1.049	-7.61	0.604	68.5	209.4	-21.4	0.486
4-3790	4-4160	0.878	194.3	6.0	7.24	1.036	44.3	0.732	0.595	147.8	891.0	0.160	1.031	8.52	0.570	112.5	315.5	-8.2	0.541
4-3790	4-4170	0.593	226.0	9.1	4.35	1.314	63.8	0.497	0.975	88.8	481.8	0.491	1.459	6.14	0.992	119.8	8.1	14.3	0.538
4-3790	4-4170	0.796	195.3	4.4	4.55	1.030	48.7	0.682	0.592	145.9	890.9	0.188	0.995	6.14	0.566	92.4	305.0	-11.6	0.449
4-3790	4-4180	0.451	234.6	8.3	2.99	1.316	70.7	0.411	0.981	72.7	475.7	0.578	1.585	4.91	0.998	114.3	20.3	19.5	0.444
4-3790	4-4190	0.350	243.5	7.0	1.92	1.319	75.7	0.355	0.988	58.2	471.1	0.637	1.339	4.19	1.004	110.8	32.1	23.9	0.384
4-3790	4-4200	0.277	253.5	5.2	1.10	1.321	79.7	0.320	0.994	44.5	467.5	0.676	1.312	3.75	1.010	108.6	44.1	27.7	0.345
4-3790	4-4210	0.222	265.9	2.4	0.41	1.324	82.9	0.298	1.001	31.5	464.6	0.702	1.299	3.49	1.015	107.3	56.3	30.7	0.321
4-3790	4-4220	0.184	281.5	-1.5	-0.21	1.327	85.8	0.288	1.008	19.0	462.2	0.718	1.298	3.36	1.020	106.7	68.9	32.9	0.307
4-3790	4-4230	0.165	300.7	-6.5	-0.80	1.329	88.4	0.286	1.016	7.0	460.4	0.726	1.306	3.35	1.024	106.5	81.7	34.2	0.302
4-3790	4-4240	0.739	213.0	-1.9	-1.41	1.239	54.7	0.585	0.821	116.0	579.6	0.341	1.302	3.44	0.903	55.8	309.5	-13.9	0.576
4-3790	4-4240	0.166	321.6	-11.4	-1.41	1.333	91.0	0.291	1.024	359.6	819.2	0.726	1.322	3.44	1.028	106.8	94.4	34.6	0.305
4-3790	4-4250	0.662	216.4	-3.3	-2.08	1.247	58.8	0.531	0.836	109.1	582.8	0.393	1.280	3.65	0.915	59.4	317.4	-10.0	0.524
4-3790	4-4250	0.186	340.6	-15.1	-2.08	1.536	93.5	0.303	1.034	344.8	818.6	0.721	1.346	3.65	1.033	107.4	356.8	34.1	0.315
4-3790	4-4260	0.591	219.8	-5.4	-2.85	1.255	62.5	0.479	0.850	101.9	585.8	0.443	1.258	4.03	0.926	62.7	325.0	-6.6	0.475
4-3790	4-4260	0.220	355.8	-17.5	-2.85	1.340	96.1	0.320	1.044	334.7	818.6	0.710	1.378	4.03	1.037	108.4	118.8	33.1	0.331
4-3790	4-4270	0.526	223.4	-8.5	-3.84	1.263	66.0	0.432	0.864	94.4	588.4	0.491	1.237	4.65	0.934	65.6	332.3	-1.6	0.433
4-3790	4-4270	0.266	7.5	-19.5	-3.84	1.343	98.7	0.343	1.056	325.1	819.2	0.693	1.418	4.65	1.041	109.7	130.2	31.7	0.354
4-3790	4-4280	0.470	226.9	-13.3	-5.24	1.269	69.2	0.390	0.877	86.6	590.7	0.535	1.218	5.71	0.941	68.2	339.2	4.8	0.398
4-3790	4-4280	0.323	16.6	-21.9	-5.24	1.348	101.5	0.372	1.069	316.1	820.3	0.672	1.466	5.71	1.045	111.4	141.2	30.5	0.386
4-3790	4-4290	0.430	230.2	-21.7	-7.53	1.275	72.1	0.353	0.888	78.6	592.7	0.575	1.202	7.69	0.947	70.3	345.2	13.9	0.374
4-3790	4-4290	0.394	24.2	-25.9	-7.53	1.352	104.4	0.404	1.084	307.7	821.9	0.646	1.521	7.69	1.049	113.3	151.8	30.4	0.427
4-3790	4-4300	0.436	231.4	-37.6	-12.42	1.280	74.7	0.322	0.899	70.3	594.4	0.609	1.188	12.27	0.951	72.1	349.6	28.7	0.382
4-3790	4-4300	0.497	32.2	-34.1	-12.42	1.357	107.4	0.440	1.099	299.8	823.9	0.615	1.584	12.27	1.053	115.6	162.7	35.7	0.491
4-3790	4-4310	0.725	206.2	-64.4	-31.51	1.285	77.0	0.298	0.908	62.3	595.8	0.638	1.178	31.07	0.955	73.5	355.0	57.6	0.594
4-3790	4-4330	0.343	247.5	52.3	12.28	1.292	81.6	0.257	0.924	43.2	597.8	0.687	1.161	-13.30	0.958	75.9	43.3	-24.1	0.343
4-3790	4-4340	0.573	241.9	16.0	6.81	1.434	68.6	0.586	1.435	59.7	264.1	---	2.277	-8.12	1.140	58.2	27.1	-2.2	0.634
4-3790	4-4340	0.241	260.4	39.2	6.81	1.295	85.4	0.245	0.930	34.3	598.6	0.702	1.158	-8.12	0.959	76.5	44.3	-12.1	0.284
4-3790	4-4350	0.513	247.1	11.6	4.35	1.436	71.2	0.571	1.448	53.1	267.1	---	2.275	-5.97	1.140	59.6	33.3	3.0	0.602
4-3790	4-4350	0.192	271.8	30.8	4.35	1.298	86.2	0.238	0.936	25.2	599.3	0.713	1.158	-5.97	0.960	76.9	49.8	-4.4	0.241
4-3790	4-4360	0.462	252.7	8.7	2.89	1.438	73.8	0.300	1.460	46.2	269.9	---	2.273	-4.83	1.140	60.9	40.5	6.9	0.576
4-3790	4-4360	0.161	284.8	24.1	2.89	1.300	87.0	0.236	0.941	16.2	600.0	0.721	1.161	-4.83	0.960	77.1	56.8	1.1	0.250
4-3790	4-4370	0.415	259.1	5.4	1.88	1.440	76.4	0.545	1.471	39.1	272.5	---	2.273	-4.16	1.140	62.0	48.1	10.0	0.554
4-3790	4-4370	0.142	299.9	17.5	1.88	1.302	88.6	0.233	0.946	7.2	600.6	0.726	1.166	-4.16	0.961	77.1	64.7	5.0	0.284
4-3790	4-4380	0.372	266.6	4.2	1.10	1.441	79.0	0.539	1.481	31.8	274.8	---	2.274	-3.75	1.141	63.0	56.1	12.5	0.535
4-3790	4-4380	0.136	316.4	10.6	1.10	1.304	90.3	0.235	0.950	358.2	961.2	0.727	1.173	-3.75	0.961	76.9	73.2	7.9	0.243
4-3790	4-4390	0.334	275.8	1.9	0.44	1.443	81.7	0.529	1.491	24.1	276.7	---	2.277	-3.50	1.141	63.7	64.6	14.4	0.519

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3790	4-4590	0.141	332.8	4.1	0.44	1.305	92.1	0.241	0.954	349.2	961.8	0.724	1.184	-3.50	0.961	76.5	82.0	9.8	0.246
4-3800	4-3830	0.459	270.2	5.6	1.85	1.447	74.2	0.570	1.512	44.5	86.6	---	---	4.55	1.167	118.8	51.1	26.9	0.561
4-3800	4-3840	0.348	263.2	3.2	0.05	1.339	76.4	0.375	1.037	52.5	104.9	---	---	3.85	1.031	111.9	51.7	28.2	0.405
4-3800	4-3850	0.296	257.5	0.4	0.09	1.285	77.5	0.290	0.904	60.7	123.3	---	---	3.45	0.962	106.1	53.1	29.3	0.294
4-3800	4-3860	0.271	253.8	-2.5	-0.55	1.257	78.2	0.250	0.850	68.8	139.5	---	---	3.19	0.925	101.3	48.5	31.6	0.223
4-3800	4-3870	0.256	252.0	-5.3	-1.11	1.243	78.7	0.229	0.826	69.9	152.7	---	---	3.07	0.908	97.5	43.6	33.3	0.176
4-3800	4-3880	0.245	251.7	-8.2	-1.66	1.238	79.2	0.217	0.817	70.4	163.4	---	---	3.05	0.900	94.5	36.3	34.4	0.147
4-3800	4-3890	0.237	252.4	-11.4	-2.21	1.237	79.7	0.209	0.816	69.0	172.2	---	---	3.13	0.898	92.1	28.4	34.9	0.133
4-3800	4-3900	0.229	253.8	-15.2	-2.81	1.239	80.3	0.203	0.819	66.1	179.5	---	---	3.32	0.900	90.1	21.6	35.0	0.128
4-3800	4-3910	0.223	255.8	-19.7	-3.52	1.242	80.9	0.197	0.824	62.3	185.8	---	0.987	3.66	0.903	88.6	17.4	35.8	0.131
4-3800	4-3920	0.219	258.2	-25.5	-4.40	1.247	81.6	0.193	0.832	57.7	191.3	---	0.992	4.21	0.907	87.3	15.4	37.9	0.138
4-3800	4-3930	0.222	260.9	-33.4	-5.64	1.251	82.3	0.190	0.840	52.5	196.2	---	0.999	5.15	0.911	86.3	14.9	42.1	0.151
4-3800	4-3940	0.238	263.2	-44.2	-7.66	1.256	83.1	0.187	0.848	47.0	200.7	---	1.007	6.87	0.914	85.4	14.7	49.1	0.174
4-3800	4-3950	0.299	262.4	-59.3	-11.64	1.261	83.8	0.186	0.857	41.4	204.9	---	1.016	10.78	0.918	84.6	12.3	60.4	0.226
4-3800	4-3960	0.591	219.3	-76.6	-27.16	1.265	84.6	0.186	0.865	35.9	208.9	---	1.026	25.84	0.921	83.9	8.7	77.6	0.452
4-3800	4-3980	0.269	208.5	65.7	11.12	1.274	86.7	0.186	0.882	21.4	215.1	---	1.045	-12.97	0.927	82.8	71.0	-29.5	0.265
4-3800	4-3990	0.170	239.9	47.3	5.60	1.277	87.6	0.188	0.889	15.1	218.4	---	1.057	-7.72	0.929	82.2	69.9	-15.3	0.205
4-3800	4-4000	0.134	311.9	32.4	3.21	1.281	88.6	0.192	0.897	8.6	221.5	---	1.069	-5.61	0.931	81.5	75.7	-5.7	0.191
4-3800	4-4010	0.120	324.3	20.0	1.83	1.284	89.7	0.197	0.904	1.9	224.4	---	1.082	-4.51	0.934	80.9	79.4	0.5	0.189
4-3800	4-4020	0.118	337.2	9.6	0.87	1.288	90.8	0.204	0.911	355.1	587.2	0.725	1.096	-3.86	0.936	80.1	86.2	4.7	0.193
4-3800	4-4030	0.124	349.9	1.5	0.14	1.291	92.1	0.212	0.917	348.2	589.9	0.723	1.112	-3.46	0.939	79.4	93.2	7.2	0.200
4-3800	4-4040	0.139	1.7	-4.3	-0.46	1.294	93.4	0.222	0.924	341.1	592.4	0.719	1.129	-3.22	0.941	78.5	101.7	8.7	0.210
4-3800	4-4050	0.160	12.2	-8.1	-1.00	1.296	94.9	0.235	0.930	333.9	594.7	0.712	1.148	-3.09	0.944	77.5	109.9	9.1	0.222
4-3800	4-4060	0.187	21.5	-10.5	-1.51	1.299	96.5	0.250	0.936	326.4	596.7	0.701	1.170	-3.05	0.948	76.4	118.4	8.7	0.237
4-3800	4-4070	0.222	28.5	-11.8	-2.03	1.301	98.5	0.270	0.941	318.6	598.4	0.687	1.196	-3.09	0.951	75.0	127.1	7.6	0.257
4-3800	4-4080	0.265	36.8	-12.5	-2.57	1.304	100.7	0.295	0.947	310.3	599.7	0.667	1.226	-3.23	0.955	73.3	135.9	5.8	0.282
4-3800	4-4090	0.320	43.4	-12.7	-3.18	1.306	103.4	0.328	0.952	301.4	600.4	0.640	1.265	-3.48	0.960	71.2	144.9	3.4	0.316
4-3800	4-4100	0.391	49.7	-12.6	-3.92	1.309	106.9	0.372	0.958	291.7	600.2	0.602	1.314	-3.89	0.965	68.4	154.3	0.3	0.362
4-3800	4-4100	0.726	86.5	-4.7	-3.92	1.091	127.4	0.616	0.639	222.6	891.1	0.245	1.033	-3.89	0.640	103.8	252.9	-28.6	0.404
4-3800	4-4110	0.487	56.2	-12.3	-4.90	1.311	111.5	0.433	0.964	280.5	598.6	0.547	1.381	-4.56	0.970	64.5	164.1	-3.4	0.427
4-3800	4-4110	0.707	87.0	-6.0	-4.90	1.081	126.3	0.605	0.630	222.0	900.1	0.249	1.011	-4.56	0.625	89.9	238.6	-28.2	0.369
4-3800	4-4120	0.624	63.3	-11.8	-6.33	1.313	118.0	0.520	0.970	267.3	595.0	0.466	1.474	-5.71	0.976	58.7	175.0	-7.8	0.524
4-3800	4-4120	0.751	88.2	-7.1	-6.33	1.077	128.6	0.637	0.626	220.2	907.9	0.228	1.025	-5.71	0.622	76.7	227.2	-26.3	0.414
4-3800	4-4130	0.871	90.5	-7.7	-8.83	1.076	135.0	0.716	0.626	216.0	913.3	0.178	1.074	-7.94	0.625	61.5	222.9	-24.9	0.537
4-3800	4-4180	0.807	212.4	4.4	4.48	1.049	48.4	0.681	0.604	144.4	891.5	0.195	1.016	6.71	0.600	107.2	332.2	-2.9	0.483
4-3800	4-4190	0.522	246.4	6.0	2.55	1.321	67.3	0.458	0.989	80.2	477.3	0.535	1.442	5.06	1.005	117.2	29.6	21.9	0.494
4-3800	4-4190	0.921	208.2	1.8	2.55	1.014	41.2	0.770	0.579	151.3	908.4	0.333	1.025	5.06	0.542	64.8	298.0	-16.5	0.567
4-3800	4-4190	0.760	212.6	2.7	2.55	1.042	50.8	0.653	0.599	143.8	900.8	0.208	0.990	5.06	0.592	88.4	319.3	-8.4	0.424
4-3800	4-4200	0.460	255.2	4.2	1.34	1.323	73.3	0.387	0.995	64.6	471.7	0.610	1.361	4.16	1.010	112.8	42.5	26.1	0.416
4-3800	4-4210	0.313	264.7	1.9	0.47	1.326	77.8	0.342	1.002	50.3	467.5	0.659	1.345	3.63	1.015	110.0	55.3	29.3	0.367
4-3800	4-4220	0.249	276.0	-1.2	-0.22	1.328	81.4	0.315	1.008	36.9	464.2	0.691	1.326	3.30	1.020	108.3	68.2	31.6	0.335
4-3800	4-4230	0.204	290.0	-5.3	-0.82	1.331	84.5	0.300	1.015	24.2	461.7	0.711	1.319	3.12	1.024	107.3	81.2	32.9	0.316
4-3800	4-4240	0.177	307.5	-10.4	-1.37	1.333	87.3	0.294	1.022	12.1	459.8	0.722	1.323	3.05	1.028	106.9	94.1	33.2	0.307
4-3800	4-4250	0.170	327.7	-15.3	-1.92	1.336	89.8	0.296	1.030	0.7	458.5	0.726	1.335	3.08	1.031	107.0	106.7	32.6	0.306
4-3800	4-4260	0.719	230.2	-3.6	-2.49	1.247	56.0	0.569	0.832	118.2	581.2	0.359	1.306	3.20	0.912	56.8	328.0	-8.3	0.567
4-3800	4-4260	0.181	347.7	-18.7	-2.49	1.339	92.4	0.304	1.039	349.9	817.9	0.723	1.355	3.20	1.034	107.6	118.9	31.2	0.312
4-3800	4-4270	0.644	233.6	-5.3	-3.13	1.255	59.9	0.516	0.847	106.1	584.3	0.410	1.284	3.46	0.922	60.3	335.5	-4.4	0.515
4-3800	4-4270	0.209	4.6	-20.5	-3.13	1.343	94.9	0.319	1.049	339.6	817.8	0.715	1.383	3.46	1.038	108.3	130.4	29.2	0.324
4-3800	4-4280	0.576	237.0	-7.7	-3.91	1.263	63.6	0.467	0.861	98.8	587.1	0.459	1.263	3.88	0.930	63.4	342.7	0.1	0.468
4-3800	4-4280	0.249	17.7	-21.4	-3.91	1.346	97.5	0.339	1.060	330.0	818.3	0.701	1.419	3.88	1.041	109.4	141.2	26.9	0.344
4-3800	4-4290	0.514	240.5	-11.3	-4.93	1.270	66.9	0.422	0.674	91.3	589.6	0.506	1.243	4.59	0.938	66.2	349.7	5.6	0.427
4-3800	4-4290	0.299	27.9	-22.5	-4.93	1.350	100.1	0.363	1.072	321.0	819.7	0.683	1.462	4.59	1.044	110.9	151.6	24.7	0.370
4-3800	4-4300	0.463	243.9	-16.9	-6.46	1.276	70.0	0.382	0.887	83.4	591.8	0.548	1.225	5.82	0.943	68.6	356.2	12.6	0.394
4-3800	4-4300	0.359	36.0	-24.4	-6.46	1.355	102.9	0.393	1.086	312.4	820.8	0.659	1.512	5.82	1.047	112.6	161.5	23.0	0.404
4-3800	4-4310	0.434	246.8	-26.8	-9.19	1.281	72.8	0.347	0.898	75.4	593.7	0.586	1.209	8.27	0.948	70.6	1.9	22.8	0.375
4-3800	4-4310	0.436	43.3	-28.6	-9.19	1.359	105.8	0.426	1.101	304.4	822.7	0.631	1.570	8.27	1.051	114.7	171.5	23.1	0.449
4-3800	4-4320	0.480	245.4	-46.0	-16.11	1.286	75.3	0.319	0.908	67.2	595.3	0.618	1.197	14.92	0.952	72.2	5.5	43.1	0.406
4-3800	4-4320	0.567	52.5	-39.2	-16.11	1.364	108.9	0.463	1.117	296.9	825.0	0.600	1.634	14.92	1.054	116.9	182.0	29.0	0.529
4-3800	4-4340	0.470	250.2	60.5	18.72	1.294	80.1	0.273	0.925	48.8	597.6	0.573	1.177	-20.43	0.956	74.9	58.5	-28.5	0.438
4-3800	4-4350	0.275	269.7	39.4	7.80	1.297	82.0	0.259	0.932	40.3	598.6	0.690	1.173	-9.77	0.958	75.7	54.1	-12.3	0.309
4-3800	4-4360	0.546	260.0	10.6	4.20	1.438	69.6	0.584	1.450	97.1	265.0	---	2.296	-6.55	1.138	58.5	43.5	5.9	0.620
4-3800	4-4360	0.210	280.1	27.3	4.28	1.360	83.9	0.249	0.938	31.5	599.4	0.704	1.172	-6.53	0.959	76.2	58.7	-2.9	0.274
4-3800	4-4370	0.493	265.2	6.9	2.48	1.440	72.2	0.569	1.462	50.4	267.9	---	2.294	-5.01	1.139	59.9	50.6	9.9	0.591
4-3800	4-4370	0.174	291.2	18.9	2.48	1.302	85.6	0.242	0.944	22.6	600.1	0.715	1.172	-5.01	0.959	76.5	65.6	2.8	0.257
4-3800	4-4380	0.445	270.9	4.2	1.34	1.441	74.7	0.556	1.474	43.5	270.6	---	2.293	-4.16	1.139	61.1	58.3	12.8	0.567
4-3800	4-4380	0.150	304.2	11.7	1.34	1.305	87.4	0.239	0.949	15.8	600.9	0.722	1.176	-4.16	0.960	76.7	73.6	6.7	0.248
4-3800	4-4390	0.401	277.5	1.8	0.51	1.443	77.3	0.545	1.484	36.4	273.1	---	2.293	-3.65	1.140	62.1	66.4	14.8	0.546
4-3800	4-4390	0.138	319.3	-8.8	0.51	1.307	89.1	0.239	0.953	4.9	601.6	0.725	1.181	-3.65	0.961	76.6	82.2	9.2	0.245
4-3800	4-4400	0.360	285.4	-0.6	-0.15	1.445	80.0	0.536	1.494	29.0	275.3	---	2.295	-3.33	1.141	63.1	74.9	16.3	0.528
4-3800	4-4400	0.137	335.7	-1.5	-0.15	1.308	90.8	0.242	0.957	356.1	962.4	0.725	1.189	-3.33	0.962	76.4	91.2	10.6	0.245
4-3810	4-3840	0.526	262.7	2.6	1.14	1.328	67.2	0.465	1.002	79.5	116.0	---	---	4.24	1.015	117.7	48.5	25.4	0.500
4-3810	4-3850	0.431	258.7	0.3	0.11	1.256	70.3	0.364	0.848	87.5	134.1	---	---	3.47	0.922	109.3	44.9	26.1	0.348
4-3810	4-3860	0.383	256.6	-1.9	-0.62	1.228	72.8	0.318	0.798	91.8	148.5	---	---	3.01	0.883	102.8	41.6	26.6	0.259
4-3810	4-3870	0.354	256.0	-4.0	-1.20	1.216	73.5	0.292	0.780	92.9	159.8	---	---	2.94	0.867	97.4	36.4	26.7	0.204
4-3810	4-3880	0.333	256.6	-6.0	-1.70	1.214	74.5	0.274	0.777	91.7	168.8	---	---	2.58	0.864	94.2	30.2	26.2	0.172
4-3810	4-3890	0.316	257.9	-8.1	-2.16	1.217	75.5	0.260	0.781	88.9	176.2	---	---	2.52	0.868	91.3	24.4	25.4	0.156
4-3810	4-3900	0.301	259.7	-10.3	-2.60	1.222	76.4	0.249	0.789	85.0	182.5	---	0.985	2.54	0.874	89.2	20.4	24.8	0.149
4-3810	4-3910	0.287	261.9	-12.9	-3.07	1.228	77.3	0.238	0.799	80.4	188.0	---	0.989	2.64	0.881	87.5	18.5	25.0	0.148
4-3810	4-3920	0.274	264.4	-16.1	-3.60	1.235	78.2	0.229	0.810	75.2	192.8	---	0.995	2.85	0.888	86.2	18.6	26.2	0.151
4-3810	4-3930	0.262	267.2	-20.0	-4.23	1.242	79.1	0.222	0.821	69.5	197.3	---	1.003	3.19	0.896	85.2	20.3	28.6	0.156

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3810	4-3940	0.254	270.2	-25.2	-5.05	1.249	80.0	0.215	0.832	63.6	201.4	---	1.011	3.75	0.902	84.4	23.0	32.4	0.163
4-3810	4-3950	0.252	273.2	-32.5	-6.27	1.255	81.0	0.210	0.843	57.4	205.1	---	1.020	4.72	0.908	83.7	26.2	38.2	0.177
4-3810	4-3960	0.267	275.6	-43.1	-8.40	1.261	81.9	0.206	0.854	51.1	208.7	---	1.030	6.62	0.913	83.1	29.1	47.2	0.193
4-3810	4-3970	0.341	223.4	-59.8	-13.58	1.267	82.9	0.203	0.864	44.8	212.1	---	1.040	11.58	0.917	82.6	29.6	62.7	0.252
4-3810	4-3990	0.392	277.1	71.5	17.00	1.276	85.1	0.199	0.884	30.4	218.0	---	1.059	-19.43	0.925	81.7	81.5	-34.0	0.363
4-3810	4-4000	0.190	302.6	44.3	5.97	1.281	86.1	0.200	0.892	24.0	221.1	---	1.071	-8.62	0.928	81.2	76.6	-15.1	0.224
4-3810	4-4010	0.144	313.6	25.4	2.76	1.285	87.1	0.202	0.901	17.3	223.9	---	1.083	-5.63	0.932	80.7	80.5	-3.6	0.200
4-3810	4-4020	0.126	324.6	12.0	1.17	1.289	88.2	0.205	0.909	10.4	226.7	---	1.095	-4.27	0.936	80.1	86.8	2.9	0.196
4-3810	4-4030	0.120	337.0	1.9	0.18	1.292	89.4	0.210	0.916	3.5	229.3	---	1.108	-3.52	0.938	79.6	94.0	6.7	0.197
4-3810	4-4040	0.122	350.3	-5.7	-0.53	1.295	90.6	0.216	0.923	356.5	591.8	0.724	1.123	-3.06	0.941	78.9	101.9	8.8	0.202
4-3810	4-4050	0.131	3.7	-10.9	-1.09	1.298	91.9	0.224	0.930	349.4	594.2	0.722	1.138	-2.76	0.945	78.2	110.1	9.7	0.209
4-3810	4-4060	0.147	16.2	-14.1	-1.57	1.301	93.4	0.234	0.937	342.1	596.5	0.718	1.155	-2.62	0.948	77.4	118.6	9.5	0.219
4-3810	4-4070	0.169	27.5	-15.6	-2.01	1.304	94.9	0.246	0.943	334.6	598.5	0.711	1.175	-2.53	0.952	76.5	127.1	8.6	0.232
4-3810	4-4080	0.198	37.2	-16.1	-2.43	1.306	96.7	0.262	0.949	326.8	600.2	0.700	1.197	-2.52	0.957	75.3	135.7	6.9	0.247
4-3810	4-4090	0.234	45.8	-16.0	-2.86	1.309	98.8	0.283	0.954	318.6	601.6	0.685	1.224	-2.59	0.961	74.0	144.5	4.7	0.268
4-3810	4-4100	0.280	53.3	-15.4	-3.32	1.311	101.2	0.309	0.960	309.9	602.5	0.663	1.257	-2.73	0.966	72.2	153.3	1.9	0.295
4-3810	4-4110	0.340	60.3	-14.6	-3.86	1.314	104.2	0.345	0.966	300.5	602.7	0.633	1.298	-2.98	0.971	70.0	162.5	-1.4	0.332
4-3810	4-4110	0.741	101.4	-4.6	-3.86	1.109	127.9	0.621	0.653	224.1	886.3	0.248	1.058	-2.98	0.668	116.4	275.3	-27.6	0.440
4-3810	4-4120	0.418	66.9	-13.7	-4.53	1.316	108.0	0.393	0.971	290.0	601.8	0.590	1.352	-3.38	0.976	67.0	172.0	-5.2	0.383
4-3810	4-4120	0.684	101.7	-5.9	-4.53	1.094	125.0	0.584	0.639	224.2	896.0	0.266	1.012	-3.38	0.646	95.6	261.7	-29.3	0.360
4-3810	4-4130	0.526	73.6	-12.6	-5.45	1.318	113.2	0.461	0.977	277.8	599.3	0.527	1.427	-4.05	0.982	62.6	182.3	-9.5	0.459
4-3810	4-4130	0.698	102.5	-6.9	-5.45	1.088	125.7	0.595	0.634	223.0	904.6	0.257	1.011	-4.05	0.640	83.4	248.1	-29.0	0.367
4-3810	4-4140	0.685	81.5	-11.4	-6.88	1.321	120.8	0.560	0.983	262.9	594.2	0.432	1.534	-5.24	0.988	55.9	194.1	-14.2	0.572
4-3810	4-4140	0.772	104.0	-7.5	-6.88	1.086	129.6	0.647	0.632	220.4	911.6	0.223	1.041	-5.24	0.641	70.4	239.5	-47.7	0.446
4-3810	4-4190	0.884	227.8	3.6	4.26	1.062	44.3	0.727	0.612	145.8	887.0	0.167	1.058	7.00	0.623	119.3	351.4	3.5	0.573
4-3810	4-4200	0.614	257.8	3.6	1.89	1.326	62.9	0.517	0.996	89.1	480.3	0.482	1.511	4.87	1.011	121.1	38.9	23.2	0.559
4-3810	4-4200	0.750	251.2	2.1	1.89	1.062	51.6	0.637	0.612	141.4	892.6	0.222	1.002	4.87	0.626	102.6	347.8	2.2	0.433
4-3810	4-4210	0.462	266.8	1.6	0.60	1.328	70.3	0.427	1.003	71.9	473.1	0.575	1.431	3.82	1.016	115.2	53.0	27.0	0.457
4-3810	4-4210	0.860	226.4	0.5	0.60	1.033	45.1	0.724	0.590	147.7	909.0	0.163	1.018	3.82	0.579	68.3	317.7	-12.2	0.521
4-3810	4-4210	0.742	229.6	0.7	0.60	1.052	51.9	0.636	0.604	142.3	903.6	0.220	0.989	3.82	0.612	85.8	331.7	-5.6	0.413
4-3810	4-4220	0.358	276.6	-0.9	-0.26	1.331	75.6	0.370	1.009	56.7	468.1	0.638	1.382	3.22	1.020	111.7	66.6	29.6	0.393
4-3810	4-4230	0.283	286.4	-4.2	-0.91	1.333	79.7	0.334	1.016	42.8	464.4	0.676	1.355	2.86	1.024	109.5	80.0	31.0	0.352
4-3810	4-4240	0.230	298.9	-8.4	-1.44	1.335	83.0	0.314	1.022	29.8	461.5	0.702	1.343	2.65	1.027	108.2	93.2	31.4	0.327
4-3810	4-4250	0.195	314.6	-13.3	-1.92	1.338	85.9	0.304	1.029	17.6	459.5	0.717	1.342	2.54	1.031	107.5	106.1	30.7	0.313
4-3810	4-4260	0.178	333.5	-18.1	-2.37	1.340	88.6	0.302	1.037	6.0	458.1	0.724	1.350	2.52	1.033	107.4	118.4	29.1	0.308
4-3810	4-4270	0.181	353.8	-21.5	-2.82	1.343	91.1	0.307	1.045	355.1	817.4	0.724	1.366	2.58	1.036	107.6	130.0	26.9	0.310
4-3810	4-4280	0.699	247.4	-5.0	-3.31	1.255	57.3	0.553	0.844	110.3	582.7	0.377	1.311	2.72	0.917	57.7	346.0	-1.9	0.556
4-3810	4-4280	0.200	12.2	-22.8	-3.31	1.346	93.6	0.319	1.054	344.9	817.3	0.718	1.390	2.72	1.038	108.2	141.0	24.2	0.319
4-3810	4-4290	0.627	250.8	-6.9	-3.88	1.263	61.1	0.502	0.856	103.2	585.6	0.427	1.289	2.99	0.926	61.0	353.2	2.3	0.505
4-3810	4-4290	0.233	27.1	-23.0	-3.88	1.350	96.2	0.335	1.064	335.2	817.6	0.708	1.421	2.99	1.041	109.2	151.3	21.2	0.335
4-3810	4-4300	0.561	254.2	-9.4	-4.59	1.270	64.6	0.455	0.872	95.8	588.3	0.475	1.269	3.42	0.933	64.0	0.1	7.0	0.460
4-3810	4-4300	0.276	38.6	-22.8	-4.59	1.353	98.8	0.357	1.076	326.0	818.5	0.692	1.460	3.42	1.043	110.4	161.1	18.2	0.356
4-3810	4-4310	0.503	257.7	-13.2	-5.56	1.277	67.8	0.413	0.885	88.2	590.7	0.519	1.250	4.14	0.939	66.6	7.3	12.5	0.420
4-3810	4-4310	0.328	47.5	-23.1	-5.56	1.357	101.4	0.383	1.088	317.4	819.9	0.671	1.505	4.14	1.046	112.0	170.5	15.5	0.385
4-3810	4-4320	0.456	261.1	-19.2	-7.11	1.283	70.8	0.375	0.896	80.3	592.7	0.560	1.233	5.45	0.944	68.9	14.0	19.5	0.388
4-3810	4-4320	0.390	54.9	-24.7	-7.11	1.362	104.3	0.414	1.102	309.2	821.6	0.646	1.558	5.45	1.049	113.8	179.7	13.8	0.420
4-3810	4-4330	0.434	263.7	-30.2	-10.17	1.288	73.5	0.343	0.907	72.2	594.5	0.596	1.218	8.29	0.948	70.8	19.9	30.4	0.372
4-3810	4-4330	0.472	61.8	-29.2	-10.17	1.366	107.2	0.448	1.118	301.4	823.7	0.617	1.618	8.29	1.052	116.0	189.2	14.5	0.469
4-3810	4-4340	0.539	257.8	-53.4	-20.19	1.292	75.9	0.317	0.917	64.1	596.0	0.626	1.207	18.09	0.951	72.3	23.7	53.6	0.437
4-3810	4-4340	0.645	73.5	-43.5	-20.19	1.371	110.2	0.484	1.134	294.2	826.0	0.585	1.684	18.09	1.055	118.3	199.5	24.6	0.574
4-3810	4-4360	0.322	279.3	41.8	9.63	1.300	80.5	0.275	0.933	46.3	598.4	0.676	1.190	-12.17	0.955	74.7	64.2	-13.8	0.343
4-3810	4-4370	0.579	273.2	9.5	4.10	1.439	67.9	0.497	1.451	61.1	262.7	---	2.318	-6.86	1.136	57.3	53.8	8.7	0.638
4-3810	4-4370	0.232	289.7	23.5	4.10	1.303	82.4	0.263	0.940	37.8	599.4	0.693	1.186	-6.86	0.957	75.4	67.4	-1.2	0.287
4-3810	4-4380	0.525	277.9	4.9	1.89	1.442	76.5	0.282	1.464	54.6	265.8	---	2.316	-4.87	1.137	58.8	60.9	12.8	0.607
4-3810	4-4380	0.191	299.1	13.0	1.89	1.305	84.2	0.254	0.946	29.1	600.3	0.706	1.186	-4.87	0.958	75.9	74.4	5.3	0.265
4-3810	4-4390	0.476	283.0	1.9	0.65	1.443	73.0	0.568	1.476	47.9	268.6	---	2.314	-3.86	1.138	60.1	68.7	15.4	0.581
4-3810	4-4390	0.164	310.0	5.2	0.65	1.308	86.0	0.248	0.951	20.4	601.2	0.715	1.187	-3.86	0.960	76.1	82.6	8.9	0.253
4-3810	4-4400	0.431	288.9	-0.6	-0.18	1.445	75.6	0.556	1.487	41.0	271.3	---	2.314	-3.27	1.139	61.3	76.9	17.0	0.558
4-3810	4-4400	0.147	323.2	-1.6	-0.18	1.310	87.7	0.245	0.956	11.7	602.0	0.721	1.191	-3.27	0.961	76.2	91.3	11.0	0.247
4-3810	4-4410	0.389	295.8	-3.0	-0.81	1.447	78.2	0.545	1.498	33.9	273.7	---	2.314	-2.91	1.140	62.3	85.5	17.9	0.538
4-3810	4-4410	0.140	338.4	-7.6	-0.81	1.311	89.4	0.246	0.960	3.0	602.9	0.724	1.197	-2.91	0.963	76.1	100.4	11.9	0.245
4-3820	4-3850	0.644	261.5	0.3	0.16	1.215	59.2	0.516	0.776	114.3	144.9	---	---	3.53	0.861	117.1	38.7	21.2	0.475
4-3820	4-3860	0.544	260.7	-1.6	-0.80	1.180	63.7	0.443	0.728	118.6	156.3	---	---	2.75	0.811	106.7	35.4	20.8	0.340
4-3820	4-3870	0.487	261.3	-3.1	-1.42	1.172	66.5	0.399	0.719	114.3	165.2	---	---	2.31	0.801	99.4	30.9	19.9	0.265
4-3820	4-3880	0.448	262.7	-4.6	-1.89	1.176	68.5	0.366	0.723	111.4	172.5	---	---	2.05	0.807	94.3	26.2	18.8	0.222
4-3820	4-3890	0.418	264.6	-6.1	-2.27	1.185	70.1	0.340	0.734	107.5	178.8	---	---	1.89	0.819	90.6	22.3	17.7	0.200
4-3820	4-3900	0.392	266.9	-7.6	-2.61	1.195	71.5	0.318	0.748	102.8	184.2	---	0.986	1.81	0.833	88.0	20.1	17.1	0.189
4-3820	4-3910	0.370	269.4	-9.2	-2.93	1.206	72.8	0.299	0.763	97.5	189.1	---	0.991	1.79	0.847	86.1	19.7	17.2	0.184
4-3820	4-3920	0.348	272.1	-11.0	-3.25	1.217	74.1	0.283	0.779	91.9	193.6	---	0.999	1.83	0.860	84.8	20.9	18.1	0.182
4-3820	4-3930	0.329	274.9	-13.1	-3.60	1.228	75.3	0.268	0.794	85.9	197.7	---	1.007	1.93	0.872	83.7	23.6	19.8	0.182
4-3820	4-3940	0.310	277.8	-15.7	-4.00	1.237	76.5	0.256	0.807	79.7	201.5	---	1.016	2.11	0.883	83.0	27.3	22.1	0.183
4-3820	4-3950	0.294	280.9	-18.9	-4.49	1.246	77.6	0.245	0.824	73.3	205.1	---	1.026	2.41	0.892	82.4	31.9	25.2	0.185
4-3820	4-3960	0.280	284.2	-23.2	-5.15	1.254	78.7	0.237	0.837	66.8	208.5	---	1.036	2.90	0.900	81.9	37.0	29.3	0.188
4-3820	4-3970	0.272	287.4	-29.5	-6.20	1.261	79.9	0.230	0.850	60.2	211.8	---	1.045	3.77	0.907	81.5	42.5	35.0	0.193
4-3820	4-3980	0.280	290.2	-39.5	-8.20	1.268	81.0	0.224	0.862	53.5	214.8	---	1.056	5.61	0.913	81.1	47.9	44.2	0.206
4-3820	4-3990	0.364	287.4	-58.6	-14.27	1.274	82.1	0.220	0.874	46.9	217.8	---	1.066	11.53	0.918	80.7	52.8	63.7	0.266
4-3820	4-4010	0.220	308.2	42.5	6.68	1.284	84.4	0.214	0.895	32.7	223.3	---	1.086	-9.73	0.927	80.1	83.7	-15.4	0.247
4-3820	4-4020	0.159	318.0	16.3	2.00	1.288	85.5	0.214	0.904	25.8	226.1	---	1.098	-5.20	0.932	79.7	87.6	-0.0	0.209
4-3820	4-4030	0.141	327.3	2.3	0.26	1.293	86.7	0.215	0.913	18.9	228.7	---	1.109	-3.61	0.936	79.3	94.5	6.7	0.202
4-3820	4-4040	0.133	338.1	-6.8	-0.69	1.296	87.9	0.218	0.921	11.9	231.3	---	1.122	-2.83	0.940	78.9	102.3	9.9	0.203

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3820	4-4050	0.130	350.5	-13.3	-1.31	1.300	89.1	0.222	0.929	4.8	233.7	---	1.135	-2.38	0.944	78.4	110.6	11.2	0.206
4-3820	4-4060	0.132	4.2	-17.8	-1.78	1.303	90.4	0.228	0.936	357.7	596.1	0.723	1.149	-2.11	0.948	77.8	119.0	11.3	0.211
4-3820	4-4070	0.141	18.1	-20.3	-2.15	1.306	91.8	0.235	0.943	350.3	598.3	0.721	1.165	-1.94	0.952	77.1	127.6	10.5	0.219
4-3820	4-4080	0.157	31.3	-21.2	-2.48	1.309	93.4	0.245	0.949	342.8	600.3	0.717	1.182	-1.84	0.957	76.4	136.1	8.9	0.228
4-3820	4-4090	0.179	43.2	-20.8	-2.79	1.311	95.0	0.258	0.956	335.1	602.1	0.709	1.202	-1.80	0.962	75.5	144.7	6.7	0.241
4-3820	4-4100	0.209	53.4	-19.7	-3.09	1.314	96.9	0.274	0.962	327.0	603.6	0.698	1.225	-1.81	0.967	74.4	153.4	4.0	0.258
4-3820	4-4110	0.247	62.3	-18.2	-3.40	1.316	99.1	0.296	0.967	318.4	604.6	0.681	1.253	-1.87	0.972	73.0	162.1	0.9	0.280
4-3820	4-4120	0.296	70.2	-16.6	-3.75	1.318	101.8	0.324	0.973	309.2	605.1	0.658	1.288	-1.99	0.977	71.2	171.1	-2.6	0.309
4-3820	4-4120	0.809	117.0	-4.0	-3.75	1.135	131.2	0.660	0.677	224.4	880.3	0.230	1.124	-1.99	0.711	120.5	297.4	-23.4	0.534
4-3820	4-4130	0.361	77.4	-14.9	-4.17	1.321	105.1	0.362	0.978	299.1	604.7	0.624	1.333	-2.21	0.983	68.8	180.4	-6.5	0.350
4-3820	4-4130	0.675	116.6	-5.6	-4.17	1.107	124.4	0.572	0.649	226.1	891.7	0.278	1.020	-2.21	0.668	100.8	284.1	-26.8	0.367
4-3820	4-4140	0.448	84.4	-13.2	-4.70	1.323	109.4	0.415	0.984	287.7	603.0	0.575	1.393	-2.55	0.989	65.5	190.5	-10.6	0.408
4-3820	4-4140	0.661	117.1	-6.5	-4.70	1.099	123.7	0.565	0.641	225.5	900.8	0.279	1.003	-2.55	0.659	88.6	270.5	-28.4	0.340
4-3820	4-4150	0.571	91.7	-11.5	-5.46	1.325	115.4	0.493	0.990	274.3	599.4	0.502	1.478	-3.14	0.994	60.6	201.6	-15.0	0.495
4-3820	4-4150	0.702	118.1	-6.9	-5.46	1.095	125.8	0.595	0.638	223.8	908.9	0.259	1.013	-3.14	0.658	77.4	258.8	-28.3	0.382
4-3820	4-4160	0.810	120.1	-6.8	-6.73	1.095	131.5	0.671	0.638	219.9	914.9	0.210	1.066	-4.25	0.661	83.9	253.9	-27.7	0.495
4-3820	4-4210	0.804	246.2	0.9	0.92	1.075	48.9	0.670	0.621	141.8	887.1	0.205	1.036	4.21	0.646	113.3	8.8	9.2	0.500
4-3820	4-4220	0.541	278.2	-0.8	-0.36	1.333	66.5	0.476	1.010	80.3	475.7	0.529	1.492	3.10	1.021	118.4	63.3	26.7	0.509
4-3820	4-4220	0.707	247.6	-0.4	-0.36	1.073	54.1	0.601	0.619	138.9	894.3	0.247	0.992	3.10	0.646	98.5	2.4	6.6	0.393
4-3820	4-4230	0.414	287.3	-3.5	-1.12	1.335	72.9	0.403	1.017	63.9	469.5	0.607	1.427	2.51	1.025	113.7	77.7	28.5	0.425
4-3820	4-4240	0.325	297.0	-6.7	-1.66	1.337	77.6	0.358	1.023	49.3	465.1	0.657	1.389	2.07	1.028	110.9	91.5	29.0	0.423
4-3820	4-4250	0.261	308.3	-10.6	-2.08	1.340	81.3	0.331	1.029	35.9	461.8	0.689	1.370	1.67	1.031	109.1	104.7	28.4	0.340
4-3820	4-4260	0.217	322.2	-15.1	-2.44	1.342	84.4	0.316	1.036	23.4	459.5	0.709	1.363	1.35	1.033	108.2	117.2	26.8	0.321
4-3820	4-4270	0.192	339.5	-19.7	-2.76	1.344	87.2	0.310	1.043	11.7	458.0	0.719	1.367	1.80	1.035	107.8	129.1	24.5	0.311
4-3820	4-4280	0.184	359.3	-23.2	-3.08	1.347	89.8	0.312	1.051	0.7	457.1	0.723	1.379	1.81	1.037	107.9	140.2	21.6	0.310
4-3820	4-4290	0.755	261.4	-4.6	-3.41	1.255	54.6	0.591	0.840	114.3	580.8	0.344	1.337	1.87	0.913	55.0	356.5	1.0	0.597
4-3820	4-4290	0.194	18.8	-24.5	-3.41	1.350	92.3	0.320	1.060	350.4	816.9	0.721	1.398	1.87	1.039	108.3	150.6	18.2	0.316
4-3820	4-4300	0.680	264.7	-6.0	-3.78	1.264	58.5	0.539	0.855	107.4	583.9	0.394	1.316	2.01	0.921	58.6	3.7	4.8	0.544
4-3820	4-4300	0.218	35.4	-24.0	-3.78	1.353	94.8	0.333	1.069	340.6	817.1	0.713	1.425	2.01	1.040	109.0	160.5	14.7	0.328
4-3820	4-4310	0.610	268.1	-7.8	-4.21	1.271	62.1	0.490	0.869	100.2	586.8	0.445	1.295	2.23	0.928	61.7	11.1	8.8	0.494
4-3820	4-4310	0.254	48.4	-22.9	-4.21	1.357	97.4	0.352	1.080	331.3	817.8	0.790	1.460	2.23	1.042	110.1	169.9	11.2	0.346
4-3820	4-4320	0.586	271.5	-10.2	-4.77	1.278	65.5	0.445	0.882	92.8	589.3	0.489	1.275	2.61	0.935	64.5	18.4	13.1	0.450
4-3820	4-4320	0.299	58.5	-21.9	-4.77	1.360	100.0	0.375	1.002	322.5	819.0	0.682	1.501	2.61	1.045	111.5	179.0	7.9	0.370
4-3820	4-4330	0.489	275.0	-13.7	-5.58	1.284	68.7	0.405	0.895	85.2	591.6	0.532	1.257	3.24	0.940	67.0	25.8	18.0	0.411
4-3820	4-4330	0.352	66.4	-21.6	-5.58	1.364	102.7	0.402	1.105	314.2	820.5	0.660	1.549	3.24	1.047	113.1	187.9	5.1	0.400
4-3820	4-4340	0.444	278.5	-19.5	-6.95	1.289	71.5	0.370	0.906	77.3	593.5	0.570	1.241	4.45	0.944	69.1	33.2	24.4	0.379
4-3820	4-4340	0.415	73.1	-22.6	-6.95	1.368	105.6	0.434	1.119	306.3	822.4	0.634	1.603	4.45	1.050	115.0	196.8	3.4	0.437
4-3820	4-4350	0.425	281.1	-20.8	-10.06	1.294	74.1	0.340	0.916	69.3	595.2	0.604	1.228	7.40	0.948	70.9	40.0	35.1	0.363
4-3820	4-4350	0.446	79.5	-27.3	-10.06	1.373	108.5	0.468	1.135	298.7	824.7	0.603	1.666	7.40	1.053	117.2	206.0	4.6	0.486
4-3820	4-4360	0.634	266.0	-60.2	-25.85	1.298	76.5	0.316	0.925	61.3	596.7	0.633	1.218	23.04	0.951	72.3	49.2	66.2	0.494
4-3820	4-4370	0.429	285.5	51.7	15.26	1.302	78.8	0.294	0.934	52.3	598.0	0.659	1.208	-18.23	0.953	73.5	76.9	-20.2	0.421
4-3820	4-4380	0.256	300.2	19.1	3.74	1.305	80.8	0.279	0.941	44.0	599.2	0.679	1.203	-6.86	0.956	74.4	76.0	1.2	0.299
4-3820	4-4390	0.558	291.0	2.4	1.01	1.444	68.7	0.595	1.466	58.8	263.5	---	2.338	-4.29	1.136	57.6	71.3	15.7	0.622
4-3820	4-4390	0.213	308.2	6.2	1.01	1.308	82.7	0.267	0.947	35.6	600.3	0.695	1.200	-4.29	0.958	75.0	83.2	8.6	0.273
4-3820	4-4400	0.510	295.6	-0.7	-0.25	1.446	71.3	0.581	1.478	52.2	266.6	---	2.336	-3.18	1.137	59.0	79.3	17.8	0.595
4-3820	4-4400	0.185	317.3	-1.8	-0.25	1.310	84.5	0.259	0.953	27.1	601.4	0.707	1.200	-3.18	0.960	75.5	91.8	11.9	0.259
4-3820	4-4410	0.464	300.8	-3.0	-1.01	1.447	73.8	0.567	1.490	45.6	269.4	---	2.335	-2.59	1.139	60.3	87.7	18.9	0.570
4-3820	4-4410	0.164	328.4	-8.1	-1.01	1.313	86.3	0.254	0.959	18.6	602.4	0.715	1.202	-2.59	0.962	75.7	100.8	13.4	0.251
4-3820	4-4420	0.421	306.9	-5.2	-1.55	1.449	76.4	0.556	1.501	38.7	272.0	---	2.335	-2.24	1.141	61.4	96.3	19.2	0.549
4-3820	4-4420	0.152	341.7	-13.5	-1.55	1.315	88.0	0.252	0.963	10.1	603.4	0.721	1.206	-2.24	0.964	75.8	110.0	13.6	0.246
4-3830	4-3860	0.791	265.2	-1.3	-1.25	1.113	50.1	0.646	0.652	137.1	161.8	---	---	2.22	0.707	117.6	32.3	15.9	0.513
4-3830	4-3870	0.671	266.9	-2.7	-1.93	1.107	56.4	0.561	0.646	133.5	168.4	---	---	1.62	0.698	104.1	29.0	14.9	0.382
4-3830	4-3880	0.599	269.2	-3.8	-2.34	1.119	60.4	0.501	0.658	129.2	174.3	---	---	1.31	0.718	95.7	25.5	13.8	0.311
4-3830	4-3890	0.547	271.8	-4.9	-2.62	1.137	63.2	0.455	0.676	124.3	179.6	---	---	1.13	0.745	90.3	22.8	12.9	0.272
4-3830	4-3900	0.507	274.7	-5.9	-2.84	1.156	65.5	0.417	0.697	119.0	184.4	---	0.987	1.02	0.772	86.3	21.5	12.4	0.250
4-3830	4-3910	0.472	277.5	-7.0	-3.03	1.174	67.4	0.385	0.718	113.4	189.0	---	0.994	0.96	0.797	84.5	21.8	12.6	0.238
4-3830	4-3920	0.442	280.5	-8.1	-3.20	1.190	69.1	0.357	0.738	107.5	193.1	---	1.002	0.93	0.819	82.9	23.6	13.4	0.230
4-3830	4-3930	0.413	283.4	-9.3	-3.36	1.206	70.7	0.333	0.759	101.3	197.1	---	1.012	0.93	0.838	81.8	26.6	14.7	0.225
4-3830	4-3940	0.387	286.4	-10.6	-3.53	1.219	72.2	0.313	0.778	95.0	200.8	---	1.022	0.96	0.855	81.1	30.6	16.4	0.221
4-3830	4-3950	0.362	289.5	-12.2	-3.71	1.231	73.7	0.296	0.797	88.5	204.3	---	1.032	1.03	0.869	80.5	35.5	18.4	0.218
4-3830	4-3960	0.339	292.7	-14.0	-3.93	1.242	75.0	0.280	0.814	82.0	207.6	---	1.042	1.14	0.881	80.2	41.1	20.7	0.215
4-3830	4-3970	0.318	295.9	-16.3	-4.23	1.252	76.4	0.268	0.830	75.3	210.9	---	1.053	1.32	0.891	79.9	47.2	23.3	0.213
4-3830	4-3980	0.298	299.4	-19.4	-4.61	1.260	77.7	0.257	0.845	68.6	213.9	---	1.063	1.63	0.900	79.7	53.9	26.4	0.211
4-3830	4-3990	0.283	303.0	-23.8	-5.26	1.268	78.9	0.248	0.859	61.8	216.9	---	1.073	2.20	0.908	79.5	61.0	30.3	0.211
4-3830	4-4000	0.278	306.4	-31.8	-6.68	1.275	80.2	0.241	0.873	55.0	219.8	---	1.083	3.54	0.914	79.3	68.5	37.1	0.214
4-3830	4-4010	0.349	305.2	-53.4	-12.78	1.281	81.4	0.236	0.885	48.2	222.6	---	1.093	9.56	0.921	79.1	78.2	58.6	0.259
4-3830	4-4020	0.283	314.3	47.8	9.45	1.287	82.6	0.232	0.896	41.0	225.2	---	1.103	-12.75	0.926	78.9	92.0	-19.7	0.293
4-3830	4-4030	0.181	325.1	3.8	0.54	1.292	83.8	0.229	0.906	34.2	227.9	---	1.114	-3.91	0.932	78.6	95.2	6.4	0.215
4-3830	4-4040	0.166	332.6	-8.6	-1.11	1.296	85.0	0.228	0.916	27.2	230.5	---	1.125	-2.35	0.937	78.4	103.1	12.5	0.209
4-3830	4-4050	0.155	341.5	-15.4	-1.83	1.300	86.3	0.229	0.925	20.2	233.0	---	1.137	-1.71	0.942	78.0	111.5	14.3	0.209
4-3830	4-4060	0.148	352.2	-20.5	-2.25	1.304	87.6	0.231	0.933	13.1	235.4	---	1.149	-1.38	0.946	77.7	120.0	14.4	0.211
4-3830	4-4070	0.144	4.8	-23.7	-2.54	1.307	88.9	0.234	0.941	5.9	237.8	---	1.161	-1.18	0.951	77.2	128.5	13.5	0.215
4-3830	4-4080	0.145	18.8	-25.8	-2.76	1.310	90.3	0.239	0.949	358.6	600.0	0.722	1.175	-1.06	0.956	76.8	137.1	11.8	0.221
4-3830	4-4090	0.152	33.3	-26.3	-2.95	1.313	91.8	0.246	0.955	351.1	602.1	0.720	1.191	-0.98	0.962	76.2	145.6	9.5	0.228
4-3830	4-4100	0.167	47.0	-25.3	-3.11	1.316	93.4	0.256	0.962	345.4	603.9	0.716	1.208	-0.94	0.967	75.5	154.1	6.8	0.238
4-3830	4-4110	0.188	59.5	-23.4	-3.27	1.319	95.2	0.269	0.968	335.3	605.5	0.708	1.229	-0.93	0.972	74.6	162.6	3.7	0.252
4-3830	4-4120	0.219	70.6	-21.0	-3.43	1.321	97.2	0.286	0.974	326.9	606.7	0.696	1.253	-0.94	0.978	73.5	171.2	0.2	0.269
4-3830	4-4130	0.259	79.2	-18.4	-3.59	1.324	99.6	0.308	0.980	317.8	607.4	0.678	1.282	-0.98	0.984	72.1	180.1	-3.5	0.293
4-3830	4-4140	0.312	87.3	-15.9	-3.79	1.325	102.5	0.339	0.986	308.0	607.4	0.652	1.320	-1.06	0.989	70.2	189.4	-7.3	0.326
4-3830	4-4140	0.678	131.6	-5.2	-3.79	1.121	124.4	0.570	0.660	227.9	887.2	0.284	1.036	-1.06	0.692	105.9	304.3	-21.6	0.390

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3830	4-4150	0.383	94.8	-13.5	-4.02	1.328	106.1	0.381	0.991	297.2	606.3	0.614	1.369	-1.20	0.995	67.6	199.2	-11.3	0.371
4-3830	4-4150	0.638	131.7	-5.9	-4.02	1.110	122.3	0.543	0.650	227.7	896.9	0.297	1.002	-1.20	0.678	93.7	292.3	-24.3	0.329
4-3830	4-4160	0.482	102.2	-11.2	-4.33	1.330	111.0	0.441	0.997	284.7	603.7	0.557	1.437	-1.41	1.001	63.8	210.1	-15.3	0.458
4-3830	4-4160	0.652	132.6	-6.2	-4.33	1.105	123.1	0.555	0.645	226.6	905.6	0.287	1.004	-1.41	0.675	84.1	279.5	-26.0	0.339
4-3830	4-4170	0.626	110.0	-9.0	-4.80	1.332	118.0	0.531	1.003	269.7	598.7	0.470	1.536	-1.80	1.007	57.9	222.5	-19.3	0.541
4-3830	4-4170	0.721	133.9	-5.9	-4.80	1.104	126.7	0.606	0.644	224.1	913.0	0.254	1.034	-1.80	0.676	71.6	271.0	-26.2	0.414
4-3830	4-4180	0.869	136.7	-5.1	-5.67	1.105	134.7	0.709	0.645	218.4	917.3	0.188	1.101	-2.58	0.582	56.9	270.2	-26.0	0.565
4-3830	4-4230	0.645	289.1	-3.0	-1.63	1.337	61.6	0.540	1.017	90.2	479.7	0.468	1.567	1.88	1.025	122.7	72.8	25.3	0.578
4-3830	4-4230	0.742	264.0	-1.9	-1.63	1.086	52.4	0.621	0.628	138.5	888.0	0.238	1.019	1.88	0.665	108.2	25.7	13.5	0.440
4-3830	4-4240	0.484	298.4	-5.6	-2.15	1.340	69.5	0.446	1.024	72.1	471.8	0.568	1.480	1.45	1.028	116.4	88.1	26.3	0.468
4-3830	4-4240	0.677	264.8	-2.8	-2.15	1.084	55.9	0.574	0.626	136.8	896.5	0.266	0.986	1.45	0.661	94.7	16.4	9.8	0.363
4-3830	4-4250	0.376	307.7	-8.6	-2.48	1.342	75.1	0.387	1.030	56.6	466.4	0.631	1.429	1.21	1.031	112.6	102.2	25.9	0.400
4-3830	4-4260	0.300	318.1	-12.1	-2.73	1.344	79.3	0.351	1.036	42.6	462.6	0.672	1.400	1.07	1.033	110.4	115.2	24.4	0.358
4-3830	4-4270	0.246	330.5	-16.1	-2.93	1.346	82.7	0.331	1.043	29.7	460.0	0.698	1.387	0.99	1.035	109.1	127.4	22.0	0.332
4-3830	4-4280	0.210	346.0	-20.3	-3.11	1.349	85.7	0.320	1.050	17.8	458.2	0.713	1.586	0.94	1.036	108.4	138.8	19.0	0.318
4-3830	4-4290	0.192	4.5	-23.7	-3.27	1.351	88.4	0.318	1.057	6.6	457.1	0.721	1.393	0.93	1.038	108.2	149.5	15.5	0.313
4-3830	4-4300	0.191	24.3	-25.1	-3.44	1.354	90.9	0.323	1.065	356.1	816.6	0.723	1.409	0.94	1.039	108.4	159.6	11.8	0.315
4-3830	4-4310	0.734	278.7	-5.1	-3.61	1.264	55.8	0.576	0.852	111.6	582.1	0.361	1.582	0.99	0.916	56.0	14.4	7.5	0.583
4-3830	4-4310	0.207	42.5	-24.4	-3.61	1.357	93.4	0.333	1.074	346.2	816.7	0.717	1.432	0.99	1.040	109.0	169.2	7.9	0.324
4-3830	4-4320	0.661	282.0	-6.3	-3.81	1.271	59.6	0.526	0.866	104.6	585.1	0.410	1.322	1.08	0.923	59.3	21.8	10.9	0.531
4-3830	4-4320	0.235	57.3	-22.5	-3.81	1.360	95.9	0.348	1.084	336.8	817.3	0.707	1.462	1.08	1.042	109.9	178.4	4.1	0.339
4-3830	4-4330	0.593	285.4	-7.8	-4.05	1.278	63.1	0.460	0.880	97.4	587.8	0.457	1.302	1.22	0.930	62.3	29.5	14.3	0.483
4-3830	4-4330	0.273	68.8	-20.5	-4.05	1.363	98.5	0.368	1.095	327.9	818.2	0.692	1.499	1.22	1.043	111.0	187.3	0.4	0.360
4-3830	4-4340	0.530	288.9	-9.8	-4.38	1.285	66.4	0.438	0.892	90.8	590.2	0.502	1.283	1.45	0.936	65.0	37.4	17.7	0.439
4-3830	4-4340	0.319	77.7	-18.7	-4.38	1.367	101.1	0.355	1.108	319.4	819.6	0.673	1.542	1.45	1.045	112.5	196.1	-2.5	0.386
4-3830	4-4350	0.474	292.5	-12.5	-4.87	1.291	69.4	0.400	0.904	82.4	592.4	0.543	1.266	1.85	0.940	67.3	45.5	21.4	0.401
4-3830	4-4350	0.372	84.8	-17.7	-4.87	1.371	103.9	0.421	1.121	311.3	821.3	0.649	1.593	1.85	1.048	114.2	204.7	-5.7	0.417
4-3830	4-4360	0.426	296.2	-16.9	-5.77	1.296	72.1	0.367	0.915	74.6	594.3	0.579	1.251	2.67	0.945	69.2	53.8	25.9	0.369
4-3830	4-4360	0.432	90.8	-17.8	-5.77	1.375	106.8	0.453	1.136	303.6	823.3	0.621	1.651	2.67	1.051	116.2	213.5	-7.6	0.455
4-3830	4-4370	0.400	299.5	-26.6	-8.21	1.300	74.6	0.339	0.925	66.7	596.0	0.611	1.239	5.03	0.948	70.9	62.2	34.3	0.348
4-3830	4-4370	0.507	96.4	-21.4	-8.21	1.380	109.8	0.488	1.152	296.2	825.6	0.590	1.715	5.03	1.055	118.4	222.6	-6.6	0.500
4-3830	4-4390	0.282	311.7	12.9	2.81	1.308	79.1	0.297	0.942	50.3	599.0	0.662	1.222	-6.14	0.954	73.3	84.7	5.0	0.310
4-3830	4-4390	0.613	103.2	5.7	2.81	1.389	116.2	0.565	1.188	282.3	831.0	0.517	1.859	-6.14	1.063	123.5	234.4	-28.9	0.594
4-3830	4-4400	0.594	304.2	-1.0	-0.45	1.446	66.9	0.610	1.467	63.0	261.3	---	2.361	-2.96	1.135	56.4	82.0	18.8	0.638
4-3830	4-4400	0.240	318.4	-2.4	-0.45	1.311	81.1	0.282	0.949	42.0	600.3	0.681	1.217	-2.96	0.957	74.1	92.5	13.7	0.281
4-3830	4-4410	0.545	308.4	-5.7	-1.51	1.448	69.5	0.594	1.480	56.6	264.4	---	2.359	-1.99	1.137	57.9	90.3	20.3	0.610
4-3830	4-4410	0.212	325.9	-9.3	-1.51	1.313	83.0	0.272	0.955	35.7	601.5	0.696	1.214	-1.99	0.960	74.7	101.5	16.1	0.266
4-3830	4-4420	0.499	313.1	-5.7	-2.05	1.450	72.0	0.580	1.492	50.1	267.4	---	2.357	-1.53	1.139	59.3	98.9	20.6	0.584
4-3830	4-4420	0.189	335.1	-14.4	-2.05	1.315	84.8	0.264	0.961	25.4	602.7	0.707	1.214	-1.53	0.962	75.1	110.8	16.5	0.257
4-3830	4-4430	0.454	318.5	-7.4	-2.40	1.451	74.6	0.567	1.503	43.4	270.2	---	2.356	-1.27	1.141	60.5	107.5	20.2	0.561
4-3830	4-4430	0.171	346.4	-18.8	-2.40	1.318	86.5	0.259	0.966	17.1	603.9	0.715	1.216	-1.27	0.965	75.3	120.1	15.7	0.250
4-3840	4-3880	0.806	275.4	-3.3	-3.42	1.040	98.5	0.683	0.590	145.6	174.5	---	---	-0.03	0.582	101.6	28.0	11.5	0.461
4-3840	4-3890	0.715	278.9	-4.1	-3.41	1.069	53.8	0.607	0.612	139.8	178.9	---	---	-0.02	0.632	91.7	25.9	10.7	0.385
4-3840	4-3900	0.650	282.4	-4.9	-3.41	1.099	57.6	0.547	0.638	134.0	183.3	---	0.987	-0.02	0.680	86.0	24.9	10.3	0.341
4-3840	4-3910	0.599	285.8	-5.6	-3.40	1.127	60.5	0.497	0.664	128.0	187.5	---	0.994	-0.02	0.723	82.7	25.3	10.5	0.314
4-3840	4-3920	0.555	289.1	-6.3	-3.40	1.152	63.0	0.456	0.690	121.9	191.5	---	1.004	-0.02	0.759	80.7	27.1	11.1	0.296
4-3840	4-3930	0.516	292.4	-7.0	-3.40	1.174	65.2	0.420	0.715	115.7	195.4	---	1.016	-0.02	0.789	79.4	30.1	12.2	0.283
4-3840	4-3940	0.481	295.5	-7.8	-3.39	1.193	67.2	0.389	0.739	109.3	199.0	---	1.027	-0.02	0.814	78.7	34.0	13.6	0.273
4-3840	4-3950	0.449	298.7	-8.6	-3.39	1.210	69.0	0.362	0.762	102.9	202.6	---	1.038	-0.02	0.835	78.2	38.9	15.2	0.254
4-3840	4-3960	0.418	301.8	-9.4	-3.39	1.225	70.7	0.339	0.784	96.3	205.9	---	1.050	-0.02	0.853	77.9	44.4	16.8	0.257
4-3840	4-3970	0.389	305.0	-10.3	-3.39	1.238	72.3	0.320	0.804	89.7	209.2	---	1.061	-0.02	0.868	77.8	50.6	18.5	0.250
4-3840	4-3980	0.362	308.3	-11.3	-3.38	1.249	73.8	0.303	0.822	83.1	212.3	---	1.071	-0.02	0.881	77.7	57.2	20.0	0.245
4-3840	4-3990	0.336	311.7	-12.3	-3.38	1.259	75.3	0.288	0.839	76.3	215.4	---	1.082	-0.02	0.892	77.7	64.4	21.3	0.239
4-3840	4-4000	0.311	315.3	-13.5	-3.37	1.268	76.7	0.276	0.855	69.6	218.3	---	1.092	-0.03	0.902	77.7	72.0	22.3	0.234
4-3840	4-4010	0.287	319.1	-14.7	-3.36	1.275	78.1	0.266	0.870	62.7	221.1	---	1.102	-0.04	0.910	77.6	79.9	23.0	0.230
4-3840	4-4020	0.265	323.4	-16.0	-3.32	1.282	79.4	0.258	0.884	55.9	223.9	---	1.112	-0.07	0.918	77.6	88.0	23.1	0.226
4-3840	4-4030	0.242	328.2	-16.1	-3.03	1.288	80.7	0.252	0.896	49.1	226.6	---	1.122	-0.37	0.925	77.5	96.3	21.8	0.224
4-3840	4-4040	0.225	333.4	-20.5	-3.52	1.294	82.0	0.247	0.908	42.2	229.3	---	1.132	0.12	0.931	77.4	104.9	23.2	0.221
4-3840	4-4050	0.206	339.7	-22.1	-3.45	1.299	83.3	0.244	0.918	35.2	231.9	---	1.142	0.05	0.937	77.3	113.4	21.9	0.220
4-3840	4-4060	0.189	347.2	-24.2	-3.43	1.303	84.6	0.242	0.928	28.3	234.5	---	1.153	0.03	0.943	77.1	121.9	20.4	0.220
4-3840	4-4070	0.175	356.2	-26.4	-3.42	1.307	85.9	0.241	0.937	21.2	237.0	---	1.164	0.03	0.949	76.9	130.4	18.4	0.221
4-3840	4-4080	0.164	7.0	-28.4	-3.41	1.311	87.3	0.243	0.946	14.1	239.4	---	1.175	0.02	0.955	76.6	138.8	16.0	0.223
4-3840	4-4090	0.157	19.7	-29.8	-3.41	1.314	88.7	0.246	0.954	6.8	241.6	---	1.188	0.02	0.961	76.3	147.2	13.3	0.226
4-3840	4-4100	0.156	34.1	-30.1	-3.40	1.317	90.1	0.250	0.961	359.3	603.8	0.721	1.202	0.02	0.966	75.8	155.5	10.3	0.232
4-3840	4-4110	0.161	49.0	-29.1	-3.40	1.320	91.7	0.257	0.968	351.6	605.7	0.719	1.217	0.02	0.972	75.3	163.8	7.0	0.239
4-3840	4-4120	0.174	63.3	-26.7	-3.40	1.323	93.4	0.267	0.975	343.6	607.4	0.714	1.235	0.02	0.978	74.6	172.2	3.4	0.250
4-3840	4-4130	0.196	76.0	-23.5	-3.39	1.325	95.3	0.280	0.981	335.3	608.7	0.706	1.256	0.02	0.984	73.8	180.7	-0.2	0.264
4-3840	4-4140	0.228	87.0	-20.0	-3.39	1.328	97.5	0.298	0.987	326.4	609.6	0.693	1.281	0.02	0.990	72.7	189.5	-4.0	0.283
4-3840	4-4150	0.271	96.4	-16.6	-3.39	1.330	100.1	0.322	0.993	316.8	609.9	0.673	1.312	0.02	0.996	71.2	198.7	-7.8	0.309
4-3840	4-4150	0.702	146.8	-4.5	-3.39	1.137	125.3	0.581	0.675	229.2	882.2	0.283	1.067	0.02	0.719	111.7	322.5	-14.8	0.435
4-3840	4-4160	0.330	104.8	-13.4	-3.38	1.332	103.3	0.355	0.998	306.4	609.3	0.644	1.353	0.02	1.002	69.2	208.4	-11.6	0.346
4-3840	4-4160	0.625	146.8	-5.2	-3.38	1.121	121.6	0.529	0.658	229.7	892.7	0.310	1.007	0.02	0.697	98.1	312.1	-17.8	0.332
4-3840	4-4170	0.410	112.6	-10.8	-3.38	1.334	107.4	0.403	1.004	294.6	607.4	0.600	1.408	0.02	1.007	66.3	219.1	-15.2	0.398
4-3840	4-4170	0.617	147.3	-5.6	-3.38	1.115	121.2	0.525	0.653	229.1	901.9	0.310	0.995	0.02	0.691	97.9	299.8	-20.6	0.314
4-3840	4-4180	0.524	120.3	-1	-3.37	1.336	113.1	0.472	1.010	280.9	603.7	0.533	1.486	0.03	1.013	61.8	231.0	-18.6	0.477
4-3840	4-4180	0.657	148.2	-4.8	-3.37	1.113	123.3	0.556	0.650	227.4	910.2	0.289	1.012	0.03	0.691	77.7	289.3	-22.2	0.358
4-3840	4-4190	0.757	150.0	-3.9	-3.36	1.112	128.6	0.630	0.650	223.7	916.5	0.241	1.059	0.03	0.694	65.7	284.8	-22.7	0.466
4-3840	4-4240	0.823	279.2	-3.4	-3.43	1.097	48.3	0.673	0.635	140.3	883.9	0.208	1.063	-0.04	0.678	117.9	45.1	17.0	0.525
4-3840	4-4250	0.574	309.4	-7.3	-3.42	1.344	65.3	0.499	1.031	81.5	475.3	0.516	1.546	-0.03	1.031	119.9	97.5	23.2	0.526
4-3840	4-4250	0.697	281.5	-4.4	-3.42	1.097	55.0	0.583	0.636	135.8	889.6	0.265	1.006	-0.03	0.678	103.9	42.1	16.2	0.393

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3840	4-4260	0.439	316.6	-10.0	-3.41	1.346	72.1	0.423	1.037	64.6	468.6	0.598	1.476	-0.02	1.034	114.9	111.8	21.9	0.437
4-3840	4-4260	0.923	274.4	-2.6	-3.41	1.053	42.0	0.755	0.600	148.2	912.2	0.147	1.053	-0.02	0.600	58.7	358.1	-0.8	0.593
4-3840	4-4260	0.660	281.7	-4.7	-3.41	1.093	57.0	0.557	0.632	135.2	899.1	0.280	0.984	-0.02	0.671	91.1	29.7	12.1	0.345
4-3840	4-4270	0.346	328.3	-13.0	-3.41	1.348	76.9	0.377	1.043	49.9	464.0	0.650	1.436	-0.02	1.035	111.9	124.8	19.6	0.382
4-3840	4-4280	0.280	339.5	-16.4	-3.40	1.350	80.8	0.348	1.050	36.6	460.8	0.684	1.415	-0.02	1.036	110.1	136.7	16.5	0.348
4-3840	4-4290	0.234	353.2	-20.0	-3.40	1.353	84.0	0.333	1.056	24.3	458.7	0.705	1.408	-0.02	1.037	109.1	147.8	13.0	0.329
4-3840	4-4300	0.205	10.0	-23.0	-3.40	1.355	86.8	0.327	1.063	12.9	457.3	0.716	1.411	-0.02	1.038	108.7	158.2	9.1	0.319
4-3840	4-4310	0.193	29.2	-24.6	-3.39	1.357	89.5	0.327	1.071	2.2	456.6	0.720	1.422	-0.02	1.039	108.7	168.1	5.1	0.318
4-3840	4-4320	0.198	48.5	-23.9	-3.39	1.360	92.0	0.334	1.080	352.1	816.5	0.719	1.440	-0.02	1.040	109.0	177.5	1.0	0.323
4-3840	4-4330	0.714	296.0	-5.1	-3.39	1.272	56.9	0.564	0.865	108.9	583.2	0.377	1.349	-0.02	0.918	56.8	32.7	13.2	0.569
4-3840	4-4330	0.218	65.1	-21.6	-3.39	1.363	94.5	0.346	1.089	342.5	816.8	0.712	1.466	-0.02	1.041	109.7	186.7	-2.9	0.355
4-3840	4-4340	0.643	299.3	-5.9	-3.38	1.279	60.5	0.516	0.877	101.9	586.1	0.425	1.329	-0.02	0.925	60.0	40.6	15.7	0.519
4-3840	4-4340	0.249	70.2	-18.8	-3.38	1.366	97.0	0.363	1.099	333.4	817.5	0.700	1.498	-0.02	1.042	110.7	195.6	-6.7	0.353
4-3840	4-4350	0.576	302.7	-6.8	-3.38	1.286	63.9	0.472	0.890	94.8	588.7	0.470	1.310	-0.02	0.931	62.8	48.8	18.0	0.472
4-3840	4-4350	0.289	88.4	-16.0	-3.38	1.370	99.6	0.384	1.111	324.8	816.7	0.684	1.538	-0.02	1.044	112.0	204.5	-10.2	0.370
4-3840	4-4360	0.514	306.3	-7.8	-3.37	1.291	67.1	0.432	0.902	87.4	591.1	0.513	1.292	-0.03	0.936	65.3	57.3	20.0	0.431
4-3840	4-4360	0.336	96.4	-13.6	-3.37	1.373	102.3	0.410	1.124	316.5	820.2	0.663	1.584	-0.03	1.046	113.5	213.3	-13.4	0.404
4-3840	4-4370	0.458	310.1	-9.0	-3.36	1.297	70.0	0.396	0.914	79.9	593.2	0.552	1.276	-0.03	0.941	67.4	66.0	21.5	0.394
4-3840	4-4370	0.389	102.8	-11.6	-3.36	1.377	105.1	0.439	1.138	308.6	822.0	0.638	1.638	-0.03	1.049	115.3	222.0	-16.3	0.437
4-3840	4-4380	0.406	314.1	-10.3	-3.34	1.302	72.6	0.365	0.924	72.2	595.2	0.587	1.262	-0.05	0.946	69.2	75.0	22.6	0.362
4-3840	4-4380	0.447	108.2	-9.9	-3.34	1.382	108.0	0.472	1.153	301.1	824.1	0.609	1.697	-0.05	1.053	117.3	230.8	-18.7	0.415
4-3840	4-4390	0.359	318.5	-11.6	-3.28	1.306	75.1	0.339	0.934	64.4	596.9	0.617	1.251	-0.12	0.950	70.8	84.2	23.0	0.344
4-3840	4-4390	0.509	112.8	-8.3	-3.28	1.386	111.1	0.507	1.170	293.9	826.4	0.576	1.763	-0.12	1.057	119.6	239.6	-20.7	0.519
4-3840	4-4400	0.320	323.2	-15.4	-3.81	1.309	77.3	0.318	0.942	56.4	598.6	0.643	1.242	0.41	0.953	72.0	93.6	24.6	0.311
4-3840	4-4400	0.577	117.0	-8.4	-3.81	1.391	114.2	0.545	1.187	286.9	829.1	0.540	1.834	0.41	1.062	122.1	248.5	-21.3	0.564
4-3840	4-4410	0.281	328.9	-16.1	-3.47	1.313	79.4	0.300	0.950	48.4	600.1	0.665	1.235	0.08	0.957	73.0	103.0	23.1	0.292
4-3840	4-4420	0.585	321.3	-7.9	-3.43	1.449	67.7	0.608	1.481	61.0	262.2	---	2.382	0.04	1.137	56.7	101.8	23.1	0.626
4-3840	4-4420	0.249	335.4	-18.3	-3.43	1.316	81.3	0.287	0.956	40.3	601.6	0.682	1.231	0.04	0.960	75.7	112.4	22.0	0.277
4-3840	4-4430	0.537	325.7	-8.7	-3.42	1.451	70.2	0.593	1.494	54.6	265.4	---	2.380	0.03	1.139	58.2	110.4	22.2	0.600
4-3840	4-4430	0.220	343.2	-20.8	-3.42	1.318	83.2	0.276	0.963	32.2	603.0	0.696	1.229	0.03	0.963	74.3	121.7	20.4	0.266
4-3840	4-4440	0.490	330.6	-9.7	-3.41	1.453	72.7	0.580	1.505	48.1	268.4	---	2.378	0.02	1.142	59.5	118.9	20.8	0.575
4-3840	4-4440	0.197	352.7	-23.5	-3.41	1.320	85.0	0.269	0.968	24.1	604.3	0.707	1.229	0.02	0.967	74.6	130.9	18.2	0.257
4-3850	4-3890	0.944	285.4	-3.7	-5.52	0.981	39.7	0.794	0.550	154.6	177.6	---	---	-2.46	0.464	99.1	31.3	10.6	0.563
4-3850	4-3900	0.834	289.7	-4.2	-4.72	1.022	46.7	0.709	0.577	148.0	181.2	---	0.985	-1.75	0.545	87.1	30.3	10.2	0.473
4-3850	4-3910	0.755	293.8	-4.7	-4.27	1.063	51.6	0.638	0.606	141.7	185.0	---	0.993	-1.40	0.615	81.3	30.5	10.2	0.420
4-3850	4-3920	0.693	297.7	-5.2	-3.97	1.099	55.3	0.579	0.636	135.4	188.9	---	1.004	-1.19	0.672	78.2	31.8	10.7	0.384
4-3850	4-3930	0.640	301.3	-5.6	-3.73	1.134	58.4	0.529	0.665	129.1	192.7	---	1.017	-1.07	0.719	76.6	34.4	11.6	0.360
4-3850	4-3940	0.594	304.8	-6.0	-3.54	1.157	61.1	0.465	0.694	122.8	196.3	---	1.030	-1.00	0.757	75.7	38.1	12.7	0.341
4-3850	4-3950	0.552	308.1	-6.4	-3.36	1.180	63.4	0.447	0.721	116.4	199.9	---	1.043	-0.97	0.789	75.3	42.6	14.0	0.325
4-3850	4-3960	0.513	311.4	-6.8	-3.20	1.203	65.6	0.415	0.746	109.9	203.4	---	1.056	-0.96	0.815	75.1	47.9	15.3	0.312
4-3850	4-3970	0.477	314.6	-7.2	-3.03	1.217	67.5	0.387	0.770	103.4	206.7	---	1.068	-0.99	0.837	75.1	53.8	16.6	0.300
4-3850	4-3980	0.443	317.8	-7.4	-2.85	1.232	69.4	0.362	0.793	96.8	209.9	---	1.080	-1.04	0.855	75.2	60.3	17.6	0.290
4-3850	4-3990	0.411	321.0	-7.6	-2.64	1.245	71.1	0.341	0.813	90.2	213.1	---	1.091	-1.14	0.871	75.4	67.2	18.3	0.280
4-3850	4-4000	0.380	324.3	-7.5	-2.37	1.256	72.8	0.323	0.833	83.5	216.1	---	1.101	-1.30	0.884	75.5	74.5	18.5	0.272
4-3850	4-4010	0.351	327.7	-7.0	-2.02	1.266	74.4	0.308	0.853	76.9	219.1	---	1.112	-1.57	0.895	75.7	82.1	18.1	0.264
4-3850	4-4020	0.322	331.4	-5.6	-1.46	1.275	75.9	0.294	0.867	70.1	222.0	---	1.122	-2.03	0.906	75.8	89.9	16.5	0.258
4-3850	4-4030	0.295	335.3	-1.7	-0.40	1.283	77.3	0.283	0.882	63.4	224.8	---	1.131	-3.01	0.915	76.0	97.6	12.7	0.255
4-3850	4-4040	0.276	339.2	12.8	2.78	1.290	78.7	0.274	0.895	56.7	227.6	---	1.141	-6.12	0.923	76.0	105.0	1.5	0.264
4-3850	4-4060	0.290	346.3	-41.7	-8.64	1.301	81.9	0.261	0.920	42.9	233.0	---	1.160	5.47	0.938	76.1	129.6	39.2	0.253
4-3850	4-4070	0.239	354.3	-34.1	-5.95	1.306	82.9	0.257	0.931	36.0	235.7	---	1.170	2.86	0.945	76.1	134.8	28.6	0.239
4-3850	4-4080	0.212	2.1	-32.2	-4.98	1.310	84.2	0.254	0.941	29.0	238.2	---	1.180	1.97	0.952	76.0	142.2	23.0	0.236
4-3850	4-4090	0.192	11.3	-32.0	-4.45	1.314	85.6	0.253	0.950	22.0	240.7	---	1.190	1.53	0.958	75.8	149.9	18.7	0.235
4-3850	4-4100	0.177	22.4	-32.2	-4.11	1.318	87.0	0.254	0.958	14.7	243.1	---	1.202	1.28	0.965	75.6	157.8	14.8	0.236
4-3850	4-4110	0.167	35.4	-32.2	-3.86	1.321	88.5	0.257	0.966	7.4	245.3	---	1.214	1.13	0.971	75.4	165.8	10.9	0.239
4-3850	4-4120	0.163	50.2	-31.2	-3.65	1.324	90.1	0.261	0.974	359.7	607.3	0.720	1.228	1.04	0.978	75.0	173.8	7.1	0.244
4-3850	4-4130	0.166	65.6	-28.8	-3.47	1.327	91.7	0.268	0.981	351.8	609.2	0.718	1.243	0.98	0.984	74.5	182.0	3.2	0.252
4-3850	4-4140	0.179	80.2	-25.3	-3.30	1.329	93.5	0.278	0.987	343.6	611.6	0.713	1.261	0.96	0.990	73.9	190.4	-0.7	0.262
4-3850	4-4150	0.202	93.2	-21.1	-3.14	1.332	95.6	0.291	0.993	334.8	611.7	0.704	1.283	0.97	0.996	73.1	199.1	-4.5	0.278
4-3850	4-4160	0.236	104.4	-16.8	-2.97	1.334	98.0	0.310	0.999	325.5	612.2	0.690	1.309	1.00	1.002	71.9	208.2	-8.2	0.299
4-3850	4-4170	0.284	114.0	-12.9	-2.77	1.336	100.8	0.336	1.005	315.3	612.0	0.667	1.343	1.07	1.008	70.4	217.9	-11.6	0.328
4-3850	4-4170	0.623	161.9	-4.3	-2.77	1.133	121.2	0.523	0.668	231.6	888.3	0.319	1.018	1.07	0.717	102.3	329.8	-10 0	0.348
4-3850	4-4180	0.350	122.6	-9.4	-2.54	1.338	104.4	0.373	1.011	304.1	610.7	0.633	1.388	1.20	1.013	68.1	228.4	-14.8	0.370
4-3850	4-4180	0.594	162.2	-4.2	-2.54	1.125	119.9	0.504	0.660	231.2	897.9	0.328	0.993	1.20	0.708	92.1	318.8	-13.0	0.304
4-3850	4-4190	0.443	130.7	-6.4	-2.24	1.340	109.0	0.427	1.016	291.2	607.9	0.582	1.451	1.40	1.018	64.7	240.0	-17.5	0.431
4-3850	4-4190	0.611	162.8	-3.5	-2.24	1.121	120.8	0.518	0.657	230.1	906.8	0.316	0.997	1.40	0.706	82.8	307.4	-15.9	0.320
4-3850	4-4200	0.578	139.0	-3.7	-1.79	1.342	115.7	0.509	1.023	276.0	602.8	0.502	1.543	1.75	1.023	59.5	253.0	-19.6	0.526
4-3850	4-4200	0.677	164.0	-2.4	-1.79	1.120	124.3	0.569	0.656	227.6	914.4	0.283	1.028	1.75	0.707	72.5	300.3	-17.5	0.394
4-3850	4-4210	0.816	166.7	-1.0	-1.00	1.121	131.6	0.668	0.656	222.2	919.1	0.218	1.095	2.45	0.711	59.3	299.9	-17.8	0.537
4-3850	4-4260	0.758	297.2	-5.8	-5.07	1.107	52.0	0.623	0.643	136.6	884.5	0.243	1.043	-2.06	0.691	112.6	63.6	18.3	0.460
4-3850	4-4270	0.518	329.4	-10.9	-4.48	1.350	68.3	0.469	1.044	75.7	471.7	0.554	1.534	-1.56	1.035	117.8	120.4	17.5	0.486
4-3850	4-4270	0.665	298.7	-6.3	-4.48	1.106	56.9	0.555	0.642	133.5	891.5	0.286	0.999	-1.56	0.688	100.3	58.0	17.2	0.358
4-3850	4-4280	0.403	338.8	-13.4	-4.12	1.352	78.1	0.408	1.050	57.9	466.1	0.622	1.479	-1.29	1.037	113.9	133.4	14.4	0.415
4-3850	4-4280	0.864	292.6	-3.6	-4.12	1.070	45.6	0.711	0.612	144.6	912.7	0.177	1.046	-1.29	0.626	63.0	17.1	5.8	0.543
4-3850	4-4280	0.655	298.4	-5.8	-4.12	1.100	57.8	0.550	0.637	134.0	902.2	0.287	0.988	-1.29	0.676	87.4	42.2	13.6	0.341
4-3850	4-4290	0.322	349.0	-16.1	-3.85	1.354	78.5	0.371	1.057	44.0	462.2	0.665	1.448	-1.13	1.037	111.5	145.2	10.8	0.370
4-3850	4-4300	0.263	1.2	-18.9	-3.64	1.356	82.1	0.349	1.063	31.3	459.5	0.693	1.433	-1.03	1.038	110.0	156.1	6.8	0.344
4-3850	4-4310	0.223	16.1	-21.4	-3.45	1.358	85.1	0.337	1.070	19.5	457.8	0.709	1.431	-0.98	1.038	109.3	166.4	2.7	0.329
4-3850	4-4320	0.200	34.1	-22.9	-3.29	1.361	87.9	0.334	1.077	8.6	456.8	0.718	1.437	-0.96	1.039	109.0	176.2	-1.5	0.324
4-3850	4-4330	0.194	53.5	-22.5	-3.12	1.363	90.4	0.337	1.085	358.2	816.4	0.719	1.451	-0.97	1.039	109.2	185.7	-5.7	0.326
4-3850	4-4340	0.204	71.6	-20.1	-2.94	1.366	93.0	0.346	1.094	348.5	816.4	0.716	1.472	-1.01	1.040	109.7	195.0	-9.6	0.335

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3850	4-4350	0.695	313.3	-4.3	-2.75	1.279	57.8	0.553	0.874	106.5	584.2	0.391	1.357	-1.08	0.920	57.4	51.8	17.3	0.556
4-3850	4-4350	0.228	86.7	-16.7	-2.75	1.369	95.5	0.359	1.104	339.2	817.0	0.707	1.501	-1.08	1.041	110.5	204.2	-13.3	0.369
4-3850	4-4360	0.625	316.7	-4.5	-2.52	1.286	61.4	0.507	0.887	99.5	587.0	0.437	1.337	-1.21	0.926	60.4	60.1	18.7	0.508
4-3850	4-4360	0.263	98.4	-13.1	-2.52	1.372	98.0	0.378	1.115	330.4	817.8	0.694	1.536	-1.21	1.043	111.5	213.3	-16.8	0.369
4-3850	4-4370	0.560	320.1	-4.6	-2.22	1.292	64.6	0.465	0.900	92.4	589.6	0.481	1.319	-1.41	0.932	63.1	68.7	19.4	0.463
4-3850	4-4370	0.305	107.5	-9.9	-2.22	1.376	100.6	0.400	1.127	321.9	819.1	0.676	1.578	-1.41	1.045	112.9	222.4	-19.9	0.395
4-3850	4-4380	0.500	323.7	-4.3	-1.79	1.298	67.7	0.427	0.912	85.1	591.9	0.522	1.302	-1.75	0.938	65.4	77.5	19.4	0.424
4-3850	4-4380	0.355	114.8	-6.8	-1.79	1.379	103.4	0.427	1.140	313.9	820.7	0.653	1.627	-1.75	1.048	114.5	231.5	-22.8	0.426
4-3850	4-4390	0.444	327.5	-2.9	-1.06	1.303	70.4	0.394	0.923	77.7	594.1	0.559	1.287	-2.40	0.943	67.5	86.4	18.0	0.390
4-3850	4-4390	0.409	120.7	-3.4	-1.06	1.383	106.2	0.457	1.155	306.1	822.5	0.627	1.683	-2.40	1.052	116.4	240.6	-25.7	0.462
4-3850	4-4400	0.393	331.6	1.9	0.58	1.307	73.0	0.365	0.933	70.2	596.1	0.592	1.274	-3.96	0.948	69.2	95.2	13.7	0.364
4-3850	4-4400	0.469	125.8	1.6	0.58	1.388	109.2	0.490	1.170	298.7	824.7	0.597	1.744	-3.96	1.056	118.4	249.4	-29.5	0.504
4-3850	4-4410	0.396	333.6	29.6	8.85	1.311	75.3	0.341	0.942	62.6	598.0	0.621	1.263	-12.14	0.952	70.6	104.5	-6.6	0.387
4-3850	4-4410	0.566	133.8	20.5	8.85	1.392	112.3	0.526	1.187	291.7	827.1	0.563	1.811	-12.14	1.061	120.7	255.4	-42.2	0.579
4-3850	4-4420	0.427	334.2	-46.4	-13.94	1.314	77.6	0.320	0.950	54.6	599.8	0.646	1.254	10.73	0.956	71.8	123.9	48.9	0.357
4-3850	4-4430	0.307	344.9	-30.6	-6.93	1.317	79.6	0.304	0.957	46.8	601.4	0.667	1.248	3.80	0.961	72.7	126.1	31.4	0.299
4-3850	4-4440	0.579	338.4	-12.7	-5.40	1.453	68.3	0.607	1.495	59.1	263.3	---	2.403	2.35	1.140	57.0	122.5	23.8	0.618
4-3850	4-4440	0.262	352.2	-27.9	-5.40	1.320	81.5	0.291	0.964	38.9	603.1	0.684	1.244	2.35	0.965	73.4	134.1	25.3	0.281
4-3850	4-4450	0.231	0.4	-28.0	-4.72	1.322	83.3	0.282	0.970	31.2	604.7	0.697	1.243	1.77	0.969	73.9	142.6	21.2	0.270
4-3860	4-3910	0.954	301.3	-4.2	-6.43	0.981	39.2	0.799	0.549	154.9	182.1	---	0.989	-4.01	0.456	81.7	37.1	11.3	0.569
4-3860	4-3920	0.861	305.8	-4.5	-5.26	1.029	45.2	0.724	0.580	148.3	185.6	---	1.000	-3.02	0.548	75.8	37.9	11.6	0.504
4-3860	4-3930	0.788	310.0	-4.7	-4.55	1.071	49.8	0.659	0.612	141.9	189.2	---	1.015	-2.49	0.631	73.2	40.0	12.2	0.459
4-3860	4-3940	0.727	313.9	-4.9	-4.03	1.108	53.5	0.602	0.643	135.5	192.9	---	1.030	-2.17	0.679	72.0	43.1	13.1	0.427
4-3860	4-3950	0.673	317.6	-5.1	-3.62	1.139	56.7	0.552	0.674	129.1	196.5	---	1.045	-1.98	0.725	71.6	47.1	14.1	0.401
4-3860	4-3960	0.625	321.0	-5.3	-3.27	1.166	59.5	0.508	0.703	122.7	200.0	---	1.060	-1.88	0.762	71.6	52.0	15.2	0.380
4-3860	4-3970	0.580	324.4	-5.3	-2.95	1.189	62.0	0.470	0.731	116.3	203.4	---	1.074	-1.83	0.793	71.8	57.6	16.2	0.362
4-3860	4-3980	0.539	327.6	-5.3	-2.64	1.209	64.2	0.437	0.757	109.9	206.8	---	1.087	-1.84	0.819	72.1	63.7	17.0	0.346
4-3860	4-3990	0.501	330.8	-5.2	-2.31	1.226	66.3	0.408	0.781	103.4	210.0	---	1.100	-1.91	0.841	72.5	70.3	17.5	0.331
4-3860	4-4000	0.465	334.0	-4.8	-1.95	1.240	68.3	0.383	0.804	96.8	213.2	---	1.111	-2.04	0.859	72.9	77.3	17.6	0.318
4-3860	4-4010	0.430	337.2	-4.2	-1.53	1.253	70.1	0.361	0.825	90.3	216.3	---	1.122	-2.26	0.875	73.2	84.6	17.2	0.307
4-3860	4-4020	0.397	340.5	-3.0	-0.99	1.264	71.9	0.342	0.844	83.7	219.4	---	1.132	-2.62	0.888	73.6	92.1	15.9	0.297
4-3860	4-4030	0.366	343.9	-0.7	-0.22	1.274	73.5	0.325	0.862	77.1	222.4	---	1.142	-3.21	0.901	73.9	99.6	13.5	0.289
4-3860	4-4040	0.338	347.4	3.8	1.03	1.282	75.1	0.311	0.878	70.5	225.3	---	1.152	-4.29	0.911	74.2	106.9	9.1	0.284
4-3860	4-4050	0.319	350.8	14.5	3.65	1.290	76.6	0.299	0.894	63.9	228.2	---	1.161	-6.76	0.921	74.4	113.8	0.2	0.290
4-3860	4-4060	0.408	348.1	47.6	13.75	1.296	78.1	0.290	0.908	57.4	231.0	---	1.171	-16.71	0.930	74.6	120.6	-23.6	0.378
4-3860	4-4070	0.705	318.2	-69.2	-30.94	1.302	79.7	0.280	0.920	49.9	233.7	---	1.178	28.13	0.939	74.9	186.3	59.7	0.525
4-3860	4-4080	0.328	0.5	-47.2	-10.75	1.308	81.1	0.274	0.932	43.4	236.5	---	1.188	8.10	0.947	74.9	153.3	40.0	0.284
4-3860	4-4090	0.263	9.5	-38.7	-7.26	1.312	82.5	0.270	0.943	36.6	239.2	---	1.197	4.77	0.954	75.0	155.9	28.5	0.260
4-3860	4-4100	0.228	17.7	-35.3	-5.77	1.316	83.9	0.266	0.953	29.6	241.8	---	1.207	3.44	0.962	75.0	161.9	21.4	0.253
4-3860	4-4110	0.203	27.2	-33.7	-4.91	1.320	85.4	0.265	0.962	22.5	244.3	---	1.217	2.75	0.969	74.9	168.9	16.0	0.250
4-3860	4-4120	0.184	38.5	-32.8	-4.32	1.324	86.8	0.265	0.971	15.2	246.6	---	1.228	2.34	0.976	74.8	176.3	11.3	0.250
4-3860	4-4130	0.171	51.9	-31.5	-3.87	1.327	88.4	0.267	0.979	7.6	248.8	---	1.240	2.09	0.983	74.6	183.9	6.9	0.252
4-3860	4-4140	0.165	67.0	-29.3	-3.49	1.330	90.0	0.271	0.986	359.8	610.7	0.719	1.253	1.94	0.990	74.3	191.9	2.7	0.257
4-3860	4-4150	0.168	82.8	-25.8	-3.16	1.332	91.8	0.278	0.993	351.7	612.4	0.717	1.269	1.85	0.996	73.9	200.1	-1.3	0.265
4-3860	4-4160	0.182	97.8	-21.2	-2.84	1.335	93.8	0.288	0.999	343.1	613.6	0.712	1.287	1.83	1.002	73.3	208.7	-5.0	0.277
4-3860	4-4170	0.208	111.0	-16.4	-2.52	1.337	96.0	0.302	1.006	333.9	614.4	0.702	1.310	1.86	1.008	72.4	217.8	-8.5	0.294
4-3860	4-4180	0.247	122.3	-11.8	-2.18	1.339	98.6	0.323	1.012	324.0	614.5	0.685	1.338	1.95	1.014	71.2	227.5	-11.6	0.317
4-3860	4-4180	0.632	177.1	-3.4	-2.18	1.145	121.5	0.525	0.680	233.1	883.6	0.323	1.037	1.95	0.738	106.7	346.0	-2.0	0.377
4-3860	4-4190	0.301	132.1	-7.8	-1.78	1.342	101.7	0.352	1.018	313.1	613.6	0.660	1.375	2.12	1.019	69.5	237.9	-14.2	0.351
4-3860	4-4190	0.580	177.2	-3.0	-1.78	1.134	119.0	0.489	0.668	233.2	893.8	0.341	0.995	2.12	0.724	95.9	336.2	-4.5	0.305
4-3860	4-4200	0.378	140.9	-4.4	-1.29	1.344	105.7	0.394	1.023	301.0	611.6	0.620	1.426	2.41	1.024	66.9	249.2	-16.3	0.399
4-3860	4-4200	0.579	177.7	-2.2	-1.29	1.129	119.0	0.490	0.664	232.5	903.1	0.438	0.989	2.41	0.720	87.1	324.9	-7.8	0.297
4-3860	4-4210	0.487	149.4	-1.9	-0.62	1.345	111.1	0.457	1.029	286.9	607.6	0.559	1.499	2.89	1.028	62.9	261.6	-17.6	0.472
4-3860	4-4210	0.619	178.5	-1.0	-0.62	1.123	121.1	0.522	0.662	230.8	911.5	0.316	1.007	2.89	0.720	78.0	316.1	-10.6	0.343
4-3860	4-4220	0.650	158.3	0.8	0.42	1.343	119.0	0.554	1.036	269.9	600.8	0.462	1.609	3.76	1.032	56.5	275.6	-17.8	0.588
4-3860	4-4220	0.716	180.3	0.5	0.42	1.128	126.1	0.594	0.662	227.2	918.0	0.269	1.055	3.76	0.722	67.2	312.8	-11.8	0.448
4-3860	4-4270	0.861	311.6	-7.0	-7.43	1.114	46.7	0.690	0.649	139.8	881.6	0.201	1.097	-4.92	0.700	122.2	81.0	18.0	0.562
4-3860	4-4280	0.619	340.0	-11.4	-5.79	1.354	63.5	0.528	1.051	84.1	476.1	0.496	1.606	-3.46	1.037	121.7	127.9	13.2	0.553
4-3860	4-4280	0.710	214.7	-7.4	-5.79	1.116	54.8	0.584	0.650	133.7	885.7	0.271	1.030	-3.46	0.699	108.3	81.3	17.6	0.411
4-3860	4-4290	0.473	349.3	-13.3	-4.89	1.355	70.7	0.448	1.057	66.9	468.9	0.584	1.531	-2.73	1.038	116.4	141.2	9.4	0.458
4-3860	4-4290	0.642	315.8	-7.2	-4.89	1.111	58.2	0.534	0.649	131.6	893.7	0.302	0.996	-2.73	0.694	97.1	73.1	16.8	0.333
4-3860	4-4300	0.372	359.0	-15.3	-4.28	1.351	75.9	0.398	1.063	52.0	464.1	0.640	1.487	-2.32	1.038	113.2	153.0	5.2	0.400
4-3860	4-4300	0.794	311.1	-4.5	-4.28	1.088	49.7	0.657	0.625	140.3	912.5	0.214	1.036	-2.32	0.647	68.4	37.8	11.8	0.480
4-3860	4-4300	0.665	314.7	-6.0	-4.28	1.105	56.8	0.557	0.641	133.7	905.8	0.284	0.998	-2.32	0.676	82.8	53.4	14.7	0.354
4-3860	4-4310	0.300	10.0	-17.4	-3.83	1.359	79.9	0.368	1.070	38.7	460.8	0.676	1.463	-2.07	1.038	111.2	163.9	0.9	0.364
4-3860	4-4320	0.247	23.2	-19.2	-3.45	1.361	83.2	0.351	1.076	26.6	458.6	0.699	1.454	-1.92	1.038	110.1	174.3	-3.5	0.343
4-3860	4-4330	0.213	39.4	-20.3	-3.12	1.364	86.1	0.343	1.084	15.3	457.2	0.712	1.455	-1.85	1.039	109.6	184.3	-7.8	0.333
4-3860	4-4340	0.195	58.1	-20.0	-2.80	1.366	88.8	0.342	1.091	4.7	456.4	0.718	1.464	-1.83	1.039	109.5	194.0	-11.9	0.332
4-3860	4-4350	0.195	77.1	-17.7	-2.48	1.369	91.4	0.347	1.100	354.7	816.2	0.718	1.481	-1.87	1.040	109.7	203.6	-15.7	0.337
4-3860	4-4360	0.749	327.4	-3.0	-2.15	1.278	55.0	0.590	0.871	110.9	582.2	0.357	1.385	-1.96	0.914	54.8	65.3	18.6	0.595
4-3860	4-4360	0.211	94.0	-14.0	-2.15	1.371	93.9	0.357	1.109	345.2	816.4	0.713	1.505	-1.96	1.041	110.3	213.2	-19.2	0.349
4-3860	4-4370	0.677	330.6	-2.9	-1.76	1.285	58.7	0.544	0.884	104.2	585.2	0.403	1.365	-2.13	0.922	58.0	71.5	19.3	0.545
4-3860	4-4370	0.240	107.6	-10.1	-1.76	1.374	96.4	0.373	1.119	336.1	817.1	0.702	1.536	-2.13	1.042	111.2	222.8	-22.3	0.366
4-3860	4-4380	0.610	333.9	-2.4	-1.29	1.292	62.1	0.500	0.898	97.3	587.9	0.448	1.347	-2.41	0.928	60.8	80.0	19.2	0.498
4-3860	4-4380	0.279	118.1	-6.3	-1.29	1.378	99.0	0.392	1.131	327.5	818.1	0.687	1.574	-2.41	1.045	112.3	232.4	-25.1	0.389
4-3860	4-4390	0.547	337.4	-1.4	-0.66	1.298	65.2	0.461	0.910	90.5	590.5	0.491	1.329	-2.86	0.935	63.3	88.6	18.2	0.457
4-3860	4-4390	0.325	126.5	-2.8	-0.66	1.381	101.7	0.416	1.143	319.2	819.4	0.667	1.619	-2.86	1.048	113.8	242.0	-27.6	0.417
4-3860	4-4400	0.489	340.9	0.7	0.28	1.303	68.1	0.425	0.921	83.2	592.9	0.530	1.313	-3.63	0.941	65.5	97.2	15.9	0.421
4-3860	4-4400	0.378	133.2	1.0	0.28	1.385	104.5	0.444	1.157	311.3	821.0	0.644	1.670	-3.63	1.051	115.4	251.5	-30.1	0.451
4-3860	4-4410	0.438	344.6	5.6	1.98	1.308	70.8	0.393	0.932	75.9	595.1	0.565	1.298	-5.18	0.946	67.4	105.5	11.0	0.393

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3860	4-4410	0.437	138.9	6.0	1.98	1.389	107.4	0.474	1.172	303.7	823.0	0.616	1.728	-5.18	1.056	117.4	261.0	-33.1	0.491
4-3860	4-4420	0.410	347.6	19.8	6.37	1.312	73.3	0.366	0.942	68.5	597.2	0.597	1.286	-9.41	0.951	69.0	113.3	-0.6	0.387
4-3860	4-4420	0.516	144.5	16.3	6.37	1.393	110.3	0.508	1.188	296.5	825.2	0.585	1.791	-9.41	1.061	119.5	269.9	-39.5	0.547
4-3860	4-4440	0.452	349.4	-50.6	-15.74	1.319	77.8	0.323	0.958	53.0	601.2	0.649	1.267	13.01	0.961	71.5	150.6	47.5	0.377
4-3850	4-4450	0.325	1.3	-37.2	-8.71	1.321	79.7	0.308	0.965	45.6	603.0	0.668	1.262	6.14	0.966	72.3	149.3	32.2	0.311
4-3860	4-4460	0.572	355.6	-15.4	-6.43	1.456	69.0	0.606	1.508	57.3	264.4	---	2.423	4.02	1.144	57.3	142.9	21.3	0.613
4-3860	4-4460	0.271	9.3	-32.8	-6.43	1.324	81.7	0.295	0.971	37.7	604.8	0.665	1.258	4.02	0.971	73.0	155.4	24.3	0.288
4-3870	4-3930	0.968	318.2	-4.1	-6.46	0.998	38.5	0.802	0.559	154.2	185.4	---	1.008	-4.94	0.482	69.4	46.8	13.6	0.591
4-3870	4-3940	0.884	322.7	-4.2	-5.16	1.045	44.0	0.734	0.591	147.7	188.9	---	1.025	-3.88	0.569	67.6	49.2	14.2	0.537
4-3870	4-3950	0.815	326.8	-4.3	-4.29	1.086	48.4	0.673	0.624	141.3	192.4	---	1.043	-3.28	0.637	67.1	52.6	15.0	0.497
4-3870	4-3960	0.754	330.6	-4.3	-3.65	1.121	52.1	0.619	0.655	134.9	196.0	---	1.061	-2.92	0.691	67.2	56.9	15.9	0.464
4-3870	4-3970	0.700	334.2	-4.2	-3.12	1.151	55.3	0.570	0.686	128.6	199.5	---	1.077	-2.71	0.735	67.6	62.0	16.7	0.437
4-3870	4-3980	0.650	337.6	-4.1	-2.65	1.177	58.2	0.527	0.715	122.2	202.9	---	1.092	-2.59	0.771	68.2	67.8	17.3	0.414
4-3870	4-3990	0.604	340.9	-3.8	-2.21	1.199	60.8	0.489	0.743	115.9	206.3	---	1.106	-2.56	0.801	68.9	74.0	17.7	0.394
4-3870	4-4000	0.561	344.1	-3.4	-1.78	1.218	63.1	0.456	0.769	109.5	209.6	---	1.120	-2.60	0.826	69.5	80.7	17.8	0.375
4-3870	4-4010	0.521	347.2	-2.8	-1.31	1.234	65.3	0.427	0.793	103.1	212.9	---	1.132	-2.72	0.847	70.1	87.6	17.4	0.359
4-3870	4-4020	0.483	350.4	-1.9	-0.79	1.248	67.3	0.401	0.816	96.7	216.1	---	1.143	-2.93	0.865	70.8	94.8	16.4	0.344
4-3870	4-4030	0.447	353.5	-0.4	-0.16	1.261	69.3	0.378	0.837	90.2	219.2	---	1.154	-3.29	0.881	71.3	102.1	14.6	0.331
4-3870	4-4040	0.414	356.7	1.9	0.66	1.271	71.1	0.359	0.857	83.8	222.3	---	1.164	-3.86	0.895	71.8	109.3	11.9	0.321
4-3870	4-4050	0.384	360.0	6.0	1.87	1.281	72.8	0.341	0.874	77.3	225.3	---	1.173	-4.83	0.908	72.3	116.4	7.6	0.315
4-3870	4-4060	0.362	3.1	13.7	3.96	1.289	74.4	0.327	0.891	70.8	228.3	---	1.182	-6.70	0.919	72.7	122.9	0.4	0.313
4-3870	4-4070	0.374	4.7	31.2	8.87	1.296	76.0	0.315	0.906	64.3	231.3	---	1.191	-11.39	0.930	73.0	128.5	-13.5	0.340
4-3870	4-4090	0.581	351.5	-65.1	-24.22	1.308	79.3	0.293	0.933	50.2	237.0	---	1.206	22.13	0.948	73.7	189.4	51.6	0.452
4-3870	4-4100	0.340	16.5	-47.3	-11.14	1.313	80.7	0.286	0.945	43.7	239.8	---	1.215	9.26	0.957	73.9	172.8	34.9	0.306
4-3870	4-4110	0.273	25.6	-39.1	-7.57	1.318	82.2	0.281	0.955	36.9	242.5	---	1.224	5.92	0.965	74.0	174.8	24.2	0.279
4-3870	4-4120	0.234	34.1	-34.9	-5.85	1.322	83.6	0.277	0.965	29.9	245.2	---	1.233	4.43	0.973	74.1	180.3	16.9	0.269
4-3870	4-4130	0.206	43.8	-32.4	-4.80	1.326	85.2	0.275	0.975	22.7	247.6	---	1.243	3.62	0.981	74.1	186.8	11.2	0.265
4-3870	4-4140	0.185	55.4	-30.4	-4.05	1.329	86.7	0.275	0.983	15.3	250.0	---	1.253	3.13	0.988	74.1	194.1	6.3	0.264
4-3870	4-4150	0.171	69.2	-28.0	-3.45	1.332	88.4	0.276	0.991	7.6	252.1	---	1.265	2.83	0.995	74.0	201.7	1.9	0.266
4-3870	4-4160	0.165	84.8	-24.7	-2.95	1.335	90.1	0.280	0.998	359.5	613.9	0.718	1.278	2.65	1.002	73.7	209.8	-2.1	0.271
4-3870	4-4170	0.169	100.9	-20.1	-2.49	1.338	92.0	0.287	1.005	351.0	615.3	0.717	1.294	2.57	1.008	73.3	218.4	-5.7	0.280
4-3870	4-4180	0.185	116.1	-14.9	-2.04	1.340	94.1	0.298	1.012	342.0	616.3	0.710	1.313	2.56	1.014	72.7	227.5	-8.9	0.293
4-3870	4-4190	0.216	129.4	-9.8	-1.58	1.342	96.5	0.314	1.018	332.4	616.7	0.699	1.337	2.64	1.019	71.8	237.1	-11.6	0.311
4-3870	4-4190	0.663	192.6	-2.3	-1.58	1.160	122.8	0.543	0.695	234.1	878.4	0.318	1.072	2.64	0.763	112.0	1.9	5.6	0.427
4-3870	4-4200	0.261	140.8	-5.5	-1.08	1.344	99.3	0.336	1.024	321.9	616.2	0.680	1.368	2.81	1.024	70.5	247.4	-13.7	0.338
4-3870	4-4200	0.575	192.4	-1.9	-1.08	1.143	118.6	0.481	0.677	235.0	889.4	0.351	1.003	2.81	0.741	99.5	350.7	4.0	0.315
4-3870	4-4210	0.325	150.7	-1.9	-0.48	1.347	102.8	0.369	1.030	310.2	614.7	0.650	1.410	3.10	1.029	68.5	256.4	-15.1	0.377
4-3870	4-4210	0.567	192.7	-0.9	-0.48	1.137	117.7	0.469	0.671	234.6	899.1	0.356	0.986	3.10	0.734	90.8	341.9	1.0	0.285
4-3870	4-4220	0.415	159.7	0.9	0.29	1.349	107.4	0.418	1.036	297.1	611.7	0.603	1.469	3.59	1.033	65.5	270.3	-15.6	0.434
4-3870	4-4220	0.578	193.3	0.5	0.29	1.135	118.8	0.487	0.688	233.4	908.0	0.343	0.994	3.59	0.732	82.5	331.8	-2.5	0.308
4-3870	4-4230	0.545	168.6	3.2	1.39	1.351	113.7	0.492	1.042	281.6	606.4	0.529	1.555	4.43	1.036	60.7	283.3	-15.2	0.522
4-3870	4-4230	0.634	194.5	2.1	1.39	1.134	122.2	0.537	0.668	230.9	915.7	0.309	1.026	4.43	0.732	73.3	326.4	-4.9	0.383
4-3870	4-4240	0.778	197.2	3.7	3.23	1.135	129.0	0.633	0.669	225.7	920.6	0.246	1.092	6.03	0.734	61.4	326.8	-5.4	0.519
4-3870	4-4290	0.791	329.8	-8.2	-7.51	1.123	50.6	0.638	0.657	135.9	881.8	0.237	1.076	-5.86	0.707	116.9	99.9	15.6	0.495
4-3870	4-4300	0.560	359.9	-12.9	-5.77	1.358	66.5	0.498	1.064	76.8	472.8	0.534	1.594	-4.36	1.038	119.6	148.2	4.8	0.516
4-3870	4-4300	0.672	332.2	-8.1	-5.77	1.124	56.7	0.554	0.657	131.3	887.3	0.293	1.021	-4.36	0.705	104.9	98.0	15.3	0.375
4-3870	4-4310	0.434	9.3	-14.2	-4.71	1.360	72.7	0.433	1.070	60.8	466.7	0.607	1.533	-3.56	1.038	115.3	160.3	0.0	0.438
4-3870	4-4310	0.625	332.8	-7.8	-4.71	1.121	59.1	0.521	0.655	130.1	896.0	0.314	0.996	-3.56	0.697	94.3	87.7	15.6	0.377
4-3870	4-4320	0.344	19.5	-15.5	-3.97	1.362	77.3	0.392	1.077	46.7	462.6	0.655	1.499	-3.09	1.038	112.7	171.5	-4.6	0.390
4-3870	4-4330	0.279	31.3	-16.6	-3.39	1.364	81.0	0.367	1.083	34.0	459.8	0.685	1.481	-2.80	1.038	111.1	182.1	-9.1	0.362
4-3870	4-4340	0.232	45.6	-17.2	-2.89	1.366	84.2	0.354	1.090	22.3	457.9	0.704	1.474	-2.64	1.038	110.2	192.4	-13.4	0.346
4-3870	4-4350	0.203	62.8	-16.6	-2.44	1.368	87.1	0.349	1.098	11.4	456.7	0.715	1.480	-2.56	1.039	109.9	202.6	-17.4	0.340
4-3870	4-4360	0.192	81.9	-14.4	-2.01	1.371	89.7	0.350	1.106	1.1	456.1	0.718	1.493	-2.57	1.039	109.9	212.6	-21.0	0.342
4-3870	4-4370	0.199	100.2	-10.8	-1.56	1.373	92.3	0.357	1.114	351.3	816.0	0.716	1.512	-2.64	1.041	110.3	222.7	-24.1	0.350
4-3870	4-4380	0.732	344.6	-1.6	-1.08	1.284	55.9	0.581	0.881	108.9	583.2	0.369	1.394	-2.81	0.917	55.4	82.9	19.6	0.583
4-3870	4-4380	0.221	115.7	-6.7	-1.08	1.376	94.8	0.369	1.124	342.0	816.4	0.709	1.539	-2.81	1.042	110.9	232.9	-26.8	0.365
4-3870	4-4390	0.662	347.8	-0.9	-0.51	1.291	59.4	0.537	0.895	102.2	586.2	0.414	1.375	-3.08	0.925	58.4	91.3	18.9	0.535
4-3870	4-4390	0.255	128.0	-2.7	-0.51	1.379	97.4	0.386	1.135	333.1	817.1	0.697	1.573	-3.08	1.045	111.9	243.0	-29.0	0.385
4-3870	4-4400	0.597	351.3	0.4	0.19	1.297	62.7	0.495	0.907	95.4	588.9	0.458	1.357	-3.53	0.932	61.0	99.6	17.3	0.491
4-3870	4-4400	0.299	137.6	0.9	0.19	1.383	100.0	0.407	1.147	324.0	818.1	0.680	1.613	-3.53	1.048	113.1	253.2	-30.9	0.410
4-3870	4-4410	0.538	354.4	2.6	1.17	1.302	65.7	0.457	0.919	88.5	591.5	0.499	1.340	-4.25	0.938	63.4	107.8	14.5	0.453
4-3870	4-4410	0.349	145.3	4.5	1.17	1.386	102.8	0.432	1.160	316.5	819.5	0.659	1.680	-4.25	1.052	114.6	263.2	-32.6	0.441
4-3870	4-4420	0.484	357.9	6.8	2.69	1.307	68.5	0.423	0.930	81.5	594.0	0.537	1.324	-5.51	0.945	65.5	115.7	9.8	0.422
4-3870	4-4420	0.408	151.7	8.9	2.69	1.390	105.6	0.460	1.174	308.7	821.3	0.634	1.714	-5.55	1.056	116.4	273.2	-34.4	0.479
4-3870	4-4430	0.446	1.0	15.9	5.67	1.312	71.1	0.394	0.941	74.3	596.3	0.570	1.311	-8.30	0.951	67.3	122.9	1.3	0.404
4-3870	4-4430	0.479	157.5	15.8	5.67	1.394	108.5	0.492	1.189	301.3	823.3	0.605	1.774	-8.30	1.061	118.3	283.1	-37.8	0.526
4-3870	4-4440	0.496	359.5	40.5	14.81	1.316	73.5	0.368	0.950	67.2	598.5	0.600	1.299	-17.23	0.959	68.7	129.6	-18.6	0.452
4-3870	4-4460	0.444	7.1	-50.4	-15.34	1.322	78.0	0.325	0.966	51.7	602.8	0.651	1.280	13.34	0.968	71.2	170.8	41.1	0.381
4-3870	4-4470	0.327	18.4	-38.9	-9.05	1.325	79.9	0.311	0.972	44.2	604.8	0.670	1.274	7.28	0.973	72.0	169.7	28.0	0.319
4-3880	4-3960	0.903	339.8	-3.6	-4.53	1.065	43.1	0.741	0.606	146.7	191.6	---	1.056	-4.37	0.596	61.5	62.9	17.0	0.567
4-3880	4-3970	0.836	343.8	-3.5	-3.61	1.104	47.3	0.684	0.639	140.4	195.1	---	1.075	-3.77	0.658	62.4	67.4	17.6	0.529
4-3880	4-3980	0.776	347.5	-3.3	-2.90	1.136	51.0	0.632	0.670	134.1	198.6	---	1.093	-3.41	0.707	63.3	72.6	18.1	0.496
4-3880	4-3990	0.721	350.9	-3.0	-2.30	1.164	54.2	0.585	0.700	127.8	202.1	---	1.110	-3.20	0.748	64.4	78.4	18.4	0.468
4-3880	4-4000	0.671	354.3	-2.6	-1.76	1.189	57.1	0.543	0.729	121.6	205.5	---	1.126	-3.10	0.782	65.4	84.7	18.4	0.443
4-3880	4-4010	0.624	357.5	-2.1	-1.24	1.209	59.7	0.506	0.757	115.3	208.9	---	1.140	-3.08	0.810	66.3	91.3	18.0	0.421
4-3880	4-4020	0.580	0.6	-1.3	-0.71	1.227	62.2	0.473	0.783	109.0	212.2	---	1.153	-3.16	0.835	67.2	98.2	17.1	0.400
4-3880	4-4030	0.539	3.7	-0.3	-0.14	1.243	64.4	0.443	0.807	102.7	215.4	---	1.164	-3.34	0.855	68.1	105.2	15.7	0.383
4-3880	4-4040	0.500	6.7	1.2	0.52	1.256	66.5	0.417	0.829	96.4	218.7	---	1.175	-3.64	0.874	68.9	112.3	13.7	0.367
4-3880	4-4050	0.464	9.8	3.4	1.33	1.268	68.5	0.394	0.850	90.1	221.9	---	1.185	-4.13	0.890	69.6	119.3	10.7	0.353
4-3880	4-4060	0.432	12.9	6.8	2.42	1.278	70.4	0.374	0.870	83.7	225.0	---	1.195	-4.93	0.904	70.2	126.1	6.6	0.342

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3880	4-4070	0.405	15.9	12.5	4.09	1.287	72.1	0.356	0.887	77.3	228.1	---	1.303	-6.32	0.917	70.8	132.5	0.6	0.337
4-3880	4-4080	0.395	18.3	23.2	7.19	1.295	73.8	0.341	0.904	70.9	231.2	---	1.212	-9.15	0.929	71.3	138.1	-9.1	0.344
4-3880	4-4090	0.471	15.6	45.4	15.60	1.302	75.4	0.328	0.919	64.6	234.2	---	1.221	-17.29	0.940	71.7	142.6	-27.9	0.412
4-3880	4-4110	0.502	17.2	-59.7	-19.66	1.314	78.9	0.304	0.945	50.4	240.2	---	1.233	18.48	0.960	72.7	196.7	41.9	0.416
4-3880	4-4120	0.334	33.9	-44.3	-10.35	1.319	80.4	0.297	0.957	43.8	243.0	---	1.242	9.41	0.969	73.0	189.0	27.3	0.319
4-3880	4-4130	0.271	42.6	-36.3	-7.05	1.323	81.9	0.291	0.968	37.0	245.8	---	1.250	6.40	0.977	73.2	191.6	17.6	0.294
4-3880	4-4140	0.232	51.2	-31.7	-5.31	1.327	83.5	0.287	0.978	29.9	248.4	---	1.259	4.95	0.985	73.4	197.3	10.7	0.283
4-3880	4-4150	0.203	61.1	-28.4	-4.18	1.331	85.1	0.284	0.987	22.6	250.9	---	1.268	4.13	0.993	73.5	204.0	5.3	0.279
4-3880	4-4160	0.181	73.1	-25.3	-3.34	1.334	86.7	0.284	0.996	15.0	253.1	---	1.278	3.63	1.000	73.5	211.5	0.7	0.278
4-3880	4-4170	0.167	87.3	-21.9	-2.67	1.337	88.4	0.285	1.004	7.1	255.1	---	1.290	3.32	1.007	73.4	219.5	-3.3	0.280
4-3880	4-4180	0.163	103.4	-17.4	-2.08	1.340	90.3	0.289	1.011	358.7	616.7	0.719	1.303	3.15	1.013	73.2	228.0	-6.7	0.285
4-3880	4-4190	0.170	119.9	-12.2	-1.53	1.342	92.3	0.297	1.018	349.9	617.9	0.716	1.320	3.08	1.019	72.8	237.1	-9.6	0.295
4-3880	4-4200	0.192	135.2	-6.9	-0.99	1.344	94.6	0.308	1.024	340.4	618.5	0.709	1.340	3.11	1.024	72.2	246.7	-11.7	0.309
4-3880	4-4210	0.228	148.5	-2.4	-0.42	1.347	97.2	0.325	1.031	330.2	618.4	0.695	1.366	3.24	1.029	71.2	256.9	-13.3	0.331
4-3880	4-4210	0.580	207.6	-0.7	-0.42	1.153	118.6	0.481	0.687	236.6	884.8	0.357	1.018	3.24	0.757	103.2	9.0	11.7	0.335
4-3880	4-4220	0.282	159.9	1.1	0.23	1.349	100.3	0.351	1.037	319.0	617.4	0.673	1.401	3.50	1.033	69.6	267.7	-14.0	0.361
4-3880	4-4220	0.544	207.8	0.4	0.23	1.145	116.9	0.455	0.679	236.5	894.9	0.370	0.988	3.50	0.747	94.3	358.7	9.5	0.293
4-3880	4-4230	0.357	169.8	3.8	1.02	1.351	104.2	0.389	1.043	306.5	615.0	0.637	1.448	3.94	1.036	67.3	279.1	-13.9	0.406
4-3880	4-4230	0.550	208.3	1.9	1.02	1.141	117.2	0.460	0.675	235.7	904.2	0.364	0.986	3.94	0.743	86.4	347.9	6.0	0.285
4-3880	4-4240	0.463	179.0	5.7	2.08	1.353	109.5	0.446	1.049	292.3	610.9	0.581	1.517	4.67	1.039	63.7	291.3	-12.7	0.474
4-3880	4-4240	0.593	209.2	3.5	2.08	1.140	119.4	0.494	0.674	233.9	912.6	0.341	1.006	4.67	0.742	78.3	340.5	2.7	0.335
4-3880	4-4250	0.820	188.3	7.2	3.67	1.355	116.9	0.534	1.055	275.3	604.1	0.491	1.619	5.96	1.042	57.9	304.5	-10.3	0.580
4-3880	4-4250	0.687	211.0	5.0	3.67	1.140	124.1	0.563	0.674	230.4	919.2	0.294	1.054	5.96	0.742	68.4	338.5	1.2	0.436
4-3880	4-4310	0.672	10.2	-12.1	-6.83	1.360	61.0	0.563	1.071	88.2	478.0	0.468	1.674	-6.21	1.039	124.1	154.6	0.9	0.593
4-3880	4-4310	0.736	347.6	-8.4	-6.83	1.131	53.5	0.599	0.664	132.8	882.6	0.267	1.062	-6.21	0.712	112.7	117.5	11.6	0.444
4-3880	4-4320	0.510	19.8	-12.9	-5.15	1.362	68.8	0.476	1.077	70.5	470.2	0.564	1.591	-4.83	1.039	113.2	167.4	-4.4	0.488
4-3880	4-4320	0.642	349.5	-7.7	-5.15	1.131	58.2	0.532	0.664	129.3	889.0	0.311	1.017	-4.83	0.708	102.0	113.8	11.8	0.344
4-3880	4-4330	0.399	29.4	-13.5	-4.06	1.364	74.3	0.422	1.084	55.4	464.9	0.626	1.541	-4.05	1.039	114.6	179.0	-9.4	0.425
4-3880	4-4330	0.902	341.4	-3.4	-4.06	1.088	43.5	0.733	0.625	144.6	914.1	0.167	1.082	-4.05	0.633	58.3	62.6	17.2	0.582
4-3880	4-4330	0.612	349.8	-6.5	-4.06	1.128	59.6	0.512	0.661	128.8	898.3	0.523	1.000	-4.05	0.699	91.8	101.9	13.7	0.307
4-3880	4-4340	0.318	40.1	-13.8	-3.26	1.366	78.6	0.388	1.090	42.0	461.3	0.667	1.513	-3.58	1.038	112.4	190.1	-14.1	0.386
4-3880	4-4350	0.260	52.9	-13.7	-2.61	1.368	82.1	0.368	1.097	29.7	458.8	0.693	1.501	-3.30	1.038	111.1	200.8	-18.3	0.363
4-3880	4-4360	0.219	68.3	-12.8	-2.04	1.370	85.2	0.358	1.104	18.3	457.2	0.709	1.499	-3.14	1.039	110.4	211.5	-22.0	0.352
4-3880	4-4370	0.197	86.4	-10.6	-1.51	1.373	88.0	0.355	1.112	7.7	456.2	0.717	1.507	-3.08	1.040	110.2	222.2	-25.3	0.349
4-3880	4-4380	0.193	105.4	-7.1	-0.99	1.375	90.6	0.359	1.120	357.6	815.7	0.718	1.522	-3.11	1.041	110.3	232.9	-27.9	0.354
4-3880	4-4390	0.208	122.7	-3.0	-0.45	1.378	93.2	0.367	1.129	348.0	815.7	0.714	1.544	-3.23	1.043	110.8	243.4	-30.0	0.365
4-3880	4-4400	0.716	1.8	0.2	0.16	1.289	56.6	0.574	0.892	107.0	584.3	0.380	1.403	-3.46	0.921	55.8	102.5	18.3	0.573
4-3880	4-4400	0.236	136.9	0.9	0.16	1.381	95.8	0.381	1.140	338.9	816.1	0.705	1.574	-3.46	1.045	111.6	254.3	-31.6	0.382
4-3880	4-4410	0.650	4.9	1.5	0.88	1.296	60.0	0.531	0.905	100.4	587.2	0.424	1.385	-3.85	0.929	58.6	110.6	16.2	0.527
4-3880	4-4410	0.276	148.1	4.4	0.88	1.384	98.4	0.399	1.151	330.1	816.9	0.691	1.610	-3.85	1.048	112.6	264.9	-32.6	0.405
4-3880	4-4420	0.588	8.1	3.6	1.80	1.301	63.1	0.491	0.917	93.7	590.0	0.467	1.367	-4.46	0.936	61.2	118.5	13.2	0.486
4-3880	4-4420	0.324	157.0	7.6	1.80	1.387	101.1	0.421	1.163	321.8	818.1	0.673	1.653	-4.46	1.052	113.9	275.3	-33.3	0.433
4-3880	4-4430	0.532	11.3	7.0	3.11	1.306	66.1	0.455	0.929	86.9	592.7	0.506	1.351	-5.48	0.944	63.4	126.0	8.7	0.451
4-3880	4-4430	0.380	164.2	11.1	3.11	1.391	103.9	0.447	1.176	313.8	819.6	0.650	1.703	-5.48	1.057	115.5	285.6	-34.0	0.467
4-3880	4-4440	0.487	14.4	13.4	5.28	1.311	68.8	0.423	0.939	80.0	595.2	0.542	1.336	-7.38	0.950	65.4	132.9	1.9	0.426
4-3880	4-4440	0.446	170.5	16.0	5.28	1.394	106.7	0.477	1.191	306.1	821.4	0.623	1.759	-7.38	1.062	117.3	295.7	-35.4	0.508
4-3880	4-4450	0.474	16.3	27.1	9.97	1.315	71.3	0.394	0.949	72.9	597.7	0.575	1.323	-11.80	0.957	67.1	138.8	-10.5	0.425
4-3880	4-4450	0.537	176.9	25.1	9.97	1.398	109.7	0.509	1.207	298.8	823.5	0.593	1.821	-11.80	1.068	119.3	305.8	-39.6	0.568
4-3880	4-4460	0.707	359.9	57.6	28.16	1.319	73.5	0.371	0.958	66.2	600.0	0.602	1.313	-29.73	0.964	68.5	146.5	-38.4	0.600
4-3880	4-4480	0.417	26.1	-47.6	-13.73	1.325	78.2	0.337	0.973	50.5	604.7	0.654	1.292	12.67	0.976	71.0	187.0	32.8	0.377
4-3890	4-3980	0.919	357.1	-2.8	-3.51	1.086	42.4	0.746	0.624	145.6	193.8	---	1.089	-4.50	0.624	57.1	78.4	19.0	0.594
4-3890	4-3990	0.854	0.8	-2.5	-2.61	1.121	46.5	0.692	0.656	139.3	197.3	---	1.109	-3.96	0.680	58.7	83.6	19.2	0.556
4-3890	4-4000	0.794	4.4	-2.1	-1.89	1.151	50.1	0.643	0.686	133.1	200.8	---	1.128	-3.63	0.725	60.2	89.4	19.1	0.523
4-3890	4-4010	0.740	7.7	-1.6	-1.27	1.177	53.3	0.597	0.716	127.0	204.3	---	1.144	-3.44	0.763	61.6	95.7	18.7	0.494
4-3890	4-4020	0.689	11.0	-1.0	-0.69	1.200	56.2	0.557	0.745	120.8	207.7	---	1.159	-3.36	0.795	62.9	102.2	17.9	0.467
4-3890	4-4030	0.641	14.1	-0.2	-0.13	1.219	58.9	0.520	0.772	114.6	211.1	---	1.173	-3.38	0.822	64.2	108.9	16.6	0.444
4-3890	4-4040	0.597	17.1	0.8	0.46	1.236	61.4	0.487	0.797	108.4	214.5	---	1.185	-3.49	0.845	65.3	115.8	14.9	0.423
4-3890	4-4050	0.555	20.1	2.2	1.10	1.251	63.7	0.457	0.821	102.2	217.8	---	1.197	-3.72	0.866	66.3	122.6	12.6	0.404
4-3890	4-4060	0.516	23.1	4.1	1.85	1.263	65.8	0.431	0.843	96.0	221.1	---	1.207	-4.10	0.884	67.2	129.4	9.6	0.397
4-3890	4-4070	0.481	26.1	6.9	2.80	1.274	67.8	0.408	0.864	89.8	224.4	---	1.216	-4.71	0.900	68.1	136.1	5.7	0.373
4-3890	4-4080	0.450	29.1	11.1	4.13	1.284	69.8	0.387	0.883	83.5	227.6	---	1.225	-5.73	0.915	68.8	142.4	0.5	0.362
4-3890	4-4090	0.428	31.7	18.3	6.27	1.293	71.6	0.369	0.901	77.2	230.8	---	1.233	-7.56	0.928	69.5	148.1	-6.9	0.358
4-3890	4-4100	0.437	33.0	31.6	10.59	1.300	73.3	0.354	0.917	70.9	234.0	---	1.241	-11.59	0.940	70.1	152.8	-19.1	0.376
4-3890	4-4110	0.632	20.0	57.6	25.01	1.307	74.9	0.341	0.932	64.8	237.0	---	1.250	-25.73	0.951	70.6	157.4	-43.4	0.526
4-3890	4-4130	0.434	40.3	-52.4	-15.43	1.318	78.6	0.315	0.958	50.4	243.2	---	1.260	15.29	0.972	71.9	205.7	31.3	0.396
4-3890	4-4140	0.316	52.0	-38.6	-8.69	1.323	80.2	0.307	0.970	43.7	246.1	---	1.268	8.84	0.981	72.2	203.6	18.4	0.326
4-3890	4-4150	0.261	60.2	-30.9	-5.87	1.328	81.8	0.301	0.981	36.7	248.9	---	1.275	6.32	0.990	72.5	207.7	10.0	0.305
4-3890	4-4160	0.225	68.8	-25.9	-4.25	1.331	83.4	0.296	0.991	29.5	251.5	---	1.284	5.02	0.998	72.8	213.9	3.8	0.295
4-3890	4-4170	0.197	79.0	-21.8	-3.15	1.335	85.1	0.293	1.000	22.1	253.9	---	1.292	4.27	1.005	73.0	221.1	-1.0	0.291
4-3890	4-4180	0.176	91.5	-17.8	-2.31	1.338	86.8	0.292	1.008	14.2	256.0	---	1.302	3.81	1.012	73.1	229.0	-4.9	0.290
4-3890	4-4190	0.164	106.3	-13.3	-1.61	1.341	88.6	0.293	1.016	6.0	257.9	---	1.314	3.53	1.018	73.0	237.6	-8.0	0.293
4-3890	4-4200	0.163	122.9	-8.2	-0.99	1.343	90.6	0.298	1.023	357.4	619.3	0.719	1.328	3.39	1.024	72.8	246.7	-10.4	0.299
4-3890	4-4210	0.176	139.7	-3.0	-0.39	1.346	92.8	0.306	1.030	348.1	620.1	0.715	1.345	3.36	1.029	72.4	256.3	-12.1	0.310
4-3890	4-4220	0.204	155.0	1.4	0.21	1.348	95.2	0.319	1.037	338.2	620.3	0.707	1.368	3.43	1.033	71.6	266.4	-13.0	0.327
4-3890	4-4220	0.596	223.0	0.4	0.21	1.163	119.3	0.489	0.699	237.9	880.0	0.357	1.041	3.43	0.775	107.2	25.7	18.1	0.366
4-3890	4-4230	0.248	168.1	4.7	0.87	1.350	98.1	0.338	1.043	327.4	619.7	0.690	1.396	3.63	1.037	70.5	276.9	-13.1	0.351
4-3890	4-4230	0.539	223.0	1.7	0.87	1.152	116.5	0.447	0.687	238.2	890.5	0.380	0.995	3.63	0.760	97.5	15.9	17.1	0.288
4-3890	4-4240	0.311	179.3	6.9	1.63	1.352	101.6	0.368	1.049	315.4	617.9	0.663	1.436	3.98	1.040	68.7	287.9	-12.3	0.386
4-3890	4-4240	0.530	223.3	3.2	1.63	1.147	116.0	0.441	0.682	237.7	900.1	0.381	0.983	3.98	0.754	89.9	4.7	14.2	0.270
4-3890	4-4250	0.399	189.3	8.4	2.58	1.354	106.0	0.412	1.056	302.0	614.7	0.620	1.491	4.56	1.042	66.0	299.5	-10.6	0.439

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3890	4-4250	0.556	224.0	4.7	2.58	1.145	117.3	0.461	0.680	236.4	909.0	0.367	0.994	4.56	0.751	82.4	555.5	10.5	0.299
4-3890	4-4260	0.525	198.7	9.4	3.91	1.357	112.0	0.480	1.062	286.5	609.3	0.552	1.571	5.55	1.044	61.6	311.7	-7.7	0.520
4-3890	4-4260	0.622	225.4	6.2	3.91	1.145	120.6	0.511	0.680	233.9	916.7	0.333	1.027	5.55	0.749	74.0	351.3	8.0	0.373
4-3890	4-4270	0.749	228.0	7.4	6.06	1.146	126.9	0.602	0.681	228.9	921.7	0.271	1.091	7.37	0.750	63.2	352.5	7.5	0.501
4-3890	4-4320	0.837	2.0	-8.4	-8.25	1.136	48.2	0.668	0.670	136.4	879.9	0.222	1.118	-8.43	0.718	121.6	132.8	7.8	0.544
4-3890	4-4330	0.608	30.1	-11.4	-5.62	1.364	64.0	0.533	1.084	81.4	474.8	0.506	1.662	-6.11	1.039	121.9	174.1	-8.0	0.555
4-3890	4-4330	0.691	5.3	-7.6	-5.62	1.137	55.6	0.567	0.672	130.2	883.6	0.291	1.053	-6.11	0.716	109.4	134.2	6.6	0.405
4-3890	4-4340	0.467	39.7	-11.4	-4.10	1.366	70.8	0.460	1.091	64.9	468.0	0.589	1.593	-4.91	1.039	117.0	186.4	-13.4	0.469
4-3890	4-4340	0.617	6.8	-6.5	-4.10	1.137	59.3	0.514	0.671	127.5	890.7	0.326	1.016	-4.91	0.711	99.6	129.1	7.5	0.322
4-3890	4-4350	0.367	49.6	-11.1	-3.05	1.368	75.8	0.414	1.097	50.5	463.4	0.642	1.552	-4.21	1.039	114.0	198.2	-18.1	0.416
4-3890	4-4350	0.855	359.3	-2.8	-3.05	1.099	46.1	0.700	0.636	141.7	914.6	0.191	1.080	-4.21	0.646	61.4	93.0	18.9	0.541
4-3890	4-4350	0.602	6.7	-5.0	-3.05	1.133	59.9	0.506	0.667	127.7	900.6	0.330	1.005	-4.21	0.701	89.4	116.2	11.3	0.301
4-3890	4-4360	0.295	61.0	-10.4	-2.25	1.370	79.8	0.386	1.104	37.5	460.1	0.678	1.530	-3.78	1.039	112.2	209.6	-22.2	0.384
4-3890	4-4370	0.242	74.8	-8.9	-1.59	1.372	83.2	0.370	1.111	25.6	457.9	0.700	1.522	-3.52	1.039	111.1	220.9	-25.7	0.367
4-3890	4-4380	0.209	91.4	-6.5	-0.99	1.374	86.2	0.362	1.118	14.5	456.4	0.713	1.524	-3.39	1.040	110.6	232.5	-28.4	0.359
4-3890	4-4390	0.195	110.0	-3.0	-0.42	1.376	88.9	0.362	1.126	4.0	455.5	0.719	1.534	-3.36	1.041	110.5	243.6	-30.5	0.360
4-3890	4-4400	0.200	128.6	1.0	0.14	1.379	91.6	0.367	1.135	354.1	815.2	0.718	1.552	-3.42	1.043	110.7	254.9	-31.9	0.368
4-3890	4-4410	0.222	144.8	4.7	0.75	1.381	94.2	0.378	1.145	344.7	815.3	0.712	1.577	-3.58	1.046	111.3	266.0	-32.6	0.381
4-3890	4-4420	0.704	18.8	2.2	1.44	1.293	57.2	0.567	0.902	105.3	585.4	0.390	1.413	-3.88	0.926	56.1	121.5	14.9	0.564
4-3890	4-4420	0.257	157.8	7.7	1.44	1.384	96.8	0.393	1.155	335.7	815.8	0.701	1.610	-3.88	1.050	112.2	276.8	-32.8	0.400
4-3890	4-4430	0.640	21.9	4.0	2.27	1.299	60.5	0.526	0.914	98.8	588.4	0.433	1.395	-4.36	0.935	58.8	129.1	11.7	0.520
4-3890	4-4430	0.301	168.1	10.4	2.27	1.387	99.5	0.413	1.167	327.1	816.7	0.685	1.649	-4.36	1.054	113.3	287.4	-32.5	0.425
4-3890	4-4440	0.581	25.0	6.8	3.37	1.305	63.6	0.488	0.926	92.1	591.2	0.474	1.378	-5.13	0.943	61.3	136.4	7.4	0.492
4-3890	4-4440	0.354	176.3	13.1	3.37	1.391	102.2	0.436	1.180	318.8	817.9	0.665	1.694	-5.13	1.059	114.7	297.6	-32.9	0.455
4-3890	4-4450	0.529	27.9	11.5	5.03	1.310	66.5	0.452	0.937	85.3	594.1	0.514	1.361	-6.48	0.950	63.5	143.1	1.6	0.450
4-3890	4-4450	0.416	183.1	16.5	5.03	1.394	105.1	0.464	1.193	310.8	819.6	0.640	1.747	-6.48	1.064	116.4	307.5	-32.0	0.493
4-3890	4-4460	0.496	30.7	19.8	7.87	1.314	69.1	0.422	0.948	78.6	596.7	0.548	1.367	-9.03	0.958	65.3	149.2	-7.1	0.432
4-3890	4-4460	0.490	189.4	21.8	7.87	1.398	108.0	0.493	1.208	303.4	821.5	0.612	1.805	-9.03	1.070	118.2	317.4	-33.0	0.539
4-3890	4-4470	0.524	30.2	37.6	14.82	1.318	71.5	0.395	0.957	71.8	599.3	0.579	1.335	-15.69	0.965	67.0	153.9	-23.4	0.458
4-3890	4-4490	0.628	23.4	-60.6	-25.14	1.325	76.4	0.346	0.973	56.4	604.4	0.637	1.310	24.84	0.979	69.9	211.7	38.3	0.527
4-3900	4-4010	0.869	17.9	-1.3	-1.41	1.138	45.8	0.699	0.673	138.2	199.4	---	1.144	-3.84	0.702	55.8	100.7	19.2	0.579
4-3900	4-4020	0.810	21.3	-0.8	-0.73	1.165	49.4	0.651	0.704	132.1	202.9	---	1.162	-3.56	0.744	57.7	106.8	18.4	0.545
4-3900	4-4030	0.755	24.5	-0.2	-0.13	1.189	52.6	0.608	0.733	126.1	206.4	---	1.178	-3.41	0.779	59.3	113.2	17.2	0.516
4-3900	4-4040	0.704	27.6	0.6	0.44	1.210	55.5	0.568	0.761	120.0	209.8	---	1.193	-3.36	0.809	60.9	119.8	15.7	0.489
4-3900	4-4050	0.657	30.7	1.6	1.00	1.228	58.2	0.532	0.787	113.9	213.3	---	1.206	-3.41	0.835	62.3	126.4	13.6	0.464
4-3900	4-4060	0.612	33.7	2.8	1.60	1.244	60.7	0.499	0.812	107.8	216.7	---	1.218	-3.56	0.858	63.6	133.1	11.1	0.442
4-3900	4-4070	0.570	36.6	4.5	2.27	1.258	63.0	0.470	0.836	101.7	220.1	---	1.228	-3.83	0.878	64.7	139.7	8.1	0.422
4-3900	4-4080	0.531	39.5	6.7	3.07	1.270	65.2	0.443	0.857	95.5	223.5	---	1.238	-4.27	0.896	65.8	146.3	4.4	0.404
4-3900	4-4090	0.496	42.4	9.9	4.12	1.281	67.3	0.420	0.878	89.4	226.8	---	1.246	-4.98	0.912	66.8	152.6	-0.2	0.390
4-3900	4-4100	0.466	45.2	14.7	5.64	1.290	69.3	0.399	0.897	83.1	230.1	---	1.254	-6.19	0.927	67.6	158.5	-6.2	0.379
4-3900	4-4110	0.451	47.5	23.0	8.24	1.298	71.2	0.380	0.914	76.9	233.4	---	1.262	-8.48	0.940	68.4	163.8	-14.8	0.378
4-3900	4-4120	0.486	47.1	38.8	14.13	1.305	72.9	0.364	0.930	70.6	236.7	---	1.269	-14.08	0.953	69.2	167.7	-29.6	0.411
4-3900	4-4130	0.692	31.2	-64.2	-29.07	1.318	76.8	0.333	0.959	56.3	243.1	---	1.278	29.69	0.975	70.7	229.7	35.7	0.583
4-3900	4-4150	0.375	61.6	-42.7	-11.32	1.323	78.4	0.324	0.971	50.1	246.1	---	1.286	12.23	0.985	71.2	216.0	19.9	0.371
4-3900	4-4160	0.293	70.4	-30.5	-6.53	1.327	80.0	0.315	0.983	43.2	249.0	---	1.293	7.75	0.994	71.6	217.0	9.0	0.330
4-3900	4-4170	0.249	78.1	-23.1	-4.25	1.331	81.7	0.308	0.994	36.1	251.8	---	1.300	5.78	1.002	72.0	223.5	2.0	0.314
4-3900	4-4180	0.216	86.9	-17.8	-2.85	1.335	83.4	0.303	1.003	28.8	254.4	---	1.309	4.71	1.010	72.4	230.6	-3.0	0.306
4-3900	4-4190	0.190	97.5	-13.1	-1.86	1.338	85.2	0.300	1.013	21.1	256.7	---	1.316	4.08	1.016	72.6	238.5	-6.8	0.302
4-3900	4-4200	0.172	110.6	-8.4	-1.08	1.341	87.0	0.299	1.021	13.0	258.7	---	1.326	3.69	1.023	72.7	247.2	-9.6	0.302
4-3900	4-4210	0.164	126.2	-3.3	-0.41	1.344	89.0	0.301	1.029	4.5	260.3	---	1.338	3.47	1.028	72.6	256.3	-11.6	0.306
4-3900	4-4220	0.168	143.3	1.7	0.21	1.347	91.1	0.306	1.036	355.4	621.4	0.719	1.353	3.37	1.033	72.4	265.9	-12.7	0.313
4-3900	4-4230	0.187	160.2	5.8	0.81	1.349	93.4	0.315	1.043	345.7	621.8	0.718	1.372	3.38	1.037	71.9	275.9	-13.0	0.325
4-3900	4-4230	0.639	238.8	1.3	0.81	1.176	121.1	0.517	0.716	238.4	874.5	0.346	1.086	3.38	0.798	112.7	43.6	22.8	0.422
4-3900	4-4240	0.222	179.5	8.7	1.43	1.351	96.1	0.330	1.050	335.3	621.5	0.703	1.396	3.51	1.040	71.1	286.3	-12.5	0.344
4-3900	4-4240	0.541	238.3	2.7	1.43	1.159	116.4	0.446	0.696	239.7	886.0	0.386	1.007	3.51	0.773	100.8	34.0	23.1	0.300
4-3900	4-4250	0.274	188.2	10.4	2.12	1.354	99.2	0.353	1.056	323.8	620.2	0.684	1.429	3.76	1.045	69.7	296.9	-11.0	0.372
4-3900	4-4250	0.518	238.5	4.3	2.12	1.153	115.3	0.428	0.690	239.5	895.9	0.394	0.985	3.76	0.764	93.0	22.7	21.3	0.263
4-3900	4-4260	0.348	199.1	11.3	2.95	1.356	103.1	0.387	1.062	311.1	617.7	0.651	1.474	4.19	1.045	67.6	307.9	-8.7	0.413
4-3900	4-4260	0.529	239.0	5.8	2.95	1.150	115.8	0.437	0.687	238.6	905.2	0.387	0.987	4.19	0.754	86.0	11.9	17.9	0.273
4-3900	4-4270	0.450	209.0	11.6	4.03	1.358	108.1	0.439	1.068	296.8	613.5	0.569	1.538	4.91	1.046	64.3	319.0	-5.5	0.475
4-3900	4-4270	0.575	240.0	7.1	4.03	1.150	118.0	0.471	0.686	236.8	913.5	0.363	1.009	4.91	0.757	78.5	5.5	14.7	0.324
4-3900	4-4280	0.598	218.6	11.6	5.60	1.360	115.2	0.520	1.075	279.9	606.8	0.516	1.654	6.16	1.047	59.0	331.7	-11.3	0.571
4-3900	4-4280	0.666	241.9	8.2	5.60	1.150	122.5	0.538	0.687	233.2	920.0	0.317	1.056	6.16	0.755	69.5	4.4	13.2	0.421
4-3900	4-4290	0.830	245.6	8.8	8.34	1.152	130.7	0.653	0.689	226.3	923.1	0.239	1.138	8.58	0.755	57.3	8.4	13.9	0.577
4-3900	4-4340	0.773	20.2	-7.1	-6.18	1.142	51.3	0.627	0.678	153.0	880.1	0.253	1.103	-7.43	0.722	117.5	150.4	1.7	0.488
4-3900	4-4350	0.553	49.9	-9.3	-4.07	1.367	66.4	0.510	1.098	75.3	472.1	0.538	1.657	-5.63	1.039	120.3	193.8	-16.4	0.526
4-3900	4-4350	0.654	22.9	-6.0	-4.07	1.143	57.4	0.542	0.679	128.0	884.7	0.311	1.047	-5.63	0.719	106.7	150.4	0.8	0.369
4-3900	4-4360	0.429	59.6	-8.4	-2.76	1.369	72.5	0.448	1.104	59.6	466.1	0.610	1.599	-4.65	1.039	116.2	203.4	-21.2	0.454
4-3900	4-4360	0.595	24.0	-4.6	-2.76	1.142	60.3	0.499	0.678	125.8	892.2	0.347	1.017	-4.65	0.715	97.6	144.3	2.6	0.302
4-3900	4-4370	0.339	70.0	-7.2	-1.82	1.371	77.1	0.409	1.111	45.8	461.9	0.656	1.565	-4.06	1.039	113.6	218.7	-25.1	0.411
4-3900	4-4370	0.811	17.1	-1.9	-1.82	1.110	48.5	0.668	0.646	138.8	914.9	0.214	1.078	-4.06	0.658	64.1	103.6	18.0	0.501
4-3900	4-4370	0.594	23.6	-3.0	-1.82	1.138	60.2	0.501	0.674	126.6	902.7	0.336	1.011	-4.06	0.704	87.3	130.6	8.2	0.296
4-3900	4-4380	0.274	82.5	-5.3	-1.07	1.373	80.9	0.385	1.118	33.2	458.9	0.687	1.548	-3.69	1.040	112.0	230.8	-28.2	0.385
4-3900	4-4390	0.229	97.1	-2.6	-0.44	1.375	84.2	0.372	1.125	21.6	456.8	0.706	1.544	-3.48	1.041	111.1	242.8	-30.4	0.372
4-3900	4-4400	0.204	114.7	1.0	0.14	1.377	87.1	0.367	1.133	10.6	455.5	0.716	1.549	-3.38	1.043	110.8	254.7	-31.7	0.368
4-3900	4-4410	0.198	133.8	4.9	0.70	1.379	89.9	0.369	1.141	0.3	454.7	0.720	1.562	-3.37	1.045	110.8	266.4	-32.3	0.371
4-3900	4-4420	0.212	151.6	8.4	1.28	1.382	92.6	0.377	1.150	350.5	814.4	0.717	1.583	-3.47	1.048	111.1	277.7	-32.2	0.381
4-3900	4-4430	0.241	166.0	11.0	1.90	1.385	95.2	0.389	1.160	341.2	814.6	0.709	1.611	-3.67	1.051	111.8	288.6	-31.5	0.397
4-3900	4-4440	0.692	35.7	4.2	2.63	1.297	57.8	0.561	0.912	103.7	586.0	0.400	1.423	-4.01	0.933	56.4	139.7	9.8	0.556
4-3900	4-4440	0.281	178.5	13.0	2.63	1.387	97.9	0.406	1.171	332.3	815.3	0.696	1.646	-4.01	1.056	112.8	299.0	-30.3	0.418

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3900	4-4450	0.629	38.6	6.4	3.54	1.303	61.1	0.520	0.924	97.0	589.7	0.443	1.404	-4.58	0.942	59.1	146.7	5.7	0.513
4-3900	4-4450	0.331	187.8	14.8	3.54	1.391	100.7	0.427	1.183	325.6	816.4	0.678	1.688	-4.58	1.061	114.0	308.9	-29.0	0.446
4-3900	4-4460	0.576	41.8	9.8	4.76	1.308	64.0	0.484	0.935	90.6	592.6	0.482	1.388	-5.47	0.951	61.4	153.6	0.7	0.479
4-3900	4-4460	0.386	195.5	16.9	4.76	1.394	103.4	0.452	1.196	315.7	817.7	0.656	1.737	-5.47	1.066	115.5	318.6	-27.6	0.478
4-3900	4-4470	0.530	44.7	15.3	6.67	1.312	66.8	0.451	0.946	84.0	595.5	0.520	1.373	-7.07	0.959	63.5	159.9	-6.1	0.451
4-3900	4-4470	0.453	202.0	20.1	6.67	1.397	106.3	0.480	1.211	308.0	819.5	0.630	1.791	-7.07	1.072	117.2	328.0	-26.9	0.517
4-3900	4-4480	0.509	46.7	25.7	10.32	1.316	69.4	0.421	0.956	77.2	598.3	0.554	1.358	-10.42	0.967	65.3	165.2	-16.7	0.440
4-3900	4-4480	0.538	208.4	26.2	10.32	1.401	109.3	0.511	1.226	300.5	821.6	0.600	1.852	-10.42	1.079	119.1	337.5	-28.2	0.568
4-3900	4-4490	0.605	41.4	47.6	20.88	1.320	71.8	0.395	0.965	70.5	601.0	0.584	1.346	-20.70	0.974	66.9	169.0	-37.7	0.609
4-3910	4-4030	0.881	34.8	-0.1	-0.14	1.153	45.3	0.704	0.692	137.1	201.3	---	1.179	-3.45	0.725	53.4	118.1	17.5	0.599
4-3910	4-4040	0.823	38.1	0.5	0.46	1.178	48.8	0.658	0.721	131.1	204.8	---	1.196	-3.24	0.763	55.5	124.3	16.0	0.565
4-3910	4-4050	0.769	41.3	1.2	1.00	1.201	52.0	0.616	0.750	125.1	208.3	---	1.212	-3.13	0.796	57.4	130.7	14.1	0.535
4-3910	4-4060	0.717	44.3	2.1	1.51	1.220	55.0	0.577	0.777	119.1	211.9	---	1.226	-3.11	0.825	59.1	137.1	11.9	0.507
4-3910	4-4070	0.669	47.3	3.2	2.04	1.237	57.7	0.542	0.803	113.1	215.4	---	1.238	-3.18	0.850	60.7	143.6	9.3	0.482
4-3910	4-4080	0.624	50.2	4.5	2.61	1.252	60.2	0.509	0.828	107.1	218.9	---	1.249	-3.35	0.872	62.1	150.1	6.2	0.459
4-3910	4-4090	0.582	53.1	6.3	3.26	1.265	62.6	0.480	0.851	101.0	222.3	---	1.259	-3.64	0.892	63.4	156.5	2.7	0.438
4-3910	4-4100	0.543	56.0	8.7	4.06	1.276	64.8	0.453	0.872	94.9	225.8	---	1.268	-4.11	0.910	64.6	162.9	-1.5	0.420
4-3910	4-4110	0.508	58.8	12.0	5.14	1.286	66.9	0.430	0.892	88.8	229.3	---	1.275	-4.89	0.926	65.7	169.1	-6.5	0.404
4-3910	4-4120	0.480	61.5	17.3	6.79	1.295	69.0	0.408	0.911	82.6	232.7	---	1.283	-6.25	0.941	66.7	175.0	-12.9	0.394
4-3910	4-4130	0.470	63.5	26.5	9.83	1.303	70.9	0.389	0.928	76.3	236.0	---	1.289	-9.01	0.954	67.6	180.1	-22.5	0.395
4-3910	4-4140	0.544	60.4	45.3	18.03	1.310	72.7	0.373	0.944	70.1	239.3	---	1.296	-16.94	0.966	68.4	185.5	-40.8	0.450
4-3910	4-4160	0.478	66.7	-50.6	-16.72	1.321	76.6	0.342	0.972	56.0	245.9	---	1.304	18.34	0.988	70.1	230.6	23.6	0.450
4-3910	4-4170	0.329	81.4	-30.6	-7.41	1.326	78.3	0.331	0.985	49.4	249.0	---	1.311	9.30	0.997	70.6	228.1	8.3	0.358
4-3910	4-4180	0.274	88.7	-20.2	-4.14	1.331	80.0	0.322	0.996	42.4	251.9	---	1.317	6.32	1.006	71.2	233.0	-0.1	0.332
4-3910	4-4190	0.237	96.3	-13.6	-2.41	1.335	81.8	0.315	1.007	35.1	254.6	---	1.324	4.89	1.014	71.7	240.0	-5.5	0.321
4-3910	4-4200	0.209	105.4	-8.2	-1.29	1.338	83.6	0.310	1.016	27.5	257.0	---	1.331	4.09	1.020	72.0	248.1	-9.1	0.315
4-3910	4-4210	0.187	116.6	-3.3	-0.46	1.342	85.4	0.307	1.025	19.5	259.2	---	1.340	3.60	1.026	72.3	256.9	-11.5	0.312
4-3910	4-4220	0.172	130.5	1.7	0.22	1.344	87.4	0.306	1.034	11.2	260.9	---	1.350	3.31	1.032	72.4	266.1	-12.9	0.313
4-3910	4-4230	0.168	146.9	6.5	0.81	1.347	89.5	0.308	1.042	2.3	262.3	---	1.363	3.16	1.036	72.3	275.7	-13.5	0.317
4-3910	4-4240	0.178	164.5	10.4	1.37	1.350	91.7	0.314	1.049	352.9	623.0	0.719	1.379	3.11	1.040	72.0	285.6	-13.1	0.326
4-3910	4-4250	0.204	181.3	12.9	1.93	1.352	94.2	0.325	1.056	342.7	623.0	0.713	1.399	3.16	1.042	71.4	295.7	-12.0	0.340
4-3910	4-4250	0.552	253.6	3.6	1.93	1.166	116.8	0.451	0.707	241.0	881.3	0.388	1.026	3.16	0.787	104.2	83.0	26.8	0.321
4-3910	4-4260	0.246	196.0	13.9	2.53	1.354	97.1	0.342	1.063	331.7	622.1	0.699	1.426	3.32	1.045	70.4	306.1	-10.0	0.362
4-3910	4-4260	0.512	253.7	5.2	2.53	1.158	114.8	0.421	0.698	241.1	891.6	0.404	0.992	3.32	0.774	96.1	42.2	26.5	0.263
4-3910	4-4270	0.306	208.4	14.1	3.21	1.356	100.6	0.369	1.069	319.6	620.2	0.675	1.463	3.61	1.046	68.8	316.6	-7.2	0.393
4-3910	4-4270	0.511	254.1	6.6	3.21	1.155	114.7	0.420	0.694	240.5	901.1	0.403	0.985	3.61	0.768	89.2	30.2	24.0	0.254
4-3910	4-4280	0.390	219.0	13.7	4.04	1.358	104.9	0.410	1.075	306.2	616.9	0.635	1.516	4.10	1.047	66.3	327.5	-3.6	0.441
4-3910	4-4280	0.540	254.9	7.8	4.04	1.154	116.1	0.441	0.693	239.1	909.9	0.387	0.998	4.10	0.763	82.4	21.4	20.7	0.287
4-3910	4-4290	0.508	228.8	13.1	5.18	1.360	110.7	0.471	1.082	290.8	611.6	0.572	1.592	4.92	1.048	62.3	338.9	0.7	0.514
4-3910	4-4290	0.605	256.3	8.6	5.18	1.154	119.3	0.490	0.693	236.6	917.4	0.353	1.032	4.92	0.761	74.6	17.9	18.5	0.358
4-3910	4-4300	0.723	258.8	9.1	6.94	1.155	125.1	0.576	0.694	231.7	922.5	0.294	1.094	6.38	0.759	64.7	19.6	18.2	0.476
4-3910	4-4360	0.721	38.1	-5.1	-3.97	1.148	53.8	0.592	0.686	130.1	880.4	0.280	1.092	-6.17	0.726	114.1	167.6	-4.7	0.442
4-3910	4-4370	0.506	69.7	-5.9	-2.35	1.369	68.5	0.491	1.111	69.7	469.6	0.566	1.657	-4.84	1.039	119.0	214.8	-23.2	0.503
4-3910	4-4370	0.621	40.3	-3.7	-2.35	1.148	58.8	0.519	0.687	125.8	885.8	0.330	1.043	-4.84	0.724	104.4	166.6	-5.1	0.341
4-3910	4-4380	0.395	79.5	-4.3	-1.29	1.371	74.1	0.438	1.118	54.6	464.2	0.628	1.608	-4.09	1.040	115.4	228.0	-26.9	0.444
4-3910	4-4380	0.574	41.2	-2.3	-1.29	1.147	61.2	0.484	0.686	124.1	893.7	0.354	1.018	-4.09	0.720	95.9	159.8	-2.6	0.285
4-3910	4-4390	0.315	90.6	-2.1	-0.49	1.373	78.4	0.405	1.125	41.2	460.3	0.669	1.580	-3.62	1.041	113.2	240.9	-29.4	0.407
4-3910	4-4390	0.769	34.9	-0.6	-0.49	1.119	50.7	0.638	0.657	136.1	915.2	0.238	1.076	-3.62	0.671	66.5	123.6	14.9	0.465
4-3910	4-4390	0.586	40.5	-0.8	-0.49	1.142	60.5	0.495	0.680	125.5	904.6	0.343	1.017	-3.62	0.709	85.5	145.4	4.5	0.292
4-3910	4-4400	0.758	103.9	0.8	0.15	1.375	82.1	0.385	1.132	28.9	457.6	0.696	1.568	-3.34	1.042	111.9	253.6	-31.0	0.387
4-3910	4-4410	0.221	120.0	4.5	0.72	1.377	85.3	0.375	1.139	17.4	455.6	0.712	1.567	-3.17	1.044	111.2	265.9	-31.6	0.377
4-3910	4-4420	0.204	138.5	8.4	1.24	1.380	88.2	0.373	1.147	6.6	454.4	0.720	1.575	-3.11	1.047	110.9	277.8	-31.4	0.377
4-3910	4-4430	0.208	157.5	11.8	1.76	1.382	91.0	0.377	1.156	356.5	813.7	0.720	1.591	-3.13	1.050	111.1	289.1	-30.4	0.383
4-3910	4-4440	0.229	174.4	14.0	2.30	1.384	93.7	0.386	1.165	346.8	813.6	0.716	1.615	-3.25	1.054	111.5	299.8	-28.9	0.395
4-3910	4-4450	0.743	49.4	4.2	2.91	1.294	55.2	0.595	0.909	108.2	584.8	0.368	1.450	-3.49	0.933	54.0	150.2	7.4	0.590
4-3910	4-4450	0.264	188.2	15.4	2.91	1.387	96.4	0.460	1.176	337.3	814.0	0.705	1.646	-3.49	1.058	112.3	309.9	-27.0	0.413
4-3910	4-4460	0.682	52.6	5.9	3.62	1.300	58.4	0.556	0.921	102.1	588.0	0.409	1.433	-3.84	0.942	56.7	157.2	3.6	0.549
4-3910	4-4460	0.308	198.9	16.3	3.62	1.390	99.1	0.419	1.187	328.8	814.7	0.690	1.684	-3.84	1.063	113.4	319.6	-24.7	0.436
4-3910	4-4470	0.623	55.6	8.4	4.53	1.305	61.5	0.517	0.933	95.7	591.1	0.451	1.415	-4.43	0.951	59.2	164.0	-0.9	0.510
4-3910	4-4470	0.360	207.5	17.4	4.53	1.393	101.8	0.441	1.200	320.5	815.9	0.670	1.729	-4.43	1.069	114.7	328.8	-22.6	0.465
4-3910	4-4480	0.570	58.6	12.1	5.82	1.310	64.5	0.481	0.944	89.1	594.2	0.490	1.398	-5.43	0.960	61.5	170.6	-6.5	0.476
4-3910	4-4480	0.426	214.5	19.1	5.82	1.397	104.7	0.467	1.213	312.5	817.5	0.646	1.780	-5.43	1.075	116.3	337.7	-20.7	0.499
4-3910	4-4490	0.529	61.3	16.5	7.96	1.314	67.2	0.448	0.955	82.5	597.2	0.527	1.382	-7.28	0.968	63.6	176.6	-14.0	0.451
4-3910	4-4490	0.490	220.8	22.2	7.96	1.400	107.6	0.496	1.228	304.8	819.5	0.618	1.837	-7.28	1.082	118.1	346.7	-19.8	0.540
4-3910	4-4500	0.523	62.5	30.6	12.50	1.318	69.8	0.419	0.964	75.8	600.1	0.560	1.368	-11.55	0.976	65.3	181.5	-26.3	0.448
4-3910	4-4500	0.586	227.4	29.0	12.50	1.404	110.6	0.528	1.243	297.5	821.8	0.587	1.900	-11.55	1.089	120.1	356.0	-21.9	0.597
4-3920	4-4060	0.834	54.9	1.7	1.56	1.191	48.4	0.664	0.739	130.0	206.7	---	1.230	-2.68	0.784	53.8	141.5	12.0	0.582
4-3920	4-4070	0.779	58.0	2.4	2.00	1.211	51.6	0.623	0.767	124.1	210.3	---	1.245	-2.61	0.815	55.8	147.8	9.6	0.551
4-3920	4-4080	0.728	61.0	3.4	2.44	1.229	54.6	0.584	0.794	118.2	213.9	---	1.258	-2.62	0.842	57.7	154.1	6.9	0.523
4-3920	4-4090	0.680	63.9	4.5	2.89	1.245	57.3	0.549	0.819	112.2	217.5	---	1.270	-2.70	0.867	59.4	160.5	3.9	0.497
4-3920	4-4100	0.634	66.8	5.8	3.38	1.259	59.9	0.517	0.843	106.2	221.0	---	1.280	-2.87	0.888	60.9	166.9	0.5	0.474
4-3920	4-4110	0.591	69.6	7.6	3.96	1.271	62.3	0.488	0.866	100.2	224.6	---	1.289	-3.16	0.908	62.5	173.4	-3.3	0.452
4-3920	4-4120	0.552	72.5	9.9	4.70	1.282	64.6	0.461	0.887	94.1	228.2	---	1.296	-3.63	0.925	63.6	179.8	-7.5	0.433
4-3920	4-4130	0.516	75.3	13.3	5.74	1.291	66.7	0.437	0.907	87.9	231.7	---	1.303	-4.41	0.941	64.8	186.2	-12.5	0.417
4-3920	4-4140	0.489	78.0	18.7	7.41	1.300	68.8	0.416	0.925	81.7	235.2	---	1.310	-5.85	0.955	65.9	192.4	-19.1	0.405
4-3920	4-4150	0.484	79.7	28.8	10.87	1.307	70.8	0.396	0.942	75.4	238.6	---	1.316	-9.07	0.968	66.9	197.8	-29.4	0.407
4-3920	4-4160	0.629	71.1	52.2	23.36	1.314	72.6	0.380	0.958	69.2	242.0	---	1.322	-21.33	0.980	67.8	201.9	-53.5	0.509
4-3920	4-4180	0.371	92.8	-32.0	-8.78	1.325	76.6	0.349	0.986	55.1	248.6	---	1.329	11.26	1.001	69.6	238.5	8.3	0.391
4-3920	4-4190	0.300	100.2	-17.0	-3.87	1.330	78.4	0.337	0.998	48.2	251.6	---	1.335	6.58	1.009	70.3	242.4	-2.7	0.351
4-3920	4-4200	0.261	106.9	-9.0	-1.78	1.334	80.2	0.328	1.009	41.0	254.5	---	1.341	4.74	1.017	70.9	249.6	-8.3	0.336

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3920	4-4210	0.231	114.7	-3.3	-0.57	1.338	82.0	0.321	1.020	33.4	257.1	---	1.347	3.79	1.024	71.4	257.9	-11.1	0.327
4-3920	4-4220	0.206	124.3	1.7	0.26	1.341	83.9	0.315	1.030	25.7	259.4	---	1.354	3.24	1.030	71.8	266.8	-13.6	0.323
4-3920	4-4230	0.187	136.3	6.4	0.89	1.344	85.9	0.312	1.039	17.5	261.3	---	1.363	2.90	1.035	72.0	276.2	-14.4	0.321
4-3920	4-4240	0.176	151.2	11.0	1.43	1.347	87.9	0.312	1.047	8.8	262.8	---	1.374	2.71	1.039	72.1	285.8	-14.3	0.323
4-3920	4-4250	0.177	168.4	14.7	1.91	1.350	90.1	0.315	1.055	359.6	623.8	0.722	1.387	2.62	1.042	72.0	295.6	-13.3	0.328
4-3920	4-4260	0.193	186.3	16.9	2.37	1.352	92.5	0.323	1.062	349.7	624.1	0.719	1.405	2.61	1.044	71.6	305.4	-11.6	0.339
4-3920	4-4260	0.577	269.2	4.3	2.37	1.176	117.9	0.469	0.720	241.8	876.2	0.383	1.058	2.61	0.803	108.3	72.7	28.1	0.3.7
4-3920	4-4270	0.224	202.7	17.4	2.85	1.354	95.2	0.336	1.069	339.1	623.6	0.710	1.428	2.69	1.046	70.9	315.4	-9.1	0.355
4-3920	4-4270	0.513	268.9	5.9	2.85	1.164	114.8	0.419	0.707	242.6	881.1	0.410	1.003	2.69	0.784	99.0	62.9	29.0	0.270
4-3920	4-4280	0.273	216.7	16.8	3.37	1.357	98.4	0.356	1.076	327.6	622.2	0.693	1.459	2.87	1.047	69.7	325.5	-5.9	0.379
4-3920	4-4280	0.499	269.2	7.2	3.37	1.160	114.0	0.408	0.701	242.2	896.8	0.415	0.988	2.87	0.775	92.2	50.6	28.0	0.243
4-3920	4-4290	0.342	228.5	15.7	3.98	1.349	102.2	0.388	1.082	314.9	619.6	0.663	1.501	3.17	1.048	67.7	335.9	-2.1	0.416
4-3920	4-4290	0.514	269.8	8.2	3.98	1.158	114.7	0.419	0.699	241.2	905.9	0.406	0.993	3.17	0.770	85.7	39.5	25.4	0.258
4-3920	4-4300	0.437	238.8	14.3	4.76	1.361	107.1	0.435	1.088	300.6	615.4	0.615	1.562	3.67	1.048	64.7	346.8	2.4	0.471
4-3920	4-4300	0.559	270.8	8.8	4.76	1.157	116.9	0.454	0.699	239.3	914.1	0.382	1.016	3.67	0.766	78.8	33.4	22.9	0.309
4-3920	4-4310	0.573	248.5	12.9	5.87	1.363	113.7	0.508	1.095	284.2	608.9	0.538	1.652	4.52	1.049	59.9	358.6	7.4	0.556
4-3920	4-4310	0.644	272.6	9.1	5.87	1.158	121.1	0.518	0.700	235.8	920.6	0.337	1.062	4.52	0.764	70.6	32.7	21.9	0.399
4-3920	4-4320	0.792	276.0	8.8	7.69	1.160	128.6	0.624	0.701	229.3	924.0	0.264	1.139	6.10	0.753	59.5	37.0	22.5	0.539
4-3920	4-4320	0.973	291.9	4.8	7.69	0.977	141.9	0.810	0.551	204.4	1259.1	0.105	0.997	6.10	0.438	34.0	92.8	28.1	0.571
4-3920	4-4370	0.824	52.2	-3.9	-3.74	1.151	48.3	0.665	0.692	134.4	876.3	0.232	1.152	-6.46	0.732	122.6	181.9	-8.8	0.543
4-3920	4-4380	0.604	79.7	-3.6	-1.78	1.370	63.6	0.546	1.118	80.9	471.3	0.508	1.729	-4.73	1.040	122.7	223.0	-28.1	0.567
4-3920	4-4380	0.676	55.8	-2.5	-1.78	1.153	56.0	0.561	0.694	127.5	880.9	0.305	1.083	-4.73	0.731	111.3	185.1	-10.9	0.404
4-3920	4-4390	0.465	89.4	-1.7	-0.62	1.372	70.5	0.475	1.125	64.2	467.2	0.591	1.659	-3.82	1.041	117.8	237.3	-27.5	0.436
4-3920	4-4390	0.593	57.7	-1.0	-0.62	1.153	60.2	0.498	0.695	123.6	886.8	0.349	1.041	-3.82	0.730	102.5	183.5	-10.9	0.316
4-3920	4-4400	0.367	99.7	0.6	0.18	1.373	75.6	0.430	1.132	49.7	462.2	0.646	1.618	-3.28	1.042	114.8	251.0	-29.5	0.436
4-3920	4-4400	0.910	47.2	0.1	0.18	1.107	42.8	0.738	0.647	143.3	915.9	0.170	1.124	-3.28	0.651	55.2	130.3	15.2	0.589
4-3920	4-4400	0.555	56.4	0.5	0.18	1.152	62.1	0.469	0.693	122.4	894.9	0.368	1.019	-3.28	0.726	94.5	176.0	-7.9	0.270
4-3920	4-4410	0.295	111.6	3.6	0.79	1.375	79.8	0.402	1.139	36.5	458.6	0.681	1.596	-2.95	1.044	112.9	268.2	-30.5	0.406
4-3920	4-4410	0.491	52.5	1.0	0.79	1.128	52.7	0.609	0.667	133.4	915.5	0.261	1.074	-2.95	0.685	68.5	142.9	10.1	0.432
4-3920	4-4410	0.477	57.3	1.4	0.79	1.147	60.9	0.488	0.687	124.3	906.4	0.352	1.022	-2.95	0.716	84.0	160.7	0.2	0.286
4-3920	4-4420	0.246	126.1	7.3	1.31	1.377	83.3	0.386	1.146	24.4	456.0	0.704	1.588	-2.75	1.046	111.8	276.8	-30.2	0.390
4-3920	4-4430	0.217	143.5	11.3	1.77	1.380	86.4	0.379	1.154	13.7	454.2	0.717	1.590	-2.64	1.049	111.2	288.7	-29.1	0.384
4-3920	4-4440	0.210	162.7	14.7	2.21	1.382	89.3	0.379	1.162	2.4	453.1	0.722	1.602	-2.61	1.052	111.1	299.8	-27.4	0.386
4-3920	4-4450	0.222	181.4	16.7	2.65	1.384	92.2	0.385	1.171	352.0	812.6	0.720	1.621	-2.67	1.056	111.4	310.3	-25.2	0.395
4-3920	4-4460	0.249	196.8	17.5	3.11	1.387	94.8	0.396	1.181	342.8	812.6	0.713	1.649	-2.77	1.061	112.0	320.2	-22.5	0.409
4-3920	4-4470	0.733	66.5	5.3	3.64	1.297	55.8	0.590	0.918	108.8	586.2	0.377	1.460	-2.99	0.942	54.3	167.7	1.1	0.585
4-3920	4-4470	0.288	209.2	17.7	3.64	1.390	97.6	0.412	1.192	338.8	813.2	0.700	1.683	-2.99	1.066	112.8	329.5	-19.7	0.429
4-3920	4-4480	0.671	69.5	7.2	4.29	1.302	59.0	0.549	0.930	100.5	589.5	0.419	1.442	-3.36	0.952	57.0	174.6	-4.0	0.543
4-3920	4-4480	0.335	218.9	17.8	4.29	1.392	100.3	0.432	1.203	325.1	814.2	0.683	1.724	-3.36	1.072	114.0	338.3	-16.9	0.453
4-3920	4-4490	0.613	72.5	9.7	5.14	1.307	62.1	0.511	0.942	96.1	592.8	0.460	1.424	-3.95	0.961	59.5	181.4	-7.7	0.505
4-3920	4-4490	0.389	226.7	18.2	5.14	1.396	103.2	0.456	1.216	316.9	815.6	0.661	1.771	-3.95	1.078	115.4	347.0	-14.3	0.483
4-3920	4-4500	0.563	75.4	13.7	6.42	1.312	65.0	0.476	0.953	87.5	595.9	0.499	1.407	-4.98	0.970	61.7	188.0	-13.3	0.472
4-3920	4-4500	0.451	233.3	19.4	6.42	1.399	106.1	0.484	1.230	309.0	817.4	0.635	1.825	-4.98	1.085	117.1	355.5	-12.1	0.518
4-3920	4-4510	0.525	78.1	20.5	8.68	1.316	67.7	0.444	0.963	80.9	599.0	0.535	1.391	-7.01	0.979	63.7	194.3	-21.1	0.449
4-3920	4-4510	0.524	239.2	22.5	8.68	1.402	109.1	0.514	1.248	301.5	819.6	0.605	1.885	-7.01	1.092	119.0	4.2	-11.3	0.561
4-3920	4-4520	0.537	78.4	35.0	14.36	1.320	70.2	0.416	0.972	74.2	602.0	0.568	1.377	-12.46	0.987	65.5	199.3	-35.5	0.455
4-3930	4-4080	0.842	71.7	2.6	2.46	1.202	48.2	0.667	0.758	128.9	208.5	---	1.263	-1.94	0.806	52.4	158.3	6.9	0.597
4-3930	4-4090	0.787	74.7	3.4	2.78	1.221	51.4	0.627	0.785	123.0	212.2	---	1.277	-1.90	0.835	54.6	164.5	4.1	0.566
4-3930	4-4100	0.736	77.6	4.2	3.11	1.238	54.3	0.589	0.811	117.1	215.9	---	1.289	-1.93	0.861	56.5	170.9	1.1	0.538
4-3930	4-4110	0.687	80.5	5.3	3.44	1.252	57.1	0.555	0.836	111.1	219.6	---	1.300	-2.01	0.884	58.3	177.3	-2.1	0.511
4-3930	4-4120	0.641	83.4	6.5	3.83	1.265	59.7	0.523	0.859	105.2	223.2	---	1.309	-2.16	0.905	59.9	183.9	-5.5	0.487
4-3930	4-4130	0.597	86.3	8.1	4.29	1.277	62.1	0.494	0.882	99.1	226.9	---	1.317	-2.41	0.924	61.5	190.6	-9.1	0.465
4-3930	4-4140	0.556	89.2	10.3	4.89	1.287	64.5	0.467	0.902	93.0	230.5	---	1.324	-2.82	0.941	62.9	197.4	-13.1	0.445
4-3930	4-4150	0.520	92.1	13.3	5.78	1.296	66.7	0.443	0.922	86.8	234.2	---	1.330	-3.53	0.956	64.2	204.3	-17.8	0.427
4-3930	4-4160	0.490	94.8	18.5	7.34	1.304	68.8	0.421	0.940	80.5	237.7	---	1.335	-4.92	0.970	65.4	211.1	-23.8	0.414
4-3930	4-4170	0.487	96.5	29.4	11.12	1.311	70.8	0.401	0.957	74.2	241.2	---	1.340	-8.53	0.982	66.5	217.5	-34.6	0.416
4-3930	4-4190	0.435	103.5	-37.3	-11.90	1.323	74.9	0.767	0.986	60.5	248.0	---	1.348	14.83	1.004	68.5	229.9	11.0	0.441
4-3930	4-4200	0.327	112.3	-13.1	-3.28	1.328	76.7	0.754	1.000	53.7	251.1	---	1.353	6.38	1.012	69.3	251.9	-5.7	0.369
4-3930	4-4210	0.287	118.3	-3.9	-0.85	1.333	78.6	0.742	1.012	46.6	254.1	---	1.358	4.13	1.020	70.0	259.3	-11.7	0.351
4-3930	4-4220	0.256	125.0	1.7	0.34	1.337	80.5	0.733	1.023	39.2	256.3	---	1.363	3.12	1.027	70.7	268.0	-18.5	0.341
4-3930	4-4230	0.229	133.3	6.3	1.08	1.341	82.4	0.725	1.033	31.5	258.3	---	1.370	2.57	1.032	71.2	277.2	-15.7	0.334
4-3930	4-4240	0.207	143.7	10.5	1.62	1.344	84.4	0.720	1.043	23.4	261.4	---	1.377	2.25	1.037	71.6	286.6	-15.8	0.331
4-3930	4-4250	0.190	156.7	14.6	2.05	1.347	86.4	0.718	1.052	14.9	263.1	---	1.386	2.05	1.041	71.8	296.2	-15.0	0.330
4-3930	4-4260	0.183	172.6	18.1	2.42	1.350	88.6	0.719	1.060	5.9	264.2	---	1.398	1.94	1.044	71.9	305.8	-13.4	0.333
4-3930	4-4270	0.189	190.5	20.2	2.76	1.352	90.9	0.723	1.068	356.4	624.8	0.723	1.413	1.90	1.046	71.7	315.4	-11.1	0.339
4-3930	4-4270	0.651	285.4	4.3	2.76	1.192	121.4	0.522	0.944	241.2	869.7	0.356	1.132	1.90	0.828	115.6	93.6	26.6	0.442
4-3930	4-4270	0.744	286.7	3.6	2.76	1.207	125.9	0.588	0.764	238.4	866.9	0.315	1.214	1.90	0.850	122.3	97.8	25.8	0.537
4-3930	4-4280	0.209	208.3	20.4	3.10	1.355	93.5	0.332	1.075	346.1	624.7	0.718	1.432	1.93	1.047	71.2	325.0	-8.2	0.351
4-3930	4-4280	0.521	284.2	6.3	3.10	1.170	115.1	0.424	0.717	243.8	882.4	0.413	1.021	1.93	0.795	102.1	83.6	28.6	0.285
4-3930	4-4290	0.246	224.0	19.3	3.46	1.357	96.4	0.348	1.082	335.0	623.8	0.706	1.458	2.01	1.048	70.2	334.8	-4.7	0.369
4-3930	4-4290	0.492	284.3	7.5	3.46	1.164	113.7	0.402	0.709	243.8	892.5	0.424	0.994	2.01	0.783	95.0	72.3	29.0	0.240
4-3930	4-4300	0.302	237.3	17.4	3.86	1.359	99.8	0.372	1.089	323.0	621.8	0.684	1.496	2.17	1.049	68.8	344.8	-0.7	0.397
4-3930	4-4300	0.495	284.7	8.3	3.86	1.161	113.8	0.404	0.706	243.1	901.9	0.421	0.991	2.17	0.776	88.8	59.8	27.8	0.237
4-3930	4-4310	0.379	248.5	15.3	4.34	1.361	104.0	0.409	1.095	309.7	618.4	0.648	1.543	2.44	1.049	66.4	355.2	3.7	0.439
4-3930	4-4310	0.524	285.5	8.7	4.34	1.161	115.2	0.426	0.705	241.7	910.4	0.405	1.005	2.44	0.771	82.4	51.0	25.8	0.271
4-3930	4-4320	0.487	258.4	13.2	4.98	1.363	109.5	0.465	1.102	294.6	613.3	0.590	1.614	2.89	1.049	62.8	6.4	8.6	0.505
4-3930	4-4320	0.585	286.8	8.7	4.98	1.161	118.2	0.473	0.706	239.1	917.8	0.372	1.039	2.89	0.768	75.3	47.8	24.4	0.339
4-3930	4-4330	0.691	289.2	8.3	5.93	1.162	123.5	0.553	0.707	234.4	923.0	0.316	1.098	3.65	0.766	66.2	49.7	24.3	0.445
4-3930	4-4340	0.988	306.0	4.5	7.62	0.978	142.9	0.819	0.553	204.0	1262.4	0.100	1.006	5.18	0.433	79.4	102.5	26.7	0.584
4-3930	4-4390	0.765	70.2	-1.1	-0.94	1.156	51.4	0.624	0.700	130.9	877.9	0.263	1.137	-4.20	0.738	119.1	200.8	-14.7	0.492

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3930	4-4400	0.553	99.3	0.5	0.24	1.372	66.1	0.523	1.132	74.7	471.3	0.540	1.724	-3.20	1.042	121.0	346.2	-17.0	0.541
4-3930	4-4400	0.638	73.3	0.4	0.24	1.158	57.9	0.332	0.[illegible]02	124.[illegible]	881.4	0.328	1.076	-3.29	0.739	108.9	203.5	-16.3	0.372
4-3930	4-4410	0.430	109.2	3.0	0.97	1.374	72.4	0.461	1.139	58.7	464.8	0.614	1.664	-2.64	1.044	116.8	260.7	-28.4	0.472
4-3930	4-4410	0.566	75.0	1.8	0.97	1.158	61.6	0.477	0.702	121.6	887.7	0.367	1.038	-2.64	0.738	100.8	301.3	-16.0	0.294
4-3930	4-4420	0.342	120.2	5.9	1.51	1.376	77.2	0.422	1.146	44.5	460.1	0.662	1.630	-2.31	1.046	114.2	274.2	-28.5	0.430
4-3930	4-4420	0.879	64.5	1.3	1.51	1.114	44.6	0.716	0.656	141.2	916.8	0.186	1.126	-2.31	0.666	56.6	48.6	10.3	0.564
4-3930	4-4420	0.535	75.5	2.9	1.51	1.157	63.1	0.453	0.701	120.4	896.0	0.384	1.019	-2.31	0.736	93.3	193.1	-12.9	0.255
4-3930	4-4430	0.279	133.2	9.4	1.93	1.377	81.1	0.399	1.153	31.6	456.7	0.693	1.613	-2.10	1.049	112.6	287.0	-27.6	0.406
4-3930	4-4430	0.698	70.0	2.6	1.93	1.135	54.5	0.583	0.677	130.9	916.0	0.283	1.072	-2.10	0.701	69.9	161.2	4.3	0.405
4-3930	4-4430	0.565	74.	3.5	1.93	1.151	61.6	0.477	0.694	122.8	908.0	0.363	1.026	-2.10	0.726	82.5	176.7	-4.5	0.279
4-3930	4-4440	0.238	149.1	13.3	2.29	1.379	84.6	0.387	1.160	19.6	454.3	0.712	1.609	-1.97	1.052	111.7	298.9	-25.8	0.394
4-3930	4-4450	0.218	168.0	16.8	2.62	1.382	87.8	0.382	1.168	8.1	452.7	0.721	1.614	-1.93	1.055	111.2	309.9	-23.4	0.391
4-3930	4-4460	0.219	187.1	18.9	2.94	1.384	90.6	0.385	1.177	358.0	811.7	0.723	1.630	-1.91	1.060	111.3	320.1	-20.6	0.396
4-3930	4-4470	0.238	204.6	19.3	3.26	1.386	93.4	0.394	1.186	348.1	811.4	0.719	1.653	-1.96	1.07[illegible]	111.7	329.7	-17.4	0.406
4-3930	4-4480	0.270	218.8	18.8	3.62	1.389	96.1	0.407	1.196	338.7	811.7	0.709	1.684	-2.07	1.070	112.4	338.7	-14.2	0.422
4-3930	4-4490	0.720	83.5	6.1	4.03	1.299	56.5	0.582	0.928	105.1	587.8	0.388	1.468	-2.26	0.953	54.7	185.1	-5.5	0.578
4-3930	4-4490	0.312	229.9	18.0	4.03	1.392	98.9	0.425	1.207	329.8	812.5	0.694	1.721	-2.26	1.076	113.4	347.4	-10.9	0.444
4-3930	4-4500	0.658	86.4	7.8	4.55	1.304	59.7	0.542	0.940	98.8	591.2	0.430	1.449	-2.58	0.962	57.4	192.2	-9.5	0.537
4-3930	4-4500	0.362	238.6	17.4	4.55	1.395	101.7	0.447	1.220	321.3	813.7	0.674	1.765	-2.58	1.082	114.7	355.8	-7.7	0.470
4-3930	4-4510	0.601	89.5	10.2	5.26	1.309	62.7	0.505	0.951	92.4	594.5	0.471	1.431	-3.11	0.972	59.8	199.4	-13.8	0.500
4-3930	4-4510	0.417	245.7	17.3	5.26	1.398	104.6	0.472	1.233	313.2	815.4	0.650	1.815	-3.11	1.088	116.2	4.1	-4.8	0.501
4-3930	4-4520	0.551	92.6	14.0	6.40	1.313	65.6	0.471	0.961	85.8	597.8	0.509	1.414	-4.06	0.981	62.0	206.6	-19.0	0.468
4-3930	4-4520	0.480	251.7	18.1	6.40	1.401	107.5	0.501	1.247	305.5	817.5	0.622	1.871	-4.06	1.095	118.0	12.5	-2.6	0.536
4-3930	4-4530	0.515	95.2	20.9	8.64	1.317	68.3	0.440	0.971	79.1	600.9	0.544	1.398	-6.13	0.989	64.0	213.5	-26.5	0.445
4-3930	4-4530	0.553	257.2	20.9	8.64	1.404	110.6	0.532	1.262	298.1	820.0	0.590	1.933	-6.13	1.102	120.0	21.1	-2.0	0.57
4-3940	4-4110	0.793	91.4	4.0	3.27	1.230	51.3	0.629	0.803	121.7	214.2	---	1.308	-1.06	0.856	53.6	181.2	-1.9	0.580
4-3940	4-4120	0.740	94.3	4.7	3.45	1.246	54.3	0.592	0.828	115.8	218.0	---	1.319	-1.08	0.881	55.6	187.8	-4.9	0.551
4-3940	4-4130	0.691	97.2	5.6	3.65	1.260	57.1	0.558	0.853	109.9	221.7	---	1.329	-1.14	0.903	57.5	194.5	-8.0	0.524
4-3940	4-4140	0.644	100.1	6.6	3.88	1.272	59.7	0.526	0.876	102.9	225.5	---	1.337	-1.24	0.923	59.2	201.4	-11.1	0.499
4-3940	4-4150	0.599	103.0	7.9	4.16	1.283	62.2	0.497	0.898	97.8	229.2	---	1.344	-1.41	0.941	60.9	208.6	-14.3	0.476
4-3940	4-4160	0.556	108.0	9.6	4.54	1.292	64.5	0.470	0.918	91.7	232.9	---	1.350	-1.69	0.957	62.3	216.0	-17.6	0.455
4-3940	4-4170	0.517	109.1	12.0	5.15	1.301	66.8	0.440	0.937	85.4	236.6	---	1.355	-2.19	0.971	63.7	225.7	-21.2	0.437
4-3940	4-4180	0.484	112.1	16.2	6.33	1.309	68.9	0.424	0.955	79.0	240.2	---	1.360	-3.28	0.984	65.0	231.6	-25.9	0.421
4-3940	4-4190	0.476	114.3	27.2	10.05	1.315	71.0	0.404	0.971	72.5	243.7	---	1.364	-6.91	0.996	66.2	239.4	-36.0	0.418
4-3940	4-4210	0.354	125.0	-7.2	-1.98	1.327	75.1	0.370	1.001	58.9	250.4	---	1.372	5.31	1.015	68.5	261.4	-10.1	0.384
4-3940	4-4220	0.317	130.2	2.3	0.56	1.332	77.0	0.357	1.016	51.9	253.5	---	1.376	2.87	1.022	69.1	269.6	-15.9	0.366
4-3940	4-4230	0.285	136.2	7.0	1.52	1.336	79.0	0.346	1.026	44.5	256.3	---	1.380	2.01	1.029	69.9	278.6	-17.7	0.355
4-3940	4-4240	0.256	143.4	10.7	2.05	1.340	81.0	0.336	1.037	36.9	258.9	---	1.386	1.58	1.034	70.6	288.0	-17.9	0.347
4-3940	4-4250	0.230	152.3	14.1	2.40	1.343	82.9	0.329	1.047	29.0	261.1	---	1.392	1.34	1.039	71.1	297.4	-17.1	0.342
4-3940	4-4260	0.209	163.6	17.4	2.67	1.347	85.0	0.325	1.057	20.6	263.0	---	1.400	1.19	1.042	71.4	306.8	-15.6	0.339
4-3940	4-4270	0.195	177.8	20.4	2.89	1.349	87.1	0.323	1.065	11.9	264.4	---	1.410	1.11	1.045	71.6	316.2	-13.3	0.339
4-3940	4-4280	0.191	194.7	22.4	3.09	1.352	89.4	0.325	1.074	2.6	265.2	---	1.423	1.07	1.047	71.6	325.5	-10.5	0.342
4-3940	4-4290	0.201	212.9	22.7	3.28	1.355	91.8	0.331	1.081	352.7	625.4	0.723	1.439	1.06	1.048	71.3	334.9	-7.2	0.350
4-3940	4-4290	0.539	299.6	6.5	3.28	1.178	115.9	0.437	0.729	244.7	877.5	0.410	1.[illegible]	1.06	0.807	105.7	103.5	25.5	0.312
4-3940	4-4300	0.226	230.2	21.2	3.47	1.357	94.5	0.342	1.089	342.1	624.9	0.716	1.461	1.08	1.048	70.6	344.3	-3.5	0.363
4-3940	4-4300	0.491	299.4	7.6	3.47	1.169	113.6	0.400	0.718	245.2	888.0	0.431	1.005	1.08	0.791	97.8	93.8	26.9	0.244
4-3940	4-4310	0.269	285.0	18.7	3.67	1.359	97.7	0.361	1.095	330.6	623.4	0.700	1.491	1.15	1.043	69.9	352.9	0.6	0.384
4-3940	4-4310	0.482	295.7	8.2	3.67	1.166	113.1	0.393	0.714	244.8	897.6	0.431	0.994	1.15	0.782	81.5	81.5	27.2	0.225
4-3940	4-4320	0.331	257.4	15.9	3.91	1.361	101.4	0.389	1.102	318.1	620.9	0.673	1.531	1.26	1.049	67.3	3.9	4.9	0.416
4-3940	4-4320	0.498	300.2	8.4	3.91	1.164	113.9	0.406	0.712	243.8	906.5	0.423	1.001	1.26	0.776	85.6	85.6	26.3	0.243
4-3940	4-4330	0.418	268.1	13.3	4.20	1.363	106.1	0.433	1.109	304.2	616.[illegible]	0.629	1.588	1.44	1.049	63.0	14.7	9.5	0.464
4-3940	4-4330	0.540	301.2	8.2	4.20	1.164	116.0	0.439	0.712	241.8	914.[illegible]	0.399	1.024	1.44	0.772	79.2	64.7	29.2	0.192
4-3940	4-4340	0.540	277.8	10.8	4.60	1.365	112.2	0.498	1.115	288.4	610.[illegible]	0.560	1.671	1.74	1.048	60.6	26.6	14.1	0.538
4-3940	4-4340	0.616	303.0	7.6	4.60	1.165	119.9	0.498	0.713	238.4	920.[illegible]	0.458	1.068	1.74	0.770	71.6	64.1	24.8	0.374
4-3940	4-4350	0.746	306.0	6.6	5.24	1.166	126.5	0.595	0.715	232.4	924.[illegible]	0.419	1.140	2.27	0.768	61.6	69.4	25.1	0.498
4-3940	4-4350	0.946	322.4	3.5	5.24	0.989	140.4	0.793	0.562	206.1	728.3	7[illegible]	1.007	2.27	0.457	96.4	127.0	21.1	0.542
4-3940	4-4410	0.711	88.0	1.9	1.40	1.161	54.2	0.586	0.709	127.6	877.7	[illegible]94	1.123	-2.11	0.746	115.6	220.6	-19.1	0.449
4-3940	4-4420	0.509	113.9	4.4	1.95	1.374	68.5	0.502	1.146	68.6	468.2	[illegible]671	1.721	-1.66	1.046	119.5	269.7	-26.4	0.519
4-3940	4-4420	0.603	90.7	3.2	1.95	1.163	59.8	0.504	0.710	122.3	881.9	0.352	1.068	-1.66	0.748	106.7	222.9	-20.1	0.344
4-3940	4-4430	0.399	129.3	7.7	2.31	1.376	74.2	0.449	1.153	53.0	462.2	0.635	1.670	-1.40	1.049	115.9	285.7	-25.7	0.461
4-3940	4-4430	0.541	92.2	4.4	2.31	1.165	63.0	0.455	0.711	119.3	888.4	0.387	1.034	-1.40	0.748	99.4	230.3	-19.6	0.275
4-3940	4-4440	0.320	141.2	11.0	2.58	1.377	78.8	0.416	1.160	39.1	457.8	0.677	1.642	-1.24	1.052	113.6	296.5	-24.0	0.426
4-3940	4-4440	0.851	81.7	2.5	2.58	1.121	46.2	0.695	0.665	139.1	917.8	0.203	1.127	-1.24	0.682	57.8	166.1	4.5	0.543
4-3940	4-4440	0.515	92.7	5.3	2.58	1.162	64.3	0.434	0.709	118.3	897.0	0.401	1.017	-1.24	0.747	91.3	211.5	-16.8	0.241
4-3940	4-4450	0.264	155.8	14.6	2.80	1.379	82.7	0.397	1.167	26.0	454.6	0.704	1.629	-1.16	1.055	112.2	308.3	-21.7	0.406
4-3940	4-4450	0.653	87.4	4.1	2.80	1.143	57.0	0.546	0.688	127.6	910.2	0.313	1.[illegible]64	-1.16	0.719	72.2	189.2	-2.4	0.369
4-3940	4-4450	0.560	90.4	5.1	2.80	1.154	61.9	0.471	0.700	121.8	910.4	0.370	1.030	-1.16	0.736	81.[illegible]	191.4	-8.1	0.280
4-3940	4-4460	0.233	173.0	18.0	3.00	1.381	85.9	0.389	1.175	14.6	452.4	0.718	1.631	-1.08	1.059	111.5	319.1	-18.7	0.399
4-3940	4-4470	0.222	192.5	20.2	3.18	1.384	89.0	0.388	1.183	3.6	451.0	0.724	1.641	-1.06	1.063	111.3	329.2	-15.3	0.399
4-3940	4-4480	0.231	211.4	20.6	3.36	1.386	91.9	0.393	1.192	353.3	810.3	0.723	1.660	-1.06	1.068	111.5	338.8	-11.8	0.405
4-3940	4-4490	0.255	227.5	19.6	3.54	1.388	94.7	0.404	1.201	343.6	810.3	0.716	1.686	-1.10	1.074	112.0	347.5	-8.2	0.418
4-3940	4-4500	0.291	240.2	18.0	3.75	1.391	97.5	0.419	1.212	334.4	810.8	0.704	1.720	-1.18	1.079	112.9	356.1	-4.6	0.436
4-3940	4-4510	0.705	100.4	6.2	4.00	1.301	57.3	0.573	0.937	103.3	589.5	0.400	1.475	-1.31	0.964	55.2	203.1	-11.6	0.572
4-3940	4-4510	0.336	250.0	16.5	4.00	1.394	100.3	0.439	1.225	325.7	811.9	0.686	1.760	-1.31	1.086	114.0	4.5	-1.1	0.459
4-3940	4-4520	0.644	103.7	7.6	4.32	1.306	60.4	0.534	0.949	96.9	593.0	0.442	1.456	-1.52	0.974	57.8	210.7	-15.0	0.532
4-3940	4-4520	0.387	257.8	15.4	4.32	1.397	103.2	0.462	1.236	317.4	813.4	0.664	1.807	-1.32	1.092	115.4	12.8	2.1	0.486
4-3940	4-4530	0.587	106.6	9.6	4.79	1.311	63.4	0.498	0.960	90.4	595.4	0.482	1.438	-1.89	0.983	60.2	218.5	-18.5	0.496
4-3940	4-4530	0.443	264.2	14.7	4.79	1.400	106.1	0.489	1.249	309.5	815.4	0.638	1.860	-1.89	1.099	117.1	21.1	5.0	0.518
4-3940	4-4540	0.535	109.8	12.7	5.59	1.315	66.3	0.464	0.970	83.8	599.7	0.529	1.420	-2.59	0.991	62.4	226.5	-22.6	0.464
4-3940	4-4540	0.505	269.7	14.8	5.59	1.403	109.1	0.519	1.263	301.9	817.8	0.608	1.919	-2.59	1.105	118.9	29.5	7.2	0.554

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3950	4-4250	0.287	154.2	14.9	3.21	1.339	79.5	0.348	1.080	42.0	258.3	---	1.402	0.22	1.036	69.8	299.4	-20.1	0.362
4-3950	4-4260	0.257	162.0	17.1	3.27	1.343	81.5	0.339	1.051	34.2	260.7	---	1.408	0.18	1.040	70.5	308.7	-18.2	0.355
4-3950	4-4270	0.232	171.8	19.5	3.31	1.346	83.6	0.333	1.061	26.7	262.7	---	1.415	0.16	1.044	71.0	317.8	-15.8	0.349
4-3950	4-4280	0.211	184.2	21.8	3.34	1.349	85.7	0.330	1.070	17.5	264.2	---	1.423	0.14	1.045	71.3	326.9	-12.9	0.347
4-3950	4-4290	0.199	199.5	23.5	3.36	1.352	87.9	0.329	1.079	8.5	265.3	---	1.434	0.13	1.047	71.4	335.9	-9.6	0.347
4-3950	4-4300	0.198	217.1	23.8	3.38	1.355	90.3	0.332	1.087	358.9	625.8	0.726	1.448	0.13	1.048	71.2	344.9	-6.1	0.352
4-3950	4-4310	0.212	235.2	22.3	3.41	1.357	92.8	0.340	1.095	348.8	625.7	0.723	1.467	0.13	1.048	70.8	353.9	-2.2	0.361
4-3950	4-4310	0.495	314.6	7.4	3.41	1.175	113.8	0.404	0.728	246.5	883.4	0.434	1.022	0.13	0.799	100.6	113.7	22.1	0.257
4-3950	4-4320	0.242	251.7	19.5	3.43	1.359	95.7	0.354	1.102	337.9	624.7	0.712	1.492	0.14	1.049	70.0	3.5	1.8	0.376
4-3950	4-4320	0.473	314.6	7.8	3.43	1.170	112.7	0.387	0.722	246.5	893.3	0.443	1.001	0.14	0.788	94.2	102.8	23.4	0.221
4-3950	4-4330	0.291	265.5	16.2	3.46	1.361	99.1	0.376	1.109	326.1	622.8	0.692	1.525	0.15	1.049	68.8	13.0	6.0	0.399
4-3950	4-4330	0.477	315.0	7.8	3.46	1.168	113.0	0.391	0.719	245.7	902.5	0.438	1.000	0.15	0.781	88.4	91.1	24.0	0.223
4-3950	4-4340	0.505	315.8	7.4	3.49	1.167	114.4	0.413	0.718	244.3	910.9	0.422	1.015	0.16	0.777	82.5	82.8	23.8	0.256
4-3950	4-4350	0.515	109.1	6.7	3.28	1.167	64.4	0.431	0.718	116.8	889.5	0.408	1.028	-0.19	0.760	97.8	239.6	-21.1	0.257
4-3950	4-4360	0.493	109.9	7.2	3.32	1.167	65.6	0.414	0.717	116.0	897.9	0.420	1.014	-0.15	0.761	91.5	230.9	-19.1	0.228
4-3950	4-4370	0.255	179.0	18.4	3.35	1.381	84.1	0.397	1.181	20.9	452.4	0.712	1.650	-0.14	1.063	112.0	327.7	-13.4	0.409
4-3950	4-4370	0.529	108.3	6.6	3.35	1.160	63.7	0.444	0.710	118.9	910.4	0.395	1.025	-0.14	0.754	81.9	211.8	-13.3	0.260
4-3950	4-4380	0.231	197.8	20.6	3.37	1.383	87.4	0.392	1.189	9.3	450.5	0.723	1.655	-0.13	1.067	111.5	337.7	-9.7	0.404
4-3950	4-4390	0.228	217.5	21.1	3.39	1.386	90.4	0.394	1.197	358.6	809.4	0.726	1.669	-0.13	1.072	111.4	347.0	-5.9	0.406
4-3950	4-4500	0.243	235.3	19.9	3.42	1.388	93.3	0.402	1.207	348.5	809.0	0.722	1.691	-0.13	1.078	111.8	356.0	-2.1	0.415
4-3950	4-4510	0.273	249.7	17.7	3.44	1.390	96.1	0.415	1.217	339.0	809.3	0.712	1.721	-0.14	1.084	112.4	4.7	1.7	0.430
4-4000	4-4340	0.289	239.8	17.8	3.80	1.357	80.9	0.371	1.102	34.5	262.0	---	1.511	-4.48	1.043	68.8	26.9	-0.6	0.402
4-4000	4-4350	0.255	249.1	15.5	2.89	1.363	83.0	0.364	1.113	26.5	263.8	---	1.518	-3.93	1.045	69.3	34.5	3.4	0.391
4-4000	4-4360	0.228	260.5	13.1	2.17	1.363	85.2	0.360	1.123	18.1	265.2	---	1.527	-3.50	1.046	69.7	42.6	6.7	0.383
4-4000	4-4370	0.208	274.4	10.2	1.55	1.365	87.5	0.359	1.132	9.5	266.2	---	1.538	-3.40	1.047	69.8	51.1	9.5	0.379
4-4000	4-4380	0.201	290.6	6.7	0.98	1.368	89.9	0.362	1.140	0.4	266.7	---	1.552	-3.31	1.048	69.8	60.1	11.8	0.378
4-4000	4-4380	0.446	29.5	2.5	0.98	1.198	111.8	0.373	0.761	254.5	880.8	0.477	1.046	-3.31	0.814	100.7	181.1	-12.6	0.240
4-4000	4-4390	0.208	307.8	2.8	0.43	1.370	92.5	0.368	1.148	350.8	626.7	0.725	1.571	-3.32	1.050	69.4	69.6	13.5	0.382
4-4000	4-4390	0.419	29.3	1.1	0.43	1.193	110.6	0.353	0.755	254.9	890.8	0.489	1.021	-3.32	0.805	95.0	172.0	-11.2	0.201
4-4000	4-4400	0.233	328.3	-0.9	-0.15	1.372	95.3	0.380	1.155	340.6	626.1	0.717	1.594	-3.43	1.051	68.7	79.6	14.5	0.392
4-4000	4-4400	0.416	29.5	-0.4	-0.15	1.191	110.4	0.350	0.752	254.5	899.9	0.489	1.015	-3.43	0.800	90.0	162.3	-8.1	0.192
4-4000	4-4410	0.277	338.8	-3.8	-0.77	1.374	98.5	0.398	1.163	329.6	624.6	0.699	1.626	-3.65	1.053	67.6	90.1	14.8	0.410
4-4000	4-4410	0.430	30.0	-2.0	-0.77	1.190	111.1	0.362	0.751	253.4	908.4	0.479	1.022	-3.65	0.798	85.3	154.7	-4.6	0.209
4-4000	4-4420	0.463	31.1	-3.6	-1.51	1.190	112.7	0.387	0.751	251.5	916.0	0.460	1.041	-4.01	0.797	80.4	151.1	-1.9	0.247
4-4000	4-4530	0.459	194.3	8.3	3.45	1.195	68.0	0.376	0.757	106.5	877.5	0.473	1.042	4.25	0.829	102.4	336.0	3.2	0.283
4-4000	4-4540	0.295	247.9	12.2	2.61	1.390	81.8	0.427	1.228	27.7	448.7	0.703	1.752	3.78	1.095	112.9	28.8	20.9	0.447
4-4000	4-4540	0.408	196.1	7.2	2.61	1.195	70.5	0.336	0.758	103.0	884.0	0.504	1.013	3.78	0.833	97.8	335.7	4.6	0.230
4-4000	4-4550	0.249	265.7	10.7	1.91	1.392	85.6	0.416	1.235	17.9	445.9	0.721	1.749	3.50	1.099	112.0	40.2	24.4	0.430
4-4000	4-4550	0.377	197.2	5.8	1.91	1.196	71.9	0.312	0.758	101.0	892.0	0.522	0.995	3.50	0.837	93.6	331.4	4.5	0.195
4-4000	4-4560	0.229	285.4	7.9	1.29	1.394	89.0	0.414	1.242	3.3	444.3	0.728	1.757	3.35	1.104	111.6	51.5	27.2	0.423
4-4000	4-4560	0.368	197.4	4.0	1.29	1.195	72.3	0.306	0.757	100.8	901.8	0.525	0.989	3.35	0.838	89.2	321.7	1.4	0.782
4-4000	4-4570	0.232	304.3	4.2	0.71	1.396	92.1	0.419	1.251	352.8	803.9	0.726	1.775	3.31	1.108	111.8	62.8	29.2	0.425
4-4000	4-4570	0.465	192.0	1.6	0.71	1.182	66.3	0.402	0.740	111.5	922.6	0.443	1.037	3.31	0.822	76.2	294.0	-12.3	0.289
4-4000	4-4570	0.425	194.6	1.8	0.71	1.188	69.4	0.352	0.748	106.5	917.5	0.485	1.012	3.31	0.831	80.9	302.1	-8.2	0.234
4-4000	4-4580	0.254	320.4	0.6	0.11	1.398	95.1	0.430	1.259	343.1	804.3	0.718	1.800	3.37	1.112	112.3	73.9	30.7	0.434
4-4000	4-4590	0.289	333.1	-2.5	-0.53	1.400	97.9	0.444	1.269	334.1	805.3	0.705	1.833	3.55	1.116	113.2	84.9	31.5	0.448
4-4050	4-4430	0.287	323.7	-10.3	-2.15	1.382	81.6	0.403	1.164	29.7	264.1	---	1.633	-1.66	1.053	67.3	110.1	18.1	0.406
4-4050	4-4440	0.260	333.2	-13.1	-2.46	1.385	83.3	0.397	1.174	22.1	266.0	---	1.640	-1.50	1.056	67.8	119.1	17.0	0.396
4-4050	4-4450	0.376	104.1	-8.5	-2.72	1.227	108.0	0.320	0.791	256.9	880.0	0.538	1.044	-1.39	0.840	98.9	256.1	-28.4	0.208
4-4050	4-4460	0.226	359.0	-18.4	-2.95	1.389	88.4	0.394	1.191	5.8	268.9	---	1.661	-1.36	1.065	68.3	137.0	12.8	0.386
4-4050	4-4460	0.352	103.4	-9.8	-2.95	1.222	106.9	0.300	0.784	267.7	890.8	0.549	1.019	-1.36	0.835	93.9	246.5	-28.5	0.168
4-4050	4-4470	0.225	15.4	-20.0	-3.18	1.391	90.9	0.398	1.199	356.9	629.6	0.722	1.676	-1.35	1.069	68.3	146.1	14.9	0.385
4-4050	4-4470	0.348	103.5	-10.8	-3.18	1.220	106.6	0.295	0.781	267.6	900.3	0.551	1.012	-1.35	0.835	89.9	235.3	-27.1	0.155
4-4050	4-4480	0.240	52.7	-20.2	-3.41	1.393	93.6	0.405	1.206	347.5	629.8	0.717	1.695	-1.38	1.073	67.9	155.3	6.5	0.391
4-4050	4-4480	0.356	104.0	-11.2	-3.41	1.220	107.0	0.301	0.780	266.7	909.0	0.546	1.015	-1.38	0.836	86.2	225.6	-24.6	0.163
4-4050	4-4490	0.272	49.0	-19.0	-3.66	1.395	96.7	0.418	1.213	337.1	629.1	0.706	1.721	-1.45	1.078	67.2	164.7	2.6	0.404
4-4050	4-4490	0.377	104.9	-11.3	-3.66	1.220	108.0	0.317	0.780	264.9	916.9	0.533	1.028	-1.45	0.839	82.5	219.9	-22.3	0.188
4-4050	4-4500	0.412	106.3	-11.1	-3.95	1.220	109.7	0.344	0.781	262.1	923.9	0.512	1.050	-1.59	0.843	78.5	218.5	-21.1	0.229
4-4050	4-4510	0.468	108.3	-10.5	-4.31	1.221	112.4	0.387	0.782	258.1	929.6	0.479	1.085	-1.80	0.847	73.9	220.6	-21.1	0.267
4-4050	4-4510	0.420	278.8	-5.7	-2.06	1.227	70.5	0.343	0.791	95.7	867.8	0.519	1.062	1.71	0.877	104.5	64.7	26.7	0.276
4-4050	4-4520	0.291	332.4	-11.7	-2.41	1.409	82.9	0.448	1.277	22.9	445.2	0.705	1.850	1.52	1.118	113.3	119.3	24.5	0.440
4-4050	4-4520	0.366	281.3	-7.8	2.41	1.228	73.2	0.301	0.792	90.5	872.7	0.554	1.031	1.52	0.878	100.7	68.6	28.0	0.222
4-4050	4-4530	0.255	350.5	-15.0	-2.69	1.411	86.7	0.441	1.284	10.9	443.3	0.718	1.850	1.41	1.119	112.6	131.1	21.7	0.425
4-4050	4-4530	0.330	283.2	-9.7	-2.69	1.228	75.0	0.272	0.793	86.4	878.9	0.577	1.009	1.41	0.879	97.5	69.5	28.9	0.182
4-4050	4-4540	0.244	9.6	-17.3	-2.94	1.412	89.9	0.441	1.292	0.2	442.8	0.722	1.861	1.36	1.120	112.5	141.8	18.5	0.421
4-4050	4-4540	0.307	284.5	-11.5	-2.94	1.229	76.2	0.254	0.794	83.6	886.2	0.562	0.996	1.36	0.877	94.6	66.0	29.4	0.154
4-4050	4-4550	0.254	27.4	-18.0	-3.18	1.414	92.9	0.447	1.299	350.4	803.1	0.719	1.880	1.35	1.120	112.8	151.2	15.1	0.424
4-4050	4-4550	0.299	284.9	-12.8	-3.18	1.228	76.7	0.246	0.793	82.6	895.3	0.598	0.989	1.35	0.874	91.5	56.3	28.5	0.141
4-4100	4-4510	0.321	178.0	-15.9	-4.17	1.251	104.2	0.273	0.820	281.9	872.6	0.596	1.044	3.70	0.881	99.4	322.7	1.3	0.215
4-4100	4-4520	0.300	46.8	-16.1	-3.44	1.402	81.5	0.433	1.221	28.5	269.0	---	1.749	3.29	1.087	66.4	196.9	7.2	0.422
4-4100	4-4520	0.282	176.4	-15.0	-3.44	1.246	102.5	0.244	0.811	284.7	885.3	0.613	1.010	3.29	0.877	94.6	315.7	1.9	0.163
4-4100	4-4530	0.268	57.1	-15.0	-2.84	1.404	83.8	0.427	1.230	20.8	271.2	---	1.755	3.04	1.093	67.1	205.0	-2.4	0.413
4-4100	4-4530	0.267	175.9	-13.0	-2.84	1.243	102.0	0.234	0.808	285.6	896.0	0.619	0.997	3.04	0.877	91.2	306.9	0.8	0.340
4-4100	4-4540	0.243	70.0	-13.5	-2.31	1.406	86.3	0.424	1.238	12.6	275.0	---	1.764	2.90	1.098	67.5	213.5	-5.8	0.408
4-4100	4-4540	0.265	176.0	-10.6	-2.31	1.242	102.0	0.234	0.806	285.1	905.5	0.618	0.995	2.90	0.879	88.3	297.9	-1.6	0.137
4-4100	4-4550	0.249	85.6	-11.2	-1.81	1.406	88.8	0.424	1.246	3.9	274.3	---	1.775	2.86	1.103	67.7	222.5	-6.8	0.407
4-4100	4-4550	0.274	176.7	-8.0	-1.81	1.242	102.5	0.241	0.806	283.6	914.0	0.612	1.000	2.86	0.882	85.6	291.2	-4.5	0.148
4-4100	4-4560	0.231	103.5	-8.0	-1.30	1.409	91.7	0.428	1.254	354.4	634.8	0.717	1.790	2.91	1.107	67.6	232.2	-11.4	0.412
4-4100	4-4560	0.291	177.9	-5.4	-1.30	1.245	103.4	0.255	0.806	281.1	921.6	0.600	1.012	2.91	0.885	83.0	288.2	-7.1	0.171
4-4100	4-4570	0.253	121.2	-4.2	-0.75	1.411	94.9	0.437	1.261	343.9	634.4	0.710	1.811	3.06	1.111	67.1	242.6	-13.5	0.425

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4100	4-4570	0.320	179.6	-2.8	-0.75	1.243	104.9	0.278	0.807	277.7	928.2	0.583	1.032	3.06	0.888	80.1	288.6	-9.0	0.205
4-4100	4-4580	0.364	181.8	-0.4	-0.13	1.244	107.0	0.311	0.809	273.1	933.8	0.557	1.060	3.33	0.891	76.9	291.8	-10.2	0.250
4-4100	4-4690	0.428	1.7	-11.3	-4.07	1.252	70.4	0.356	0.822	90.1	862.1	0.530	1.114	-3.63	0.887	106.9	151.2	0.5	0.292
4-4100	4-4700	0.367	5.0	-11.1	-3.36	1.255	73.3	0.312	0.824	83.6	865.4	0.567	1.081	3.25	0.886	103.4	156.4	-2.8	0.239
4-4150	4-4280	0.536	278.5	6.2	3.19	1.158	115.9	0.438	0.701	240.4	526.5	0.394	---	2.35	0.774	100.1	75.6	29.2	0.283
4-4150	4-4290	0.529	279.4	7.2	3.65	1.149	115.4	0.435	0.691	238.9	535.1	0.391	---	2.52	0.759	93.7	66.2	29.1	0.260
4-4150	4-4300	0.548	280.2	7.9	4.19	1.144	116.4	0.447	0.686	237.5	543.7	0.379	0.993	2.80	0.749	87.0	55.4	27.6	0.270
4-4150	4-4570	0.723	247.1	-7.9	-1.42	1.256	99.3	0.213	0.841	301.2	870.9	0.662	1.020	4.56	0.915	97.3	12.1	30.8	0.181
4-4150	4-4580	0.192	244.4	-1.1	-0.17	1.252	98.0	0.791	0.833	305.5	885.3	0.674	0.993	3.52	0.911	93.4	2.9	28.0	0.136
4-4150	4-4590	0.135	243.8	4.3	0.64	1.250	97.6	0.185	0.831	306.5	896.5	0.677	0.984	2.95	0.910	90.8	353.9	22.9	0.118
4-4150	4-4600	0.189	244.5	8.1	1.24	1.250	97.8	0.186	0.830	305.6	905.7	0.675	0.984	2.60	0.910	88.7	347.0	17.0	0.117
4-4150	4-4610	0.284	135.0	8.5	1.73	1.408	82.5	0.449	1.276	24.3	274.6	---	1.850	2.40	1.118	66.6	284.5	-17.2	0.447
4-4150	4-4610	0.201	245.9	10.7	1.73	1.250	98.3	0.192	0.830	303.4	913.7	0.670	0.990	2.40	0.911	86.8	343.3	12.0	0.126
4-4150	4-4620	0.259	147.6	11.8	2.16	1.410	85.2	0.444	1.285	15.8	276.3	---	1.856	2.29	1.120	67.2	294.1	-16.2	0.441
4-4150	4-4620	0.218	247.9	12.3	2.16	1.251	99.1	0.203	0.831	300.2	920.7	0.662	1.000	2.29	0.911	84.9	3[illegible].9	8.6	0.143
4-4150	4-4630	0.245	163.3	14.9	2.56	1.412	88.0	0.442	1.293	6.7	277.3	---	1.865	2.26	1.122	67.5	303.8	-14.3	0.439
4-4150	4-4650	0.241	250.3	13.2	2.56	1.251	100.1	0.219	0.832	296.2	926.9	0.650	1.014	2.26	0.911	83.9	345.1	7.0	0.166
4-4150	4-4640	0.248	181.5	17.2	2.97	1.414	91.0	0.445	1.301	356.7	637.6	0.722	1.879	2.30	1.122	67.4	313.7	-11.8	0.443
4-4150	4-4640	0.272	253.1	13.5	2.97	1.252	101.6	0.240	0.834	291.4	932.2	0.634	1.034	2.30	0.911	80.9	349.0	6.9	0.195
4-4150	4-4650	0.273	200.4	17.9	3.40	1.415	94.4	0.453	1.308	345.8	636.7	0.716	1.900	2.42	1.123	66.9	323.7	-8.6	0.455
4-4150	4-4650	0.312	256.1	13.4	3.40	1.253	103.5	0.268	0.836	285.9	936.8	0.612	1.060	2.42	0.910	78.4	354.2	7.7	0.232
4-4150	4-4660	0.365	259.4	13.0	3.89	1.254	106.0	0.306	0.838	279.5	940.5	0.581	1.094	2.63	0.909	75.5	0.5	9.3	0.278
4-4200	4-4330	.453	349.4	7.9	3.17	1.206	111.6	0.372	0.773	256.9	513.6	0.486	---	-2.14	0.842	103.9	146.2	6.5	0.264
4-4200	4-4340	431	350.0	7.3	2.81	1.194	110.7	0.355	0.759	255.6	522.1	0.490	---	-2.09	0.825	99.4	142.9	6.6	0.227
4-4200	4-4350	421	350.5	6.5	2.45	1.190	110.3	0.348	0.751	254.4	530.7	0.490	---	-2.10	0.811	94.9	136.2	7.7	0.197
4-4200	4-4360	0.423	351.0	5.5	2.08	1.185	110.5	0.350	0.746	253.3	539.3	0.485	---	-2.17	0.803	90.4	127.4	9.7	0.193
4-4200	4-4370	0.439	351.7	4.2	1.68	1.185	111.3	0.364	0.744	251.9	547.6	0.474	1.015	-2.31	0.798	85.7	119.6	11.7	0.211
4-4200	4-4380	0.472	352.6	2.8	1.20	1.185	113.0	0.391	0.744	250.0	555.4	0.454	1.035	-2.55	0.795	80.6	115.2	13.3	0.251
4-4200	4-4490	0.475	154.4	10.2	4.38	1.194	67.1	0.390	0.757	107.7	518.5	0.462	1.052	2.69	0.815	102.7	298.8	-12.8	0.279
4-4200	4-4500	0.422	156.4	10.3	3.86	1.196	69.7	0.349	0.759	104.0	524.5	0.494	1.024	2.39	0.821	98.0	300.5	-11.7	0.227
4-4200	4-4510	0.391	157.5	10.0	3.43	1.196	71.2	0.325	0.760	101.8	532.1	0.513	1.007	2.21	0.825	93.8	296.6	-11.5	0.192
4-4200	4-4520	0.386	157.3	8.9	3.04	1.194	71.4	0.322	0.756	102.3	542.5	0.513	1.000	2.11	0.824	38.8	284.4	-13.0	0.180
4-4200	4-4630	0.302	313.2	69.8	13.07	1.256	94.0	0.163	0.854	330.6	882.0	0.715	0.994	-10.60	0.928	93.4	70.2	-34.4	0.206
4-4200	4-4640	0.206	302.5	57.8	7.99	1.254	93.7	0.159	0.852	322.4	893.8	0.717	0.987	-5.70	0.924	91.2	60.4	-24.6	0.132
4-4200	4-4650	0.176	302.2	48.8	6.08	1.254	93.9	0.160	0.852	330.9	902.4	0.715	0.988	-3.98	0.922	89.5	51.7	-16.7	0.114
4-4200	4-4660	0.167	304.7	41.2	5.03	1.255	94.4	0.164	0.852	327.9	909.5	0.712	0.992	-3.14	0.921	88.1	46.2	-10.3	0.113
4-4200	4-4670	0.167	308.3	34.5	4.33	1.255	95.1	0.171	0.854	324.0	915.6	0.708	1.000	-2.66	0.919	86.8	44.1	-4.9	0.120
4-4200	4-4680	0.174	312.2	28.5	3.81	1.256	95.9	0.180	0.855	319.5	921.1	0.701	1.009	-2.37	0.917	85.6	44.7	-0.4	0.132
4-4200	4-4690	0.187	316.1	23.2	3.38	1.257	96.9	0.192	0.857	314.5	926.0	0.693	1.022	-2.20	0.915	84.2	47.3	3.4	0.147
4-4200	4-4700	0.274	227.7	15.6	3.00	1.413	85.3	0.460	1.333	15.0	276.3	---	1.947	-2.11	1.117	66.5	13.3	0.6	0.465
4-4200	4-4700	0.205	320.1	18.5	3.00	1.258	98.1	0.206	0.859	309.1	930.5	0.682	1.037	-2.11	0.914	82.7	51.4	6.7	0.165
4-4200	4-4710	0.257	243.1	14.7	2.64	1.415	88.2	0.458	1.342	5.9	277.0	---	1.957	-2.08	1.117	66.7	21.8	4.2	0.461
4-4200	4-4710	0.229	324.0	14.5	2.64	1.260	99.5	0.224	0.862	303.4	934.6	0.668	1.055	-2.08	0.912	81.1	56.7	9.6	0.187
4-4200	4-4720	0.259	260.8	12.7	2.28	1.416	91.2	0.461	1.350	356.1	937.0	0.728	1.972	-2.12	1.117	66.6	30.9	7.5	0.452
4-4200	4-4720	0.260	327.8	10.9	2.28	1.261	101.2	0.247	0.864	297.4	938.3	0.650	1.077	-2.12	0.911	79.2	63.0	12.0	0.213
4-4200	4-4730	0.275	278.8	9.8	1.89	1.418	94.7	0.469	1.357	345.4	636.0	0.721	1.994	-2.23	1.116	66.0	40.5	10.7	0.470
4-4200	4-4730	0.300	331.6	7.8	1.89	1.262	103.2	0.277	0.866	2[illegible].9	941.5	0.627	1.106	-2.23	0.910	77.0	70.1	14.0	0.246
4-4200	4-4740	0.352	335.5	5.1	1.46	1.263	105.9	0.315	0.869	283.8	944.1	0.595	1.142	-2.41	0.909	74.2	78.0	15.6	0.286
4-4200	4-4740	0.594	1.7	2.4	1.46	1.128	119.8	0.501	0.678	232.9	1253.2	0.339	1.018	-2.41	0.710	96.1	157.9	3.1	0.274
4-4200	4-4750	0.593	2.0	1.5	0.98	1.125	119.8	0.501	0.675	232.5	1262.4	0.337	1.014	-2.72	0.703	87.6	146.3	6.6	0.290
4-4250	4-4380	0.349	58.0	4.7	1.36	1.250	106.5	0.311	0.838	278.0	504.2	0.577	---	-4.19	0.885	103.7	198.4	-23.8	0.245
4-4250	4-4390	0.326	58.3	1.9	0.51	1.240	105.5	0.290	0.821	277.2	513.0	0.583	---	-3.66	0.849	100.1	198.2	-24.6	0.202
4-4250	4-4400	0.311	58.6	-0.6	-0.16	1.234	104.9	0.277	0.810	276.5	521.8	0.586	---	-3.33	0.858	96.7	195.0	-24.7	0.171
4-4250	4-4410	0.305	59.0	-2.8	-0.73	1.230	104.7	0.270	0.804	275.8	530.5	0.587	---	-3.13	0.851	93.4	188.6	-23.3	0.151
4-4250	4-4420	0.307	59.5	-4.8	-1.25	1.228	104.7	0.270	0.801	274.9	539.2	0.584	---	-3.04	0.847	90.3	180.8	-20.1	0.144
4-4250	4-4430	0.316	60.2	-6.6	-1.75	1.227	105.2	0.276	0.799	273.6	547.5	0.579	1.020	-3.03	0.846	87.2	174.0	-16.1	0.152
4-4250	4-4440	0.334	61.2	-8.0	-2.27	1.227	106.0	0.289	0.799	271.9	555.3	0.568	1.031	-3.11	0.847	84.0	170.3	-12.5	0.172
4-4250	4-4460	0.406	64.3	-10.0	-3.47	1.229	109.3	0.343	0.803	266.1	578.7	0.528	1.077	-3.58	0.853	76.8	171.8	-9.5	0.249
4-4250	4-4580	0.336	247.8	0.5	0.13	1.248	74.8	0.291	0.834	79.6	504.7	0.592	1.076	3.45	0.912	103.4	37.4	27.3	0.260
4-4250	4-4590	0.285	252.1	-2.2	-0.52	1.251	77.4	0.255	0.839	71.6	502.9	0.625	1.052	3.19	0.916	100.9	44.9	30.8	0.220
4-4250	4-4600	0.243	256.5	-5.5	-1.09	1.253	79.4	0.229	0.843	63.8	505.2	0.650	1.036	3.06	0.921	99.1	52.3	34.2	0.190
4-4250	4-4610	0.213	261.3	-9.5	-1.63	1.256	81.2	0.208	0.847	55.8	507.1	0.671	1.024	3.02	0.924	97.8	59.8	37.6	0.168
4-4250	4620	0.187	266.9	-14.7	-2.17	1.258	82.8	0.193	0.852	47.6	509.3	0.687	1.017	3.09	0.927	96.7	67.8	41.2	0.151
4-4250	4-4630	0.436	238.0	-7.2	-2.76	1.217	69.6	0.355	0.784	99.1	511.0	0.505	1.062	3.26	0.869	75.3	340.9	2.1	0.292
4-4250	4-4630	0.166	274.0	-21.4	-2.76	1.261	84.3	0.182	0.857	38.6	510.5	0.701	1.013	3.26	0.930	96.1	77.2	45.0	0.140
4-4250	4-4640	0.347	244.0	-11.8	-3.44	1.230	74.3	0.286	0.804	86.6	568.6	0.574	1.034	3.57	0.886	79.6	350.9	11.0	0.229
4-4250	4-4640	0.150	284.2	-30.2	-3.44	1.264	85.9	0.174	0.863	28.1	510.1	0.713	1.013	3.57	0.933	95.8	89.7	48.6	0.136
4-4250	4-4650	0.275	251.3	-19.3	-4.28	1.241	78.4	0.231	0.823	71.6	563.7	0.632	1.013	4.08	0.902	83.3	2.1	23.5	0.180
4-4250	4-4650	0.143	301.6	-41.5	-4.28	1.268	87.9	0.171	0.871	14.8	506.9	0.722	1.021	4.08	0.937	96.2	108.2	50.9	0.140
4-4250	4-4660	0.228	260.0	-31.0	-5.45	1.250	81.7	0.195	0.838	55.5	557.7	0.674	1.001	4.93	0.909	85.8	13.6	39.0	0.154
4-4250	4-4660	0.155	333.6	-51.3	-5.45	1.275	90.4	0.179	0.884	357.3	859.4	0.726	1.042	4.93	0.943	97.7	132.3	49.3	0.159
4-4250	4-4670	0.220	268.6	-40.2	-7.28	1.256	84.1	0.177	0.846	41.5	553.6	0.698	0.998	6.48	0.915	87.1	22.1	54.6	0.156
4-4250	4-4670	0.205	10.8	-52.5	-7.28	1.283	93.8	0.205	0.901	337.4	849.6	0.715	1.085	6.48	0.951	100.3	154.8	44.4	0.203
4-4250	4-4680	0.266	273.8	-63.6	-10.93	1.260	85.7	0.169	0.855	30.4	552.5	0.711	1.000	9.85	0.917	87.5	23.3	60.3	0.195
4-4250	4-4680	0.306	35.0	-52.4	-10.93	1.293	97.7	0.249	0.921	319.9	841.9	0.692	1.151	9.85	0.962	103.7	172.2	42.0	0.278
4-4250	4-4710	0.282	313.7	76.0	12.49	1.247	89.3	0.165	0.869	4.7	557.0	0.725	1.012	-10.35	0.916	86.7	85.7	-37.1	0.261
4-4250	4-4720	0.160	331.4	56.0	6.01	1.269	90.3	0.169	0.872	358.2	920.1	0.726	1.039	-8.14	0.917	86.1	85.2	-24.4	0.175
4-4250	4-4730	0.123	354.9	37.6	3.39	1.270	91.2	0.172	0.875	351.8	923.3	0.725	1.026	-5.79	0.917	85.4	88.3	-14.0	0.152
4-4250	4-4740	0.115	355.2	21.8	1.92	1.272	92.2	0.178	0.878	345.4	926.6	0.722	1.034	-4.60	0.916	84.6	93.0	-6.6	0.140
4-4250	4-4750	0.120	5.2	9.3	0.93	1.273	93.2	0.185	0.881	339.2	929.9	0.718	1.044	-3.91	0.916	83.7	98.7	-1.5	0.149

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4250	4-4760	0.133	14.0	1.7	0.18	1.275	94.3	0.193	0.884	333.0	933.3	0.713	1.054	-3.48	0.916	82.8	105.1	1.9	0.156
4-4250	4-4770	0.151	21.7	-3.7	-0.44	1.276	95.5	0.204	0.886	326.7	936.6	0.706	1.067	-3.22	0.947	81.7	111.9	3.9	0.166
4-4250	4-4780	0.283	303.7	-4.9	-0.98	1.426	84.8	0.482	1.382	15.9	275.3	---	2.048	-3.07	1.115	65.3	89.3	16.8	0.472
4-4250	4-4780	0.176	28.5	-7.2	-0.98	1.277	96.8	0.217	0.889	320.4	939.8	0.696	1.082	-3.07	0.918	80.5	119.1	4.8	0.180
4-4250	4-4790	0.265	317.5	-8.0	-1.49	1.427	87.6	0.480	1.391	7.5	276.4	---	2.058	-3.02	1.117	65.6	98.6	16.6	0.465
4-4250	4-4790	0.201	34.5	-2.4	-1.49	1.278	98.2	0.233	0.891	313.9	942.8	0.684	1.099	-3.02	0.919	79.2	126.5	4.8	0.197
4-4250	4-4800	0.261	333.6	-11.0	-1.99	1.429	90.5	0.481	1.399	358.4	636.8	0.726	2.071	-3.05	1.119	65.7	108.1	15.6	0.463
4-4250	4-4800	0.235	40.0	-10.8	-1.99	1.280	99.9	0.253	0.894	307.2	945.6	0.668	1.120	-3.05	0.921	77.6	134.2	4.0	0.218
4-4250	4-4810	0.275	351.1	-13.2	-2.53	1.430	93.7	0.487	1.406	348.6	636.5	0.721	2.091	-3.19	1.121	65.4	117.9	13.9	0.467
4-4250	4-4810	0.275	45.1	-11.6	-2.53	1.281	101.9	0.278	0.896	300.1	948.1	0.647	1.145	-3.18	0.924	75.7	142.1	2.6	0.245
4-4250	4-4820	0.326	50.0	-12.0	-3.12	1.282	104.4	0.311	0.899	292.5	950.0	0.619	1.178	-3.41	0.927	73.4	150.2	0.6	0.280
4-4250	4-4820	0.336	78.2	-6.0	-3.12	1.152	116.9	0.453	0.699	238.9	1256.4	0.383	1.016	-3.41	0.736	95.0	226.1	-27.4	0.260
4-4250	4-4830	0.544	78.6	-7.2	-3.83	1.150	117.2	0.458	0.697	238.3	1265.4	0.378	1.017	-3.79	0.735	85.5	214.0	-24.8	0.265
4-4300	4-4430	0.262	122.5	-38.4	-7.41	1.279	98.9	0.233	0.874	309.6	503.3	0.676	---	4.30	0.907	99.7	257.5	-2.5	0.192
4-4300	4-4440	0.228	121.2	-32.6	-5.61	1.272	98.3	0.217	0.860	310.0	513.2	0.674	---	2.58	0.897	96.9	257.3	-7.6	0.152
4-4300	4-4460	0.203	120.8	-28.0	-4.35	1.264	97.8	0.201	0.846	309.9	532.2	0.676	---	1.51	0.889	92.0	248.3	-9.3	0.108
4-4300	4-4470	0.200	121.2	-26.1	-4.03	1.263	97.8	0.200	0.844	309.1	541.0	0.675	1.012	1.29	0.889	89.7	240.2	-9.0	0.107
4-4300	4-4480	0.202	122.1	-24.1	-3.79	1.262	98.1	0.202	0.843	307.8	549.3	0.673	1.013	1.15	0.891	87.7	232.5	-8.7	0.104
4-4300	4-4490	0.209	123.4	-21.9	-3.58	1.263	98.6	0.208	0.843	305.8	557.6	0.669	1.019	1.07	0.894	85.7	227.2	-9.0	0.103
4-4300	4-4500	0.221	125.1	-19.8	-3.40	1.264	99.3	0.218	0.845	303.1	564.0	0.661	1.029	1.03	0.898	83.7	225.2	-9.9	0.133
4-4300	4-4510	0.239	127.3	-17.1	-3.23	1.265	100.2	0.232	0.847	299.7	570.4	0.651	1.043	1.01	0.903	81.7	226.1	-11.3	0.156
4-4300	4-4520	0.263	129.8	-14.5	-3.05	1.266	101.5	0.250	0.850	295.5	576.1	0.637	1.063	1.03	0.909	79.5	229.1	-13.0	0.184
4-4300	4-4530	0.297	132.6	-12.0	-2.86	1.268	103.3	0.276	0.853	290.4	580.9	0.618	1.089	1.08	0.914	77.2	234.0	-14.8	0.219
4-4300	4-4540	0.344	135.9	-9.4	-2.64	1.270	105.6	0.310	0.857	284.3	584.8	0.591	1.123	1.18	0.920	74.3	240.3	-16.6	0.263
4-4300	4-4550	0.323	335.6	-14.8	-3.78	1.290	76.6	0.301	0.897	63.8	485.9	0.626	1.167	-1.15	0.951	106.5	136.2	12.8	0.276
4-4300	4-4670	0.270	342.1	-17.0	-3.57	1.293	79.3	0.271	0.902	53.6	485.6	0.657	1.147	-1.07	0.952	104.7	145.8	9.4	0.243
4-4300	4-4680	0.228	349.7	-19.4	-3.38	1.295	81.7	0.251	0.907	43.4	485.4	0.680	1.135	-1.02	0.953	103.4	155.2	5.7	0.220
4-4300	4-4690	0.193	359.2	-22.0	-3.20	1.298	83.9	0.237	0.914	33.0	485.0	0.697	1.130	-1.02	0.954	102.7	164.7	1.6	0.206
4-4300	4-4700	0.185	12.0	-24.5	-3.03	1.301	85.9	0.229	0.920	22.3	484.1	0.709	1.131	-1.04	0.955	102.3	174.4	-2.9	0.199
4-4300	4-4710	0.186	29.5	-28.3	-2.84	1.305	88.0	0.227	0.928	11.1	482.7	0.717	1.139	-1.09	0.957	102.3	184.5	-7.6	0.198
4-4300	4-4720	0.139	51.7	-25.5	-2.62	1.309	90.1	0.232	0.937	359.4	840.8	0.719	1.155	-1.19	0.959	102.8	195.1	-12.3	0.206
4-4300	4-4730	0.405	323.9	-6.9	-2.35	1.256	71.6	0.341	0.832	86.3	577.4	0.548	1.116	-1.35	0.884	74.1	72.9	18.4	0.293
4-4300	4-4730	0.149	74.6	-21.2	-2.35	1.314	92.5	0.245	0.948	347.3	838.4	0.716	1.180	-1.35	0.963	103.7	206.1	-16.9	0.222
4-4300	4-4740	0.343	328.8	-7.1	-2.00	1.264	74.7	0.309	0.846	76.6	577.3	0.592	1.100	-1.60	0.892	76.5	83.1	17.8	0.253
4-4300	4-4740	0.178	93.4	-14.9	-2.00	1.319	95.1	0.266	0.961	355.3	836.1	0.706	1.216	-1.60	0.968	105.1	217.2	-21.1	0.243
4-4300	4-4750	0.289	334.2	-6.3	-1.45	1.271	77.4	0.269	0.858	66.7	577.1	0.527	1.088	-2.05	0.899	78.3	93.3	15.2	0.222
4-4300	4-4750	0.224	107.0	-8.5	-1.45	1.325	98.0	0.295	0.976	323.7	834.1	0.688	1.264	-2.05	0.974	107.0	228.3	-25.0	0.283
4-4300	4-4760	0.244	340.2	-2.3	-0.46	1.276	79.7	0.245	0.868	56.9	576.9	0.655	1.080	-2.96	0.905	79.6	103.0	9.7	0.202
4-4300	4-4760	0.283	116.7	-2.1	-0.46	1.332	101.2	0.333	0.993	313.0	833.0	0.662	1.324	-2.96	0.982	109.4	239.0	-29.0	0.328
4-4300	4-4770	0.213	346.5	33.5	2.24	1.280	81.7	0.228	0.876	47.5	577.0	0.676	1.076	-5.58	0.910	80.5	111.2	-4.0	0.201
4-4300	4-4790	0.262	357.0	-57.1	-9.90	1.287	85.0	0.269	0.889	29.8	578.5	0.703	1.075	6.73	0.918	81.1	148.5	48.1	0.195
4-4300	4-4800	0.192	10.6	-47.5	-6.33	1.289	86.3	0.205	0.894	21.7	579.9	0.711	1.078	3.25	0.922	81.1	149.0	31.9	0.166
4-4300	4-4810	0.166	23.3	-44.6	-5.17	1.291	87.6	0.203	0.899	14.0	581.7	0.716	1.081	2.18	0.925	80.9	155.2	23.7	0.161
4-4300	4-4820	0.151	37.2	-43.0	-4.57	1.293	88.9	0.204	0.903	6.5	583.7	0.719	1.087	1.68	0.929	80.6	162.1	17.9	0.161
4-4300	4-4830	0.145	52.0	-40.9	-4.19	1.295	90.2	0.206	0.906	359.1	945.9	0.719	1.093	1.39	0.933	80.2	169.3	13.1	0.165
4-4300	4-4840	0.144	66.6	-37.7	-3.91	1.296	91.4	0.210	0.910	351.8	948.2	0.718	1.101	1.22	0.937	79.6	176.6	8.7	0.171
4-4300	4-4850	0.151	80.0	-33.6	-3.69	1.298	92.8	0.217	0.913	344.4	950.6	0.715	1.111	1.11	0.6942	79.0	184.0	4.5	0.179
4-4300	4-4860	0.163	91.6	-28.9	-3.50	1.299	94.2	0.226	0.916	337.0	952.8	0.709	1.122	1.05	0.946	78.2	191.5	0.6	0.191
4-4300	4-4870	0.290	29.7	-16.7	-3.32	1.444	85.9	0.503	1.436	12.3	277.9	---	2.159	1.02	1.139	65.0	176.2	4.1	0.466
4-4300	4-4870	0.183	101.5	-24.2	-3.32	1.300	95.7	0.238	0.918	329.4	955.0	0.700	1.137	1.02	0.951	77.3	199.3	-3.2	0.205
4-4300	4-4880	0.274	44.9	-16.8	-3.14	1.445	88.8	0.502	1.444	3.7	279.1	---	2.169	1.02	1.143	65.3	184.8	0.4	0.462
4-4300	4-4880	0.209	109.9	-19.8	-3.14	1.302	97.5	0.253	0.921	321.4	956.8	0.688	1.154	1.02	0.956	76.2	207.3	-6.7	0.224
4-4300	4-4890	0.275	62.3	-15.7	-2.96	1.446	91.9	0.505	1.451	354.2	639.5	0.718	2.184	1.05	1.147	65.3	193.9	-3.4	0.465
4-4300	4-4890	0.244	117.2	-15.8	-2.96	1.303	99.6	0.274	0.924	313.1	958.4	0.670	1.177	1.05	0.960	74.7	215.8	-10.1	0.249
4-4300	4-4890	0.473	154.8	-6.8	-2.96	1.180	113.2	0.393	0.720	247.0	1252.3	0.437	1.004	1.05	0.785	94.9	311.4	-14.4	0.236
4-4300	4-4900	0.298	80.3	-13.5	-2.76	1.447	95.5	0.513	1.458	343.7	638.9	0.710	2.207	1.12	1.151	64.8	203.6	-7.2	0.475
4-4300	4-4900	0.290	123.8	-12.2	-2.76	1.304	102.1	0.302	0.926	304.1	959.4	0.646	1.206	1.12	0.965	72.9	224.8	-13.1	0.281
4-4300	4-4900	0.464	154.9	-6.5	-2.76	1.178	112.8	0.387	0.718	246.9	1262.1	0.440	0.995	1.12	0.785	88.7	299.6	-16.6	0.220
4-4310	4-4370	0.580	125.9	-9.5	-1.74	1.576	108.0	0.809	3.352	319	439.4	0.641	---	-2.17	1.297	124.7	232.7	-22.3	0.730
4-4310	4-4380	0.460	128.1	-3.9	-1.27	1.473	105.6	0.602	1.632	31	8 447.4	0.649	---	-2.44	1.166	120.4	238.3	-24.6	0.581
4-4310	4-4390	0.372	129.4	-2.4	-0.65	1.405	103.4	0.468	1.235	316.8	456.0	0.657	---	-2.38	1.078	116.1	243.9	-27.3	0.468
4-4310	4-4400	0.307	130.1	1.2	0.27	1.358	101.5	0.377	1.067	316.4	465.2	0.665	---	-3.62	1.016	112.0	249.0	-31.1	0.381
4-4310	4-4410	0.262	130.4	9.5	1.90	1.327	100.0	0.314	0.979	316.5	474.8	0.672	---	-5.08	0.973	108.1	253.3	-37.7	0.316
4-4310	4-4420	0.255	131.5	31.1	5.87	1.305	98.7	0.269	0.927	317.1	484.9	0.678	---	-8.90	0.943	104.6	253.8	-52.2	0.287
4-4310	4-4440	0.420	149.0	-67.9	-17.81	1.281	97.1	0.217	0.876	318.1	505.3	0.686	---	15.10	0.909	98.5	261.0	39.2	0.296
4-4310	4-4460	0.212	131.3	-43.6	-6.65	1.271	96.3	0.193	0.856	319.2	525.4	0.691	---	4.26	0.897	93.4	261.4	7.4	0.131
4-4310	4-4470	0.194	130.7	-38.1	-5.44	1.268	96.2	0.189	0.852	318.9	534.7	0.691	---	3.22	0.896	91.2	255.5	4.3	0.111
4-4310	4-4480	0.185	131.0	-35.7	-4.68	1.267	96.3	0.189	0.850	318.1	543.4	0.690	1.010	2.64	0.897	89.2	247.9	2.0	0.103
4-4310	4-4490	0.184	132.0	-29.6	-4.14	1.267	96.6	0.191	0.850	316.5	551.6	0.687	1.012	2.29	0.899	87.3	240.9	-0.4	0.105
4-4310	4-4500	0.188	133.7	-29.7	-3.71	1.268	97.1	0.197	0.851	314.2	559.0	0.683	1.018	2.08	0.903	85.5	236.4	-3.0	0.115
4-4310	4-4510	0.197	135.8	-21.8	-3.35	1.269	97.8	0.206	0.852	311.3	565.8	0.677	1.028	1.95	0.907	83.7	234.9	-5.6	0.131
4-4310	4-4520	0.212	138.4	-18.1	-3.01	1.270	98.7	0.218	0.855	307.6	572.0	0.669	1.041	1.89	0.912	81.9	236.0	-8.1	0.151
4-4310	4-4530	0.233	141.3	-14.6	-2.69	1.272	99.9	0.234	0.858	303.2	577.5	0.657	1.059	1.88	0.918	80.1	239.3	-10.5	0.176
4-4310	4-4540	0.262	144.5	-11.2	-2.35	1.274	101.4	0.256	0.861	297.9	582.2	0.641	1.082	1.94	0.923	78.0	244.3	-12.7	0.207
4-4310	4-4550	0.302	148.0	-8.1	-1.98	1.276	103.5	0.285	0.865	291.8	586.1	0.619	1.113	2.06	0.929	75.6	250.6	-14.6	0.245
4-4310	4-4560	0.358	151.9	-5.3	-1.55	1.278	106.2	0.325	0.869	284.6	588.9	0.587	1.152	2.27	0.934	72.7	258.2	-16.0	0.293
4-4310	4-4570	0.436	156.3	-2.7	-0.99	1.280	110.0	0.381	0.874	276.0	590.4	0.541	1.207	2.63	0.940	68.8	267.0	-17.0	0.359
4-4310	4-4580	0.552	161.6	-0.4	-0.19	1.283	115.6	0.462	0.879	265.3	589.8	0.473	1.285	3.24	0.945	63.3	277.2	-17.2	0.453
4-4310	4-4580	0.816	190.4	-0.2	-0.19	1.030	132.7	0.701	0.581	212.8	893.4	0.174	0.988	3.24	0.555	96.1	351.8	0.6	0.470
4-4310	4-4590	0.733	168.4	1.7	1.15	1.286	124.3	0.585	0.885	251.1	585.7	0.367	1.403	4.39	0.950	54.7	289.4	-16.5	0.599

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4310	4-4590	0.862	191.7	1.0	1.15	1.021	135.4	0.734	0.574	210.7	905.3	0.153	0.996	4.39	0.540	75.8	340.0	-3.6	0.512
4-4310	4-4640	0.745	329.1	-9.7	-6.74	1.287	55.9	0.582	0.888	108.3	494.0	0.371	1.404	-4.34	0.950	125.1	112.3	16.1	0.591
4-4310	4-4650	0.566	336.6	-11.3	-5.45	1.290	64.7	0.463	0.894	92.8	488.6	0.480	1.308	-3.21	0.952	117.0	125.1	13.4	0.454
4-4310	4-4660	0.448	342.9	-12.7	-4.65	1.293	70.4	0.385	0.900	80.0	485.9	0.554	1.246	-2.62	0.954	111.9	136.0	10.2	0.367
4-4310	4-4670	0.364	349.0	-14.2	-4.10	1.295	74.6	0.332	0.905	68.7	484.5	0.605	1.206	-2.27	0.954	108.6	146.0	6.6	0.310
4-4310	4-4680	0.301	355.5	-15.7	-3.67	1.298	77.8	0.295	0.911	58.0	483.8	0.642	1.180	-2.06	0.955	106.4	155.5	2.7	0.270
4-4310	4-4690	0.251	2.8	-17.1	-3.30	1.301	80.4	0.270	0.916	47.6	483.4	0.669	1.164	-1.94	0.956	104.3	164.8	-1.5	0.243
4-4310	4-4700	0.214	21.3	-5.5	-2.97	1.211	51.2	0.627	0.759	125.0	570.6	0.283	1.235	-1.88	0.825	55.2	47.1	15.4	0.584
4-4310	4-4700	0.210	21.7	-18.6	-2.97	1.303	82.7	0.253	0.922	37.2	482.8	0.689	1.136	-1.88	0.956	103.8	174.1	-5.9	0.226
4-4310	4-4710	0.709	324.9	-3.8	-2.65	1.223	56.0	0.563	0.777	117.7	573.2	0.340	1.214	-1.89	0.840	59.8	55.4	16.9	0.516
4-4310	4-4710	0.177	23.3	-19.9	-2.66	1.306	84.9	0.242	0.929	26.6	482.0	0.704	1.154	-1.89	0.957	103.3	183.7	-30.5	0.216
4-4310	4-4720	0.624	328.6	-4.0	-2.32	1.234	60.4	0.500	0.794	110.1	575.3	0.397	1.192	-1.95	0.853	64.0	64.0	17.9	0.452
4-4310	4-4720	0.152	38.9	-20.4	-2.32	1.310	87.0	0.238	0.936	15.6	480.8	0.714	1.159	-1.95	0.959	103.1	193.7	-15.2	0.213
4-4310	4-4730	0.543	332.5	-4.1	-1.96	1.245	64.5	0.442	0.811	102.0	576.9	0.453	1.169	-2.07	0.866	67.7	73.1	18.3	0.394
4-4310	4-4730	0.138	59.2	-18.9	-1.96	1.310	89.2	0.240	0.945	4.3	479.2	0.718	1.172	-2.07	0.961	103.3	204.3	-19.7	0.218
4-4310	4-4740	0.468	336.6	-3.8	-1.53	1.254	68.5	0.389	0.827	93.5	578.1	0.505	1.148	-2.28	0.877	70.9	82.5	17.7	0.341
4-4310	4-4740	0.141	81.8	-14.5	-1.53	1.317	91.5	0.249	0.955	352.7	837.2	0.718	1.192	-2.28	0.965	104.0	215.5	-23.9	0.231
4-4310	4-4750	0.401	341.0	-3.0	-1.00	1.262	71.7	0.345	0.841	84.6	578.8	0.552	1.130	-2.62	0.886	73.6	92.0	15.9	0.297
4-4310	4-4750	0.163	101.9	-8.1	-1.00	1.322	94.0	0.265	0.967	341.0	835.2	0.711	1.223	-2.62	0.970	105.1	226.8	-27.7	0.252
4-4310	4-4760	0.342	345.7	-0.9	-0.26	1.270	74.6	0.305	0.854	75.4	579.2	0.593	1.115	-3.18	0.895	75.8	101.5	12.9	0.262
4-4310	4-4760	0.204	117.2	-1.7	-0.26	1.328	96.7	0.290	0.981	329.6	833.3	0.697	1.264	-3.18	0.975	106.7	238.3	-31.1	0.282
4-4310	4-4770	0.293	350.8	3.9	0.91	1.275	77.2	0.276	0.865	66.2	579.4	0.626	1.104	-4.18	0.902	77.4	110.4	6.3	0.237
4-4310	4-4770	0.259	128.3	4.6	0.91	1.334	99.7	0.322	0.996	318.8	832.1	0.675	1.317	-4.18	0.982	108.8	249.7	-34.4	0.323
4-4310	4-4780	0.259	355.9	16.0	3.25	1.280	79.4	0.254	0.875	57.0	579.8	0.582	1.097	-6.36	0.908	78.6	118.1	-5.0	0.230
4-4310	4-4780	0.329	136.7	13.0	3.25	1.340	102.9	0.341	1.014	308.8	831.6	0.647	1.380	-6.36	0.991	111.2	269.5	-39.0	0.375
4-4310	4-4790	0.319	356.5	49.5	11.03	1.284	81.3	0.238	0.883	48.2	580.1	0.673	1.092	13.98	0.933	79.3	124.1	-28.7	0.297
4-4310	4-4790	0.458	146.1	32.6	11.03	1.347	106.4	0.406	1.033	299.7	831.9	0.614	1.452	-13.98	1.040	113.9	266.5	-51.4	0.471
4-4310	4-4810	0.303	9.7	-61.7	-11.97	1.291	84.6	0.217	0.895	30.8	582.5	0.701	1.090	9.33	0.923	80.1	172.7	47.4	0.230
4-4310	4-4810	0.606	155.2	-25.2	-11.97	1.361	113.8	0.505	1.075	285.1	834.8	0.532	1.618	9.33	1.010	120.2	288.4	-7.2	0.549
4-4310	4-4820	0.567	354.3	-18.4	-7.69	1.434	68.9	0.573	1.377	60.0	261.1	---	2.166	5.21	1.116	92.2	140.2	24.3	0.588
4-4310	4-4820	0.218	24.7	-52.5	-7.69	1.293	86.0	0.213	0.900	22.9	584.1	0.709	1.092	5.21	0.928	80.1	176.4	32.7	0.189
4-4310	4-4820	0.652	157.2	-14.4	-7.69	1.368	117.6	0.555	1.097	275.8	837.0	0.488	1.706	5.21	1.029	123.5	298.8	-17.1	0.595
4-4310	4-4830	0.512	359.1	-16.1	-5.99	1.436	71.4	0.558	1.389	53.6	264.3	---	2.165	3.68	1.120	59.6	147.5	19.6	0.561
4-4310	4-4830	0.181	37.9	-48.2	-5.99	1.295	87.4	0.210	0.905	15.2	565.9	0.716	1.095	3.68	0.932	86.0	174.7	23.4	0.179
4-4310	4-4840	0.464	4.4	-15.2	-5.04	1.438	73.8	0.545	1.401	47.0	267.3	---	2.164	2.90	1.124	60.8	155.1	16.0	0.538
4-4310	4-4840	0.161	52.0	-45.2	-5.04	1.297	88.7	0.210	0.909	7.6	587.9	0.718	1.166	2.90	0.937	79.7	180.7	16.5	0.176
4-4310	4-4850	0.419	10.4	-14.9	-4.41	1.440	76.2	0.533	1.412	40.3	270.2	---	2.165	2.45	1.129	62.8	162.7	12.5	0.518
4-4310	4-4850	0.150	67.2	-41.8	-4.41	1.299	90.0	0.212	0.912	0.1	590.1	0.719	1.106	2.45	0.942	79.3	187.4	10.8	0.178
4-4310	4-4860	0.377	17.5	-14.9	-3.93	1.442	78.7	0.523	1.422	33.3	272.9	---	2.166	2.18	1.133	63.0	170.5	8.9	0.500
4-4310	4-4860	0.147	82.3	-37.3	-3.93	1.300	91.3	0.216	0.916	352.6	952.2	0.718	1.114	2.18	0.946	78.8	194.4	5.8	0.183
4-4310	4-4870	0.340	26.1	-15.0	-3.53	1.444	81.2	0.515	1.432	25.9	275.4	---	2.169	2.01	1.138	63.9	178.3	5.3	0.486
4-4310	4-4870	0.152	96.1	-31.9	-3.53	1.302	92.7	0.223	0.919	345.0	954.4	0.714	1.123	2.01	0.951	78.2	201.8	1.4	0.192
4-4310	4-4880	0.307	36.9	-15.1	-3.19	1.445	83.9	0.509	1.440	18.2	277.4	---	2.170	1.91	1.142	64.6	186.4	1.7	0.475
4-4310	4-4880	0.164	108.1	-26.1	-3.19	1.303	94.2	0.232	0.922	337.2	956.4	0.708	1.136	1.91	0.956	77.5	209.5	-2.7	0.204
4-4310	4-4890	0.283	50.3	-14.8	-2.86	1.446	86.7	0.506	1.448	9.9	279.0	---	2.181	1.88	1.146	65.2	194.9	-1.8	0.468
4-4310	4-4890	0.185	118.3	-20.5	-2.86	1.304	95.9	0.244	0.925	329.2	958.3	0.699	1.151	1.88	0.961	76.6	217.5	-6.3	0.219
4-4310	4-4890	0.578	171.9	-5.2	-2.86	1.196	118.1	0.472	0.739	244.9	1233.9	0.390	1.088	1.88	0.807	109.8	339.3	-4.7	0.379
4-4310	4-4890	0.698	174.3	-4.1	-2.86	1.207	124.0	0.560	0.755	240.1	1229.2	0.332	1.177	1.88	0.824	118.9	345.1	-3.5	0.502
4-4310	4-4900	0.271	66.4	-13.6	-2.53	1.448	89.7	0.506	1.456	1.0	280.0	---	2.193	1.90	1.150	65.4	203.8	-5.3	0.466
4-4310	4-4900	0.214	127.0	-15.5	-2.53	1.306	97.8	0.261	0.927	320.3	959.8	0.685	1.170	1.90	0.965	75.4	226.0	-9.6	0.240
4-4310	4-4900	0.473	170.3	-5.8	-2.53	1.186	113.0	0.391	0.726	248.3	1247.4	0.442	1.010	1.90	0.796	97.9	329.0	-6.5	0.252
4-4310	4-4910	0.278	84.4	-11.4	-2.18	1.449	93.0	0.511	1.463	351.1	640.1	0.716	2.210	1.99	1.154	85.2	213.3	-8.7	0.472
4-4310	4-4910	0.253	134.5	-11.2	-2.18	1.307	100.1	0.284	0.930	311.9	960.4	0.666	1.194	1.99	0.970	73.9	235.0	-12.4	0.267
4-4310	4-4910	0.450	170.1	-5.3	-2.18	1.183	112.0	0.374	0.722	248.7	1257.7	0.452	0.993	1.99	0.795	91.4	318.1	-8.6	0.218
4-4320	4-4380	0.498	136.3	-3.2	1.07	1.546	104.5	0.738	2.535	325.5	436.9	0.665	---	-2.83	1.258	122.4	243.1	-25.7	0.668
4-4320	4-4390	0.391	138.1	-1.8	-0.51	1.453	102.4	0.548	1.485	324.5	447.4	0.671	---	-3.09	1.140	118.1	248.5	-27.9	0.531
4-4320	4-4400	0.313	139.1	0.8	0.19	1.391	100.5	0.425	1.178	324.1	456.6	0.678	---	-3.52	1.059	113.9	254.0	-30.7	0.427
4-4320	4-4410	0.257	139.3	5.9	1.14	1.350	98.9	0.342	1.040	324.4	466.4	0.684	---	-4.22	1.003	110.0	259.2	-34.6	0.348
4-4320	4-4420	0.221	139.0	15.7	2.61	1.322	97.5	0.285	0.965	325.2	476.8	0.690	---	-5.45	0.965	106.3	263.6	-41.0	0.269
4-4320	4-4430	0.216	139.2	34.2	5.39	1.303	96.4	0.245	0.920	326.4	487.5	0.695	---	-8.01	0.938	102.9	269.9	-52.8	0.258
4-4320	4-4440	0.328	147.3	64.6	13.34	1.290	95.6	0.217	0.893	328.0	498.4	0.699	---	-15.74	0.921	99.8	252.1	-74.6	0.314
4-4320	4-4460	0.383	157.5	-73.0	-16.76	1.276	94.8	0.189	0.866	328.8	519.0	0.702	---	14.80	0.904	94.7	264.9	35.0	0.270
4-4320	4-4470	0.242	141.3	-59.7	-9.48	1.273	94.6	0.182	0.860	329.3	529.0	0.703	---	7.74	0.902	92.4	265.0	25.1	0.162
4-4320	4-4480	0.196	138.7	-50.3	-6.83	1.271	94.6	0.179	0.856	329.0	538.2	0.703	---	5.32	0.902	90.8	259.9	18.5	0.126
4-4320	4-4490	0.176	138.7	-42.6	-5.41	1.271	94.7	0.180	0.855	327.8	546.7	0.702	1.009	4.13	0.903	88.5	253.2	13.0	0.113
4-4320	4-4500	0.169	140.1	-35.9	-4.48	1.271	95.1	0.183	0.856	326.0	554.5	0.699	1.012	3.46	0.907	86.8	247.3	7.7	0.112
4-4320	4-4510	0.168	142.3	-29.8	-3.79	1.272	95.6	0.188	0.857	323.3	561.7	0.696	1.018	3.05	0.911	85.2	243.9	2.9	0.120
4-4320	4-4520	0.175	145.2	-24.1	-3.23	1.273	96.3	0.196	0.859	320.0	568.2	0.691	1.028	2.79	0.916	83.6	243.3	-1.4	0.133
4-4320	4-4530	0.187	148.4	-18.9	-2.74	1.274	97.1	0.207	0.862	316.0	574.0	0.684	1.041	2.65	0.921	82.0	245.0	-5.0	0.151
4-4320	4-4540	0.205	152.0	-14.2	-2.28	1.276	98.3	0.221	0.866	311.2	579.2	0.674	1.057	2.60	0.926	80.4	248.7	-8.0	0.173
4-4320	4-4550	0.231	155.8	-10.6	-1.82	1.278	99.7	0.240	0.869	305.7	583.8	0.661	1.078	2.62	0.932	78.6	254.0	-10.5	0.199
4-4320	4-4560	0.266	159.7	-6.3	-1.34	1.280	101.5	0.265	0.873	299.5	587.6	0.642	1.104	2.73	0.937	76.6	260.5	-12.4	0.232
4-4320	4-4570	0.314	163.9	-3.2	-0.80	1.282	103.9	0.298	0.877	292.3	590.5	0.616	1.139	2.94	0.942	74.2	268.0	-13.6	0.273
4-4320	4-4580	0.380	168.5	-0.5	-0.14	1.285	107.1	0.343	0.882	284.0	592.2	0.579	1.185	3.31	0.947	71.0	276.6	-14.2	0.328
4-4320	4-4590	0.474	173.6	1.9	0.74	1.287	111.6	0.409	0.887	274.0	592.4	0.525	1.249	3.91	0.951	66.7	286.2	-14.1	0.403
4-4320	4-4590	0.809	205.2	0.7	0.74	1.047	132.0	0.688	0.592	214.7	893.1	0.185	1.000	3.91	0.537	104.6	10.5	9.6	0.476
4-4320	4-4600	0.615	179.7	3.8	2.07	1.290	118.4	0.505	0.893	261.5	590.1	0.442	1.343	4.98	0.956	60.2	297.2	-12.9	0.515
4-4320	4-4600	0.806	206.2	2.0	2.07	1.033	132.0	0.691	0.583	213.5	902.1	0.180	0.985	4.98	0.563	85.4	357.0	5.3	0.462
4-4320	4-4610	0.909	208.1	3.4	4.49	1.029	137.7	0.757	0.580	210.0	908.7	0.141	1.019	7.17	0.556	65.4	349.0	2.2	0.569
4-4320	4-4660	0.670	348.7	-11.3	-6.74	1.294	59.7	0.534	0.902	101.0	490.7	0.421	1.384	-5.24	0.955	121.0	133.5	9.2	0.535

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4320	4-4670	0.518	355.8	-12.3	-5.32	1.297	67.1	0.435	0.908	86.6	486.3	0.514	1.303	-4.06	0.956	115.2	145.0	5.2	0.423
4-4320	4-4680	0.414	2.2	-13.2	-4.39	1.300	72.1	0.368	0.914	74.4	484.0	0.577	1.251	-3.40	0.957	111.0	155.2	1.0	0.351
4-4320	4-4690	0.338	8.6	-14.0	-3.71	1.302	75.9	0.323	0.920	63.1	482.7	0.622	1.217	-3.01	0.958	108.2	164.8	-3.4	0.302
4-4320	4-4700	0.279	15.7	-14.7	-3.16	1.305	78.9	0.292	0.925	52.5	481.9	0.655	1.195	-2.77	0.958	106.3	174.2	-7.8	0.269
4-4320	4-4710	0.231	24.0	-15.2	-2.68	1.308	81.4	0.270	0.931	41.9	481.2	0.679	1.183	-2.64	0.959	105.1	183.6	-12.4	0.247
4-4320	4-4720	0.780	330.7	-2.8	-2.24	1.219	52.3	0.614	0.771	122.7	571.7	0.297	1.245	-2.59	0.831	55.9	66.3	18.5	0.571
4-4320	4-4720	0.192	34.6	-15.3	-2.24	1.310	85.8	0.257	0.938	31.3	480.3	0.697	1.178	-2.59	0.960	104.3	193.3	-16.9	0.234
4-4320	4-4730	0.693	342.2	-2.7	-1.79	1.231	56.8	0.553	0.788	115.5	574.2	0.353	1.224	-2.62	0.845	60.2	74.8	18.9	0.506
4-4320	4-4730	0.162	48.5	-14.7	-1.79	1.314	86.0	0.249	0.945	20.5	479.2	0.709	1.180	-2.62	0.961	103.9	203.5	-21.4	0.229
4-4320	4-4740	0.610	345.9	-2.4	-1.33	1.242	61.0	0.493	0.805	108.0	576.3	0.408	1.202	-2.73	0.858	64.1	83.6	18.6	0.445
4-4320	4-4740	0.143	66.9	-12.4	-1.33	1.317	88.1	0.248	0.953	9.4	477.7	0.717	1.189	-2.73	0.964	103.9	214.3	-25.5	0.231
4-4320	4-4750	0.533	349.7	-1.7	-0.81	1.251	64.9	0.438	0.821	100.1	578.0	0.461	1.181	-2.94	0.870	67.6	92.5	17.4	0.391
4-4320	4-4750	0.139	88.6	-7.8	-0.81	1.321	90.4	0.253	0.962	358.0	836.0	0.718	1.206	-2.94	0.967	104.4	225.6	-29.2	0.240
4-4320	4-4760	0.463	353.7	-0.5	-0.20	1.260	68.5	0.389	0.836	91.9	579.4	0.511	1.161	-3.27	0.880	70.5	101.5	15.1	0.343
4-4320	4-4760	0.154	109.7	-1.7	-0.20	1.325	92.8	0.266	0.973	346.6	834.1	0.714	1.232	-3.27	0.971	105.2	237.5	-32.3	0.258
4-4320	4-4770	0.400	357.9	1.8	0.60	1.268	71.7	0.347	0.850	83.3	580.4	0.555	1.144	-3.81	0.890	73.0	110.3	11.3	0.303
4-4320	4-4770	0.188	126.8	4.2	0.60	1.330	95.4	0.286	0.986	335.3	832.4	0.704	1.268	-3.81	0.977	106.5	249.5	-34.9	0.284
4-4320	4-4780	0.346	2.3	6.2	1.75	1.274	74.5	0.312	0.862	74.6	581.2	0.593	1.130	-4.71	0.898	75.0	118.6	5.4	0.273
4-4320	4-4780	0.239	139.4	9.7	1.75	1.336	98.5	0.314	1.000	324.5	831.1	0.687	1.314	-4.71	0.984	108.3	261.5	-37.2	0.319
4-4320	4-4790	0.307	6.8	15.1	3.67	1.280	76.9	0.284	0.872	65.8	581.9	0.625	1.120	-6.40	0.938	76.5	126.0	-3.8	0.257
4-4320	4-4790	0.305	149.0	16.0	3.67	1.342	101.3	0.340	1.017	314.3	830.4	0.663	1.371	-6.40	0.992	110.4	273.2	-39.9	0.365
4-4320	4-4800	0.307	10.0	34.4	7.90	1.284	79.1	0.263	0.881	57.2	582.8	0.650	1.113	-10.42	0.913	77.5	131.7	-19.6	0.274
4-4320	4-4800	0.399	157.4	26.7	7.90	1.348	104.6	0.388	1.035	305.0	830.5	0.633	1.436	-10.42	1.001	112.8	284.3	-45.6	0.432
4-4320	4-4810	0.606	342.5	69.6	26.53	1.288	80.8	0.248	0.889	49.3	583.9	0.669	1.109	-28.83	0.919	78.2	139.9	-47.6	0.510
4-4320	4-4820	0.671	329.2	-74.6	-30.31	1.291	82.9	0.252	0.896	39.2	584.7	0.688	1.103	28.23	0.925	78.9	213.3	52.8	0.497
4-4320	4-4830	0.309	25.4	-61.3	-12.17	1.294	84.3	0.225	0.901	31.7	585.3	0.699	1.104	10.30	0.930	79.1	189.7	4	0.249
4-4320	4-4830	0.644	172.9	-23.8	-12.17	1.368	115.5	0.532	1.096	280.2	834.9	0.493	1.679	10.30	1.031	121.8	306.3	-3.4	0.589
4-4320	4-4840	0.558	11.6	-19.6	-7.98	1.437	69.5	0.573	1.391	58.3	262.4	---	2.187	6.34	1.122	58.5	159.9	19.7	0.535
4-4320	4-4840	0.225	40.1	-52.8	-7.98	1.296	85.8	0.220	0.906	23.9	588.1	0.707	1.105	6.34	0.935	79.2	198.3	28.7	0.207
4-4320	4-4850	0.502	16.7	-16.7	-6.07	1.439	71.9	0.558	1.403	51.8	265.6	---	2.186	4.67	1.127	59.8	166.5	18.6	0.553
4-4320	4-4850	0.185	53.4	-47.8	-6.07	1.298	87.1	0.217	0.911	16.2	590.6	0.713	1.108	4.67	0.941	79.1	192.3	19.6	0.194
4-4320	4-4860	0.453	22.2	-15.3	-4.93	1.441	74.4	0.545	1.414	45.3	268.7	---	2.185	3.77	1.132	61.1	173.7	10.4	0.535
4-4320	4-4860	0.161	67.7	-43.8	-4.93	1.300	88.5	0.216	0.915	8.5	592.0	0.717	1.113	3.77	0.946	78.9	198.0	12.6	0.190
4-4320	4-4870	0.406	28.6	-14.4	-4.13	1.443	76.8	0.534	1.425	38.4	271.6	---	2.186	3.24	1.136	62.3	181.1	6.4	0.516
4-4320	4-4870	0.148	83.2	-39.2	-4.13	1.302	89.9	0.218	0.919	0.8	594.0	0.718	1.119	3.24	0.951	78.6	206.6	6.9	0.192
4-4320	4-4880	0.366	36.2	-13.8	-3.51	1.445	79.3	0.524	1.435	31.3	274.3	---	2.187	2.91	1.141	63.3	188.7	2.7	0.499
4-4320	4-4880	0.148	98.7	-33.6	-3.51	1.304	91.3	0.222	0.922	553.0	956.0	0.718	1.126	2.91	0.956	78.1	211.8	2.0	0.197
4-4320	4-4890	0.328	45.5	-13.2	-2.99	1.446	81.9	0.517	1.444	23.8	276.7	---	2.190	2.71	1.145	64.2	196.7	-0.9	0.486
4-4320	4-4890	0.150	112.9	-27.0	-2.99	1.305	92.8	0.228	0.925	345.1	958.0	0.714	1.136	2.71	0.961	77.6	219.4	-2.3	0.206
4-4320	4-4900	0.297	57.1	-12.3	-2.52	1.448	84.6	0.512	1.452	15.9	278.7	---	2.195	2.61	1.150	64.9	205.0	-4.3	0.476
4-4320	4-4900	0.164	125.2	-26.4	-2.52	1.306	94.4	0.238	0.928	336.9	959.7	0.707	1.149	2.61	0.966	76.9	227.5	-5.9	0.218
4-4320	4-4910	0.275	71.5	-10.9	-2.06	1.449	87.5	0.509	1.460	7.4	280.1	---	2.204	2.60	1.154	65.3	213.8	-7.4	0.471
4-4320	4-4910	0.187	135.6	-14.5	-2.06	1.308	96.2	0.251	0.931	328.4	961.2	0.697	1.165	2.60	0.970	75.9	236.0	-9.0	0.235
4-4320	4-4910	0.483	186.0	-4.7	-2.06	1.191	113.4	0.398	0.733	249.2	1242.0	0.841	1.028	2.60	0.807	101.2	345.4	1.8	0.279
4-4320	4-4920	0.259	88.5	-8.7	-1.60	1.450	90.7	0.510	1.467	358.1	640.9	0.718	2.216	2.66	1.157	65.4	223.3	-10.3	0.472
4-4320	4-4920	0.221	144.5	-9.4	-1.60	1.309	98.3	0.270	0.934	319.5	962.3	0.682	1.185	2.66	0.974	74.7	245.1	-11.6	0.257
4-4320	4-4920	0.443	186.5	-4.0	-1.60	1.187	111.5	0.366	0.727	250.3	1253.1	0.461	0.994	2.66	0.804	94.0	335.3	0.0	0.224
4-4330	4-4380	0.551	142.3	-2.9	-0.99	1.639	102.6	0.934	10.286	333.8	431.0	0.683	---	-3.13	1.371	124.1	248.1	-26.6	0.775
4-4330	4-4390	0.415	144.9	-1.6	-0.44	1.511	100.5	0.657	2.003	332.6	439.3	0.686	---	-3.24	1.214	119.9	253.3	-28.3	0.603
4-4330	4-4400	0.321	146.1	0.7	0.16	1.442	99.0	0.488	1.349	332.2	448.5	0.691	---	-3.46	1.108	115.7	258.7	-30.3	0.478
4-4330	4-4410	0.254	146.2	4.6	0.87	1.375	97.4	0.376	1.119	332.6	458.5	0.697	---	-3.83	1.037	111.6	264.0	-33.0	0.384
4-4330	4-4420	0.209	145.4	11.4	1.77	1.339	96.0	0.305	1.009	333.8	469.2	0.701	---	-4.42	0.988	107.7	269.0	-36.9	0.312
4-4330	4-4430	0.182	143.9	22.4	3.04	1.314	94.9	0.255	0.917	335.5	480.4	0.705	---	-5.39	0.955	104.2	273.4	-43.1	0.259
4-4330	4-4440	0.182	142.6	39.2	5.10	1.298	94.0	0.222	0.911	337.5	491.8	0.709	---	-7.18	0.933	101.0	276.3	-53.5	0.228
4-4330	4-4460	0.534	208.0	82.7	24.46	1.281	92.8	0.185	0.874	341.1	514.6	0.713	---	-26.01	0.911	95.4	197.6	-83.2	0.443
4-4330	4-4480	0.333	155.4	-76.0	-14.70	1.274	92.9	0.173	0.862	340.5	533.7	0.712	---	13.68	0.906	91.3	265.5	38.3	0.443
4-4330	4-4490	0.218	143.6	-63.2	-8.80	1.273	92.9	0.172	0.860	339.9	542.7	0.712	1.008	8.04	0.907	89.4	262.2	30.1	0.158
4-4330	4-4500	0.175	143.1	-52.4	-6.27	1.273	93.1	0.173	0.860	338.4	550.8	0.711	1.008	5.79	0.910	87.8	256.6	22.0	0.131
4-4330	4-4510	0.157	145.2	-42.7	-4.81	1.274	93.5	0.176	0.861	336.1	558.2	0.709	1.013	4.62	0.914	86.2	252.2	14.4	0.124
4-4330	4-4520	0.151	148.6	-34.0	-3.81	1.275	94.1	0.181	0.863	333.0	564.9	0.707	1.020	3.94	0.918	85.8	250.1	9.6	0.128
4-4330	4-4530	0.154	152.6	-26.0	-3.04	1.276	94.8	0.189	0.866	329.2	571.0	0.702	1.029	3.52	0.923	85.4	250.5	2.1	0.138
4-4330	4-4540	0.163	157.0	-18.0	-2.40	1.278	95.6	0.198	0.869	324.7	576.5	0.697	1.042	3.27	0.929	82.0	253.1	-2.4	0.153
4-4330	4-4550	0.179	161.6	-13.1	-1.82	1.280	96.7	0.211	0.873	319.8	581.4	0.686	1.062	3.13	0.934	80.6	257.4	-5.0	0.172
4-4330	4-4560	0.203	166.2	-8.0	-1.28	1.282	98.1	0.227	0.877	313.8	585.6	0.679	1.076	3.10	0.939	79.1	263.0	-8.4	0.196
4-4330	4-4570	0.234	170.9	-3.9	-0.72	1.284	99.7	0.248	0.881	307.3	589.2	0.662	1.108	3.17	0.944	77.4	269.7	-10.3	0.223
4-4330	4-4580	0.277	175.6	-0.5	-0.12	1.286	101.9	0.276	0.885	300.0	592.1	0.641	1.130	3.35	0.949	75.3	277.4	-11.3	0.259
4-4330	4-4590	0.334	180.5	2.2	0.58	1.288	104.6	0.314	0.890	291.8	594.0	0.610	1.169	3.67	0.953	72.7	285.8	-11.5	0.304
4-4330	4-4600	0.412	185.7	4.3	1.46	1.291	108.4	0.367	0.895	282.2	594.6	0.567	1.223	4.20	0.957	69.2	295.1	-11.0	0.366
4-4330	4-4600	0.833	220.3	1.4	1.46	1.067	132.9	0.594	0.608	216.0	888.3	0.186	1.030	4.20	0.623	113.7	30.3	17.3	0.516
4-4330	4-4610	0.514	191.5	8.0	2.68	1.293	113.2	0.443	0.900	270.9	593.4	0.501	1.299	5.10	0.961	64.2	305.3	-9.4	0.454
4-4330	4-4610	0.776	221.0	-2.8	2.68	1.046	130.0	0.603	0.592	215.7	898.2	0.499	0.984	5.18	0.587	93.5	15.5	14.0	0.430
4-4330	4-4620	0.699	198.6	7.3	4.04	1.296	121.9	0.558	0.906	256.4	585.1	0.401	1.412	6.72	0.964	56.4	317.0	-6.8	0.587
4-4330	4-4620	0.827	222.3	4.2	4.04	1.039	132.8	0.699	0.587	213.6	906.2	0.317	0.997	6.77	0.574	76.0	4.4	10.3	0.489
4-4330	4-4670	0.974	334.0	-5.2	-8.51	0.979	37.9	0.812	0.548	155.8	899.3	0.103	0.903	-7.78	0.436	92.9	75.9	17.0	0.580
4-4330	4-4680	0.608	8.1	-11.6	-6.08	1.301	82.7	0.497	0.916	94.6	488.1	0.461	1.372	-5.63	0.959	119.4	153.2	0.9	0.494
4-4330	4-4690	0.476	15.0	-12.0	-4.67	1.304	69.0	0.413	0.922	81.0	484.4	0.541	1.303	-4.52	0.959	114.0	163.9	-3.9	0.401
4-4330	4-4700	0.383	21.6	-12.2	-3.70	1.306	73.5	0.357	0.928	69.0	482.3	0.597	1.259	-3.87	0.960	110.4	173.9	-8.6	0.340
4-4330	4-4710	0.313	28.5	-12.2	-2.96	1.309	77.0	0.318	0.934	57.9	480.9	0.637	1.230	-3.48	0.960	106.0	183.5	-13.2	0.299
4-4330	4-4720	0.257	36.4	-11.8	-2.36	1.311	79.8	0.291	0.940	47.1	479.9	0.667	1.213	-3.25	0.961	106.4	193.3	-17.7	0.272
4-4330	4-4730	0.212	46.0	-11.0	-1.79	1.314	82.4	0.272	0.946	36.4	478.9	0.689	1.204	-3.13	0.962	105.4	203.4	-22.1	0.254

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4330	4-4740	0.762	356.0	-1.6	-1.26	1.227	53.1	0.604	0.783	120.6	572.7	0.310	1.255	-3.10	0.837	56.5	85.9	19.5	0.559
4-4330	4-4740	0.177	58.5	-9.4	-1.26	1.317	84.8	0.262	0.953	25.6	477.7	0.704	1.203	-3.10	0.964	104.8	214.0	-26.2	0.246
4-4330	4-4750	0.679	359.5	-1.1	-0.73	1.238	57.5	0.544	0.799	113.5	575.2	0.364	1.235	-3.17	0.851	60.5	94.3	18.7	0.497
4-4330	4-4750	0.151	74.9	-6.4	-0.73	1.320	87.0	0.257	0.961	14.6	476.3	0.714	1.208	-3.17	0.966	104.6	225.2	-29.8	0.245
4-4330	4-4760	0.600	3.0	-0.3	-0.17	1.248	61.5	0.488	0.816	106.1	577.4	0.417	1.214	-3.33	0.863	64.1	102.9	17.0	0.440
4-4330	4-4760	0.141	95.4	-1.6	-0.17	1.324	89.3	0.259	0.970	3.4	474.7	0.718	1.222	-3.33	0.970	104.8	237.0	-32.8	0.251
4-4330	4-4770	0.527	6.7	1.0	-0.48	1.257	65.2	0.437	0.831	98.4	579.3	0.468	1.194	-3.61	0.875	67.3	111.5	14.4	0.390
4-4330	4-4770	0.150	117.0	4.2	0.48	1.326	91.7	0.268	0.980	352.1	832.9	0.717	1.243	-3.61	0.974	105.4	249.2	-35.1	0.245
4-4330	4-4780	0.461	10.6	3.2	1.26	1.265	68.6	0.390	0.845	90.5	580.8	0.515	1.175	-4.07	0.886	70.1	119.6	10.6	0.366
4-4330	4-4780	0.178	135.6	9.5	1.26	1.332	94.2	0.284	0.992	340.9	831.3	0.710	1.274	-4.07	0.979	106.5	261.7	-36.7	0.287
4-4330	4-4790	0.403	14.6	6.9	2.31	1.272	71.6	0.351	0.858	82.3	582.1	0.557	1.159	-4.81	0.895	72.3	127.6	5.3	0.311
4-4330	4-4790	0.223	150.0	13.0	2.31	1.337	96.9	0.307	1.005	330.1	830.0	0.696	1.314	-4.81	0.986	107.9	274.0	-37.8	0.317
4-4330	4-4800	0.357	18.6	13.5	3.87	1.278	74.3	0.318	0.869	74.0	583.3	0.593	1.146	-6.09	0.904	74.2	134.6	-2.4	0.287
4-4330	4-4800	0.283	160.7	18.4	3.87	1.343	99.8	0.338	1.020	319.8	829.2	0.676	1.365	-6.09	0.994	109.7	285.9	-38.9	0.357
4-4330	4-4810	0.333	22.2	25.8	6.66	1.283	76.7	0.291	0.879	65.7	584.5	0.623	1.135	-8.61	0.912	75.6	140.5	-14.2	0.281
4-4330	4-4810	0.361	169.5	25.0	6.66	1.349	103.0	0.374	1.037	310.2	829.0	0.649	1.425	-8.61	1.002	111.9	297.6	-41.3	0.410
4-4330	4-4820	0.391	21.2	49.5	13.63	1.287	78.7	0.271	0.888	57.5	585.7	0.648	1.128	-15.32	0.919	76.6	144.5	-33.8	0.337
4-4330	4-4820	0.495	179.4	38.3	13.63	1.355	106.2	0.415	1.055	301.4	829.6	0.618	1.493	-15.32	1.012	114.4	308.8	-48.8	0.500
4-4330	4-4840	0.527	10.7	-71.7	-22.95	1.294	82.6	0.239	0.902	40.0	588.3	0.686	1.118	21.78	0.932	78.0	215.9	46.6	0.409
4-4330	4-4850	0.204	43.2	-58.1	-11.14	1.297	84.1	0.231	0.908	32.4	590.1	0.698	1.118	10.24	0.939	78.2	203.1	33.5	0.256
4-4330	4-4860	0.543	29.2	-18.7	-7.40	1.439	70.1	0.572	1.404	56.6	263.9	---	2.208	6.77	1.129	58.8	178.1	13.1	0.582
4-4330	4-4860	0.219	56.8	-49.7	-7.40	1.299	85.5	0.226	0.913	24.0	591.9	0.707	1.119	6.77	0.944	78.3	203.8	22.2	0.220
4-4330	4-4870	0.488	34.5	-15.7	-5.50	1.441	72.5	0.558	1.416	50.1	267.1	---	2.206	5.16	1.134	60.2	184.6	8.0	0.555
4-4330	4-4870	0.179	69.9	-44.0	-5.50	1.301	87.0	0.222	0.917	16.8	593.8	0.713	1.121	5.16	0.950	78.3	208.3	13.9	0.207
4-4330	4-4880	0.459	40.3	-13.8	-4.29	1.443	75.0	0.545	1.427	43.4	270.2	---	2.206	3.26	1.139	61.5	191.6	3.7	0.533
4-4330	4-4880	0.155	84.3	-39.0	-4.29	1.303	88.4	0.222	0.921	8.9	595.8	0.717	1.125	4.26	0.956	78.2	214.4	7.4	0.203
4-4330	4-4890	0.393	47.1	-12.4	-3.42	1.445	77.5	0.534	1.438	36.5	273.2	---	2.206	3.71	1.144	62.6	199.1	-0.1	0.514
4-4330	4-4890	0.142	100.1	-33.2	-3.42	1.305	89.8	0.223	0.925	1.0	597.7	0.719	1.131	3.71	0.961	77.9	221.5	2.1	0.205
4-4330	4-4900	0.352	55.2	-11.1	-2.72	1.447	80.0	0.525	1.447	29.2	275.8	---	2.207	3.38	1.149	63.6	207.0	-3.7	0.499
4-4330	4-4900	0.139	135.9	-26.4	-2.72	1.306	91.3	0.227	0.928	352.9	959.5	0.718	1.139	3.38	0.966	77.5	229.0	-2.2	0.210
4-4330	4-4910	0.316	65.3	-9.7	-2.12	1.448	82.7	0.518	1.456	21.6	278.1	---	2.211	3.19	1.153	64.4	215.3	-6.8	0.487
4-4330	4-4910	0.187	130.4	-19.2	-2.12	1.308	92.9	0.234	0.931	344.7	961.2	0.714	1.149	3.19	0.971	77.0	237.7	-5.8	0.219
4-4330	4-4920	0.287	77.9	-7.9	-1.56	1.449	85.5	0.514	1.464	13.4	279.9	---	2.215	3.11	1.157	65.1	224.0	-9.7	0.479
4-4330	4-4920	0.165	143.0	-12.4	-1.56	1.309	94.6	0.244	0.934	336.1	962.6	0.706	1.162	3.11	0.975	78.5	245.8	-8.7	0.253
4-4330	4-4920	0.513	202.1	-3.3	-1.56	1.198	114.7	0.419	0.742	249.2	1235.7	0.451	1.053	3.11	0.820	105.6	2.0	9.1	0.325
4-4330	4-4930	0.733	206.4	-2.1	-1.56	1.219	123.4	0.582	0.770	240.0	1226.6	0.322	1.218	3.11	0.850	121.9	13.9	10.4	0.547
4-4330	4-4930	0.278	93.4	-5.5	-1.02	1.451	88.5	0.512	1.472	4.5	281.1	---	2.226	3.12	1.160	65.4	233.4	-12.1	0.476
4-4330	4-4930	0.194	153.6	-6.9	-1.02	1.310	96.6	0.259	0.937	327.1	963.7	0.695	1.180	3.12	0.979	79.3	254.9	-10.8	0.251
4-4330	4-4930	0.442	201.0	-2.6	-1.02	1.191	111.3	0.364	0.733	251.5	1248.2	0.466	1.008	3.12	0.813	96.6	352.1	8.3	0.236
4-4330	4-4940	0.450	146.9	-1.5	-0.42	1.584	98.4	0.509	3.673	341.3	451.8	0.702	---	3.36	1.304	121.5	258.1	-28.5	0.667
4-4340	4-4400	0.333	150.4	0.6	0.14	1.473	98.9	0.559	3.236	340.9	441.0	0.705	---	3.42	1.166	117.3	263.2	-29.9	0.534
4-4340	4-4410	0.254	150.3	4.1	0.74	1.462	95.4	0.423	1.224	341.6	451.2	0.708	---	3.57	1.074	113.1	268.3	-31.8	0.421
4-4340	4-4420	0.200	148.5	9.7	1.42	1.356	94.1	0.329	1.060	343.2	462.3	0.711	---	3.85	1.012	109.1	273.3	-34.4	0.337
4-4340	4-4430	0.156	145.5	18.1	2.24	1.325	93.0	0.268	0.975	345.5	474.2	0.714	---	4.31	0.970	105.3	277.8	-38.2	0.272
4-4340	4-4440	0.[illegible]	141.7	30.5	3.31	1.405	92.2	0.227	0.927	348.2	486.4	0.716	---	5.04	0.943	102.0	281.6	-44.2	0.225
4-4340	4-4460	0.195	134.9	61.1	7.56	1.283	91.1	0.185	0.881	353.1	510.2	0.718	---	8.69	0.915	98.2	284.3	-67.7	0.196
4-4340	4-4470	0.241	137.4	78.5	13.78	1.278	90.8	0.175	0.871	354.8	521.3	0.719	---	14.62	0.910	93.8	286.0	-83.6	0.264
4-4340	4-4480	0.610	272.9	-83.5	-28.43	1.274	91.1	0.168	0.863	352.1	539.3	0.718	---	28.16	0.909	90.2	264.5	42.6	0.470
4-4340	4-4490	0.274	348.4	-75.3	-11.99	1.274	91.2	0.167	0.862	351.6	548.0	0.718	1.007	12.01	0.911	88.4	263.6	38.0	0.216
4-4340	4-4510	0.766	142.3	-61.6	-7.37	1.274	91.5	0.169	0.863	349.6	555.6	0.717	1.009	7.68	0.915	86.9	259.1	28.4	0.157
4-4340	4-4520	0.151	146.2	-49.1	-5.13	1.275	92.0	0.173	0.866	346.7	562.5	0.716	1.015	5.76	0.920	85.5	256.0	18.9	0.139
4-4340	4-4530	0.137	151.4	-37.6	-3.75	1.277	92.5	0.177	0.868	343.0	568.6	0.714	1.023	4.71	0.925	84.2	255.5	10.7	0.198
4-4340	4-4540	0.135	157.4	-27.1	-2.70	1.279	93.3	0.184	0.872	338.6	574.2	0.711	1.032	4.08	0.931	83.0	256.9	4.2	0.145
4-4340	4-4550	0.142	163.6	-18.2	-1.98	1.281	94.2	0.193	0.876	333.7	579.3	0.707	1.044	3.69	0.936	81.8	260.4	-0.8	0.157
4-4340	4-4560	0.156	169.7	-10.9	-1.32	1.283	95.2	0.203	0.880	328.1	583.8	0.701	1.059	3.47	0.941	80.6	265.4	-4.4	0.173
4-4340	4-4570	0.177	175.6	-5.1	-0.71	1.285	96.5	0.217	0.884	322.0	587.7	0.692	1.076	3.37	0.946	79.3	271.5	-7.0	0.193
4-4340	4-4580	0.206	181.5	-0.7	-0.11	1.287	98.1	0.236	0.888	315.2	591.0	0.679	1.098	3.38	0.951	77.9	278.6	-8.6	0.218
4-4340	4-4590	0.244	186.8	2.6	0.51	1.289	100.0	0.259	0.893	307.7	593.7	0.662	1.124	3.50	0.955	76.1	286.4	-9.3	0.248
4-4340	4-4600	0.295	192.2	5.3	1.20	1.291	102.5	0.291	0.898	299.5	595.6	0.637	1.159	3.75	0.959	74.0	294.8	-9.2	0.286
4-4340	4-4610	0.362	197.7	7.0	2.02	1.294	105.7	0.334	0.903	290.2	596.5	0.601	1.204	4.18	0.962	71.1	303.8	-8.2	0.337
4-4340	4-4620	0.455	203.4	8.3	3.09	1.296	110.1	0.396	0.908	279.5	596.0	0.549	1.267	4.89	0.965	67.2	313.5	-6.3	0.407
4-4340	4-4620	0.767	235.9	3.3	3.09	1.059	129.2	0.650	0.402	217.5	993.9	0.217	0.994	4.89	0.611	108.0	35.6	21.3	0.437
4-4340	4-4630	0.592	210.0	9.2	4.66	1.299	110.5	0.485	0.914	266.6	593.2	0.470	1.357	6.12	0.968	61.3	324.2	-3.4	0.510
4-4340	4-4630	0.776	236.9	4.8	4.66	1.049	129.7	0.659	0.595	216.2	902.8	0.303	0.987	6.12	0.592	84.6	22.1	18.1	0.436
4-4340	4-4640	0.876	238.7	6.2	7.38	1.046	135.1	0.724	0.593	212.9	909.6	0.184	1.022	8.52	0.585	67.1	14.6	15.4	0.542
4-4340	4-4690	0.726	19.7	-10.6	-7.01	1.304	57.0	0.576	0.924	104.2	491.4	0.392	1.456	-7.37	0.960	124.9	160.7	-2.5	0.586
4-4340	4-4700	0.556	27.4	-10.5	-4.92	1.307	65.1	0.469	0.931	88.8	485.8	0.494	1.367	-5.59	0.961	117.6	172.3	-7.9	0.463
4-4340	4-4710	0.439	34.3	-10.2	-3.62	1.309	70.7	0.397	0.937	75.7	482.6	0.565	1.308	-4.62	0.962	113.0	182.9	-12.9	0.384
4-4340	4-4720	0.354	41.1	-9.6	-2.68	1.312	74.8	0.348	0.943	64.0	480.5	0.619	1.270	-4.03	0.963	110.0	193.1	-17.6	0.333
4-4340	4-4730	0.289	48.7	-8.7	-1.94	1.314	78.1	0.314	0.949	52.8	479.0	0.661	1.246	-3.68	0.964	107.9	203.4	-22.0	0.298
4-4340	4-4740	0.237	57.6	-7.2	-1.30	1.317	80.9	0.290	0.955	41.9	477.7	0.678	1.232	-3.47	0.965	106.6	214.0	-26.0	0.276
4-4340	4-4750	0.196	68.8	-6.8	-0.72	1.320	83.5	0.275	0.962	30.9	476.4	0.697	1.227	-3.37	0.967	105.7	225.1	-29.6	0.264
4-4340	4-4760	0.747	13.1	-0.2	0.16	1.234	53.9	0.595	0.794	118.8	573.8	0.322	1.266	-3.38	0.844	56.8	105.3	18.3	0.549
4-4340	4-4760	0.165	83.4	-1.3	-0.16	1.323	85.8	0.268	0.969	19.9	475.8	0.710	1.229	-3.38	0.969	105.3	236.8	-32.5	0.259
4-4340	4-4770	0.667	16.5	0.7	0.42	1.244	56.2	0.538	0.810	111.8	576.5	0.374	1.246	-3.48	0.857	57.6	113.4	18.3	0.490
4-4340	4-4770	0.148	102.3	3.8	0.42	1.326	88.2	0.266	0.978	3.8	473.4	0.717	1.238	-3.48	0.973	105.3	249.1	-34.7	0.262
4-4340	4-4780	0.592	20.0	2.0	1.05	1.253	61.9	0.485	0.826	104.5	576.3	0.425	1.226	-3.69	0.870	64.0	121.5	13.5	0.437
4-4340	4-4780	0.150	123.7	9.4	1.05	1.330	90.5	0.272	0.987	357.6	821.7	0.719	1.254	-3.69	0.977	105.7	261.6	-36.1	0.272
4-4340	4-4790	0.523	23.6	3.9	1.79	1.262	65.4	0.436	0.840	97.0	580.7	0.474	1.206	-4.04	0.981	67.0	129.3	9.8	0.390
4-4340	4-4790	0.171	143.8	14.1	1.79	1.334	93.0	0.284	0.998	346.5	830.1	0.715	1.282	-4.04	0.982	106.5	274.2	-36.6	0.290

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4340	4-4800	0.461	27.3	6.9	2.70	1.269	68.7	0.392	0.854	89.3	582.5	0.519	1.188	-4.61	0.892	69.6	136.9	4.9	0.350
4-4340	4-4800	0.210	159.9	17.4	2.70	1.339	95.6	0.303	1.010	335.6	828.7	0.704	1.317	-4.61	0.989	107.6	286.4	-36.6	0.315
4-4340	4-4810	0.409	31.1	11.8	3.96	1.276	71.6	0.355	0.866	81.4	584.1	0.559	1.173	-5.55	0.902	71.7	143.9	-1.6	0.319
4-4340	4-4810	0.263	172.0	20.4	3.96	1.344	98.4	0.329	1.024	325.2	827.8	0.687	1.362	-5.55	0.996	109.2	298.2	-36.3	0.349
4-4340	4-4820	0.371	34.7	20.1	5.93	1.281	74.2	0.323	0.877	73.4	585.6	0.593	1.160	-7.21	0.911	73.4	150.1	-10.7	0.300
4-4340	4-4820	0.331	181.5	24.4	5.93	1.349	101.4	0.362	1.040	315.4	827.5	0.664	1.416	-7.21	1.005	111.2	309.5	-36.5	0.393
4-4340	4-4830	0.368	37.0	35.0	9.74	1.286	76.4	0.298	0.886	65.5	587.1	0.623	1.150	-10.73	0.920	74.7	154.7	-24.6	0.307
4-4340	4-4830	0.425	190.0	31.5	9.74	1.355	104.6	0.399	1.057	306.3	827.9	0.635	1.479	-10.73	1.014	113.4	320.7	-39.0	0.454
4-4340	4-4840	0.521	26.7	60.7	21.08	1.290	78.4	0.278	0.895	57.8	588.7	0.646	1.143	-21.79	0.928	75.7	157.7	-47.8	0.427
4-4340	4-4840	0.629	204.1	47.8	21.08	1.361	107.9	0.440	1.076	297.9	828.9	0.602	1.549	-21.79	1.024	115.9	331.6	-50.0	0.588
4-4340	4-4860	0.421	42.0	-65.6	-17.38	1.296	82.4	0.246	0.908	40.4	591.8	0.685	1.131	17.24	0.942	77.2	220.6	38.0	0.354
4-4340	4-4870	0.589	41.9	-21.5	-9.29	1.439	68.2	0.586	1.405	61.1	262.1	---	2.229	9.45	1.132	57.7	190.0	11.9	0.611
4-4340	4-4870	0.265	61.9	-52.0	-9.29	1.299	83.9	0.237	0.914	32.7	593.7	0.697	1.131	9.45	0.948	77.5	215.3	24.7	0.257
4-4340	4-4880	0.524	47.2	-16.1	-6.15	1.441	70.7	0.571	1.418	54.8	265.5	---	2.227	6.61	1.137	59.2	195.5	5.6	0.577
4-4340	4-4880	0.202	74.5	-43.4	-6.15	1.301	85.4	0.231	0.919	24.9	595.5	0.707	1.131	6.61	0.954	77.6	218.2	14.6	0.228
4-4340	4-4890	0.470	52.6	-13.0	-4.40	1.443	73.1	0.557	1.429	48.3	268.7	---	2.226	5.19	1.142	60.6	202.1	0.8	0.552
4-4340	4-4890	0.166	97.2	-36.9	-4.40	1.303	86.9	0.228	0.923	16.9	597.4	0.713	1.133	5.19	0.960	77.7	223.7	7.3	0.218
4-4340	4-4900	0.422	58.7	-10.8	-3.24	1.446	75.6	0.545	1.440	41.5	271.8	---	2.225	4.37	1.147	61.8	209.5	-3.2	0.531
4-4340	4-4900	0.145	101.9	-30.7	-3.24	1.305	88.4	0.226	0.927	8.9	599.3	0.717	1.137	4.37	0.965	77.6	230.6	1.7	0.215
4-4340	4-4910	0.378	65.9	-8.9	-2.37	1.446	78.2	0.534	1.450	34.4	274.7	---	2.225	3.87	1.152	63.0	217.3	-6.6	0.513
4-4340	4-4910	0.134	117.9	-23.8	-2.37	1.307	89.9	0.228	0.931	0.7	601.0	0.719	1.143	3.87	0.970	77.4	238.2	-2.7	0.217
4-4340	4-4920	0.338	74.7	-7.0	-1.66	1.448	80.8	0.526	1.459	27.0	277.3	---	2.227	3.57	1.156	63.9	225.6	-9.5	0.499
4-4340	4-4920	0.155	134.1	-16.3	-1.66	1.308	91.5	0.232	0.935	352.3	962.6	0.718	1.151	3.57	0.975	77.0	246.5	-6.1	0.223
4-4340	4-4930	0.304	85.7	-4.9	-1.02	1.449	83.5	0.519	1.468	19.1	279.5	---	2.230	3.41	1.159	64.7	234.4	-11.9	0.489
4-4340	4-4930	0.148	148.8	-9.1	-1.02	1.310	93.1	0.239	0.938	343.6	964.0	0.713	1.162	3.41	0.979	76.5	255.2	-8.6	0.233
4-4340	4-4940	0.279	99.4	-2.2	-0.42	1.451	86.4	0.516	1.476	10.6	281.1	---	2.237	3.36	1.162	65.3	243.8	-13.8	0.483
4-4340	4-4940	0.171	161.5	-3.2	-0.42	1.311	95.0	0.251	0.941	334.6	965.1	0.705	1.177	3.36	0.983	75.7	264.4	-10.3	0.248
4-4340	4-4940	0.449	216.7	-1.1	-0.42	1.195	111.6	0.369	0.739	252.4	1242.9	0.467	1.011	3.36	0.822	99.5	9.0	15.6	0.256
4-4350	4-4390	0.511	149.7	-1.4	-0.44	5.678	94.6	1.027	26.152	350.9	425.3	0.715	---	-3.49	1.418	123.1	262.9	-28.5	0.798
4-4350	4-4400	0.357	151.3	0.6	0.14	1.525	93.8	0.677	2.213	350.5	434.4	0.716	---	-3.38	1.232	118.9	267.3	-29.5	0.599
4-4350	4-4410	0.260	150.4	3.9	0.70	1.432	92.8	0.477	1.372	351.5	444.9	0.717	---	-3.36	1.113	114.5	271.9	-30.8	0.462
4-4350	4-4420	0.198	147.2	8.9	1.27	1.373	91.7	0.357	1.117	353.7	456.6	0.719	---	-3.44	1.036	110.3	276.5	-32.6	0.363
4-4350	4-4430	0.160	142.0	16.0	1.89	1.334	90.7	0.282	1.002	356.8	469.2	0.720	---	-3.63	0.984	106.3	280.8	-35.1	0.288
4-4350	4-4440	0.140	135.4	25.1	2.60	1.310	89.9	0.234	0.940	0.4	122.4	---	---	-3.96	0.951	102.8	284.4	-38.9	0.231
4-4350	4-4460	0.144	123.0	46.4	4.66	1.284	88.9	0.187	0.884	6.8	147.9	---	---	-5.34	0.918	96.7	287.5	-53.7	0.165
4-4350	4-4470	0.170	118.6	57.8	6.47	1.278	88.7	0.176	0.872	8.8	159.3	---	---	-6.84	0.911	94.3	284.8	-65.8	0.159
4-4350	4-4480	0.231	114.6	70.3	9.84	1.274	88.6	0.170	0.866	9.6	169.7	---	---	-9.91	0.909	92.1	273.4	-79.2	0.189
4-4350	4-4490	0.416	83.9	85.4	19.01	1.273	88.6	0.167	0.863	9.7	179.3	---	---	-18.80	0.909	90.1	194.2	-86.8	0.322
4-4350	4-4510	0.487	119.7	-86.4	-18.59	1.273	89.5	0.167	0.864	3.7	193.9	---	1.008	19.38	0.916	87.3	266.2	42.2	0.333
4-4350	4-4520	0.212	135.1	-68.6	-8.92	1.274	89.8	0.169	0.866	1.2	200.9	---	1.012	9.99	0.920	85.9	241.6	32.7	0.193
4-4350	4-4530	0.151	142.4	-53.4	-5.44	1.276	90.4	0.172	0.869	357.6	567.1	0.720	1.019	6.83	0.926	84.7	259.5	21.4	0.157
4-4350	4-4540	0.126	150.5	-39.3	-3.59	1.278	91.0	0.176	0.873	353.2	572.6	0.719	1.027	5.29	0.932	83.6	260.0	11.9	0.149
4-4350	4-4550	0.120	159.0	-26.4	-2.38	1.280	91.8	0.182	0.877	348.3	577.7	0.718	1.037	4.42	0.937	82.6	262.8	4.8	0.153
4-4350	4-4560	0.124	167.6	-15.6	-1.48	1.282	92.7	0.189	0.882	342.8	582.2	0.715	1.049	3.98	0.943	81.6	267.3	-0.4	0.162
4-4350	4-4570	0.136	175.8	-7.1	-0.75	1.285	93.8	0.199	0.886	336.8	586.3	0.710	1.062	3.58	0.948	80.5	273.0	-4.0	0.176
4-4350	4-4580	0.156	183.6	-0.9	-0.11	1.287	95.0	0.211	0.891	330.3	529.9	0.703	1.079	3.41	0.953	79.4	279.7	-6.3	0.193
4-4350	4-4590	0.182	190.7	3.4	0.49	1.289	96.5	0.226	0.896	325.2	592.9	0.693	1.098	3.36	0.957	78.2	287.2	-7.6	0.214
4-4350	4-4600	0.217	197.3	6.4	1.09	1.292	98.4	0.246	0.901	315.5	595.4	0.679	1.122	3.41	0.961	76.7	295.2	-7.8	0.240
4-4350	4-4610	0.262	203.5	8.5	1.73	1.294	100.6	0.273	0.906	307.1	597.2	0.659	1.152	3.58	0.966	74.9	303.6	-7.2	0.272
4-4350	4-4620	0.320	209.4	9.8	2.47	1.296	103.4	0.309	0.911	298.0	598.2	0.630	1.192	3.89	0.967	72.6	312.5	-5.8	0.314
4-4350	4-4630	0.399	215.3	10.5	3.37	1.299	107.1	0.358	0.916	287.7	598.1	0.588	1.244	4.41	0.969	69.4	321.9	-3.6	0.371
4-4350	4-4630	0.779	251.0	3.6	5.37	1.075	129.7	0.651	0.616	218.8	889.3	0.215	1.017	4.43	0.638	108.6	57.5	26.0	0.460
4-4350	4-4640	0.509	221.6	10.9	4.59	1.301	112.3	0.430	0.921	275.8	596.4	0.525	1.318	5.29	0.971	64.8	331.9	-6.5	0.452
4-4350	4-4640	0.747	251.7	5.1	4.59	1.060	127.9	0.633	0.604	218.3	898.8	0.222	0.986	5.29	0.611	92.1	42.4	24.6	0.411
4-4350	4-4650	0.671	238.2	11.0	6.48	1.304	119.9	0.536	0.928	261.3	591.9	0.431	1.424	6.85	0.973	57.8	343.1	3.5	0.573
4-4350	4-4650	0.860	253.0	6.5	6.48	1.055	130.7	0.670	0.600	210.2	906.8	0.198	1.002	6.85	0.599	76.6	31.2	21.8	0.465
4-4350	4-4700	0.959	8.6	-5.5	-8.31	1.012	59.1	0.799	0.570	153.0	893.9	0.117	1.022	-9.43	0.494	111.7	123.0	12.3	0.576
4-4350	4-4710	0.858	39.2	-8.9	-5.17	1.309	60.9	0.539	0.939	97.	488.6	0.433	1.444	-6.59	0.963	122.4	180.3	-11.0	0.542
4-4350	4-4720	0.510	46.6	-8.2	-3.46	1.312	67.1	0.446	0.945	83.4	483.7	0.523	1.367	-5.19	0.964	116.3	191.8	-16.2	0.439
4-4350	4-4730	0.405	53.6	-7.2	-2.31	1.314	72.2	0.384	0.951	70.7	480.7	0.586	1.316	-4.38	0.965	112.3	202.0	-20.9	0.374
4-4350	4-4740	0.328	60.9	-5.7	-1.46	1.317	76.1	0.340	0.957	58.9	476.6	0.631	1.283	-3.89	0.966	109.7	213.8	-25.0	0.329
4-4350	4-4750	0.267	69.2	-3.7	-0.77	1.319	79.2	0.311	0.964	47.6	476.9	0.664	1.263	-3.59	0.968	107.9	225.1	-28.6	0.300
4-4350	4-4760	0.219	79.4	-1.0	-0.16	1.322	82.0	0.291	0.970	36.5	475.4	0.688	1.253	-3.42	0.970	106.7	236.8	-31.5	0.285
4-4350	4-4770	0.816	26.9	0.5	0.41	1.229	50.2	0.644	0.789	122.7	572.1	0.282	1.296	-3.36	0.838	55.1	116.3	37.4	0.600
4-4350	4-4770	0.183	92.5	2.9	0.41	1.325	84.9	0.279	0.979	25.4	473.8	0.705	1.251	-3.36	0.973	106.1	249.0	-33.7	0.274
4-4350	4-4780	0.735	30.2	1.3	0.97	1.239	54.5	0.587	0.805	117.0	575.0	0.833	1.217	-3.39	0.852	57.1	124.1	15.1	0.540
4-4350	4-4780	0.160	109.6	8.1	0.97	1.328	87.0	0.274	0.990	14.2	472.1	0.715	1.256	-3.39	0.976	105.8	261.5	-35.0	0.275
4-4350	4-4790	0.658	33.5	2.5	1.56	1.249	58.5	0.533	0.820	110.2	577.6	0.803	1.257	-3.52	0.865	60.6	131.8	12.2	0.485
4-4350	4-4790	0.154	150.1	13.6	1.56	1.332	89.4	0.276	0.995	5.0	470.4	0.720	1.270	-3.52	0.981	106.0	274.1	-35.3	0.280
4-4350	4-4800	0.586	36.9	4.2	2.21	1.258	62.4	0.482	0.835	103.1	580.0	0.833	1.238	-3.77	0.878	63.9	139.4	8.6	0.435
4-4350	4-4800	0.168	151.1	17.4	2.21	1.315	91.8	0.285	1.005	351.9	828.8	0.718	1.291	-3.77	0.986	106.6	286.4	-34.9	0.293
4-4350	4-4810	0.521	40.4	6.6	2.99	1.265	65.6	0.435	0.849	95.7	582.2	0.680	1.219	-4.18	0.890	66.7	146.7	4.1	0.591
4-4350	4-4810	0.199	169.0	20.5	2.99	1.340	94.4	0.301	1.016	340.9	827.4	0.711	1.322	-4.18	0.992	107.5	298.3	-33.8	0.314
4-4350	4-4820	0.463	43.9	10.3	3.99	1.272	68.3	0.394	0.862	88.2	584.2	0.525	1.202	-4.84	0.901	69.1	153.6	-1.5	0.354
4-4350	4-4820	0.246	182.0	22.2	3.99	1.344	97.1	0.323	1.029	330.4	826.4	0.697	1.362	-4.84	1.000	108.8	309.7	-32.4	0.343
4-4350	4-4830	0.416	47.5	16.0	5.41	1.278	71.6	0.358	0.874	80.6	586.1	0.561	1.196	-5.94	0.911	71.1	160.1	-8.9	0.326
4-4350	4-4830	0.305	193.2	24.2	5.41	1.349	100.0	0.351	1.044	320.5	826.0	0.677	1.411	-5.94	1.008	110.5	320.4	-31.1	0.380
4-4350	4-4840	0.387	50.6	25.5	7.76	1.284	74.1	0.328	0.884	72.9	588.0	0.595	1.174	-8.00	0.920	72.7	165.6	-19.0	0.312
4-4350	4-4840	0.380	201.7	28.0	7.76	1.355	103.1	0.386	1.060	311.1	826.2	0.651	1.468	-8.00	1.017	112.5	330.9	-31.8	0.427
4-4350	4-4850	0.410	91.2	42.6	10.81	1.260	76.5	0.309	0.893	65.1	589.8	0.623	1.164	-12.75	0.929	74.0	169.2	-35.1	0.335

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4350	4-4850	0.492	210.4	36.1	12.81	1.360	106.3	0.424	1.077	302.4	827.0	0.620	1.534	-12.75	1.027	114.9	341.6	-34.3	0.498
4-4350	4-4860	0.740	19.4	67.4	32.70	1.292	78.2	0.284	0.901	57.9	591.6	0.645	1.158	-32.35	0.937	74.9	174.9	-62.6	0.583
4-4350	4-4880	0.334	67.3	-56.2	-12.47	1.298	82.2	0.251	0.915	40.5	595.1	0.685	1.144	13.39	0.952	76.5	227.6	27.5	0.315
4-4350	4-4890	0.561	60.2	-16.8	-6.94	1.440	68.8	0.585	1.419	59.4	263.7	---	2.249	8.16	1.140	58.2	206.4	3.3	0.602
4-4350	4-4890	0.230	80.9	-42.7	-6.94	1.301	83.8	0.242	0.920	32.7	597.0	0.698	1.143	8.16	0.958	76.8	227.7	15.0	0.254
4-4350	4-4900	0.502	65.3	-12.2	-4.45	1.442	71.3	0.570	1.431	52.9	267.1	---	2.246	5.98	1.145	59.7	212.6	-2.2	0.572
4-4350	4-4900	0.181	92.4	-33.7	-4.45	1.303	85.4	0.236	0.925	24.7	598.9	0.707	1.143	5.98	0.984	77.1	232.6	6.6	0.233
4-4350	4-4910	0.452	70.9	-9.1	-2.96	1.444	73.8	0.556	1.442	46.3	270.4	---	2.244	4.82	1.150	61.0	210.9	-6.2	0.549
4-4350	4-4910	0.152	105.3	-26.3	-2.96	1.305	86.9	0.232	0.930	16.6	600.7	0.714	1.145	4.82	0.970	77.2	239.4	0.4	0.226
4-4350	4-4920	0.406	77.3	-6.7	-1.93	1.446	76.4	0.544	1.453	39.3	273.5	---	2.243	4.14	1.154	62.3	227.8	9.5	0.529
4-4350	4-4920	0.135	120.3	-19.0	-1.93	1.307	88.5	0.231	0.934	8.3	602.4	0.718	1.149	4.14	0.974	77.3	247.2	-3.7	0.224
4-4350	4-4930	0.363	85.1	-4.4	-1.12	1.447	78.9	0.534	1.463	32.1	276.3	---	2.244	3.73	1.158	63.4	236.2	12.1	0.513
4-4350	4-4930	0.129	136.8	-11.4	-1.12	1.308	90.0	0.232	0.937	359.7	965.9	0.720	1.155	3.73	0.979	78.9	255.6	-6.9	0.227
4-4350	4-4940	0.325	94.6	-1.9	-0.44	1.449	81.6	0.526	1.472	24.4	278.7	---	2.246	3.49	1.162	64.3	245.0	14.0	0.500
4-4350	4-4940	0.136	153.2	-4.3	-0.44	1.310	91.7	0.237	0.941	351.0	965.3	0.718	1.164	3.49	0.983	78.6	264.6	-9.0	0.235
4-4350	4-4950	0.294	106.6	0.9	0.18	1.450	84.5	0.520	1.480	16.2	280.7	---	2.250	3.27	1.166	65.0	254.4	15.4	0.491
4-4350	4-4950	0.154	168.0	1.5	0.18	1.311	93.5	0.245	0.944	341.8	966.3	0.719	1.176	3.37	0.986	76.0	273.9	-10.2	0.248
4-4350	4-4950	0.470	232.7	0.4	0.18	1.200	112.5	0.384	0.747	252.5	1236.9	0.460	1.034	3.37	0.832	103.1	27.0	21.3	0.288
4-4350	4-4950	0.750	238.5	0.2	0.18	1.225	126.0	0.591	0.783	240.3	1224.8	0.320	1.245	3.37	0.868	123.4	44.5	21.4	0.567
4-4360	4-4490	0.411	148.6	0.6	0.15	1.590	89.4	0.923	4.081	1.3	69.0	---	---	-3.33	1.315	120.7	270.9	-29.0	0.682
4-4360	4-4410	0.285	146.4	5.7	0.72	1.464	89.0	0.544	1.581	2.7	80.0	---	---	-3.16	1.156	116.1	274.8	-29.8	0.510
4-4360	4-4420	0.211	141.2	8.2	1.24	1.387	88.4	0.388	1.177	5.7	92.5	---	---	-3.09	1.057	111.5	278.8	-31.0	0.390
4-4360	4-4430	0.170	133.6	14.0	1.76	1.340	87.7	0.297	1.022	10.0	106.3	---	---	-3.10	0.994	107.3	282.4	-32.7	0.304
4-4360	4-4440	0.150	125.2	20.4	2.29	1.311	87.1	0.243	0.946	14.8	120.7	---	---	-3.21	0.955	103.4	285.3	-35.3	0.239
4-4360	4-4460	0.145	112.1	33.3	3.57	1.281	86.4	0.192	0.881	22.9	147.8	---	---	-3.76	0.916	97.0	286.7	-45.1	0.156
4-4360	4-4470	0.153	108.6	40.2	4.45	1.274	86.2	0.182	0.868	25.0	159.5	---	---	-4.33	0.908	94.4	283.3	-53.2	0.136
4-4360	4-4480	0.168	106.7	48.2	5.69	1.270	86.2	0.176	0.862	25.8	169.9	---	---	-5.26	0.905	92.1	275.4	-62.9	0.131
4-4360	4-4490	0.200	105.4	56.1	7.68	1.269	86.3	0.173	0.859	25.3	179.0	---	---	-6.98	0.906	90.2	261.1	-72.6	0.145
4-4360	4-4500	0.275	101.1	70.5	11.80	1.269	86.6	0.171	0.859	23.8	187.2	---	1.006	-10.82	0.909	88.5	235.7	-83.3	0.199
4-4360	4-4510	0.570	25.2	82.2	26.42	1.270	86.8	0.172	0.861	22.1	194.8	---	1.009	-25.18	0.914	87.0	196.7	-87.5	0.426
4-4360	4-4530	0.266	122.9	-73.4	-11.54	1.274	88.1	0.172	0.868	12.7	206.2	---	1.018	13.31	0.925	84.8	265.2	35.9	0.247
4-4360	4-4540	0.158	156.7	-58.4	-5.76	1.276	88.7	0.175	0.872	8.4	211.7	---	1.025	7.81	0.931	83.8	263.0	22.4	0.176
4-4360	4-4550	0.121	147.1	-37.3	-3.29	1.278	89.5	0.178	0.877	3.4	216.7	---	1.034	5.65	0.937	82.9	264.7	11.4	0.160
4-4360	4-4560	0.110	157.9	-22.3	-1.86	1.281	90.3	0.183	0.882	357.9	581.2	0.721	1.043	4.50	0.943	82.0	268.6	3.7	0.160
4-4360	4-4570	0.131	169.0	-10.2	-0.88	1.284	91.3	0.189	0.887	351.9	585.3	0.720	1.055	3.84	0.949	81.2	274.1	-1.4	0.168
4-4360	4-4580	0.121	179.8	-1.3	-0.12	1.286	92.4	0.196	0.892	345.4	588.9	0.717	1.068	3.45	0.954	80.4	280.6	-4.7	0.179
4-4360	4-4590	0.139	189.8	4.7	0.51	1.289	93.6	0.206	0.898	338.5	592.1	0.712	1.083	3.21	0.958	79.4	287.9	-6.5	0.194
4-4360	4-4600	0.163	198.8	8.6	1.08	1.291	95.1	0.219	0.903	331.1	594.9	0.705	1.101	3.10	0.962	78.4	295.7	-7.2	0.212
4-4360	4-4610	0.194	206.9	10.9	1.63	1.294	96.8	0.236	0.908	323.2	597.1	0.693	1.122	3.09	0.966	77.2	304.0	-6.9	0.234
4-4360	4-4620	0.234	214.1	12.1	2.20	1.296	98.8	0.259	0.913	314.7	598.9	0.677	1.149	3.18	0.969	75.7	312.5	-5.8	0.261
4-4360	4-4630	0.285	220.7	12.6	2.81	1.300	101.4	0.289	0.918	305.8	599.9	0.653	1.183	3.38	0.971	73.7	321.3	-3.9	0.297
4-4360	4-4640	0.352	227.0	12.7	3.54	1.301	104.6	0.330	0.924	295.6	600.0	0.619	1.228	3.74	0.973	71.1	330.4	-1.3	0.343
4-4360	4-4640	0.855	266.4	3.4	3.54	1.097	132.4	0.681	0.636	219.3	883.8	0.203	1.070	3.74	0.676	118.8	81.4	27.4	0.530
4-4360	4-4650	0.442	233.4	12.5	4.46	1.303	108.9	0.387	0.929	284.3	598.9	0.569	1.289	4.33	0.974	67.5	340.0	1.9	0.407
4-4360	4-4650	0.736	266.7	5.2	4.46	1.071	127.2	0.620	0.614	219.9	894.5	0.233	0.995	4.33	0.630	98.9	65.0	28.2	0.404
4-4360	4-4660	0.571	240.1	12.0	5.76	1.306	115.0	0.470	0.935	271.2	595.8	0.495	1.375	5.33	0.975	62.1	350.5	5.9	0.500
4-4360	4-4660	0.751	267.6	6.4	5.76	1.063	128.0	0.632	0.608	218.7	903.2	0.224	0.993	5.33	0.613	84.5	51.1	26.8	0.413
4-4360	4-4670	0.844	269.3	7.5	7.92	1.061	132.9	0.695	0.606	215.6	910.2	0.185	1.028	7.19	0.605	68.8	43.3	24.9	0.510
4-4360	4-4720	0.909	26.4	-4.1	-5.45	1.021	41.8	0.764	0.577	150.7	895.0	0.136	1.019	-7.52	0.506	105.6	138.7	8..	0.528
4-4360	4-4730	0.601	58.5	-6.2	-3.38	1.314	62.6	0.508	0.953	92.2	486.1	0.469	1.437	-5.53	0.966	120.4	200.7	-18.5	0.508
4-4360	4-4740	0.470	65.8	-4.8	-1.83	1.316	69.0	0.427	0.960	78.1	481.7	0.549	1.370	-4.48	0.967	115.1	212.7	-23.1	0.421
4-4360	4-4750	0.375	73.1	-3.0	-0.90	1.319	73.6	0.372	0.966	65.6	478.7	0.606	1.326	-3.86	0.969	111.7	224.5	-26.9	0.364
4-4360	4-4760	0.304	81.0	-0.7	-0.18	1.321	77.3	0.334	0.972	53.8	476.5	0.647	1.297	-3.47	0.971	109.4	236.5	-29.9	0.327
4-4360	4-4770	0.248	90.3	2.3	0.43	1.324	80.4	0.309	0.979	42.3	474.5	0.677	1.281	-3.24	0.973	107.9	248.7	-32.0	0.304
4-4360	4-4780	0.206	102.1	6.2	0.97	1.327	83.1	0.292	0.986	31.0	472.7	0.698	1.274	-3.12	0.976	106.9	261.2	-33.3	0.290
4-4360	4-4790	0.802	43.9	1.8	1.49	1.235	51.0	0.634	0.800	122.1	573.4	0.293	1.307	-3.08	0.647	53.4	134.9	13.4	0.590
4-4360	4-4790	0.176	117.4	11.3	1.49	1.330	85.7	0.284	0.994	19.7	470.9	0.712	1.276	-3.08	0.980	106.4	273.8	-33.6	0.286
4-4360	4-4800	0.724	47.2	2.8	2.01	1.244	55.1	0.580	0.815	115.5	576.3	0.343	1.298	-3.14	0.861	57.2	142.3	10.4	0.533
4-4360	4-4800	0.163	136.6	16.7	2.01	1.333	88.2	0.282	1.002	8.4	469.2	0.719	1.285	-3.14	0.985	106.4	286.1	-33.0	0.288
4-4360	4-4810	0.650	50.4	4.2	2.56	1.253	59.0	0.528	0.830	108.7	579.0	0.392	1.269	-3.29	0.875	60.6	149.5	6.8	0.481
4-4360	4-4810	0.168	157.9	20.9	2.56	1.336	90.6	0.288	1.012	357.1	827.5	0.721	1.303	-3.29	0.990	106.7	298.1	-31.7	0.298
4-4360	4-4820	0.581	53.8	6.2	3.19	1.261	62.6	0.479	0.845	101.7	581.5	0.440	1.249	-3.56	0.887	63.7	156.7	2.7	0.433
4-4360	4-4820	0.191	177.4	22.9	3.19	1.340	93.2	0.300	1.022	346.2	826.0	0.718	1.329	-3.56	0.997	107.4	309.5	-29.7	0.314
4-4360	4-4830	0.519	57.1	8.9	3.96	1.269	65.9	0.434	0.858	94.5	583.9	0.486	1.231	-4.00	0.899	66.3	163.7	-2.2	0.392
4-4360	4-4830	0.230	192.8	23.6	3.96	1.345	95.8	0.318	1.035	335.5	825.0	0.705	1.364	-4.00	1.004	108.5	320.2	-27.4	0.338
4-4360	4-4840	0.464	60.6	12.8	4.98	1.275	68.9	0.394	0.870	87.1	586.2	0.527	1.214	-4.71	0.911	68.6	170.4	-8.1	0.357
4-4360	4-4840	0.282	204.5	24.2	4.98	1.349	98.6	0.343	1.048	325.4	824.4	0.688	1.408	-4.71	1.012	110.0	330.4	-25.1	0.369
4-4360	4-4850	0.421	63.9	19.0	6.49	1.281	71.6	0.360	0.882	79.7	588.3	0.564	1.199	-5.94	0.921	70.5	176.7	-15.7	0.332
4-4360	4-4850	0.346	213.6	25.7	6.49	1.354	101.6	0.374	1.063	315.8	824.5	0.665	1.461	-5.94	1.021	111.8	340.2	-23.4	0.408
4-4360	4-4860	0.401	66.6	29.6	9.20	1.286	74.1	0.331	0.892	72.1	590.4	0.597	1.186	-8.37	0.931	72.1	181.9	-26.7	0.322
4-4360	4-4860	0.427	221.4	29.5	9.20	1.359	104.7	0.410	1.079	306.9	825.2	0.637	1.522	-8.37	1.030	113.9	350.0	-23.3	0.458
4-4360	4-4870	0.457	68.7	48.9	15.94	1.290	76.3	0.306	0.900	64.5	592.4	0.624	1.176	-14.84	0.939	73.4	184.8	-45.6	0.365
4-4360	4-4870	0.362	230.9	39.4	15.94	1.365	108.0	0.449	1.097	298.6	826.5	0.604	1.590	-14.84	1.040	116.3	0.3	-28.6	0.542
4-4360	4-4890	0.478	66.8	-64.1	-19.65	1.297	80.5	0.267	0.915	47.8	596.3	0.671	1.159	21.28	0.955	75.4	242.8	31.9	0.427
4-4360	4-4900	0.266	89.1	-42.8	-8.05	1.308	82.2	0.255	0.921	40.1	598.2	0.686	1.156	9.95	0.962	75.9	237.1	15.5	0.284
4-4360	4-4910	0.535	78.4	-11.1	-4.39	1.441	69.5	0.582	1.433	57.5	265.5	---	2.267	6.58	1.148	58.7	223.1	-5.1	0.593
4-4360	4-4910	0.200	99.8	-29.8	-4.39	1.302	83.8	0.246	0.927	32.1	600.1	0.699	1.155	6.58	0.968	76.4	241.2	5.2	0.250
4-4360	4-4920	0.482	83.5	-7.2	-2.54	1.443	72.0	0.568	1.444	50.9	268.9	---	2.264	5.01	1.152	60.2	230.4	-9.3	0.567
4-4360	4-4920	0.164	110.9	-20.6	-2.54	1.304	85.4	0.239	0.932	23.9	601.9	0.709	1.155	5.01	0.973	76.6	248.0	-1.2	0.237
4-4360	4-4930	0.434	89.3	-4.4	-1.20	1.445	74.6	0.554	1.455	44.1	272.1	---	2.262	4.15	1.157	61.5	238.4	-12.3	0.545

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4360	4-4930	0.142	124.1	-12.6	-1.36	1.306	87.1	0.235	0.936	15.5	603.6	0.716	1.156	4.15	0.978	76.7	256.0	-5.5	0.232
4-4360	4-4940	0.390	96.2	-1.8	-0.50	1.446	77.2	0.543	1.465	37.0	275.1	---	2.261	3.63	1.160	62.7	246.9	-14.5	0.527
4-4360	4-4940	0.130	139.7	-5.0	-0.50	1.308	88.7	0.234	0.940	6.9	605.1	0.720	1.161	3.63	0.982	76.7	264.8	-8.3	0.233
4-4360	4-4950	0.349	104.6	0.8	0.19	1.448	79.8	0.533	1.475	29.5	277.8	---	2.261	3.32	1.163	65.8	255.9	-16.0	0.512
4-4360	4-4950	0.131	156.7	1.9	0.19	1.310	90.4	0.236	0.944	358.1	966.4	0.721	1.167	3.32	0.986	76.5	273.9	-9.8	0.237
4-4360	4-4960	0.314	115.0	3.6	0.79	1.449	82.6	0.526	1.484	21.5	280.0	---	2.264	3.15	1.166	64.6	265.2	-16.7	0.501
4-4360	4-4960	0.143	173.3	7.2	0.79	1.311	92.2	0.242	0.947	348.9	967.4	0.718	1.177	3.15	0.989	76.2	283.3	-10.4	0.246
4-4360	4-4960	0.549	249.9	1.6	0.79	1.209	116.2	0.444	0.762	250.0	1228.5	0.424	1.099	3.15	0.849	110.5	48.7	24.9	0.376
4-4360	4-4960	0.603	251.0	1.4	0.79	1.214	118.8	0.485	0.769	247.7	1226.1	0.396	1.141	3.15	0.856	114.3	51.9	24.7	0.431
4-4370	4-4400	0.531	143.7	0.6	0.18	1.682	82.9	1.042	16.880	14.0	65.6	---	---	-3.28	1.425	125.6	273.5	-28.2	0.809
4-4370	4-4410	0.349	140.0	3.4	0.80	1.499	83.8	0.629	1.918	16.0	77.1	---	---	-2.93	1.203	118.3	276.5	-28.7	0.573
4-4370	4-4420	0.256	133.1	7.2	1.32	1.399	84.0	0.425	1.232	20.2	90.9	---	---	-2.72	1.075	113.2	279.5	-29.5	0.424
4-4370	4-4430	0.210	124.7	11.3	1.77	1.341	83.8	0.316	1.029	26.1	106.2	---	---	-2.61	0.998	108.4	282.2	-30.7	0.321
4-4370	4-4440	0.189	116.8	15.3	2.21	1.306	83.6	0.256	0.940	32.3	122.0	---	---	-2.57	0.951	104.1	284.1	-32.5	0.247
4-4370	4-4460	0.178	108.9	22.5	3.10	1.273	83.3	0.205	0.870	41.5	150.3	---	---	-2.72	0.907	97.0	282.7	-39.0	0.155
4-4370	4-4470	0.178	104.9	26.3	3.61	1.266	83.3	0.195	0.857	43.5	161.9	---	---	-2.92	0.900	94.3	277.8	-44.0	0.129
4-4370	4-4480	0.181	104.3	30.8	4.23	1.263	83.4	0.189	0.851	43.8	171.8	---	---	-3.26	0.898	91.9	269.7	-49.7	0.116
4-4370	4-4490	0.186	104.7	36.4	5.05	1.262	83.7	0.185	0.850	42.7	180.5	---	1.007	-3.82	0.899	89.9	259.3	-55.1	0.113
4-4370	4-4500	0.198	105.8	43.8	6.25	1.263	84.0	0.183	0.851	40.6	188.1	---	1.007	-4.78	0.903	88.2	249.4	-60.5	0.122
4-4370	4-4510	0.226	106.6	53.9	8.34	1.265	84.4	0.182	0.854	37.7	194.9	---	1.009	-6.63	0.908	86.8	241.3	-67.4	0.147
4-4370	4-4520	0.313	101.8	68.4	13.34	1.267	84.9	0.181	0.858	34.2	201.1	---	1.014	-11.41	0.915	85.5	233.0	-78.1	0.217
4-4370	4-4540	0.397	99.6	-78.7	-17.83	1.272	86.4	0.180	0.869	23.8	211.2	---	1.025	20.21	0.929	83.7	271.5	39.3	0.359
4-4370	4-4550	0.172	133.6	-52.3	-6.12	1.275	87.1	0.181	0.875	19.0	216.2	---	1.033	8.72	0.935	82.9	267.0	22.3	0.196
4-4370	4-4560	0.122	144.8	-30.6	-2.79	1.278	87.9	0.183	0.881	13.4	220.5	---	1.042	5.63	0.942	82.1	269.6	9.2	0.172
4-4370	4-4570	0.108	156.2	-14.0	-1.17	1.281	88.9	0.186	0.886	7.3	224.6	---	1.052	4.25	0.948	81.4	274.8	1.1	0.168
4-4370	4-4580	0.107	168.6	-1.8	-0.15	1.284	89.9	0.191	0.892	0.8	228.2	---	1.062	3.40	0.954	80.7	281.2	-3.7	0.174
4-4370	4-4590	0.114	181.5	6.6	0.58	1.287	91.0	0.197	0.898	353.9	591.4	0.722	1.075	3.05	0.959	80.1	288.5	-6.3	0.184
4-4370	4-4600	0.128	193.9	11.8	1.16	1.290	92.3	0.205	0.904	346.6	594.3	0.719	1.089	2.78	0.963	79.3	296.3	-7.5	0.196
4-4370	4-4610	0.149	205.3	15.6	1.67	1.292	93.7	0.215	0.910	338.9	596.8	0.714	1.105	2.63	0.967	78.4	304.5	-7.5	0.211
4-4370	4-4620	0.176	217.2	18.8	2.13	1.295	95.3	0.230	0.915	330.0	598.9	0.705	1.125	2.57	0.970	77.4	312.9	-6.6	0.230
4-4370	4-4630	0.211	229.8	21.0	2.59	1.297	97.3	0.248	0.921	322.2	600.4	0.692	1.149	2.60	0.972	76.2	321.5	-4.9	0.253
4-4370	4-4640	0.255	231.0	15.6	3.07	1.300	99.6	0.273	0.926	313.0	601.4	0.673	1.179	2.71	0.974	74.6	330.2	-2.5	0.283
4-4370	4-4650	0.312	238.4	14.9	3.61	1.302	102.4	0.307	0.932	303.2	601.7	0.645	1.218	2.92	0.975	72.4	339.2	0.4	0.321
4-4370	4-4660	0.368	244.9	13.9	4.27	1.305	106.1	0.354	0.937	292.4	601.0	0.605	1.269	3.29	0.976	69.5	548.5	3.9	0.372
4-4370	4-4660	0.743	281.7	4.9	4.27	1.083	127.5	0.620	0.627	221.3	889.3	0.238	1.015	3.29	0.652	109.7	88.6	28.4	0.419
4-4370	4-4670	0.491	251.5	12.8	5.13	1.307	111.1	0.420	0.943	280.3	593.8	0.547	1.339	3.88	0.977	65.3	358.6	7.9	0.445
4-4370	4-4670	0.722	282.3	6.1	5.13	1.072	126.4	0.608	0.617	220.6	899.2	0.242	0.992	3.88	0.628	91.3	73.7	29.0	0.383
4-4370	4-4680	0.640	258.8	11.6	6.42	1.310	118.2	0.517	0.949	265.9	594.4	0.458	1.440	4.92	0.978	59.0	9.8	12.3	0.552
4-4370	4-4680	0.772	283.5	6.9	6.42	1.068	129.0	0.644	0.614	218.7	907.2	0.218	1.009	4.92	0.617	77.4	62.1	27.9	0.435
4-4370	4-4690	0.905	285.9	7.1	8.72	1.068	136.2	0.732	0.614	214.2	912.5	0.154	1.063	6.99	0.612	60.9	58.4	27.0	0.570
4-4370	4-4740	0.720	69.7	-4.2	-2.74	1.315	56.7	0.586	0.961	102.5	409.9	0.397	1.524	-5.58	0.968	125.8	209.1	-19.8	0.596
4-4370	4-4740	0.870	63.7	-2.3	-2.74	1.030	43.9	0.739	0.585	148.8	896.2	0.153	1.017	-5.58	0.519	100.4	153.9	4.6	0.491
4-4370	4-4750	0.551	77.7	-2.6	-1.19	1.318	64.9	0.482	0.968	86.5	483.6	0.501	1.434	-4.27	0.970	118.7	222.4	-24.2	0.480
4-4370	4-4760	0.434	85.1	-0.6	-0.22	1.320	70.7	0.411	0.974	72.8	479.4	0.574	1.375	-3.54	0.972	114.2	235.2	-27.5	0.406
4-4370	4-4770	0.348	92.8	1.8	0.49	1.323	75.1	0.363	0.981	60.3	476.4	0.625	1.336	-3.10	0.974	111.2	247.8	-29.8	0.358
4-4370	4-4780	0.283	101.5	4.8	1.06	1.325	78.8	0.329	0.987	48.4	474.0	0.662	1.313	-2.82	0.977	109.2	260.5	-31.2	0.327
4-4370	4-4790	0.233	112.2	8.7	1.54	1.328	81.6	0.308	0.994	36.7	471.9	0.689	1.300	-2.66	0.980	107.9	273.1	-31.5	0.308
4-4370	4-4800	0.196	125.9	13.5	1.98	1.331	84.4	0.295	1.002	25.1	469.9	0.707	1.297	-2.58	0.985	107.1	285.5	-30.9	0.299
4-4370	4-4810	0.789	60.9	3.0	2.41	1.239	51.7	0.626	0.811	120.4	574.7	0.303	1.319	-2.58	0.857	53.7	152.7	8.0	0.582
4-4370	4-4810	0.175	143.5	18.7	2.41	1.334	86.9	0.289	.010	13.7	467.9	0.718	1.302	-2.58	0.989	106.8	297.4	-29.4	0.297
4-4370	4-4820	0.713	64.1	4.1	2.85	1.248	55.7	0.574	0.826	113.9	577.7	0.453	1.299	-2.65	0.872	57.3	159.8	4.6	0.528
4-4370	4-4820	0.171	164.4	22.8	2.85	1.537	89.5	0.291	1.019	2.4	466.2	0.722	1.316	-2.65	0.995	106.9	308.9	-27.3	0.303
4-4370	4-4830	0.542	67.3	5.6	3.33	1.257	59.4	0.423	0.840	107.2	580.5	0.401	1.279	-2.80	0.885	60.6	166.8	0.7	0.478
4-4370	4-4830	0.186	185.0	24.7	3.33	1.341	92.0	0.300	1.029	351.2	824.6	0.720	1.338	-2.80	1.001	107.4	319.7	-24.6	0.316
4-4370	4-4840	0.575	70.6	7.6	3.89	1.264	62.9	0.475	0.854	100.3	583.2	0.448	1.260	-3.06	0.898	63.5	173.9	-3.6	0.433
4-4370	4-4840	0.217	202.2	24.7	3.89	1.345	94.6	0.315	1.040	340.5	823.5	0.712	1.368	-3.06	1.008	108.3	329.9	-21.6	0.335
4-4370	4-4850	0.515	73.9	10.4	4.59	1.271	66.1	0.432	0.867	93.2	585.8	0.492	1.242	-3.49	0.910	66.1	180.9	-8.5	0.393
4-4370	4-4850	0.262	215.3	24.3	4.59	1.349	97.4	0.337	1.053	330.2	822.8	0.698	1.408	-3.49	1.016	109.6	339.6	-18.6	0.361
4-4370	4-4860	0.463	77.3	14.4	5.55	1.277	69.4	0.394	0.879	85.9	588.2	0.533	1.226	-4.21	0.922	68.3	187.7	-14.3	0.360
4-4370	4-4860	0.317	225.3	24.0	5.55	1.354	100.3	0.364	1.067	325.5	822.8	0.678	1.456	-4.21	1.025	111.1	348.9	-15.9	0.393
4-4370	4-4870	0.423	80.6	20.8	7.07	1.283	71.7	0.360	0.889	78.5	590.6	0.569	1.210	-5.49	0.932	70.1	194.3	-21.8	0.336
4-4370	4-4870	0.384	235.3	25.1	7.07	1.359	103.3	0.337	1.082	311.3	823.4	0.652	1.512	-5.49	1.034	113.0	358.1	-14.0	0.434
4-4370	4-4880	0.408	83.0	32.0	10.06	1.287	74.2	0.332	0.899	71.6	592.8	0.601	1.197	-8.25	0.942	71.7	199.9	-33.4	0.328
4-4370	4-4880	0.469	240.5	29.1	10.06	1.364	106.5	0.434	1.099	302.7	824.5	0.622	1.576	-8.25	1.043	115.3	7.6	-18.4	0.486
4-4370	4-4890	0.515	77.0	54.8	19.57	1.291	76.5	0.308	0.908	63.6	595.0	0.628	1.188	-17.54	0.950	72.9	203.2	-56.6	0.403
4-4370	4-4890	0.640	251.6	42.4	19.57	1.369	109.8	0.474	1.117	294.8	826.2	0.587	1.646	-17.54	1.053	117.7	17.8	-23.5	0.590
4-4370	4-4910	0.314	98.0	-44.8	-9.95	1.298	80.5	0.270	0.922	47.1	599.1	0.673	1.471	12.43	0.965	74.9	246.8	17.0	0.325
4-4370	4-4920	0.567	91.7	-9.9	-4.18	1.440	67.7	0.595	1.434	61.8	263.7	---	2.287	6.90	1.150	57.7	233.6	-8.0	0.615
4-4370	4-4920	0.220	108.9	-25.3	-4.18	1.301	82.3	0.258	0.928	39.2	601.1	0.689	1.167	6.90	0.971	75.5	249.6	3.2	0.267
4-4370	4-4930	0.513	96.5	-5.1	-1.91	1.442	70.3	0.580	1.446	55.3	267.3	---	2.284	4.86	1.155	69.2	241.0	-12.4	0.586
4-4370	4-4930	0.180	118.5	-13.9	-1.91	1.303	84.0	0.268	0.934	30.9	602.9	0.702	1.145	4.86	0.977	76.0	256.6	-3.9	0.240
4-4370	4-4940	0.464	101.8	-1.9	-0.63	1.443	72.9	0.565	1.457	48.6	270.6	---	2.287	3.84	1.159	60.7	249.2	-15.1	0.562
4-4370	4-4940	0.154	129.8	-5.4	-0.63	1.305	85.7	0.242	0.938	22.5	604.6	0.711	1.165	3.84	0.981	76.3	265.0	-8.0	0.241
4-4370	4-4950	0.418	107.9	0.7	0.22	1.445	75.5	0.552	1.468	41.6	273.8	---	2.279	3.25	1.162	62.0	257.9	-16.8	0.542
4-4370	4-4950	0.139	143.6	2.1	0.22	1.307	87.3	0.238	0.943	13.9	606.0	0.718	1.168	3.25	0.985	76.4	274.0	-10.2	0.236
4-4370	4-4960	0.376	115.3	5.3	0.87	1.447	78.1	0.581	1.478	34.3	276.6	---	2.278	2.90	1.165	63.2	267.0	-17.7	0.625
4-4370	4-4960	0.133	160.0	8.6	0.87	1.309	90.1	0.238	0.947	4.9	607.3	0.722	1.172	2.90	0.989	76.8	283.4	-11.2	0.240
4-4370	4-4970	0.338	124.5	6.0	1.41	1.448	80.8	0.532	1.487	26.6	279.1	---	2.279	2.69	1.167	64.1	276.3	-17.8	0.512
4-4370	4-4970	0.139	177.4	15.4	1.41	1.311	90.8	0.241	0.951	355.7	968.2	0.722	1.190	2.69	0.991	76.2	293.0	-11.0	0.244
4-4380	4-4410	0.485	136.4	3.1	0.99	1.349	76.2	0.793	2.732	32.2	77.3	---	---	-2.62	1.266	122.2	276.3	-27.5	0.678

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4380	4-4420	0.352	127.1	6.0	1.52	1.408	77.9	0.473	1.277	38.3	93.0	---	---	-2.28	1.088	115.8	278.2	-27.9	0.474
4-4380	4-4430	0.289	119.6	8.8	1.94	1.334	78.7	0.343	1.015	46.1	110.3	---	---	-2.06	0.991	110.1	279.7	-28.7	0.347
4-4380	4-4440	0.260	113.5	11.3	2.30	1.293	79.1	0.280	0.915	53.6	127.3	---	---	-1.93	0.936	105.0	280.1	-29.8	0.261
4-4380	4-4460	0.238	107.2	13.4	2.93	1.258	79.5	0.231	0.846	62.5	155.3	---	---	-1.86	0.889	97.0	275.3	-33.7	0.159
4-4380	4-4470	0.232	106.4	17.5	3.25	1.252	79.8	0.221	0.836	63.6	166.0	---	---	-1.90	0.883	93.9	269.1	-36.2	0.132
4-4380	4-4480	0.227	106.7	19.9	3.59	1.250	80.1	0.214	0.832	63.0	175.0	---	---	-2.00	0.883	91.4	261.2	-38.4	0.118
4-4380	4-4490	0.222	107.7	22.7	3.99	1.251	80.5	0.209	0.833	61.1	182.8	---	1.008	-2.18	0.886	89.3	253.4	-40.2	0.112
4-4380	4-4500	0.218	109.4	26.3	4.48	1.253	81.1	0.205	0.837	58.2	189.7	---	1.008	-2.48	0.692	87.5	247.7	-41.9	0.114
4-4380	4-4510	0.216	111.6	31.0	5.15	1.256	81.6	0.201	0.842	54.6	195.9	---	1.012	-2.97	0.899	86.1	244.9	-44.4	0.121
4-4380	4-4520	0.220	114.0	37.8	6.20	1.259	82.3	0.198	0.848	50.5	201.5	---	1.016	-3.84	0.907	84.9	244.6	-49.0	0.133
4-4380	4-4530	0.241	115.9	48.1	8.22	1.263	83.0	0.196	0.855	45.8	206.8	---	1.022	-5.69	0.915	83.9	246.3	-57.6	0.156
4-4380	4-4540	0.342	110.6	66.1	14.36	1.267	83.7	0.194	0.862	40.9	211.6	---	1.029	-11.66	0.934	83.1	252.3	-74.9	0.235
4-4380	4-4560	0.193	135.1	-49.1	-6.59	1.274	85.5	0.191	0.876	28.9	220.1	---	1.043	9.62	0.939	81.8	271.7	21.8	0.219
4-4380	4-4570	0.130	145.9	-19.5	-1.95	1.278	86.4	0.191	0.883	22.8	224.0	---	1.052	5.14	0.946	81.2	275.2	4.7	0.178
4-4380	4-4580	0.116	156.5	-2.3	-0.21	1.281	87.4	0.192	0.890	16.3	227.6	---	1.062	3.57	0.952	80.7	281.6	-3.4	0.175
4-4380	4-4590	0.113	168.4	8.5	0.74	1.284	88.5	0.195	0.897	9.4	230.9	---	1.072	2.80	0.958	80.2	289.0	-7.3	0.180
4-4380	4-4600	0.116	182.1	15.4	1.37	1.288	89.6	0.199	0.904	2.1	233.8	---	1.084	2.37	0.963	79.7	297.0	-9.0	0.189
4-4380	4-4610	0.125	196.3	19.5	1.85	1.291	90.9	0.205	0.910	354.6	596.4	0.723	1.097	2.11	0.967	79.1	305.2	-9.2	0.199
4-4380	4-4620	0.140	209.9	21.1	2.24	1.293	92.3	0.214	0.916	346.6	598.6	0.720	1.112	1.95	0.970	78.4	313.6	-8.3	0.212
4-4380	4-4630	0.162	222.0	21.1	2.59	1.296	93.9	0.226	0.922	338.3	600.5	0.714	1.130	1.87	0.973	77.5	322.1	-6.7	0.228
4-4380	4-4640	0.192	232.4	20.1	2.92	1.299	95.8	0.241	0.928	329.6	601.9	0.704	1.152	1.86	0.975	76.5	330.7	-4.4	0.248
4-4380	4-4650	0.230	241.3	18.6	3.25	1.301	97.9	0.262	0.934	320.4	602.8	0.689	1.178	1.90	0.977	75.2	339.4	-1.6	0.272
4-4380	4-4660	0.278	249.1	16.9	3.61	1.304	100.5	0.290	0.939	310.7	603.2	0.667	1.212	2.01	0.978	73.4	348.3	1.7	0.304
4-4380	4-4670	0.342	256.2	15.1	4.03	1.306	103.7	0.328	0.945	300.2	602.7	0.635	1.255	2.20	0.978	71.0	357.4	5.3	0.345
4-4380	4-4680	0.778	276.9	4.4	4.03	1.100	129.2	0.640	0.643	222.1	884.7	0.232	1.055	2.20	0.679	113.8	111.7	24.9	0.466
4-4380	4-4680	0.426	262.9	13.4	4.55	1.309	107.9	0.382	0.951	288.7	601.2	0.588	1.314	2.52	0.979	67.7	7.1	9.3	0.402
4-4380	4-4630	0.709	297.2	5.6	4.55	1.082	125.7	0.596	0.627	222.3	894.8	0.255	1.001	2.52	0.645	97.6	97.3	27.6	0.374
4-4380	4-4690	0.584	289.8	11.7	5.26	1.331	113.6	0.458	0.957	275.6	598.1	0.519	1.395	3.05	0.980	62.8	17.8	13.5	0.484
4-4380	4-4690	0.725	298.0	6.3	5.26	1.075	126.5	0.609	0.622	221.0	903.5	0.243	1.001	3.05	0.629	84.6	83.6	28.3	0.385
4-4380	4-4700	0.807	299.6	6.4	6.38	1.073	131.0	0.667	0.620	218.2	910.5	0.206	1.034	4.00	0.622	70.6	75.6	27.8	0.473
4-4380	4-4750	0.951	59.6	-1.5	-2.01	1.042	40.5	0.773	0.596	149.9	890.9	0.135	1.057	-5.19	0.545	117.5	177.8	-3.9	0.562
4-4380	4-4760	0.656	88.9	-0.5	-0.31	1.319	59.8	0.550	0.976	96.2	486.8	0.439	1.513	-3.66	0.913	123.3	231.6	-24.3	0.557
4-4380	4-4760	0.837	61.0	-0.3	-0.31	1.038	45.7	0.716	0.593	147.0	897.6	0.168	1.017	-3.66	0.533	96.1	168.9	0.2	0.460
4-4380	4-4770	0.508	96.8	1.5	0.63	1.322	67.1	0.459	0.983	80.9	491.0	0.532	1.433	-2.88	0.975	117.2	245.5	-27.1	0.459
4-4380	4-4780	0.403	104.2	4.0	1.26	1.324	72.4	0.396	0.989	67.3	477.0	0.597	1.381	-2.44	0.978	113.3	258.8	-28.6	0.395
4-4380	4-4790	0.325	112.8	6.9	1.73	1.327	76.5	0.354	0.996	54.7	473.9	0.644	1.348	-2.16	0.981	110.7	271.8	-29.0	0.354
4-4380	4-4800	0.265	122.6	10.5	2.12	1.329	79.9	0.325	1.003	42.6	471.3	0.677	1.328	-1.99	0.985	109.0	284.3	-28.5	0.329
4-4380	4-4810	0.221	135.0	14.9	2.45	1.332	82.9	0.307	1.010	30.7	468.9	0.700	1.320	-1.90	0.989	107.9	296.4	-27.0	0.314
4-4380	4-4820	0.191	151.0	19.7	2.77	1.335	85.7	0.298	1.018	19.0	466.8	0.714	1.321	-1.86	0.994	107.3	307.9	-24.8	0.308
4-4380	4-4830	0.776	77.8	3.9	3.08	1.294	52.4	0.617	0.821	118.8	576.2	0.314	1.328	-1.87	0.870	54.0	170.0	1.8	0.576
4-4380	4-4830	0.178	170.8	23.8	3.08	1.338	88.3	0.296	1.026	7.5	464.9	0.722	1.330	-1.87	1.000	107.2	318.8	-22.0	0.310
4-4380	4-4840	0.702	80.9	5.1	3.41	1.252	56.3	0.566	0.836	112.3	579.3	0.363	1.308	-1.94	0.884	57.5	177.0	-1.7	0.523
4-4380	4-4840	0.194	192.0	25.7	3.41	1.341	90.9	0.302	1.036	356.2	823.2	0.723	1.348	-1.94	1.000	107.5	329.1	-18.8	0.318
4-4380	4-4850	0.633	84.7	6.5	3.77	1.260	60.0	0.517	0.850	105.6	532.2	0.411	1.289	-2.08	0.898	60.6	184.2	-5.5	0.475
4-4380	4-4850	0.207	210.8	25.3	3.77	1.345	93.5	0.314	1.046	345.3	822.0	0.718	1.374	-2.08	1.013	108.2	338.9	-15.3	0.333
4-4380	4-4860	0.568	87.4	8.4	4.21	1.267	63.4	0.471	0.863	98.8	585.1	0.457	1.270	-2.30	0.910	63.4	191.4	-9.6	0.432
4-4380	4-4860	0.244	225.5	23.8	4.21	1.349	96.2	0.332	1.058	334.9	821.2	0.706	1.409	-2.30	1.021	109.2	348.3	-11.8	0.355
4-4380	4-4870	0.509	90.8	11.0	4.77	1.274	66.5	0.429	0.875	91.7	587.8	0.500	1.251	-2.68	0.922	65.9	198.7	-14.1	0.394
4-4380	4-4870	0.292	236.7	22.4	4.77	1.353	99.0	0.357	1.071	325.0	821.1	0.689	1.453	-2.68	1.029	110.6	357.4	-8.5	0.382
4-4380	4-4880	0.458	94.2	14.7	5.58	1.279	69.4	0.392	0.887	84.5	590.4	0.539	1.235	-3.31	0.933	66.1	206.2	-14.3	0.362
4-4380	4-4880	0.349	245.2	21.7	5.58	1.358	101.9	0.386	1.085	315.7	821.5	0.666	1.505	-3.31	1.038	112.3	6.3	-5.6	0.416
4-4380	4-4890	0.418	97.6	20.8	6.96	1.285	72.0	0.360	0.897	77.2	592.9	0.575	1.220	-4.52	0.943	69.9	213.6	-26.2	0.347
4-4380	4-4890	0.416	252.2	22.5	6.96	1.362	105.0	0.421	1.101	306.9	822.6	0.638	1.584	-4.52	1.047	114.3	15.2	-3.8	0.457
4-4380	4-4900	0.405	100.0	32.5	10.10	1.289	74.4	0.332	0.907	69.7	595.3	0.606	1.207	-7.49	0.952	71.4	220.4	-37.7	0.329
4-4380	4-4900	0.365	258.8	26.9	10.10	1.468	108.3	0.459	1.118	298.6	824.2	0.605	1.631	-7.49	1.056	116.6	24.6	-4.8	0.509
4-4380	4-4910	0.629	83.0	61.9	26.17	1.243	76.6	0.309	0.915	62.2	597.5	0.632	1.198	-23.40	0.961	72.7	230.6	-69.6	0.484
4-4380	4-4920	0.413	104.3	-53.0	-15.03	1.234	78.8	0.287	0.922	53.7	599.7	0.658	1.187	17.96	0.968	73.8	258.7	22.3	0.404
4-4380	4-4930	0.599	105.3	-8.1	-3.68	1.438	66.0	0.609	1.435	66.0	261.9	---	2.308	6.78	1.152	56.6	244.2	-10.9	0.636
4-4380	4-4930	0.242	119.3	-19.9	-3.68	1.299	80.7	0.272	0.929	45.8	601.7	0.677	1.181	6.78	0.974	74.6	258.0	0.3	0.282
4-4380	4-4940	0.544	109.7	-2.4	-0.97	1.440	68.6	0.592	1.447	59.5	265.5	---	2.304	4.24	1.157	58.3	251.8	-15.4	0.604
4-4380	4-4940	0.199	127.6	-6.3	-0.97	1.302	82.5	0.259	0.935	37.6	603.6	0.693	1.177	4.24	0.979	73.3	265.4	-7.7	0.259
4-4380	4-4950	0.495	114.6	0.8	0.30	1.442	71.2	0.576	1.459	52.9	269.0	---	2.300	3.15	1.160	59.8	260.3	-17.7	0.580
4-4380	4-4950	0.173	137.2	2.2	0.30	1.304	84.3	0.250	0.940	29.1	605.3	0.705	1.176	3.15	0.984	75.8	274.3	-11.3	0.249
4-4380	4-4960	0.449	120.1	3.3	1.07	1.444	73.8	0.562	1.471	46.0	272.3	---	2.297	2.57	1.163	61.2	269.2	-18.7	0.558
4-4380	4-4960	0.154	149.2	9.1	1.07	1.306	86.0	0.244	0.945	20.5	606.8	0.715	1.176	2.57	0.988	76.1	283.7	-12.7	0.245
4-4380	4-4970	0.405	126.7	5.6	1.61	1.445	76.4	0.550	1.481	38.8	275.3	---	2.295	2.23	1.166	62.5	278.4	-18.9	0.540
4-4380	4-4970	0.143	164.0	14.9	1.61	1.308	87.8	0.241	0.950	11.5	608.0	0.721	1.179	2.23	0.990	76.2	293.3	-12.8	0.245
4-4380	4-4980	0.364	134.8	8.0	2.04	1.447	79.1	0.539	1.491	31.3	278.0	---	2.295	2.02	1.167	63.6	287.7	-18.4	0.524
4-4380	4-4980	0.141	181.2	19.3	2.04	1.310	89.6	0.241	0.954	2.3	608.9	0.723	1.184	2.02	0.993	76.1	302.9	-11.9	0.248
4-4390	4-4420	0.526	124.5	5.0	1.99	1.417	66.9	0.557	1.332	61.3	100.0	---	---	-1.61	1.103	121.3	274.1	-26.0	0.573
4-4390	4-4430	0.419	118.4	7.0	2.35	1.317	71.6	0.399	0.975	78.2	119.0	---	---	-1.35	0.970	113.4	274.3	-26.4	0.399
4-4390	4-4440	0.368	114.2	8.6	2.61	1.268	73.1	0.332	0.869	78.3	136.0	---	---	-1.19	0.904	106.8	273.2	-26.9	0.292
4-4390	4-4460	0.322	110.9	11.2	3.01	1.234	74.8	0.280	0.808	84.4	161.3	---	---	-1.03	0.857	97.0	265.5	-28.3	0.177
4-4390	4-4470	0.308	111.0	12.4	3.18	1.230	75.5	0.268	0.802	84.1	170.5	---	---	-1.00	0.854	93.4	259.2	-28.8	0.150
4-4390	4-4480	0.296	112.0	13.6	3.35	1.231	76.2	0.257	0.803	82.2	178.3	---	---	-1.01	0.858	90.6	252.6	-28.9	0.135
4-4390	4-4490	0.284	113.4	15.1	3.53	1.234	76.9	0.248	0.808	79.4	185.1	---	1.009	-1.04	0.865	88.3	247.4	-28.9	0.130
4-4390	4-4500	0.272	115.3	16.8	3.72	1.238	77.6	0.240	0.815	75.7	191.2	---	1.011	-1.11	0.874	86.5	244.5	-29.0	0.130
4-4390	4-4510	0.260	117.6	18.8	3.95	1.243	78.4	0.233	0.823	71.5	196.8	---	1.015	-1.23	0.884	85.0	244.1	-29.6	0.133
4-4390	4-4520	0.249	120.3	21.4	4.25	1.248	79.2	0.226	0.832	66.8	202.0	---	1.020	-1.42	0.894	83.9	245.8	-30.9	0.138
4-4390	4-4530	0.239	123.2	24.9	4.68	1.255	80.0	0.220	0.841	61.8	208.8	---	1.026	-1.75	0.905	82.9	249.3	-33.1	0.145

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4390	4-4540	0.233	126.5	30.1	5.39	1.258	80.9	0.215	0.850	56.4	211.4	---	1.033	-2.37	0.915	82.2	254.1	-36.9	0.153
4-4390	4-4550	0.239	129.6	39.4	6.98	1.263	81.8	0.210	0.860	50.7	215.6	---	1.040	-3.87	0.925	81.6	260.4	-44.7	0.167
4-4390	4-4560	0.356	124.0	63.6	14.70	1.268	82.8	0.207	0.868	44.7	219.7	---	1.048	-11.50	0.934	81.1	276.8	-70.5	0.251
4-4390	4-4570	0.228	139.9	-48.1	-7.71	1.272	83.8	0.203	0.877	38.1	223.4	---	1.055	11.00	0.942	80.7	277.4	22.3	0.249
4-4390	4-4580	0.146	150.6	-3.6	-0.42	1.277	84.8	0.202	0.885	31.6	226.9	---	1.064	3.79	0.949	80.3	281.9	-3.2	0.183
4-4390	4-4590	0.135	159.4	10.8	1.14	1.281	85.9	0.201	0.893	24.7	230.2	---	1.073	2.33	0.956	79.9	289.6	-10.0	0.183
4-4390	4-4600	0.130	170.1	18.6	1.85	1.284	87.1	0.202	0.901	17.5	233.2	---	1.083	1.72	0.961	79.6	297.8	-12.1	0.188
4-4390	4-4610	0.128	183.0	23.6	2.27	1.288	88.3	0.204	0.908	10.0	235.8	---	1.094	1.40	0.966	79.2	306.2	-12.3	0.196
4-4390	4-4620	0.130	197.7	26.4	2.57	1.291	89.6	0.208	0.915	4.2	238.2	---	1.106	1.21	0.970	78.7	314.7	-11.3	0.205
4-4390	4-4630	0.138	212.8	27.2	2.80	1.294	91.1	0.215	0.922	354.0	600.3	0.724	1.120	1.10	0.973	78.2	323.2	-9.4	0.216
4-4390	4-4640	0.154	227.1	26.2	3.00	1.297	92.6	0.224	0.929	345.6	602.0	0.721	1.137	1.03	0.976	77.5	331.7	-7.0	0.229
4-4390	4-4650	0.177	239.6	24.0	3.18	1.300	94.4	0.237	0.935	36.8	603.3	0.714	1.156	1.00	0.977	76.7	340.2	-4.1	0.245
4-4390	4-4660	0.208	250.2	21.4	3.36	1.303	96.4	0.254	0.941	327.6	604.2	0.702	1.180	1.01	0.979	75.6	348.8	-0.9	0.265
4-4390	4-4670	0.249	259.1	18.7	3.54	1.305	98.8	0.277	0.947	318.0	604.6	0.684	1.210	1.05	0.980	74.1	357.6	2.6	0.291
4-4390	4-4680	0.302	266.9	16.1	3.74	1.308	101.6	0.309	0.953	307.8	604.3	0.659	1.247	1.12	0.980	72.2	6.6	6.4	0.325
4-4390	4-4690	0.372	274.0	13.7	3.99	1.310	105.2	0.352	0.959	296.8	603.3	0.621	1.296	1.25	0.980	69.5	16.1	10.2	0.370
4-4390	4-4690	0.712	312.2	5.0	3.99	1.093	125.8	0.596	0.639	223.6	890.1	0.258	1.020	1.25	0.663	103.9	119.9	22.7	0.386
4-4390	4-4700	0.467	280.9	11.4	4.30	1.313	109.9	0.413	0.965	284.6	601.0	0.567	1.363	1.45	0.981	65.7	26.5	14.1	0.434
4-4390	4-4700	0.696	312.7	5.5	4.30	1.083	125.0	0.587	0.631	222.9	899.3	0.261	1.001	1.45	0.643	91.0	106.2	25.2	0.357
4-4390	4-4710	0.601	288.1	9.3	4.74	1.315	116.4	0.500	0.971	270.6	596.7	0.486	1.457	1.80	0.981	60.1	38.1	18.0	0.528
4-4390	4-4716	0.740	313.7	5.5	4.74	1.080	127.4	0.620	0.628	221.1	907.3	0.238	1.917	1.40	0.632	78.4	95.1	26.1	0.404
4-4390	4-4720	0.854	315.8	5.0	5.49	1.080	133.7	0.700	0.627	217.1	933.0	0.188	1.067	2.46	0.628	63.7	91.0	26.1	0.523
4-4390	4-4770	0.875	77.4	0.8	1.00	1.052	43.7	0.735	0.605	147.0	891.1	0.160	1.050	-2.46	0.562	112.5	195.2	-9.2	0.512
4-4390	4-4780	0.602	108.1	3.4	1.74	1.323	62.6	0.518	0.991	90.0	483.6	0.478	1.504	-1.81	0.979	121.2	255.1	-25.6	0.525
4-4390	4-4780	0.964	73.5	1.1	1.74	1.017	38.1	0.802	0.580	153.0	906.7	0.114	1.045	-1.81	0.492	65.3	162.5	5.9	0.576
4-4390	4-4780	0.809	78.1	1.7	1.74	1.046	47.4	0.694	0.600	145.3	899.0	0.184	1.017	-1.81	0.549	92.4	184.5	14.2	0.436
4-4390	4-4790	0.469	116.1	5.7	2.17	1.325	69.2	0.437	0.997	75.0	478.2	0.561	1.433	-1.47	0.982	115.9	269.1	-26.4	0.441
4-4390	4-4800	0.374	124.2	8.5	2.48	1.328	74.1	0.382	1.004	61.5	474.2	0.620	1.388	-1.26	0.986	112.5	282.2	-25.9	0.387
4-4390	4-4810	0.303	133.1	11.8	2.72	1.330	78.1	0.346	1.011	48.7	471.0	0.661	1.360	-1.13	0.990	110.2	294.6	-24.5	0.352
4-4390	4-4820	0.249	144.7	15.6	2.91	1.333	81.4	0.322	1.018	36.4	468.2	0.690	1.345	-1.06	0.994	108.8	306.4	-22.3	0.331
4-4390	4-4830	0.210	159.1	19.9	3.09	1.336	84.3	0.308	1.025	24.4	465.8	0.710	1.341	-1.01	1.000	107.9	317.5	-19.5	0.320
4-4390	4-4840	0.188	177.4	23.8	3.26	1.339	87.1	0.303	1.034	12.6	463.6	0.721	1.346	-1.00	1.005	107.6	328.0	-16.2	0.318
4-4390	4-4850	0.763	94.7	4.5	3.43	1.248	53.2	0.608	0.831	117.1	577.8	0.326	1.337	-1.02	0.883	54.4	187.3	-4.6	0.570
4-4390	4-4850	0.184	198.5	25.8	3.43	1.342	89.7	0.305	1.042	1.2	461.8	0.725	1.360	-1.02	1.012	107.6	338.0	-12.5	0.322
4-4390	4-4860	0.690	97.8	5.5	3.62	1.256	57.0	0.558	0.846	110.6	581.0	0.374	1.317	-1.07	0.897	57.7	194.6	-7.9	0.520
4-4390	4-4860	0.198	218.6	25.3	3.62	1.345	92.4	0.314	1.052	350.1	820.5	0.722	1.382	-1.07	1.019	108.1	347.5	-8.7	0.334
4-4390	4-4870	0.622	101.0	6.8	3.83	1.263	60.6	0.510	0.859	103.9	584.1	0.421	1.297	-1.16	0.911	60.8	202.0	11.3	0.474
4-4390	4-4870	0.228	235.1	23.2	3.83	1.349	95.0	0.329	1.063	339.5	819.6	0.714	1.413	-1.16	1.026	108.9	356.7	-4.9	0.351
4-4390	4-4880	0.558	104.3	8.4	4.08	1.270	63.9	0.465	0.872	97.1	587.0	0.466	1.278	-1.31	0.923	63.5	209.7	-14.8	0.432
4-4390	4-4880	0.269	247.5	20.8	4.08	1.353	97.8	0.350	1.076	329.4	819.4	0.699	1.452	-1.31	1.034	110.1	5.7	-1.2	0.374
4-4390	4-4890	0.500	107.8	10.5	4.43	1.276	67.0	0.425	0.884	90.1	589.9	0.508	1.260	-1.55	0.935	65.9	217.7	-18.4	0.395
4-4390	4-4890	0.319	257.0	18.0	4.43	1.357	100.7	0.377	1.089	319.9	819.8	0.678	1.500	-1.55	1.042	111.7	14.5	2.2	0.404
4-4390	4-4900	0.448	117.3	13.4	4.96	1.282	69.8	0.389	0.895	82.8	592.6	0.547	1.243	-1.99	0.945	68.0	226.0	-22.3	0.363
4-4390	4-4900	0.378	264.4	17.6	4.96	1.361	103.7	0.409	1.104	311.0	820.7	0.652	1.555	-1.99	1.051	113.5	23.3	5.0	0.438
4-4390	4-4910	0.405	115.0	18.3	5.96	1.286	72.4	0.357	0.905	75.4	595.2	0.582	1.229	-2.89	0.954	69.8	234.5	-27.4	0.338
4-4390	4-4910	0.444	270.5	17.8	5.96	1.366	106.8	0.445	1.120	302.6	822.3	0.622	1.618	-2.89	1.060	115.6	32.2	6.9	0.479
4-4390	4-4920	0.386	117.9	29.5	8.78	1.291	74.8	0.330	0.914	67.9	597.6	0.613	1.216	-5.63	0.965	71.3	243.2	-37.4	0.325
4-4390	4-4920	0.527	276.4	21.9	8.78	1.371	110.1	0.484	1.137	294.7	824.4	0.587	1.687	-5.63	1.068	118.0	41.7	5.5	0.529
4-4390	4-4940	0.263	130.8	-11.9	-2.44	1.298	79.1	0.287	0.930	52.0	602.0	0.663	1.197	5.77	0.976	73.7	266.5	-4.7	0.294
4-4390	4-4950	0.577	123.1	1.2	0.51	1.438	66.9	0.604	1.448	63.6	263.7	---	2.324	2.91	1.158	57.3	262.9	-18.7	0.623
4-4390	4-4950	0.225	137.8	2.9	0.51	1.301	81.1	0.272	0.936	43.8	604.0	0.682	1.191	2.91	0.982	74.5	274.8	-13.1	0.270
4-4390	4-4960	0.528	127.6	3.9	1.53	1.440	69.5	0.587	1.461	57.0	267.3	---	2.319	1.99	1.161	58.9	271.8	-20.1	0.598
4-4390	4-4960	0.197	146.0	10.1	1.53	1.303	82.9	0.260	0.942	35.4	605.7	0.697	1.187	1.99	0.986	75.1	284.3	-15.4	0.259
4-4390	4-4970	0.480	132.7	5.9	2.07	1.442	72.2	0.572	1.473	50.2	270.7	---	2.316	1.54	1.164	60.4	280.8	-20.3	0.575
4-4390	4-4970	0.175	156.3	15.6	2.07	1.305	84.7	0.251	0.947	26.7	607.2	0.709	1.185	1.54	0.989	75.6	294.0	-15.7	0.254
4-4390	4-4980	0.435	138.6	7.8	2.42	1.444	74.8	0.559	1.484	43.2	273.8	---	2.313	1.30	1.166	61.7	290.0	-19.7	0.555
4-4390	4-4980	0.159	169.2	20.3	2.42	1.307	86.5	0.246	0.952	17.8	608.5	0.718	1.186	1.30	0.992	75.9	303.7	-14.7	0.251
4-4390	4-4990	0.392	145.8	9.7	2.68	1.446	77.5	0.547	1.494	35.8	276.7	---	2.311	1.15	1.167	62.9	299.2	-18.5	0.537
4-4390	4-4990	0.150	185.2	24.1	2.68	1.309	88.3	0.244	0.957	8.5	609.4	0.723	1.190	1.15	0.994	76.0	313.3	-13.0	0.252
4-4400	4-4430	0.629	119.8	5.9	3.27	1.292	60.8	0.522	0.921	98.5	130.8	---	---	-0.14	0.939	120.9	266.8	-23.6	0.516
4-4400	4-4440	0.526	117.1	7.0	3.31	1.228	64.7	0.436	0.803	103.9	145.7	---	---	-0.11	0.850	111.0	264.8	-23.6	0.363
4-4400	4-4460	0.435	116.2	8.6	3.35	1.196	68.8	0.364	0.755	105.5	166.4	---	---	-0.09	0.805	97.5	256.3	-23.2	0.220
4-4400	4-4470	0.408	117.2	9.3	3.37	1.197	70.1	0.342	0.756	103.6	174.1	---	---	-0.08	0.809	93.0	250.9	-22.6	0.188
4-4400	4-4480	0.386	118.7	10.0	3.38	1.202	71.3	0.324	0.763	100.5	180.7	---	1.010	-0.08	0.818	89.7	246.2	-22.0	0.172
4-4400	4-4490	0.366	120.6	10.8	3.39	1.209	72.4	0.308	0.773	96.8	186.6	---	1.010	-0.08	0.831	87.1	243.2	-21.6	0.165
4-4400	4-4500	0.346	122.8	11.5	3.41	1.216	73.5	0.293	0.784	92.5	192.1	---	1.014	-0.08	0.846	85.1	242.3	-21.4	0.163
4-4400	4-4510	0.327	125.2	12.4	3.42	1.224	74.5	0.280	0.796	87.7	197.1	---	1.019	-0.08	0.860	83.6	243.3	-21.6	0.164
4-4400	4-4520	0.309	127.8	13.4	3.44	1.232	75.6	0.268	0.809	82.7	201.9	---	1.025	-0.09	0.875	82.4	246.0	-22.1	0.166
4-4400	4-4530	0.291	130.7	14.5	3.45	1.240	76.7	0.257	0.821	77.3	206.4	---	1.032	-0.10	0.889	81.6	250.1	-22.7	0.169
4-4400	4-4540	0.273	133.8	15.7	3.48	1.247	77.7	0.247	0.833	71.6	210.7	---	1.039	-0.11	0.902	80.9	255.3	-23.3	0.172
4-4400	4-4550	0.255	137.3	17.2	3.52	1.254	78.8	0.238	0.845	65.7	214.8	---	1.047	-0.15	0.914	80.4	261.4	-24.0	0.176
4-4400	4-4560	0.237	141.2	19.1	3.59	1.260	79.9	0.231	0.856	59.6	218.8	---	1.054	-0.21	0.925	80.0	268.3	-24.5	0.179
4-4400	4-4570	0.222	145.6	21.9	3.79	1.265	81.0	0.224	0.867	53.2	222.5	---	1.061	-0.40	0.935	79.7	275.8	-25.4	0.182
4-4400	4-4580	0.293	145.4	52.1	10.59	1.271	82.1	0.219	0.877	46.6	226.0	---	1.069	-7.19	0.944	79.5	291.1	-53.9	0.222
4-4400	4-4590	0.183	157.4	20.9	2.95	1.276	83.3	0.215	0.887	39.7	229.2	---	1.077	0.45	0.951	79.3	291.3	-19.8	0.190
4-4400	4-4600	0.170	164.9	24.7	3.18	1.280	84.5	0.212	0.896	32.5	232.3	---	1.086	0.22	0.958	79.1	299.7	-19.5	0.195
4-4400	4-4610	0.158	174.1	27.6	3.26	1.284	85.7	0.211	0.905	25.1	235.0	---	1.095	0.15	0.964	78.9	308.1	-18.1	0.200
4-4400	4-4620	0.148	185.6	30.0	3.30	1.288	87.0	0.211	0.913	17.4	237.6	---	1.106	0.12	0.968	78.6	316.5	-16.1	0.206
4-4400	4-4630	0.143	199.3	31.7	3.33	1.292	88.3	0.213	0.921	9.5	239.8	---	1.117	0.10	0.972	78.3	324.9	-13.5	0.213
4-4400	4-4640	0.143	214.8	31.9	3.35	1.295	89.8	0.218	0.928	1.2	241.7	---	1.130	0.09	0.975	77.9	333.3	-10.6	0.221

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPAR	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4400	4-4650	0.150	230.6	30.5	3.37	1.298	91.3	0.225	0.935	352.7	603.3	0.725	1.145	0.08	0.978	77.4	341.6	-7.4	0.232
4-4400	4-4660	0.166	245.1	27.6	3.38	1.301	93.0	0.235	0.942	343.9	604.5	0.721	1.163	0.08	0.979	76.7	350.0	-4.0	0.245
4-4400	4-4670	0.189	257.6	24.0	3.39	1.304	95.0	0.249	0.948	334.7	605.4	0.712	1.184	0.08	0.980	75.8	358.4	-0.4	0.261
4-4400	4-4680	0.223	268.1	20.2	3.41	1.307	97.2	0.268	0.954	325.2	605.9	0.699	1.210	0.08	0.981	74.6	7.1	3.3	0.282
4-4400	4-4690	0.267	276.9	16.7	3.42	1.309	99.7	0.294	0.961	315.2	605.8	0.678	1.243	0.08	0.982	73.0	16.0	7.1	0.309
4-4400	4-4700	0.326	234.6	13.6	3.44	1.312	102.9	0.329	0.967	304.6	605.1	0.648	1.285	0.09	0.982	70.9	25.4	10.8	0.346
4-4400	4-4700	0.737	327.3	4.1	3.44	1.107	127.2	0.610	0.654	224.6	885.1	0.255	1.053	0.09	0.686	111.0	140.5	15.6	0.425
4-4400	4-4710	0.403	291.8	10.8	3.46	1.314	106.8	0.378	0.973	293.1	603.4	0.605	1.340	0.10	0.982	67.9	35.5	14.4	0.396
4-4400	4-4710	0.682	327.5	4.6	3.46	1.09.	124.4	0.575	0.641	224.6	894.9	0.272	1.009	0.10	0.657	96.8	128.0	19.1	0.349
4-4400	4-4720	0.570	298.8	8.3	3.48	1.316	112.1	0.446	0.979	280.3	600.3	0.542	1.416	0.12	0.983	63.5	46.7	17.7	0.467
4-4400	4-4720	0.695	328.2	4.5	3.48	1.087	125.1	0.587	0.636	223.5	903.5	0.265	1.009	0.12	0.644	85.0	115.6	21.6	0.359
4-4400	4-4730	0.664	306.7	6.1	3.52	1.319	119.7	545	0.985	265.1	594.9	0.448	1.523	0.15	0.984	57.0	59.5	20.7	0.575
4-4400	4-4730	0.766	329.5	3.9	3.52	1.085	129.0	.639	0.634	220.9	910.6	0.229	1.040	0.15	0.637	72.4	107.9	22.6	0.436
4-4400	4-4740	0.914	332.4	2.9	3.59	1.086	137.2	0.740	0.635	215.3	914.7	0.165	1.105	0.21	0.635	56.6	107.6	22.7	0.584
4-4400	4-4790	0.826	94.9	3.0	3.25	1.060	46.7	0.699	0.613	144.3	891.6	0.185	1.042	-0.16	0.580	108.3	212.9	-13.4	0.469
4-4400	4-4800	0.553	127.1	7.2	3.29	1.327	65.3	0.488	1.005	83.5	480.5	0.515	1.496	-0.13	0.986	119.2	278.3	-23.4	0.499
4-4400	4-4900	0.924	91.0	2.4	3.29	1.029	40.6	0.774	0.589	150.6	907.4	0.133	1.046	-0.13	0.523	66.7	179.9	-0.1	0.545
4-4400	4-4800	0.782	95.1	3.3	3.29	1.054	49.0	0.672	0.608	143.6	900.4	0.200	1.017	-0.13	0.568	89.3	199.6	-8.5	0.415
4-4400	4-4810	0.434	135.6	9.7	3.32	1.329	71.3	0.417	1.012	68.8	475.1	0.590	1.435	-0.10	0.990	114.7	291.7	-22.2	0.427
4-4400	4-4820	0.347	144.4	12.5	3.34	1.332	75.9	0.370	1.019	55.2	471.1	0.642	1.396	-0.09	0.995	111.7	304.0	-20.0	0.381
4-4400	4-4830	0.282	154.8	15.8	3.36	1.334	79.7	0.339	1.026	42.3	467.8	0.678	1.373	-0.08	1.000	109.8	315.5	-17.1	0.352
4-4400	4-4840	0.234	167.9	19.5	3.37	1.337	82.9	0.320	1.033	29.9	465.0	0.703	1.364	-0.08	1.005	108.6	326.3	-13.7	0.335
4-4400	4-4850	0.202	184.6	23.0	3.39	1.339	85.8	0.310	1.041	17.8	462.6	0.718	1.364	-0.08	1.011	108.0	336.6	-10.9	0.328
4-4400	4-4860	0.188	204.9	25.0	3.40	1.342	88.6	0.309	1.049	6.1	460.6	0.725	1.374	-0.08	1.017	107.9	346.4	-6.1	0.328
4-4400	4-4870	0.748	111.6	4.6	3.41	1.251	54.0	0.598	0.841	115.3	579.5	0.338	1.344	-0.08	0.897	54.8	205.1	-16.5	0.566
4-4400	4-4870	0.192	225.8	24.5	3.41	1.345	91.2	0.315	1.059	354.8	819.1	0.725	1.392	-0.08	1.024	108.1	355.8	-2.1	0.336
4-4400	4-4880	0.677	113.8	5.4	3.43	1.259	57.8	0.548	0.855	108.8	582.8	0.386	1.325	-0.08	0.911	58.0	212.7	-13.3	0.518
4-4400	4-4880	0.214	243.9	22.1	3.43	1.349	93.9	0.327	1.069	344.0	818.1	0.719	1.419	-0.08	1.031	108.8	5.0	1.9	0.349
4-4400	4-4890	0.609	118.0	6.3	3.44	1.266	61.3	0.502	0.869	102.1	586.0	0.433	1.305	-0.09	0.924	61.0	220.7	-16.0	0.473
4-4400	4-4890	0.249	257.9	18.9	3.44	1.352	96.6	0.346	1.080	333.8	817.7	0.707	1.454	-0.09	1.039	109.8	14.1	5.8	0.369
4-4400	4-4900	0.546	121.4	7.3	3.47	1.273	64.5	0.459	0.881	95.2	589.0	0.477	1.285	-0.10	0.936	65.7	229.1	-18.4	0.433
4-4400	4-4900	0.293	268.4	16.0	3.47	1.356	99.5	0.370	1.093	324.2	818.0	0.689	1.497	-0.10	1.047	111.1	23.0	9.4	0.394
4-4400	4-4910	0.487	125.0	8.5	3.50	1.279	67.5	0.419	0.893	88.1	592.0	0.519	1.267	-0.13	0.946	66.0	237.8	-20.4	0.397
4-4400	4-4910	0.346	276.5	13.6	3.50	1.361	102.4	0.399	1.107	315.1	818.9	0.666	1.548	-0.13	1.055	112.8	32.0	12.6	0.424
4-4400	4-4920	0.433	128.7	9.9	3.55	1.284	70.3	0.384	0.904	80.9	594.7	0.557	1.251	-0.17	0.956	68.0	246.9	-22.2	0.365
4-4400	4-4920	0.404	283.0	11.6	3.55	1.365	105.4	0.432	1.122	306.5	820.4	0.637	1.606	-0.17	1.063	114.7	41.0	15.5	0.460
4-4400	4-4930	0.385	132.8	11.8	3.65	1.288	72.9	0.353	0.913	73.4	597.3	0.591	1.236	-0.27	0.964	69.8	256.3	-23.6	0.339
4-4400	4-4930	0.468	288.4	10.2	3.65	1.370	108.6	0.469	1.138	298.5	822.4	0.605	1.671	-0.27	1.071	117.0	50.1	17.9	0.500
4-4400	4-4940	0.342	137.2	15.2	4.12	1.292	75.3	0.327	0.922	65.7	599.8	0.621	1.224	-0.73	0.972	71.3	266.0	-25.5	0.317
4-4400	4-4940	0.537	293.0	9.8	4.12	1.375	111.9	0.508	1.156	290.8	824.9	0.568	1.743	-0.73	1.079	119.5	59.4	19.2	0.545
4-4400	4-4950	0.294	142.7	10.3	2.38	1.296	77.5	0.305	0.930	57.8	602.0	0.647	1.213	1.02	0.978	72.6	275.7	-20.2	0.298
4-4400	4-4950	0.604	296.9	4.9	2.38	1.379	115.3	0.549	1.174	283.5	827.8	0.529	1.819	1.02	1.086	122.2	68.1	23.5	0.593
4-4400	4-4960	0.261	148.6	15.4	3.10	1.299	79.6	0.286	0.937	49.7	604.1	0.659	1.205	0.30	0.983	73.6	285.6	-21.7	0.283
4-4400	4-4970	0.563	140.7	7.7	3.23	1.439	67.9	0.599	1.462	60.9	265.5	---	2.339	0.18	1.162	57.9	283.7	-22.6	0.617
4-4400	4-4970	0.229	155.7	18.5	3.23	1.302	81.5	0.271	0.944	41.3	605.9	0.688	1.200	0.18	0.987	74.4	295.4	-20.7	0.272
4-4400	4-4980	0.514	145.4	8.7	3.29	1.441	70.6	0.583	1.475	54.2	269.0	---	2.334	0.13	1.164	59.5	292.8	-21.6	0.593
4-4400	4-4980	0.202	164.6	21.6	3.29	1.304	83.4	0.260	0.949	32.6	607.4	0.702	1.196	0.13	0.990	75.1	305.1	-19.0	0.264
4-4400	4-4990	0.466	150.9	9.9	3.32	1.443	73.2	0.568	1.486	47.3	272.2	---	2.331	0.11	1.166	60.9	301.8	-20.0	0.671
4-4400	4-4990	0.180	175.9	24.8	3.32	1.307	85.3	0.252	0.955	23.7	608.7	0.714	1.195	0.11	0.992	75.5	314.7	-16.7	0.260
4-4400	4-5000	0.421	157.4	11.2	3.34	1.444	75.9	0.556	1.497	40.1	275.2	---	2.328	0.09	1.167	62.2	310.7	-18.0	0.552
4-4400	4-5000	0.164	190.1	27.6	3.34	1.309	87.1	0.248	0.959	14.5	609.7	0.721	1.197	0.09	0.994	79.7	324.0	-13.9	0.258
4-4410	4-4440	0.772	120.8	6.0	5.04	1.176	51.6	0.621	0.731	128.0	153.9	---	---	1.95	0.775	121.7	257.8	-20.5	0.524
4-4410	4-4460	0.584	122.2	7.1	4.14	1.141	60.8	0.491	0.691	124.6	169.7	---	---	1.21	0.724	99.6	250.5	-19.3	0.302
4-4410	4-4470	0.536	123.9	7.5	3.89	1.149	63.3	0.451	0.699	121.3	176.0	---	---	1.05	0.738	93.3	246.4	-18.6	0.257
4-4410	4-4480	0.499	126.1	7.8	3.70	1.160	65.3	0.419	0.712	117.3	181.7	---	1.010	0.95	0.759	88.8	243.2	-18.0	0.232
4-4410	4-4490	0.467	128.4	8.2	3.53	1.173	67.0	0.391	0.728	112.9	186.9	---	1.012	0.89	0.782	85.6	241.6	-17.6	0.218
4-4410	4-4500	0.439	130.9	8.5	3.38	1.186	68.6	0.366	0.744	108.0	191.8	---	1.017	0.86	0.804	83.3	241.8	-17.6	0.211
4-4410	4-4510	0.412	133.6	8.9	3.23	1.199	70.0	0.344	0.761	102.9	196.5	---	1.024	0.86	0.826	81.7	243.5	-17.8	0.208
4-4410	4-4520	0.387	136.3	9.2	3.08	1.211	71.4	0.325	0.778	97.5	200.9	---	1.031	0.88	0.847	80.5	246.7	-18.1	0.206
4-4410	4-4530	0.362	139.1	9.4	2.92	1.221	72.8	0.307	0.794	92.0	205.2	---	1.038	0.93	0.865	79.7	251.1	-18.4	0.206
4-4410	4-4540	0.338	142.1	9.6	2.72	1.251	74.1	0.291	0.810	86.1	209.4	---	1.046	1.02	0.882	79.1	256.4	-18.5	0.206
4-4410	4-4550	0.314	145.3	9.5	2.48	1.240	75.4	0.277	0.825	80.2	213.4	---	1.054	1.17	0.898	78.8	262.4	-18.2	0.207
4-4410	4-4560	0.290	148.8	9.0	2.14	1.249	76.7	0.265	0.839	74.0	217.3	---	1.061	1.43	0.912	78.5	269.1	-17.3	0.208
4-4410	4-4570	0.266	152.6	7.3	1.58	1.256	77.9	0.254	0.852	67.6	221.0	---	1.069	1.91	0.924	78.4	276.2	-15.0	0.209
4-4410	4-4580	0.243	156.8	2.0	0.39	1.263	79.2	0.244	0.865	61.0	224.5	---	1.076	3.02	0.935	78.3	283.3	-9.8	0.214
4-4410	4-4590	0.240	160.6	-23.8	-4.44	1.269	80.4	0.237	0.877	54.2	227.8	---	1.084	7.78	0.944	78.2	289.6	9.6	0.247
4-4410	4-4600	0.386	154.1	61.6	15.63	1.275	81.7	0.230	0.888	46.9	230.9	---	1.092	-12.37	0.953	78.2	324.1	-59.6	0.297
4-4410	4-4610	0.230	171.3	80.0	6.69	1.280	83.0	0.225	0.893	39.7	233.8	---	1.100	-3.51	0.960	78.2	313.8	-33.1	0.220
4-4410	4-4620	0.197	180.1	35.9	5.18	1.284	84.3	0.221	0.908	32.2	236.5	---	1.109	-2.08	0.965	78.1	320.3	-25.0	0.218
4-4410	4-4630	0.177	190.2	35.1	4.53	1.289	85.7	0.220	0.917	24.4	238.9	---	1.119	-1.51	0.970	78.0	327.8	-19.9	0.220
4-4410	4-4640	0.162	202.4	35.2	4.15	1.292	87.1	0.220	0.926	16.4	241.0	---	1.129	-1.22	0.974	77.8	335.7	-15.7	0.224
4-4410	4-4650	0.154	216.9	34.9	3.89	1.296	88.5	0.223	0.934	8.1	242.9	---	1.141	-1.05	0.977	77.6	343.7	-11.7	0.230
4-4410	4-4660	0.152	233.0	33.3	3.69	1.299	90.1	0.227	0.941	359.6	604.4	0.727	1.155	-0.95	0.979	77.2	351.7	-7.7	0.238
4-4410	4-4670	0.159	249.0	30.2	3.52	1.302	91.8	0.235	0.948	350.8	605.6	0.725	1.172	-0.89	0.980	76.6	359.8	-3.8	0.248
4-4410	4-4680	0.175	263.5	25.9	3.36	1.305	93.6	0.246	0.955	341.7	606.5	0.720	1.191	-0.86	0.981	75.9	8.1	0.1	0.261
4-4410	4-4690	0.200	275.7	21.4	3.21	1.308	95.7	0.262	0.962	332.3	607.0	0.710	1.214	-0.86	0.982	75.0	16.7	3.9	0.277
4-4410	4-4700	0.237	286.0	17.0	3.06	1.311	98.0	0.283	0.968	322.5	607.1	0.694	1.242	-0.88	0.983	73.7	25.5	7.6	0.299
4-4410	4-4710	0.286	294.6	13.2	2.90	1.313	100.8	0.312	0.974	312.2	606.7	0.670	1.278	-0.94	0.983	71.9	34.8	11.1	0.328
4-4410	4-4720	0.350	302.3	9.9	2.70	1.316	104.2	0.351	0.980	301.3	605.5	0.636	1.325	-1.03	0.984	69.5	44.8	14.3	0.367
4-4410	4-4720	0.682	342.4	3.6	2.70	1.103	124.4	0.573	0.652	226.0	890.2	0.278	1.026	-1.03	0.674	102.6	148.1	10.9	0.361

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4410	4-4730	0.437	309.5	7.1	2.46	1.318	108.6	0.405	0.987	289.3	603.2	0.587	1.386	-1.19	0.984	66.1	55.6	17.1	0.423
4-4410	4-4730	0.667	342.8	3.4	2.46	1.095	123.7	0.565	0.645	225.4	699.3	0.280	1.009	-1.19	0.657	90.9	135.9	14.4	0.335
4-4410	4-4740	0.557	316.8	4.6	2.13	1.320	114.6	0.482	0.993	275.7	599.3	0.514	1.472	-1.44	0.985	61.2	67.7	19.4	0.504
4-4410	4-4740	0.704	343.7	2.3	2.13	1.092	125.8	0.594	0.642	223.8	907.3	0.260	1.023	-1.44	0.648	79.5	125.9	16.8	0.376
4-4410	4-4750	0.802	345.5	1.6	1.59	1.092	131.1	0.668	0.681	220.2	913.4	0.215	1.068	-1.90	0.644	66.5	121.7	17.8	0.479
4-4410	4-4800	0.913	109.8	4.3	5.52	1.069	42.1	0.750	0.622	146.6	887.5	0.156	1.089	2.39	0.600	121.2	233.7	-17.0	.566
4-4410	4-4810	0.659	138.2	8.3	4.74	1.328	60.4	0.552	1.013	93.2	483.7	0.454	1.572	1.69	0.991	123.5	286.4	-20.1	0.575
4-4410	4-4810	0.781	112.3	4.9	4.74	1.069	49.5	0.662	0.622	141.7	892.2	0.210	1.034	1.69	0.601	104.7	231.0	-16.3	0.433
4-4410	4-4820	0.507	146.8	10.5	4.30	1.331	67.9	0.461	1.020	76.8	476.8	0.550	1.490	1.33	0.996	117.4	300.2	-18.0	0.478
4-4410	4-4820	0.886	108.4	3.4	4.30	1.040	43.1	0.745	0.599	148.2	908.3	0.153	1.046	1.33	0.550	67.8	197.3	-5.9	0.517
4-4410	4-4820	0.757	112.2	4.7	4.30	1.062	50.7	0.649	0.616	141.8	901.8	0.216	1.016	1.33	0.590	86.7	215.5	-12.1	0.398
4-4410	4-4830	0.400	155.5	12.9	4.01	1.333	73.4	0.400	1.027	62.1	471.8	0.617	1.437	1.12	1.000	113.5	312.6	-15.1	0.416
4-4410	4-4840	0.320	165.3	15.6	3.79	1.335	77.7	0.359	1.034	48.5	467.8	0.662	1.405	1.00	1.005	111.0	324.0	-11.7	0.377
4-4410	4-4850	0.261	177.3	18.6	3.61	1.338	81.3	0.334	1.041	35.5	464.4	0.693	1.388	0.92	1.011	109.4	334.7	-7.9	0.353
4-4410	4-4860	0.219	192.5	21.5	3.46	1.340	84.5	0.320	1.048	23.0	461.7	0.713	1.384	0.87	1.017	108.5	344.8	-3.8	0.340
4-4410	4-4870	0.195	211.4	23.4	3.31	1.343	87.4	0.315	1.056	11.0	459.4	0.724	1.389	0.86	1.023	108.1	354.6	0.4	0.336
4-4410	4-4880	0.190	232.4	23.0	3.16	1.346	90.1	0.317	1.065	359.5	817.7	0.727	1.403	0.86	1.030	108.2	4.1	4.5	0.339
4-4410	4-4890	0.732	128.6	4.2	3.01	1.256	54.9	0.587	0.852	113.3	581.4	0.352	1.351	0.90	0.911	55.3	223.6	-15.4	0.563
4-4410	4-4890	0.203	251.9	20.4	3.01	1.349	92.8	0.327	1.075	348.6	816.6	0.724	1.426	0.90	1.036	108.6	13.5	8.5	0.349
4-4410	4-4900	0.661	131.8	4.6	2.83	1.263	58.6	0.538	0.865	106.7	584.7	0.399	1.331	0.97	0.924	58.5	231.9	-17.3	0.516
4-4410	4-4900	0.231	267.5	96.7	2.83	1.353	95.5	0.342	1.085	338.2	816.2	0.714	1.457	0.97	1.044	109.5	22.7	12.3	0.365
4-4410	4-4910	0.594	135.1	4.9	2.62	1.270	62.0	0.493	0.878	100.0	588.0	0.445	1.311	1.09	0.936	61.4	240.4	-18.7	0.472
4-4410	4-4910	0.270	279.4	13.1	2.62	1.356	98.3	0.363	1.097	328.4	816.4	0.698	1.496	1.09	1.051	110.6	32.0	15.9	0.386
4-4410	4-4920	0.531	138.6	5.1	2.33	1.276	65.2	0.451	0.890	93.1	591.1	0.489	1.292	1.28	0.947	63.9	249.3	-19.5	0.434
4-4410	4-4920	0.318	288.4	9.8	2.33	1.360	101.1	0.390	1.110	319.2	817.2	0.678	1.543	1.28	1.058	112.1	41.4	19.2	0.414
4-4410	4-4930	0.473	142.2	4.8	1.91	1.281	68.2	0.412	0.902	85.9	594.0	0.530	1.274	1.62	0.957	66.2	258.4	-19.5	0.399
4-4410	4-4930	0.373	295.5	6.8	1.91	1.364	104.1	0.420	1.124	310.5	818.6	0.652	1.597	1.62	1.066	113.9	50.7	22.2	0.446
4-4410	4-4940	0.418	146.2	3.3	1.14	1.286	71.0	0.378	0.912	78.6	596.8	0.567	1.257	2.31	0.966	68.2	267.7	-17.8	0.370
4-4410	4-4940	0.433	301.3	3.5	1.14	1.369	107.2	0.455	1.140	302.3	820.5	0.621	1.658	2.31	1.073	116.0	60.1	25.3	0.484
4-4410	4-4950	0.368	150.5	-2.9	-0.87	1.291	73.5	0.349	0.922	71.0	599.4	0.600	1.243	4.24	0.973	69.9	277.0	-12.1	0.350
4-4410	4-4950	0.498	306.2	-2.2	-0.87	1.373	110.4	0.492	1.156	294.6	822.9	0.587	1.725	4.24	1.080	118.3	69.2	29.8	0.528
4-4410	4-4970	0.338	157.8	35.2	8.83	1.298	78.1	0.302	0.938	55.3	603.9	0.655	1.221	-5.61	0.984	72.7	301.2	-37.6	0.318
4-4410	4-4980	0.274	165.8	28.1	5.78	1.301	80.2	0.284	0.945	46.8	605.7	0.676	1.213	-2.64	0.988	73.6	308.5	-27.6	0.292
4-4410	4-4990	0.550	158.3	11.9	4.82	1.440	69.0	0.594	1.476	58.1	267.2	---	2.353	-1.76	1.164	58.6	305.2	-22.4	0.613
4-4410	4-4990	0.236	173.9	27.4	4.82	1.304	82.1	0.270	0.951	38.2	607.4	0.694	1.208	-1.76	0.991	74.4	317.3	-22.7	0.280
4-4410	4-5000	0.499	163.4	11.9	4.33	1.442	71.7	0.578	1.488	51.2	270.5	---	2.349	-1.35	1.165	60.1	313.8	-19.8	0.590
4-4410	4-5000	0.206	183.8	28.5	4.33	1.306	84.1	0.260	0.957	29.4	609.7	0.708	1.206	-1.35	0.992	75.0	326.3	-18.6	0.272
4-4410	4-5010	0.452	169.3	12.5	4.02	1.444	74.4	0.586	1.499	44.2	273.6	---	2.346	-1.13	1.166	61.4	322.3	-17.0	0.568
4-4410	4-5010	0.183	196.3	30.0	4.02	1.308	85.9	0.254	0.962	20.3	609.7	0.718	1.206	-1.13	0.994	75.4	335.1	-14.7	0.267
4-4420	4-4460	0.791	128.0	6.1	5.99	1.068	49.1	0.667	0.622	142.0	171.3	---	---	3.51	0.604	106.5	248.9	-17.4	0.448
4-4420	4-4470	0.703	130.6	6.3	5.06	1.083	54.0	0.600	0.635	137.4	176.3	---	---	2.74	0.633	95.4	245.9	-16.8	0.367
4-4420	4-4480	0.641	133.5	6.5	4.45	1.103	57.5	0.546	0.653	132.6	181.2	---	1.010	2.29	0.671	88.6	243.3	-16.4	0.321
4-4420	4-4490	0.592	136.4	6.6	3.99	1.125	60.2	0.501	0.675	127.6	185.9	---	1.013	2.02	0.709	84.2	242.6	-16.1	0.294
4-4420	4-4500	0.551	139.3	6.7	3.62	1.146	62.5	0.463	0.696	122.4	190.4	---	1.019	1.86	0.745	81.3	243.2	-16.2	0.278
4-4420	4-4510	0.514	142.3	6.8	3.30	1.164	64.6	0.430	0.718	117.0	194.8	---	1.027	1.76	0.777	79.4	245.2	-16.4	0.267
4-4420	4-4520	0.480	145.2	6.8	3.00	1.182	66.4	0.400	0.740	111.5	199.0	---	1.035	1.72	0.806	78.2	248.4	-16.7	0.260
4-4420	4-4530	0.448	148.2	6.7	2.70	1.197	68.2	0.374	0.760	105.7	203.2	---	1.044	1.73	0.832	77.4	252.8	-16.9	0.255
4-4420	4-4540	0.418	151.2	6.5	2.39	1.211	69.8	0.350	0.780	99.8	207.3	---	1.053	1.80	0.855	76.9	258.0	-17.0	0.251
4-4420	4-4550	0.389	154.2	6.1	2.03	1.223	71.4	0.329	0.798	93.8	211.2	---	1.061	1.94	0.875	76.6	264.0	-16.6	0.247
4-4420	4-4560	0.360	157.4	5.3	1.61	1.234	73.0	0.311	0.816	87.6	215.1	---	1.070	2.17	0.893	76.5	270.5	-15.7	0.245
4-4420	4-4570	0.332	160.8	3.8	1.05	1.244	74.4	0.294	0.833	81.2	218.8	---	1.077	2.55	0.909	76.5	277.4	-13.9	0.243
4-4420	4-4580	0.305	164.4	0.8	0.21	1.252	75.9	0.280	0.848	74.7	222.4	---	1.085	3.22	0.922	76.6	284.5	-10.7	0.243
4-4420	4-4590	0.282	168.2	-5.7	-1.30	1.260	77.3	0.267	0.862	68.0	225.8	---	1.093	4.56	0.934	76.7	291.4	-4.8	0.247
4-4420	4-4600	0.275	171.5	-23.7	-5.17	1.267	78.7	0.257	0.876	61.1	229.1	---	1.100	8.27	0.944	76.9	297.5	8.7	0.272
4-4420	4-4620	0.368	173.1	58.3	14.32	1.279	81.6	0.239	0.900	46.2	234.9	---	1.115	-11.52	0.960	77.2	339.9	-58.3	0.303
4-4420	4-4630	0.254	186.9	44.5	8.01	1.284	82.9	0.234	0.911	38.8	237.5	---	1.124	-5.36	0.966	77.3	335.2	-32.6	0.249
4-4420	4-4640	0.212	196.6	39.5	6.05	1.289	84.3	0.231	0.921	31.0	239.8	---	1.133	-3.57	0.971	77.3	340.2	-23.7	0.241
4-4420	4-4650	0.187	207.4	37.5	5.06	1.293	85.8	0.229	0.930	23.0	241.9	---	1.143	-2.74	0.975	77.2	346.9	-17.4	0.240
4-4420	4-4660	0.169	220.3	36.2	4.42	1.297	87.3	0.229	0.939	14.7	243.7	---	1.154	-2.28	0.977	77.1	354.2	-12.3	0.242
4-4420	4-4670	0.159	235.4	34.4	3.96	1.301	88.8	0.232	0.947	6.2	245.3	---	1.167	-2.01	0.980	76.8	1.9	-7.7	0.246
4-4420	4-4680	0.157	251.8	31.4	3.59	1.304	90.5	0.238	0.955	357.5	606.5	0.728	1.182	-1.84	0.981	76.5	9.7	-3.4	0.253
4-4420	4-4690	0.164	267.8	27.0	3.26	1.307	92.3	0.246	0.962	348.5	607.5	0.725	1.199	-1.75	0.982	75.9	17.8	0.7	0.263
4-4420	4-4700	0.182	281.9	21.8	2.96	1.310	94.2	0.259	0.969	339.3	608.1	0.718	1.220	-1.72	0.983	75.1	26.2	4.5	0.275
4-4420	4-4710	0.210	293.8	16.8	2.67	1.313	96.4	0.276	0.976	329.7	608.3	0.706	1.245	-1.74	0.984	74.1	35.0	8.0	0.292
4-4420	4-4720	0.251	303.8	12.3	2.36	1.315	98.9	0.299	0.982	319.7	608.1	0.688	1.276	-1.81	0.984	72.6	44.3	11.2	0.315
4-4420	4-4730	0.505	312.3	8.5	2.01	1.318	102.0	0.331	0.988	309.2	607.3	0.661	1.315	-1.95	0.985	70.7	54.1	14.0	0.346
4-4420	4-4730	0.700	357.4	2.6	2.01	1.117	125.4	0.584	0.666	227.2	885.3	0.277	1.055	-1.95	0.694	108.8	166.7	2.2	0.396
4-4420	4-4740	0.376	320.0	5.4	1.60	1.320	105.7	0.374	0.994	297.9	605.7	0.623	1.366	-2.17	0.986	68.1	64.6	16.2	0.390
4-4420	4-4740	0.652	357.6	2.3	1.60	1.104	123.0	0.553	0.654	227.2	894.9	0.293	1.016	-2.17	0.671	96.2	152.3	5.5	0.329
4-4420	4-4750	0.473	327.3	2.8	1.06	1.322	110.6	0.434	1.001	285.5	602.8	0.566	1.435	-2.54	0.987	64.3	76.1	17.8	0.451
4-4420	4-4750	0.663	358.2	1.5	1.06	1.100	123.6	0.563	0.650	226.1	903.5	0.284	1.015	-2.54	0.660	85.6	144.2	9.0	0.337
4-4420	4-4760	0.610	334.8	0.6	0.29	1.325	117.2	0.520	1.007	271.1	598.0	0.483	1.531	-3.15	0.989	58.7	88.8	18.5	0.543
4-4420	4-4760	0.723	359.4	0.3	0.29	1.098	126.9	0.608	0.648	223.9	910.8	0.254	1.042	-3.15	0.655	74.3	137.1	11.3	0.403
4-4420	4-4770	0.849	1.9	-1.0	-1.02	1.099	133.7	0.696	0.649	219.1	915.5	0.197	1.101	-4.31	0.654	60.5	136.1	11.9	0.532
4-4420	4-4820	0.848	127.7	6.2	6.74	1.079	46.1	0.702	0.631	142.9	887.2	0.188	1.074	4.18	0.622	116.2	253.5	-18.0	0.515
4-4420	4-4830	0.598	157.7	11.0	5.49	1.332	63.7	0.514	1.028	85.7	479.6	0.499	1.557	3.09	1.001	121.0	307.8	-13.9	0.543
4-4420	4-4830	0.738	129.7	6.3	5.49	1.078	52.1	0.627	0.631	139.1	893.0	0.235	1.026	3.09	0.623	101.5	249.2	-17.3	0.401
4-4420	4-4840	0.463	166.6	13.0	4.74	1.335	70.5	0.436	1.035	69.6	473.1	0.584	1.486	2.50	1.006	115.8	320.4	-10.3	0.460
4-4420	4-4840	0.848	125.8	4.2	4.74	1.051	45.5	0.715	0.609	145.8	909.2	0.174	1.044	2.50	0.579	68.7	215.0	-11.1	0.492
4-4420	4-4840	0.731	129.2	5.5	4.74	1.010	52.3	0.626	0.624	139.9	903.4	0.233	1.014	2.50	0.612	84.4	231.7	-14.7	0.384

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4420	4-4850	0.365	176.1	15.1	4.22	1.337	75.5	0.384	1.042	55.0	468.2	0.642	1.442	2.15	1.011	112.5	331.9	-6.3	0.407
4-4420	4-4860	0.293	187.2	17.4	3.81	1.340	79.6	0.351	1.048	41.4	464.2	0.681	1.416	1.93	1.017	110.4	342.6	-2.1	0.374
4-4420	4-4870	0.241	201.0	19.6	3.47	1.342	83.0	0.331	1.056	28.5	461.0	0.706	1.405	1.80	1.025	109.1	352.8	2.3	0.354
4-4420	4-4880	0.206	218.4	21.0	3.16	1.345	86.1	0.322	1.063	16.1	458.5	0.721	1.406	1.73	1.029	108.5	2.7	6.5	0.345
4-4420	4-4890	0.190	238.8	20.7	2.86	1.347	88.9	0.321	1.072	4.3	456.6	0.727	1.416	1.72	1.036	108.3	12.5	10.7	0.344
4-4420	4-4900	0.194	259.2	18.0	2.56	1.350	91.7	0.328	1.081	353.1	815.3	0.727	1.436	1.76	1.042	108.6	22.2	14.6	0.350
4-4420	4-4910	0.715	145.6	3.3	2.23	1.260	55.9	0.575	0.862	111.1	583.3	0.367	1.357	1.86	0.925	55.9	243.1	-18.6	0.559
4-4420	4-4910	0.216	276.5	14.1	2.23	1.353	94.4	0.340	1.091	342.6	814.8	0.719	1.462	1.86	1.048	109.2	31.9	18.3	0.362
4-4420	4-4920	0.645	148.8	3.1	1.84	1.267	59.5	0.527	0.875	104.5	586.7	0.414	1.336	2.03	0.937	59.0	251.3	19.2	0.514
4-4420	4-4920	0.250	289.8	10.0	1.84	1.357	97.1	0.359	1.102	332.7	814.8	0.706	1.497	2.03	1.055	110.2	41.7	21.6	0.381
4-4420	4-4930	0.578	152.2	2.7	1.36	1.273	62.9	0.483	0.888	97.7	589.9	0.459	1.316	2.32	0.948	61.8	260.7	-19.0	0.470
4-4420	4-4930	0.294	300.0	6.2	1.36	1.360	99.9	0.382	1.114	323.3	815.6	0.688	1.540	2.32	1.062	111.6	51.5	24.6	0.405
4-4420	4-4940	0.516	155.8	1.6	0.70	1.279	64.1	0.442	0.900	90.7	593.0	0.502	1.297	2.82	0.958	64.3	269.7	-17.9	0.435
4-4420	4-4940	0.346	307.8	2.7	0.70	1.364	102.8	0.410	1.127	314.5	816.9	0.665	1.590	2.82	1.068	113.2	61.4	27.4	0.434
4-4420	4-4950	0.459	159.5	-1.0	-0.38	1.285	69.0	0.405	0.911	83.5	596.0	0.542	1.279	3.73	0.966	66.5	278.6	-15.0	0.404
4-4420	4-4950	0.404	314.2	-1.2	-0.38	1.368	105.8	0.442	1.142	306.3	818.8	0.637	1.647	3.73	1.075	115.1	71.4	30.2	0.469
4-4420	4-4960	0.410	163.4	-7.7	-2.59	1.289	71.7	0.372	0.921	76.0	598.7	0.578	1.264	5.77	0.973	68.5	287.3	-8.6	0.383
4-4420	4-4960	0.469	319.7	-7.2	-2.59	1.373	108.9	0.478	1.157	298.4	821.1	0.605	1.710	5.77	1.081	117.3	81.2	34.1	0.512
4-4420	4-4970	0.422	164.5	-33.0	-10.65	1.293	74.1	0.344	0.930	68.4	601.1	0.610	1.250	13.69	0.979	70.1	295.6	10.8	0.416
4-4420	4-4970	0.578	326.4	-24.1	-10.65	1.377	112.1	0.515	1.174	291.1	823.8	0.569	1.779	13.69	1.087	119.7	89.0	45.6	0.582
4-4420	4-4980	0.735	137.7	65.0	31.82	1.297	76.7	0.318	0.938	59.9	603.4	0.640	1.236	-28.94	0.984	71.7	354.8	-59.7	0.584
4-4420	4-4990	0.387	174.9	40.4	10.16	1.300	78.8	0.298	0.946	52.0	605.4	0.664	1.228	-7.44	0.988	72.8	325.5	-36.8	0.332
4-4420	4-5000	0.590	171.2	15.7	6.88	1.439	67.5	0.605	1.478	61.8	265.3	---	2.372	-4.31	1.163	57.6	318.0	-23.2	0.637
4-4420	4-5000	0.278	183.7	33.7	6.88	1.303	80.8	0.282	0.953	43.5	607.1	0.684	1.222	-4.31	0.990	73.7	3.0.8	-26.5	0.302
4-4420	4-5010	0.535	176.1	14.1	5.51	1.441	70.2	0.589	1.490	55.0	268.7	---	2.368	-3.10	1.164	59.2	325.9	-19.1	0.610
4-4420	4-5010	0.236	192.8	31.8	5.51	1.306	82.8	0.270	0.959	34.8	608.5	0.700	1.217	-3.10	0.992	74.4	338.3	-20.3	0.287
4-4420	4-5020	0.483	181.6	13.6	4.73	1.443	72.8	0.574	1.502	48.1	271.8	---	2.364	-2.49	1.165	60.6	333.8	-15.4	0.589
4-4420	4-5020	0.205	203.7	31.6	4.73	1.308	84.7	0.261	0.964	25.8	609.6	0.713	1.216	-2.49	0.993	74.9	346.4	-15.1	0.279
4-4430	4-4470	0.932	136.8	5.6	8.08	1.000	40.2	0.783	0.573	152.7	175.9	---	---	6.24	0.486	104.4	248.8	-16.6	0.544
4-4430	4-4480	0.824	140.5	5.6	6.16	1.029	46.8	0.705	0.592	146.9	179.7	---	---	4.53	0.541	90.7	246.9	-16.3	0.454
4-4430	4-4490	0.748	144.1	5.6	5.03	1.061	51.4	0.640	0.617	141.4	183.8	---	1.011	3.63	0.603	83.3	246.0	-16.1	0.400
4-4430	4-4500	0.687	147.6	5.5	4.25	1.091	54.9	0.585	0.643	135.8	186.0	---	1.018	3.10	0.659	79.1	246.5	-16.1	0.367
4-4430	4-4510	0.637	151.0	5.4	3.66	1.119	57.9	0.537	0.669	130.2	192.1	---	1.028	2.78	0.708	76.7	248.3	-15.3	0.345
4-4430	4-4520	0.592	154.2	5.3	3.16	1.143	60.5	0.495	0.694	124.8	196.2	---	1.038	2.58	0.749	75.2	251.4	-15.6	0.329
4-4430	4-4530	0.551	157.4	5.1	2.71	1.165	62.8	0.458	0.719	118.6	200.3	---	1.049	2.48	0.786	74.4	255.5	-16.8	0.316
4-4430	4-4540	0.512	160.5	4.8	2.28	1.183	64.9	0.425	0.743	112.7	204.3	---	1.059	2.45	0.817	74.1	260.5	-16.8	0.306
4-4430	4-4550	0.477	163.7	4.3	1.34	1.200	66.8	0.396	0.765	106.7	208.3	---	1.068	2.50	0.844	73.9	266.3	-15.6	0.298
4-4430	4-4560	0.442	166.8	3.5	1.37	1.215	68.7	0.370	0.787	100.5	212.1	---	1.078	2.64	0.867	74.0	272.6	-15.6	0.291
4-4430	4-4570	0.410	170.0	2.3	0.83	1.228	70.5	0.346	0.807	94.2	215.9	---	1.086	2.88	0.887	74.2	279.3	-14.5	0.285
4-4430	4-4580	0.378	173.3	0.5	0.15	1.239	72.2	0.326	0.825	87.7	219.6	---	1.094	3.29	0.905	74.5	286.3	-12.2	0.280
4-4430	4-4590	0.349	176.7	-2.7	-0.80	1.249	73.8	0.308	0.843	81.1	223.1	---	1.102	3.99	0.920	74.8	293.3	-8.7	0.277
4-4430	4-4600	0.324	180.2	-8.7	-2.31	1.256	75.4	0.292	0.859	74.3	226.5	---	1.110	5.26	0.933	75.1	300.0	-2.9	0.278
4-4430	4-4610	0.313	183.3	-21.6	-5.38	1.266	76.9	0.279	0.874	67.4	229.7	---	1.117	8.09	0.943	75.5	306.0	7.5	0.293
4-4430	4-4620	0.430	178.3	-53.2	-16.02	1.273	78.4	0.268	0.888	60.5	232.7	---	1.126	18.52	0.952	75.7	311.5	30.9	0.404
4-4430	4-4640	0.347	192.2	54.6	12.86	1.285	81.5	0.248	0.913	44.9	238.1	---	1.139	0.79	0.966	76.4	354.6	-40.6	0.309
4-4430	4-4650	0.258	204.0	44.1	8.07	1.290	83.0	0.243	0.924	37.2	240.4	---	1.148	-6.23	0.971	76.5	353.6	-27.2	0.270
4-4430	4-4660	0.216	214.1	39.2	6.09	1.295	84.5	0.240	0.934	29.2	242.5	---	1.158	-4.47	0.975	76.6	358.4	-18.8	0.259
4-4430	4-4670	0.189	223.4	36.3	4.95	1.299	86.0	0.238	0.945	23.1	244.8	---	1.168	-3.58	0.978	76.5	4.8	-12.5	0.257
4-4430	4-4680	0.170	238.9	34.0	4.18	1.303	87.6	0.239	0.952	12.7	245.9	---	1.180	-3.06	0.980	76.4	11.9	-7.3	0.257
4-4430	4-4690	0.159	254.4	30.9	3.59	1.306	89.2	0.242	0.961	4.1	247.3	---	1.194	-2.75	0.982	76.1	19.5	-2.7	0.261
4-4430	4-4700	0.158	270.8	26.8	3.10	1.309	90.9	0.249	0.969	355.3	608.3	0.728	1.209	-2.56	0.983	75.7	27.4	1.5	0.267
4-4430	4-4710	0.167	286.5	21.5	2.66	1.312	92.8	0.258	0.976	346.2	609.0	0.724	1.228	-2.47	0.984	75.1	35.7	5.2	0.276
4-4430	4-4720	0.188	300.2	15.8	2.24	1.315	94.9	0.272	0.983	336.9	609.4	0.716	1.250	-2.45	0.985	74.3	44.4	8.4	0.289
4-4430	4-4730	0.221	311.8	10.8	1.81	1.318	97.2	0.290	0.989	327.2	609.5	0.702	1.277	-2.51	0.986	73.2	53.6	11.3	0.307
4-4430	4-4740	0.266	321.5	6.7	1.36	1.320	99.9	0.316	0.996	317.1	609.0	0.681	1.310	-2.64	0.987	71.6	63.3	13.6	0.331
4-4430	4-4740	0.765	339.9	1.6	1.36	1.138	128.6	0.626	0.689	227.3	879.3	0.258	1.121	-2.64	0.726	118.1	185.8	-6.4	0.481
4-4430	4-4750	0.326	329.9	3.3	0.84	1.322	105.2	0.350	1.002	306.3	607.8	0.651	1.353	-2.88	0.988	69.5	73.6	15.2	0.365
4-4430	4-4750	0.650	12.4	1.2	0.84	1.115	122.9	0.549	0.665	228.8	890.3	0.300	1.031	-2.88	0.686	101.4	174.0	-3.6	0.341
4-4430	4-4760	0.409	337.6	0.6	0.21	1.325	107.2	0.398	1.008	294.6	605.7	0.607	1.409	-3.25	0.990	66.6	84.6	16.2	0.412
4-4430	4-4760	0.636	12.8	0.3	0.21	1.108	122.3	0.541	0.658	228.2	899.3	0.302	1.015	-3.25	0.672	90.8	102.6	-0.1	0.316
4-4430	4-4770	0.514	345.1	-1.5	-0.64	1.327	132.6	0.464	1.015	281.6	602.2	0.544	1.486	-3.87	0.992	62.3	96.5	16.2	0.482
4-4430	4-4770	0.667	13.6	-0.9	-0.64	1.105	123.9	0.566	0.656	226.7	907.4	0.285	1.027	-3.87	0.666	80.6	153.4	5.2	0.351
4-4430	4-4780	0.670	353.1	-3.3	-1.93	1.329	120.1	0.560	1.021	266.2	596.4	0.449	1.593	-4.93	0.994	55.9	109.6	15.2	0.587
4-4430	4-4780	0.751	15.3	-2.2	-1.93	1.105	128.3	0.626	0.655	223.7	913.3	0.245	1.066	-4.93	0.664	69.1	149.2	5.1	0.440
4-4430	4-4790	0.910	18.6	-3.6	-4.28	1.106	136.9	0.733	0.657	217.3	917.0	0.175	1.139	-7.06	0.667	54.4	151.0	9.0	0.595
4-4430	4-4840	0.787	145.4	7.4	7.02	1.088	49.8	0.654	0.640	139.5	887.2	0.221	1.058	5.27	0.644	111.8	272.9	-16.7	0.470
4-4430	4-4850	0.541	177.6	12.7	5.56	1.337	66.9	0.481	1.042	77.9	475.3	0.541	1.544	4.04	1.012	118.7	327.6	-5.7	0.515
4-4430	4-4850	0.697	147.0	7.1	5.56	1.087	54.5	0.591	0.639	136.5	893.9	0.261	1.017	4.04	0.646	98.7	267.2	-16.5	0.374
4-4430	4-4860	0.419	187.0	14.3	4.63	1.339	72.9	0.414	1.049	62.1	469.2	0.615	1.484	3.35	1.017	114.4	330.4	-1.1	0.444
4-4430	4-4860	0.808	143.3	4.5	4.63	1.063	46.0	0.682	0.618	143.2	910.2	0.197	1.040	3.35	0.609	69.8	233.5	-15.0	0.467
4-4430	4-4860	0.708	146.3	5.7	4.63	1.078	53.7	0.604	0.631	138.1	905.2	0.250	1.012	3.35	0.635	82.2	247.8	-16.2	0.474
4-4430	4-4870	0.331	197.4	15.8	3.95	1.342	77.6	0.371	1.056	47.7	464.5	0.654	1.448	2.93	1.023	111.6	350.4	3.5	0.389
4-4430	4-4880	0.266	210.1	17.3	3.41	1.344	79.4	0.345	1.063	34.1	460.7	0.696	1.480	2.67	1.029	109.9	0.8	8.0	0.372
4-4430	4-4890	0.221	225.9	18.1	2.91	1.346	84.7	0.331	1.070	22.1	457.8	0.716	1.425	2.52	1.035	109.0	1.1	12.3	0.356
4-4430	4-4900	0.195	245.2	17.6	2.50	1.349	87.7	0.327	1.078	11.1	455.6	0.726	1.431	2.46	1.041	108.6	21.2	13.4	0.351
4-4430	4-4910	0.190	265.9	15.0	2.07	1.351	90.5	0.330	1.087	357.8	814.2	0.728	1.446	2.47	1.047	108.6	31.4	20.7	0.353
4-4430	4-4920	0.203	284.6	10.9	1.63	1.354	93.3	0.340	1.096	347.1	813.5	0.724	1.469	2.56	1.053	109.1	41.7	23.5	0.361
4-4430	4-4930	0.696	162.7	1.7	1.13	1.265	57.0	0.562	0.872	108.7	585.2	0.382	1.362	2.74	0.937	56.6	263.3	-19.4	0.556
4-4430	4-4930	0.233	299.6	6.6	1.13	1.358	96.0	0.356	1.107	337.0	813.4	0.713	1.500	2.74	1.059	109.9	52.0	26.4	0.376
4-4430	4-4940	0.627	166.0	0.9	0.53	1.271	60.5	0.515	0.885	102.0	588.4	0.429	1.341	3.05	0.948	59.6	272.0	-18.6	0.512

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4430	4-4940	0.273	311.0	2.6	0.53	1.361	98.7	0.376	1.116	327.5	814.1	0.697	1.539	3.05	1.065	111.1	62.5	28.8	0.397
4-4430	4-4950	0.262	169.4	-0.5	-0.26	1.279	63.8	0.472	0.897	95.1	591.8	0.474	1.321	3.58	0.958	62.3	280.8	-16.6	0.472
4-4430	4-4950	0.322	319.8	+1.1	-0.26	1.365	101.5	0.402	1.130	318.6	815.3	0.676	1.585	3.58	1.011	112.6	73.1	31.0	0.423
4-4430	4-4960	0.503	172.9	-3.3	-1.41	1.283	66.9	0.432	0.909	88.0	594.9	0.516	1.302	4.49	0.966	64.8	289.4	-13.2	0.438
4-4430	4-4960	0.378	326.9	-4.9	-1.41	1.368	104.4	0.431	1.144	310.3	817.1	0.651	1.637	4.49	1.077	114.3	83.6	33.0	0.455
4-4430	4-4970	0.452	176.5	-9.2	-3.44	1.288	69.8	0.397	0.920	80.7	597.7	0.555	1.285	6.28	0.973	66.9	297.5	-7.1	0.413
4-4430	4-4970	0.442	332.9	-10.2	-3.44	1.372	107.4	0.464	1.159	302.4	819.4	0.621	1.696	6.28	1.082	116.3	94.1	35.8	0.495
4-4430	4-4980	0.432	179.0	-24.6	-8.40	1.293	72.4	0.366	0.930	73.2	600.3	0.589	1.270	11.02	0.979	68.8	304.7	5.9	0.415
4-4430	4-4980	0.530	339.0	-20.8	-8.40	1.377	110.5	0.500	1.175	294.9	822.0	0.588	1.761	11.02	1.087	116.6	104.2	42.1	0.555
4-4430	4-5000	0.519	176.4	-56.8	20.01	1.300	77.4	0.314	0.947	56.7	604.8	0.650	1.244	-17.82	0.987	71.9	353.4	-47.7	0.443
4-4430	4-5010	0.337	193.2	-1.0	9.94	1.303	79.5	0.296	0.954	48.6	606.5	0.672	1.236	-7.98	0.989	72.5	346.0	-30.9	0.337
4-4430	4-5020	0.572	188.9	-16.5	6.97	1.441	68.6	0.600	1.492	58.7	266.7	---	2.387	-5.23	1.163	58.2	338.0	-18.1	0.632
4-4430	4-5020	0.272	202.4	-15.2	6.97	1.306	81.5	0.281	0.961	40.0	608.0	0.691	1.230	-5.23	0.991	73.8	350.9	-21.7	0.309
4-4430	4-5030	0.516	194.2	-4.7	5.49	1.443	71.3	0.584	1.504	51.9	270.0	---	2.383	-3.98	1.163	59.7	345.2	-13.5	0.606
4-4430	4-5030	0.230	212.3	32.7	5.49	1.308	83.5	0.270	0.957	31.2	609.2	0.706	1.227	-3.98	0.992	74.4	357.7	-15.2	0.294
4-4440	4-4490	0.946	151.3	4.9	7.56	0.931	39.1	0.799	0.561	154.5	181.3	---	1.008	6.68	0.449	84.9	251.6	-16.9	0.551
4-4440	4-4500	0.855	155.5	4.8	5.66	1.022	45.0	0.727	0.687	148.5	184.9	---	1.015	5.05	0.537	77.3	251.7	-16.9	0.487
4-4440	4-4510	0.783	159.4	4.6	4.47	1.060	49.4	0.665	0.816	142.6	188.8	---	1.025	4.16	0.610	73.5	253.1	-17.0	0.445
4-4440	4-4520	0.723	163.1	4.4	3.62	1.093	53.1	0.609	0.945	136.7	192.7	---	1.037	3.62	0.671	71.7	255.7	-17.2	0.415
4-4440	4-4530	0.670	166.6	4.1	2.94	1.123	56.2	0.560	0.673	130.8	196.7	---	1.050	3.29	0.722	70.8	259.4	-17.4	0.393
4-4440	4-4540	0.623	170.0	3.7	2.35	1.148	59.0	0.517	0.700	124.8	200.7	---	1.062	3.09	0.765	70.5	264.1	-17.4	0.375
4-4440	4-4550	0.579	173.3	3.2	1.81	1.170	61.4	0.478	0.726	118.8	204.6	---	1.074	3.01	0.801	70.6	269.5	-17.1	0.360
4-4440	4-4560	0.539	176.5	2.5	1.28	1.190	63.8	0.443	0.751	112.7	208.5	---	1.084	3.01	0.832	70.9	275.5	-16.5	0.347
4-4440	4-4570	0.498	179.7	1.6	0.73	1.207	65.9	0.412	0.775	106.4	212.4	---	1.094	3.12	0.858	71.3	282.0	-15.4	0.336
4-4440	4-4580	0.461	182.9	0.3	0.12	1.221	67.9	0.384	0.797	100.0	216.7	---	1.103	3.34	0.881	71.8	288.7	-13.7	0.326
4-4440	4-4590	0.427	186.1	-1.0	-0.61	1.234	69.8	0.360	0.818	93.5	219.8	---	1.112	3.72	0.900	72.4	295.7	-11.1	0.317
4-4440	4-4600	0.394	189.4	-4.7	-2.56	1.246	71.7	0.338	0.837	86.9	223.3	---	1.120	4.35	0.916	72.9	302.6	-7.4	0.310
4-4440	4-4610	0.366	192.7	-9.7	-2.95	1.256	73.4	0.319	0.855	80.1	226.6	---	1.128	5.44	0.930	73.5	309.2	-2.1	0.307
4-4440	4-4620	0.349	195.8	-19.1	-5.38	1.265	75.1	0.302	0.872	73.2	229.9	---	1.135	7.59	0.941	74.0	315.1	6.4	0.313
4-4440	4-4630	0.383	196.4	-38.9	-11.19	1.272	76.7	0.289	0.887	66.2	232.9	---	1.143	13.13	0.951	74.4	319.8	22.1	0.367
4-4440	4-4650	0.558	184.9	66.6	23.83	1.286	80.1	0.264	0.914	50.4	238.3	---	1.155	-22.43	0.965	75.4	22.7	-46.4	0.463
4-4440	4-4660	0.322	211.6	49.7	11.08	1.291	81.6	0.257	0.926	43.9	240.6	---	1.165	-4.95	0.970	75.6	8.4	-30.7	0.313
4-4440	4-4670	0.251	222.1	40.9	7.35	1.296	83.1	0.252	0.938	35.2	242.8	---	1.174	-6.49	0.974	75.8	10.1	-19.8	0.284
4-4440	4-4680	0.212	232.2	35.9	5.51	1.301	84.7	0.249	0.948	27.2	244.7	---	1.184	-4.93	0.977	75.9	15.3	-12.3	0.274
4-4440	4-4690	0.185	243.9	32.3	4.36	1.305	86.3	0.248	0.957	19.0	246.4	---	1.194	-4.08	0.979	75.9	21.8	-6.5	0.270
4-4440	4-4700	0.166	257.7	28.9	3.52	1.308	87.9	0.249	0.966	10.5	247.8	---	1.207	-3.57	0.982	75.7	29.0	-1.6	0.270
4-4440	4-4710	0.157	273.4	28.7	2.86	1.312	89.6	0.253	0.975	1.9	248.9	---	1.221	-3.26	0.983	75.4	36.8	2.5	0.273
4-4440	4-4720	0.158	289.7	29.5	2.30	1.315	91.4	0.260	0.982	353.0	609.8	0.727	1.278	-3.08	0.985	75.0	45.0	6.0	0.279
4-4440	4-4730	0.171	305.0	13.8	1.78	1.318	93.4	0.270	0.990	344.0	610.4	0.722	1.257	-3.00	0.986	74.4	53.7	9.0	0.288
4-4440	4-4740	0.196	318.4	8.6	1.27	1.320	95.6	0.285	0.997	334.6	610.7	0.713	1.281	-3.02	0.987	73.5	62.8	11.4	0.301
4-4440	4-4750	0.233	329.6	4.2	0.75	1.323	98.0	0.305	1.003	324.8	610.5	0.697	1.309	-3.12	0.989	72.2	72.4	13.2	0.320
4-4440	4-4760	0.283	339.2	0.8	0.17	1.325	100.9	0.333	1.010	314.5	609.8	0.674	1.345	-3.32	0.990	70.6	82.5	14.5	0.346
4-4440	4-4760	0.663	27.4	0.2	0.17	1.128	123.6	0.556	0.678	230.1	885.4	0.301	1.056	-3.32	0.705	106.9	192.3	-11.8	0.371
4-4440	4-4770	0.349	347.6	-1.0	-0.50	1.327	104.4	0.370	1.016	303.5	608.3	0.640	1.392	-3.65	0.992	68.3	93.7	14.6	0.383
4-4440	4-4770	0.621	27.6	-0.8	-0.50	1.117	121.5	0.528	0.668	230.1	894.9	0.315	1.020	-3.65	0.686	95.6	181.2	-9.3	0.312
4-4440	4-4780	0.438	355.4	-3.9	-1.34	1.330	108.8	0.422	1.022	291.4	605.7	0.591	1.453	-4.20	0.995	65.0	104.4	14.0	0.436
4-4440	4-4780	0.622	28.1	-2.0	-1.34	1.113	121.9	0.535	0.663	229.2	903.5	0.308	1.019	-4.20	0.678	86.0	170.5	-5.7	0.312
4-4440	4-4790	0.561	3.2	-5.4	-2.52	1.332	114.8	0.496	1.029	277.6	601.5	0.519	1.538	-5.09	0.997	60.3	116.4	12.5	0.515
4-4440	4-4790	0.681	29.3	-3.4	-2.52	1.112	124.6	0.574	0.662	227.2	911.0	0.282	1.042	-5.09	0.676	75.9	163.6	-2.7	0.374
4-4440	4-4800	0.789	31.5	-4.7	-4.40	1.112	130.3	0.651	0.662	223.1	916.4	0.231	1.094	-6.70	0.677	63.9	168.1	-1.5	0.406
4-4440	4-4850	0.882	159.9	8.0	9.16	1.096	45.0	0.712	0.647	142.1	883.8	0.186	1.108	8.14	0.661	122.2	290.2	-14.2	0.576
4-4440	4-4860	0.630	188.3	12.2	6.53	1.339	62.3	0.538	1.050	87.4	478.8	0.485	1.615	5.78	1.017	122.5	334.3	-1.6	0.585
4-4440	4-4860	0.730	163.2	7.9	6.53	1.097	53.1	0.609	0.648	136.2	887.5	0.254	1.043	5.78	0.667	107.9	291.3	-13.3	0.429
4-4440	4-4870	0.485	197.9	13.2	5.04	1.342	69.8	0.452	1.057	70.0	471.0	0.579	1.534	4.57	1.023	116.7	346.7	3.6	0.489
4-4440	4-4870	0.658	164.4	7.0	5.04	1.096	56.8	0.558	0.647	134.0	895.1	0.286	1.008	4.57	0.669	96.2	284.4	-14.1	0.348
4-4440	4-4880	0.377	208.0	14.1	4.04	1.344	75.3	0.397	1.064	54.4	465.2	0.642	1.485	3.87	1.029	113.1	358.1	8.5	0.429
4-4440	4-4880	0.762	141.0	4.4	4.04	1.075	50.8	0.644	0.629	140.2	911.0	0.224	1.034	3.87	0.639	71.6	253.3	-17.1	0.437
4-4440	4-4880	0.690	163.0	5.2	4.04	1.086	54.8	0.588	0.636	136.6	907.4	0.263	1.012	3.87	0.656	79.7	263.1	-16.5	0.371
4-4440	4-4890	0.298	219.7	14.7	3.28	1.346	79.6	0.362	1.070	40.1	460.8	0.683	1.458	3.44	1.035	110.9	9.0	13.1	0.392
4-4440	4-4900	0.241	234.1	14.9	2.65	1.348	83.2	0.343	1.077	26.8	457.4	0.708	1.447	3.18	1.040	109.6	19.7	17.5	0.370
4-4440	4-4910	0.205	251.9	13.9	2.09	1.351	86.4	0.334	1.085	14.4	454.9	0.723	1.447	3.04	1.046	108.9	30.4	21.4	0.358
4-4440	4-4920	0.189	272.2	11.2	1.56	1.353	89.3	0.334	1.093	2.7	453.2	0.728	1.458	3.00	1.052	108.8	41.2	24.8	0.356
4-4440	4-4930	0.195	291.9	7.2	1.03	1.356	92.1	0.341	1.102	351.7	812.4	0.726	1.477	3.05	1.057	109.1	52.2	27.6	0.361
4-4440	4-4940	0.749	176.5	0.6	0.45	1.263	54.5	0.596	0.869	112.8	583.5	0.351	1.386	3.21	0.937	54.1	274.8	-19.3	0.599
4-4440	4-4940	0.218	308.6	2.8	0.45	1.359	94.8	0.354	1.112	341.5	812.2	0.718	1.505	3.21	1.063	109.7	63.2	30.0	0.372
4-4440	4-4950	0.677	179.8	-0.3	-0.20	1.270	58.1	0.548	0.882	106.2	587.1	0.398	1.366	3.49	0.947	57.4	283.4	-17.8	0.552
4-4440	4-4950	0.254	321.5	-1.1	-0.20	1.362	97.5	0.372	1.122	331.9	812.8	0.705	1.539	3.49	1.068	110.7	74.3	31.7	0.389
4-4440	4-4960	0.610	183.1	-1.9	-1.02	1.276	61.6	0.503	0.895	99.4	590.4	0.445	1.345	3.98	0.957	60.3	291.9	-15.4	0.510
4-4440	4-4960	0.300	331.4	-4.6	-1.02	1.365	100.3	0.395	1.134	322.9	813.9	0.686	1.581	3.98	1.073	112.0	85.4	33.0	0.413
4-4440	4-4970	0.548	186.5	-4.5	-2.14	1.282	64.8	0.461	0.907	92.4	593.6	0.489	1.325	4.79	0.965	62.9	300.1	-11.7	0.472
4-4440	4-4970	0.354	339.3	-8.1	-2.14	1.369	103.1	0.421	1.147	314.4	815.6	0.663	1.630	4.79	1.078	113.6	96.3	34.1	0.442
4-4440	4-4980	0.494	189.9	-9.5	-3.91	1.288	67.8	0.423	0.918	85.2	596.5	0.530	1.307	6.26	0.972	65.3	307.8	-5.9	0.482
4-4440	4-4980	0.416	345.8	-12.5	-3.91	1.373	106.0	0.452	1.161	306.4	817.8	0.636	1.685	6.26	1.083	115.5	107.2	35.5	0.478
4-4440	4-4990	0.459	192.8	-19.9	-7.38	1.292	70.6	0.389	0.929	77.8	599.2	0.567	1.290	9.46	0.978	67.3	314.6	4.0	0.429
4-4440	4-4990	0.493	351.9	-19.8	-7.38	1.377	109.0	0.485	1.178	298.9	820.3	0.605	1.746	9.46	1.087	117.6	117.9	38.8	0.527
4-4440	4-5000	0.544	188.7	-46.2	-18.45	1.297	73.2	0.360	0.938	70.3	601.6	0.600	1.277	20.25	0.982	69.1	320.7	26.2	0.503
4-4440	4-5020	0.436	200.4	50.7	15.33	1.304	78.1	0.310	0.955	53.4	605.8	0.659	1.231	-14.05	0.988	72.0	4.7	-36.0	0.403
4-4440	4-5030	0.317	212.4	39.1	8.92	1.307	80.2	0.294	0.962	45.1	607.4	0.680	1.244	-7.91	0.989	73.0	3.9	-23.2	0.338
4-4440	4-5040	0.551	207.0	15.8	6.35	1.443	69.8	0.595	1.506	55.7	268.0	---	2.402	-5.62	1.161	58.7	356.4	-11.3	0.627
4-4440	4-5040	0.258	221.8	33.7	6.35	1.309	82.3	0.280	0.969	36.4	608.7	0.697	1.240	-5.62	0.990	73.8	2.0	-15.0	0.312

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4450	4-4510	0.962	167.4	4.0	6.38	0.987	38.2	0.806	0.564	154.7	185.1	---	1.018	6.56	0.472	70.1	259.5	-18.0	0.577
4-4450	4-4520	0.879	171.6	3.8	4.64	1.031	43.7	0.740	0.593	148.5	188.7	---	1.032	5.14	0.562	67.3	261.4	-18.1	0.526
4-4450	4-4530	0.811	175.6	3.4	3.49	1.069	48.1	0.679	0.623	142.5	192.6	---	1.047	4.33	0.635	66.3	264.5	-18.2	0.489
4-4450	4-4540	0.750	179.3	3.0	2.63	1.103	51.8	0.625	0.653	136.5	196.5	---	1.062	3.83	0.694	66.1	268.6	-18.1	0.460
4-4450	4-4550	0.696	182.9	2.6	1.92	1.133	55.0	0.576	0.682	130.4	200.4	---	1.075	3.53	0.744	66.4	273.6	-17.9	0.436
4-4450	4-4560	0.646	186.3	2.0	1.30	1.158	57.9	0.531	0.711	124.3	204.3	---	1.088	3.37	0.785	67.0	279.2	-17.3	0.415
4-4450	4-4570	0.600	189.6	1.2	0.71	1.180	60.6	0.491	0.738	118.1	208.2	---	1.100	3.32	0.819	67.7	285.4	-16.3	0.398
4-4450	4-4580	0.554	192.8	0.2	0.11	1.199	63.0	0.456	0.763	111.8	212.1	---	1.111	3.37	0.848	68.5	291.9	-14.8	0.382
4-4450	4-4590	0.515	196.0	-1.1	-0.52	1.216	65.3	0.424	0.787	105.4	215.8	---	1.121	3.54	0.873	69.3	298.6	-12.8	0.367
4-4450	4-4600	0.477	199.2	-3.0	-1.25	1.230	67.4	0.395	0.810	98.9	219.4	---	1.130	3.86	0.894	70.1	305.5	-10.0	0.355
4-4450	4-4610	0.442	202.4	-5.7	-2.15	1.243	69.4	0.370	0.831	92.2	223.0	---	1.138	4.38	0.911	70.9	312.3	-6.3	0.344
4-4450	4-4620	0.410	205.6	-9.8	-3.38	1.254	71.4	0.347	0.851	85.5	226.4	---	1.146	5.27	0.926	71.7	318.6	-1.4	0.336
4-4450	4-4630	0.387	208.7	-16.8	-5.29	1.264	73.2	0.328	0.869	78.6	229.6	---	1.154	6.86	0.938	72.4	324.8	5.7	0.335
4-4450	4-4640	0.388	210.8	-29.7	-9.01	1.272	74.9	0.312	0.885	71.6	232.6	---	1.161	10.27	0.948	73.0	329.8	17.1	0.351
4-4450	4-4650	0.527	202.9	-55.2	-20.36	1.280	76.6	0.298	0.901	64.6	235.5	---	1.170	21.32	0.957	73.5	333.7	39.3	0.465
4-4450	4-4670	0.429	216.4	57.6	16.50	1.293	80.2	0.273	0.928	48.5	240.6	---	1.182	-16.12	0.969	74.7	25.8	-34.6	0.391
4-4450	4-4680	0.295	230.9	43.3	9.05	1.298	81.7	0.266	0.941	41.0	242.8	---	1.191	-8.97	0.973	74.9	21.9	-20.7	0.316
4-4450	4-4690	0.238	240.5	35.3	6.11	1.303	83.3	0.261	0.952	33.1	244.8	---	1.200	-6.34	0.977	75.1	25.5	-11.7	0.294
4-4450	4-4700	0.203	250.6	30.1	4.48	1.307	84.9	0.258	0.962	25.1	246.6	---	1.210	-5.02	0.979	75.2	31.4	-5.3	0.285
4-4450	4-4710	0.178	262.5	25.7	3.38	1.311	86.6	0.257	0.972	16.9	248.1	---	1.222	-4.26	0.982	75.2	38.4	-0.2	0.281
4-4450	4-4720	0.161	276.6	21.3	2.56	1.314	88.3	0.259	0.980	8.4	249.4	---	1.234	-3.80	0.984	75.0	46.0	3.8	0.280
4-4450	4-4730	0.155	292.3	16.2	1.88	1.318	90.0	0.264	0.989	359.8	610.5	0.728	1.249	-3.52	0.985	74.7	54.2	7.1	0.283
4-4450	4-4740	0.159	308.4	10.7	1.28	1.321	91.9	0.271	0.996	351.0	611.3	0.726	1.267	-3.37	0.987	74.3	62.8	9.7	0.288
4-4450	4-4750	0.176	323.4	5.4	0.72	1.323	94.0	0.283	1.004	341.8	611.8	0.720	1.287	-3.32	0.989	73.6	71.9	11.7	0.298
4-4450	4-4760	0.206	336.5	1.0	0.16	1.326	96.2	0.298	1.010	332.4	611.9	0.709	1.312	-3.36	0.991	72.6	81.4	12.9	0.312
4-4450	4-4770	0.247	347.5	-2.3	-0.43	1.328	98.8	0.320	1.017	322.5	611.5	0.691	1.343	-3.51	0.993	71.3	91.3	13.4	0.332
4-4450	4-4775	0.703	42.8	-0.6	-0.43	1.146	125.5	0.582	0.697	230.9	879.9	0.291	1.102	-3.51	0.730	113.8	211.4	-18.5	0.432
4-4450	4-4780	0.303	356.9	-4.7	-1.09	1.331	101.9	0.350	1.023	312.0	610.6	0.666	1.381	-3.78	0.995	69.5	101.6	13.2	0.360
4-4450	4-4780	0.617	42.5	-1.7	-1.09	1.128	121.2	0.522	0.678	231.9	890.4	0.324	1.032	-3.78	0.702	100.2	200.2	-17.3	0.327
4-4450	4-4790	0.377	5.3	-6.5	-1.89	1.333	105.6	0.390	1.030	300.7	608.7	0.628	1.431	-4.22	0.998	67.0	112.3	12.0	
4-4450	4-4790	0.604	42.3	-3.0	-1.89	1.122	120.6	0.518	0.672	231.4	899.4	0.327	1.017	-4.22	0.692	90.6	188.1		
4-4450	4-4800	0.475	13.3	-7.7	-2.92	1.335	110.5	0.447	1.036	288.0	609.6	0.573	1.499	-4.92	1.001	63.4	122.5		
4-4450	4-4800	0.631	43.6	-4.4	-2.92	1.120	122.0	0.534	0.669	230.0	907.6	0.312	1.027	-4.92	0.688	81.5	177.6		
4-4450	4-4810	0.614	21.4	-8.6	-4.42	1.337	117.1	0.529	1.042	273.4	600.4	0.491	1.594	-6.11	1.005	58.1	132.5		
4-4450	4-4810	0.703	45.1	-5.7	-4.42	1.119	125.6	0.587	0.669	227.3	914.4	0.276	1.061	-6.11	0.688	71.3	195.4		
4-4450	4-4820	0.841	48.1	-6.8	-6.97	1.120	132.7	0.682	0.670	221.9	918.5	0.213	1.126	-8.36	0.692	58.6	208.3		
4-4450	4-4830	0.303	178.2	8.1	7.75	1.106	49.5	0.655	0.656	137.8	883.1	0.226	1.085	7.78	0.684	117.0	30.6		
4-4450	4-4880	0.566	208.7	11.9	5.45	1.345	65.7	0.499	1.064	78.8	473.8	0.533	1.595	5.78	1.029	119.8	44.6		
4-4450	4-4880	0.677	186.9	7.4	5.45	1.102	56.1	0.566	0.657	133.1	888.1	0.285	1.028	5.78	0.690	104.6	30.0		
4-4450	4-4890	0.432	218.7	12.1	4.05	1.347	72.6	0.428	1.071	61.8	466.7	0.613	1.529	4.70	1.035	115.0	57.1		
4-4450	4-4890	0.621	181.8	6.2	4.05	1.105	58.8	0.526	0.655	131.5	896.4	0.311	1.000	4.70	0.692	93.9	30.0		
4-4450	4-4900	0.336	229.7	12.1	3.06	1.349	77.6	0.383	1.078	46.6	461.4	0.665	1.490	4.06	1.040	112.1	57.1		
4-4450	4-4910	0.267	242.8	11.5	2.28	1.351	81.6	0.357	1.084	32.7	457.4	0.698	1.471	3.67	1.046	110.4	84.0		
4-4450	4-4920	0.220	259.0	10.0	1.62	1.353	85.0	0.343	1.092	19.8	454.5	0.717	1.466	3.44	1.051	109.4	110.3	22.4	0.368
4-4450	4-4930	0.194	278.3	7.1	1.01	1.356	88.0	0.339	1.099	7.7	452.6	0.726	1.472	3.33	1.056	109.0	51.8	28.4	0.360
4-4450	4-4940	0.191	298.5	3.0	0.43	1.358	90.9	0.343	1.108	356.5	811.5	0.728	1.488	3.33	1.061	109.1	63.4	30.6	0.361
4-4450	4-4950	0.207	316.7	-1.2	-0.18	1.361	93.6	0.353	1.117	346.1	811.2	0.722	1.511	3.44	1.066	109.6	75.1	32.2	0.369
4-4450	4-4960	0.729	193.6	-1.2	-0.85	1.269	55.7	0.583	0.819	110.2	585.4	0.368	1.390	3.67	0.946	55.0	294.7	-16.6	0.593
4-4450	4-4960	0.239	331.2	-4.8	-0.85	1.364	96.3	0.369	1.127	336.4	811.6	0.711	1.542	3.67	1.070	110.4	86.6	33.1	0.383
4-4450	4-4970	0.659	196.9	-2.7	-1.65	1.276	59.3	0.535	0.892	103.4	588.8	0.415	1.369	4.07	0.956	58.2	302.9	-13.8	0.547
4-4450	4-4970	0.281	342.5	-8.0	-1.65	1.367	99.0	0.389	1.138	327.2	812.6	0.695	1.580	4.07	1.075	111.6	98.0	33.4	0.403
4-4450	4-4980	0.594	200.2	-5.1	-2.68	1.282	62.7	0.491	0.905	76.6	592.1	0.461	1.349	4.74	0.964	61.0	310.8	-10.0	0.506
4-4450	4-4980	0.331	351.3	-10.9	-2.68	1.370	101.8	0.443	1.150	318.7	814.2	0.675	1.624	4.74	1.079	113.0	109.1	33.4	0.428
4-4450	4-4990	0.537	203.5	-9.1	-4.16	1.287	65.8	0.450	0.917	89.5	595.2	0.504	1.330	5.90	0.970	63.5	318.2	-4.7	0.472
4-4450	4-4990	0.390	358.4	-14.3	-4.16	1.374	104.6	0.441	1.163	310.6	816.3	0.650	1.675	5.90	1.085	114.7	119.9	33.	0.461
4-4450	4-5000	0.492	206.6	-16.6	-6.70	1.292	68.8	0.414	0.928	82.2	598.0	0.544	1.312	8.11	0.976	65.8	324.9	3.3	0.447
4-4450	4-5000	0.460	4.8	-19.5	-6.70	1.378	107.5	0.472	1.177	302.9	818.7	0.621	1.732	8.11	1.086	116.7	130.6	34.6	0.502
4-4450	4-5010	0.494	207.6	-32.6	-12.49	1.297	71.5	0.382	0.938	74.7	600.5	0.580	1.297	13.61	0.980	67.7	330.3	17.7	0.457
4-4450	4-5010	0.564	11.9	-29.8	-12.49	1.382	110.5	0.506	1.192	295.7	821.5	0.590	1.795	13.61	1.090	118.8	141.5	39.7	0.569
4-4450	4-5030	0.677	193.5	63.1	28.37	1.504	76.8	0.326	0.956	57.8	604.9	0.644	1.267	-27.84	0.986	71.1	31.5	-40.4	0.579
4-4450	4-5040	0.378	221.9	44.4	11.90	1.308	78.9	0.308	0.963	49.9	606.6	0.667	1.260	-11.66	0.987	72.2	17.8	-25.1	0.380
4-4450	4-5050	0.588	219.8	17.1	7.40	1.444	68.2	0.607	1.508	59.4	265.9	---	2.422	-7.46	1.159	57.7	7.6	-9.0	0.650
4-4450	4-5050	0.293	231.9	34.9	7.40	1.310	81.0	0.292	0.970	41.5	608.0	0.686	1.254	-7.46	0.988	73.1	20.2	-14.8	0.335
4-4460	4-4540	0.898	188.4	2.6	3.27	1.048	42.9	0.745	0.605	147.7	191.9	---	1.056	4.86	0.600	60.5	274.4	-18.9	0.563
4-4460	4-4550	0.831	192.3	2.1	2.23	1.085	47.3	0.687	0.636	141.6	195.8	---	1.073	4.18	0.668	61.2	278.7	-18.6	0.527
4-4460	4-4560	0.770	196.0	1.6	1.42	1.118	51.0	0.635	0.666	135.4	199.7	---	1.089	3.76	0.723	62.1	283.9	-18.0	0.497
4-4460	4-4570	0.715	199.5	1.0	0.73	1.146	54.3	0.585	0.696	129.3	203.6	---	1.103	3.52	0.768	63.2	289.6	-17.1	0.472
4-4460	4-4580	0.664	202.8	0.2	0.11	1.170	57.3	0.540	0.724	123.1	207.5	---	1.116	3.40	0.806	64.4	295.7	-15.7	0.449
4-4460	4-4590	0.616	206.1	-0.8	-0.49	1.192	60.0	0.500	0.752	116.7	211.7	---	1.128	3.40	0.838	65.6	302.2	-13.9	0.428
4-4460	4-4600	0.571	209.3	-2.1	-1.11	1.210	62.6	0.464	0.777	110.3	215.1	---	1.138	3.50	0.864	66.7	308.9	-11.6	0.410
4-4460	4-4610	0.529	212.5	-3.8	-1.80	1.226	64.9	0.432	0.802	103.8	218.7	---	1.148	3.73	0.887	67.8	315.6	-8.7	0.393
4-4460	4-4620	0.490	215.7	-6.1	-2.60	1.240	67.1	0.403	0.824	97.2	222.3	---	1.157	4.14	0.906	68.9	322.3	-5.1	0.378
4-4460	4-4630	0.453	218.8	-9.4	-3.84	1.252	69.0	0.378	0.845	90.5	225.7	---	1.165	4.81	0.921	69.8	328.8	-0.5	0.366
4-4460	4-4640	0.426	221.9	-14.5	-5.13	1.261	70.8	0.355	0.865	83.6	229.0	---	1.173	5.96	0.934	70.7	335.0	5.5	0.358
4-4460	4-4650	0.410	224.6	-23.3	-7.64	1.267	72.2	0.336	0.883	76.7	232.0	---	1.180	8.15	0.945	71.5	340.4	14.2	0.359
4-4460	4-4660	0.408	228.7	-34.8	-13.25	1.270	73.0	0.320	0.900	69.7	234.9	---	1.188	13.45	0.954	72.2	344.3	29.0	0.392
4-4460	4-4680	0.697	202.7	67.4	30.84	1.294	74.6	0.289	0.930	53.6	240.2	---	1.199	-30.85	0.967	73.7	50.0	-37.6	0.594
4-4460	4-4690	0.354	239.7	47.3	11.72	1.300	80.3	0.282	0.943	46.5	242.5	---	1.209	-12.40	0.972	74.0	34.4	-22.4	0.360
4-4460	4-4700	0.269	249.9	35.0	6.85	1.305	81.9	0.275	0.955	38.9	244.6	---	1.218	-7.80	0.975	74.3	35.7	-11.1	0.317
4-4460	4-4710	0.224	258.9	27.4	4.55	1.310	83.5	0.270	0.966	31.1	246.5	---	1.227	-5.85	0.979	74.5	40.9	-3.8	0.300

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4460	4-4720	0.193	269.1	21.9	3.15	1.314	85.2	0.268	0.976	23.1	248.2	---	1.238	-4.78	0.981	74.6	47.6	1.5	0.292
4-4460	4-4730	0.172	281.1	16.9	2.17	1.318	86.9	0.267	0.986	14.9	249.7	---	1.245	-4.14	0.984	74.5	55.1	5.5	0.288
4-4460	4-4740	0.158	295.3	11.8	1.40	1.321	88.6	0.270	0.994	6.5	251.0	---	1.253	-3.75	0.986	74.4	63.3	8.5	0.288
4-4460	4-4750	0.155	311.0	6.4	0.75	1.324	90.5	0.275	1.003	357.9	612.0	0.727	1.278	-3.52	0.988	74.1	71.9	10.7	0.290
4-4460	4-4760	0.164	327.0	1.3	0.16	1.327	92.4	0.283	1.010	349.1	612.7	0.724	1.296	-3.41	0.991	73.6	81.0	12.2	0.296
4-4460	4-4770	0.185	341.7	-2.9	-0.47	1.330	94.5	0.295	1.017	339.9	613.1	0.717	1.318	-3.39	0.993	72.8	90.4	12.9	0.306
4-4460	4-4780	0.219	354.5	-6.0	-0.99	1.332	96.9	0.312	1.024	330.4	613.1	0.705	1.348	-3.47	0.996	71.8	100.1	12.8	0.321
4-4460	4-4790	0.265	5.4	-8.0	-1.61	1.334	99.6	0.333	1.031	320.4	612.6	0.685	1.376	-3.66	0.998	70.4	110.1	12.0	0.343
4-4460	4-4790	0.624	57.5	-2.5	-1.61	1.141	121.5	0.525	0.690	233.4	885.7	0.328	1.052	-3.66	0.719	104.8	219.9	-23.3	0.346
4-4460	4-4800	0.326	14.7	-9.3	-2.32	1.336	102.9	0.367	1.037	309.6	611.4	0.656	1.417	-3.98	1.002	68.5	120.3	10.3	0.374
4-4460	4-4800	0.588	57.6	-3.9	-2.32	1.132	119.7	0.499	0.680	233.4	895.2	0.341	1.020	-3.98	0.706	94.8	208.4	-21.5	0.293
4-4460	4-4810	0.407	23.2	-10.1	-3.20	1.339	107.0	0.411	1.043	297.8	609.1	0.614	1.472	-4.51	1.005	65.8	131.0	7.9	0.419
4-4460	4-4810	0.595	58.2	-5.2	-3.20	1.128	120.1	0.505	0.677	232.6	903.8	0.335	1.018	-4.51	0.701	86.1	197.2	-18.9	0.296
4-4460	4-4820	0.517	31.4	-10.6	-4.38	1.341	112.3	0.474	1.049	284.5	605.3	0.552	1.547	-5.36	1.009	61.8	142.2	4.5	0.487
4-4460	4-4820	0.640	59.2	-6.5	-4.38	1.127	122.3	0.538	0.675	230.8	911.5	0.312	1.039	-5.36	0.700	77.2	189.8	-15.8	0.346
4-4460	4-4830	0.675	40.0	-10.7	-6.18	1.343	119.8	0.566	1.056	268.7	599.0	0.458	1.654	-6.85	1.014	55.6	154.3	0.2	0.592
4-4460	4-4830	0.735	61.2	-7.6	-6.18	1.127	127.1	0.606	0.675	227.1	917.5	0.266	1.085	-6.85	0.703	66.7	187.8	-14.2	0.444
4-4460	4-4890	0.732	196.4	7.2	5.88	1.116	53.4	0.601	0.664	133.8	883.0	0.265	1.064	6.97	0.707	112.5	326.8	-2.9	0.463
4-4460	4-4900	0.500	229.5	10.3	3.97	1.350	69.2	0.467	1.078	70.1	469.1	0.574	1.582	5.39	1.350	117.5	13.8	16.5	0.312
4-4460	4-4900	0.629	198.5	6.0	3.97	1.116	58.6	0.597	0.665	130.1	889.1	0.315	1.015	5.39	0.711	101.7	324.8	-2.8	0.356
4-4460	4-4910	0.383	240.1	9.4	2.74	1.352	75.1	0.409	1.085	53.8	462.7	0.641	1.529	4.49	1.046	113.7	26.2	21.3	0.445
4-4460	4-4910	0.903	189.8	2.2	2.74	1.071	43.0	0.740	0.624	145.8	914.7	0.162	1.085	4.49	0.642	56.5	273.5	-19.3	0.584
4-4460	4-4910	0.588	199.1	4.5	2.74	1.114	60.6	0.498	0.663	129.1	898.1	0.333	0.993	4.49	0.712	91.9	315.6	-5.9	0.306
4-4460	4-4920	0.299	252.1	8.1	1.82	1.354	79.7	0.374	1.091	39.0	458.0	0.683	1.500	3.95	1.051	111.3	38.5	25.2	0.403
4-4460	4-4930	0.241	266.8	6.1	1.08	1.357	83.4	0.355	1.098	25.5	454.5	0.709	1.488	3.63	1.056	110.0	50.7	28.4	0.378
4-4460	4-4940	0.205	284.6	2.9	0.43	1.359	86.6	0.347	1.106	13.1	452.2	0.722	1.489	3.45	1.060	109.4	63.0	30.8	0.366
4-4460	4-4950	0.192	304.5	-1.2	-0.18	1.361	89.6	0.347	1.113	3.6	450.9	0.727	1.500	3.39	1.065	109.2	75.2	32.2	0.362
4-4460	4-4960	0.200	323.8	-5.3	-0.78	1.364	92.8	0.354	1.122	353.0	810.4	0.725	1.519	3.43	1.069	109.5	87.3	32.9	0.366
4-4460	4-4970	0.226	340.1	-8.6	-1.43	1.366	95.0	0.367	1.131	341.1	810.6	0.717	1.546	3.59	1.072	110.2	99.1	32.8	0.377
4-4460	4-4980	0.709	210.8	-3.3	-2.16	1.275	56.9	0.566	0.890	107.4	587.1	0.386	1.394	3.90	0.954	56.0	313.8	-11.9	0.585
4-4460	4-4980	0.263	352.8	-11.2	-2.16	1.369	97.7	0.384	1.142	331.8	811.5	0.703	1.580	3.90	1.076	111.2	110.5	32.2	0.393
4-4460	4-4990	0.642	214.0	-5.3	-3.06	1.282	60.5	0.521	0.903	300.6	590.5	0.432	1.373	4.42	0.962	59.0	321.5	-8.0	0.541
4-4460	4-4990	0.310	2.8	-13.4	-3.06	1.372	100.4	0.406	1.153	323.1	813.0	0.685	1.621	4.42	1.079	112.5	121.4	31.2	0.415
4-4460	4-5000	0.581	217.2	-8.5	-4.27	1.288	63.8	0.479	0.915	93.6	593.6	0.477	1.353	5.28	0.966	61.7	328.7	-3.1	0.502
4-4460	4-5000	0.364	10.7	-15.9	-4.27	1.376	103.2	0.431	1.165	314.9	814.9	0.663	1.668	5.28	1.083	114.0	131.9	30.2	0.444
4-4460	4-5010	0.529	220.4	-13.9	-6.13	1.293	66.9	0.440	0.927	86.4	596.5	0.519	1.334	6.81	0.974	64.1	335.5	3.5	0.470
4-4460	4-5010	0.428	17.4	-19.3	-6.13	1.379	106.0	0.460	1.179	307.2	817.3	0.637	1.721	6.81	1.086	115.9	142.1	29.6	0.479
4-4460	4-5020	0.499	222.8	-24.1	-9.63	1.298	69.7	0.406	0.937	79.1	599.2	0.557	1.318	10.00	0.978	66.3	341.2	13.7	0.454
4-4460	4-5020	0.509	23.8	-25.5	-9.63	1.383	108.9	0.491	1.193	299.8	819.9	0.607	1.780	10.00	1.088	117.9	152.4	31.1	0.528
4-4460	4-5030	0.577	218.9	-46.0	-19.55	1.302	72.3	0.376	0.947	71.6	601.5	0.591	1.303	19.61	0.981	68.1	345.4	34.1	0.511
4-4460	4-5050	0.485	228.4	52.8	17.62	1.309	77.4	0.324	0.964	54.7	605.6	0.652	1.277	-18.15	0.985	71.2	34.1	-28.5	0.458
4-4460	4-5060	0.331	242.5	36.9	8.85	1.312	79.6	0.307	0.972	46.6	607.2	0.674	1.270	-9.68	0.986	72.2	31.4	-14.8	0.363
4-4470	4-4560	0.912	205.4	1.4	1.71	1.069	42.6	0.745	0.621	146.3	194.7	---	1.083	4.28	0.641	55.9	289.4	-18.4	0.595
4-4470	4-4570	0.846	209.2	0.8	0.83	1.104	46.8	0.689	0.652	140.1	198.8	---	1.101	3.75	0.702	57.6	296.6	-17.5	0.559
4-4470	4-4580	0.785	212.8	0.1	0.12	1.135	50.5	0.637	0.682	133.9	202.5	---	1.117	3.44	0.751	59.3	300.3	-16.2	0.529
4-4470	4-4590	0.729	216.2	-0.6	-0.50	1.162	53.9	0.589	0.712	127.7	206.4	---	1.131	3.26	0.792	61.0	306.4	-14.6	0.501
4-4470	4-4600	0.677	219.6	-1.6	-1.08	1.185	56.9	0.546	0.749	121.4	210.2	---	1.144	3.20	0.826	62.5	312.8	-12.5	0.474
4-4470	4-4610	0.628	222.8	-2.7	-1.65	1.205	59.7	0.506	0.767	115.0	214.0	---	1.156	3.24	0.855	64.0	319.3	-10.0	0.453
4-4470	4-4620	0.582	226.0	-4.2	-2.26	1.222	62.3	0.470	0.793	108.5	217.7	---	1.166	3.39	0.879	65.4	325.9	-7.0	0.432
4-4470	4-4630	0.540	229.1	-6.1	-2.94	1.237	64.8	0.438	0.817	101.9	221.3	---	1.176	3.67	0.899	66.7	332.6	-3.5	0.413
4-4470	4-4640	0.501	232.3	-8.7	-3.78	1.251	67.0	0.410	0.840	95.2	224.7	---	1.184	4.15	0.915	67.9	339.1	0.8	0.397
4-4470	4-4650	0.466	235.4	-12.5	-4.90	1.262	69.2	0.385	0.861	88.4	228.0	---	1.192	4.94	0.929	68.9	345.4	5.9	0.383
4-4470	4-4660	0.440	238.3	-16.4	-6.61	1.272	71.2	0.363	0.881	81.5	231.2	---	1.200	6.33	0.941	69.9	351.3	12.7	0.374
4-4470	4-4670	0.434	240.4	-20.7	-9.76	1.281	73.1	0.348	0.899	74.6	234.1	---	1.207	9.19	0.950	70.8	356.3	22.8	0.378
4-4470	4-4680	0.520	236.6	-48.9	-18.34	1.289	74.9	0.328	0.915	67.6	236.9	---	1.215	17.49	0.958	71.5	359.4	41.9	0.443
4-4470	4-4700	0.460	245.6	54.9	17.14	1.302	78.8	0.299	0.945	51.9	242.0	---	1.227	-18.55	0.970	72.9	49.1	-26.0	0.439
4-4470	4-4710	0.305	260.1	35.4	7.86	1.308	80.4	0.291	0.958	44.6	244.2	---	1.236	-9.55	0.974	73.3	45.8	-10.8	0.343
4-4470	4-4720	0.248	268.5	24.7	4.57	1.313	82.1	0.284	0.970	37.0	246.3	---	1.245	-6.54	0.978	73.6	50.1	-2.1	0.316
4-4470	4-4730	0.213	277.1	17.6	2.82	1.317	83.7	0.280	0.980	29.2	248.1	---	1.255	-5.09	0.981	73.8	56.6	3.5	0.304
4-4470	4-4740	0.187	287.3	11.9	1.68	1.321	85.4	0.278	0.991	21.2	249.8	---	1.266	-4.26	0.984	73.9	64.2	7.4	0.297
4-4470	4-4750	0.169	299.5	6.6	0.85	1.324	87.2	0.278	1.000	13.1	251.3	---	1.278	-3.76	0.987	73.9	72.4	10.1	0.294
4-4470	4-4760	0.159	313.8	1.4	0.17	1.328	89.0	0.280	1.008	4.7	252.5	---	1.291	-3.45	0.990	73.7	81.1	11.9	0.294
4-4470	4-4770	0.160	329.6	-3.5	-0.42	1.331	90.8	0.286	1.016	356.2	613.5	0.726	1.307	-3.28	0.993	73.4	90.1	12.9	0.296
4-4470	4-4780	0.173	345.4	-7.5	-0.96	1.335	92.9	0.295	1.024	347.4	614.2	0.722	1.326	-3.20	0.995	72.9	99.4	13.0	0.303
4-4470	4-4790	0.197	360.0	-10.1	-1.50	1.336	95.1	0.307	1.031	338.2	614.6	0.714	1.348	-3.22	0.999	72.1	109.0	12.4	0.313
4-4470	4-4800	0.234	12.6	-11.7	-2.05	1.338	97.6	0.325	1.038	328.6	614.4	0.700	1.375	-3.32	1.002	71.0	118.7	11.0	0.329
4-4470	4-4800	0.648	72.7	-5.1	-2.05	1.155	122.6	0.539	0.705	234.7	880.6	0.325	1.084	-3.32	0.740	110.0	240.2	-26.7	0.389
4-4470	4-4810	0.285	23.3	-12.4	-2.66	1.340	100.5	0.350	1.044	318.3	613.7	0.678	1.410	-3.54	1.006	69.6	128.6	8.9	0.353
4-4470	4-4810	0.581	72.5	-4.6	-2.66	1.142	119.2	0.491	0.690	235.4	890.8	0.351	1.028	-3.54	0.721	98.7	229.4	-27.0	0.299
4-4470	4-4820	0.351	32.7	-12.6	-3.38	1.342	104.0	0.385	1.050	307.2	612.1	0.646	1.454	-3.90	1.010	67.5	138.7	6.1	0.388
4-4470	4-4820	0.570	72.9	-5.9	-3.38	1.137	118.7	0.483	0.684	234.9	899.9	0.354	1.015	-3.90	0.714	90.1	217.2	-25.3	0.278
4-4470	4-4830	0.440	41.3	-12.5	-4.29	1.345	108.4	0.433	1.056	294.8	609.3	0.599	1.514	-4.49	1.014	64.4	149.3	2.5	0.440
4-4470	4-4830	0.594	73.6	-7.1	-4.29	1.135	119.9	0.501	0.682	233.7	908.2	0.340	1.023	-4.49	0.713	81.9	206.9	-22.4	0.303
4-4470	4-4840	0.564	49.7	-12.2	-5.57	1.347	114.4	0.504	1.063	280.6	604.7	0.528	1.598	-5.46	1.018	59.9	160.6	-1.9	0.518
4-4470	4-4840	0.658	75.0	-8.1	-5.57	1.134	123.0	0.548	0.681	231.2	915.3	0.308	1.054	-5.46	0.715	73.0	201.9	-20.0	0.372
4-4470	4-4850	0.779	77.7	-8.6	-7.63	1.135	129.1	0.633	0.682	226.4	920.1	0.250	1.114	-7.23	0.719	61.8	202.4	-19.4	0.494
4-4470	4-4900	0.823	211.0	6.5	6.36	1.124	48.8	0.662	0.671	138.6	879.8	0.227	1.115	8.15	0.721	121.1	341.4	1.8	0.561
4-4470	4-4910	0.586	240.1	7.9	3.78	1.354	65.0	0.518	1.085	79.6	472.7	0.523	1.647	5.87	1.046	120.8	21.7	19.1	0.570
4-4470	4-4910	0.669	214.5	5.3	3.78	1.126	56.7	0.552	0.673	130.2	883.3	0.301	1.044	5.87	0.727	108.7	343.7	3.7	0.413
4-4470	4-4920	0.441	250.5	6.7	2.29	1.356	72.2	0.442	1.092	61.7	464.8	0.603	1.574	4.68	1.051	115.7	35.3	23.9	0.480

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4470	4-4920	0.587	216.1	3.8	2.29	1.126	60.9	0.492	0.673	127.3	890.3	0.342	1.003	4.68	0.751	99.1	340.2	3.0	0.324
4-4470	4-4930	0.340	261.8	-4.9	1.26	1.358	77.4	0.396	1.098	45.9	459.1	0.663	1.533	4.00	1.056	112.6	48.5	27.5	0.425
4-4470	4-4930	0.862	207.4	1.1	1.26	1.084	45.6	0.708	0.633	142.9	916.1	0.185	1.081	4.00	0.567	58.5	292.9	-17.6	0.559
4-4470	4-4930	0.562	216.3	2.2	1.26	1.123	62.1	0.474	0.670	126.9	900.0	0.352	0.983	4.00	0.730	90.0	329.7	-1.5	0.269
4-4470	4-4940	0.270	275.1	2.4	0.48	1.360	81.6	0.369	1.105	31.8	455.0	0.697	1.513	2.58	1.060	110.8	61.6	30.1	0.392
4-4470	4-4950	0.223	291.2	-1.1	-0.18	1.362	85.1	0.356	1.112	18.9	452.2	0.716	1.506	3.34	1.064	109.8	74.6	31.7	0.373
4-4470	4-4960	0.199	310.2	-5.3	-0.78	1.364	88.2	0.353	1.119	7.0	460.6	0.725	1.514	3.22	1.068	109.5	87.2	32.3	0.364
4-4470	4-4970	0.198	330.0	-9.3	-1.35	1.367	91.0	0.356	1.127	356.1	469.8	0.726	1.529	3.20	1.071	109.6	99.5	32.1	0.364
4-4470	4-4980	0.216	3 7.9	-12.3	-1.93	1.369	93.7	0.366	1.136	346.0	809.9	0.720	1.552	3.29	1.074	110.1	111.3	31.1	0.371
4-4470	4-4990	0.248	2.3	-14.3	-2.57	1.372	96.4	0.381	1.146	336.6	810.6	0.710	1.582	3.50	1.077	110.9	122.4	29.5	0.385
4-4470	4-5000	0.690	227.9	-5.2	-3.31	1.282	58.2	0.552	0.900	104.5	588.7	0.403	1.397	3.87	0.959	56.9	332.1	-5.7	0.576
4-4470	4-5000	0.290	13.6	-15.7	-3.31	1.375	99.0	0.400	1.156	327.8	812.0	0.694	1.619	3.87	1.080	112.0	133.0	27.6	0.403
4-4470	4-5010	0.626	231.1	-7.7	-4.26	1.285	61.6	0.508	0.913	97.6	591.9	0.449	1.377	3.47	0.965	59.8	339.3	-1.1	0.532
4-4470	4-5010	0.340	22.4	-17.2	-4.26	1.378	101.7	0.423	1.168	319.5	813.8	0.674	1.662	4.47	1.082	113.4	143.1	25.6	0.428
4-4470	4-5020	0.568	234.3	-11.6	-5.61	1.294	64.8	0.467	0.925	90.5	594.9	0.493	1.358	5.49	0.971	62.4	346.1	4.5	0.499
4-4470	4-5020	0.393	29.7	-19.2	-5.61	1.381	104.5	0.449	1.181	311.6	816.0	0.651	1.711	5.49	1.084	115.1	152.7	23.9	0.459
4-4470	4-5030	0.523	237.2	-18.2	-7.82	1.299	67.8	0.431	0.936	83.3	597.7	0.533	1.340	7.40	0.975	64.7	352.4	12.1	0.466
4-4470	4-5030	0.465	36.1	-22.7	-7.82	1.385	107.3	0.478	1.194	304.1	818.5	0.623	1.766	7.40	1.087	117.0	162.3	23.3	0.497
4-4470	4-5040	0.515	238.6	-31.2	-12.55	1.303	70.6	0.398	0.947	75.9	600.1	0.570	1.324	11.84	0.978	66.7	357.4	20.7	0.481
4-4470	4-5040	0.561	42.9	-30.3	-12.55	1.388	110.2	0.510	1.209	297.0	821.3	0.592	1.826	11.84	1.089	119.1	172.2	25.9	0.554
4-4470	4-5070	0.385	252.3	40.7	11.25	1.374	78.1	0.323	0.973	51.6	606.2	0.659	1.287	-12.79	0.984	71.3	43.2	-15.9	0.401
4-4480	4-4590	0.856	226.3	-0.5	-0.55	1.125	46.7	0.689	0.669	138.3	201.1	---	1.130	3.11	0.734	55.2	311.3	-14.7	0.586
4-4480	4-4600	0.796	229.8	-1.3	-1.15	1.153	50.4	0.638	0.700	132.1	205.0	---	1.146	2.89	0.778	57.4	317.3	-12.8	0.554
4-4480	4-4610	0.739	233.2	-2.1	-1.64	1.178	53.8	0.591	0.729	125.8	208.9	---	1.161	2.78	0.814	59.4	323.5	-10.5	0.524
4-4480	4-4620	0.687	236.4	-3.1	-2.43	1.200	56.8	0.548	0.758	119.4	212.7	---	1.173	2.77	0.845	61.2	329.9	-7.9	0.497
4-4480	4-4630	0.637	239.6	-4.4	-2.64	1.218	59.6	0.510	0.785	113.0	216.4	---	1.184	2.84	0.870	62.8	336.4	-4.8	0.472
4-4480	4-4640	0.591	242.8	-5.9	-3.18	1.235	62.5	0.475	0.810	106.4	220.0	---	1.195	3.01	0.891	64.4	343.0	-1.9	0.450
4-4480	4-4650	0.548	245.9	-7.9	-3.82	1.249	64.7	0.443	0.834	99.8	223.5	---	1.204	3.32	0.909	65.8	349.5	2.5	0.429
4-4480	4-4660	0.509	249.0	-10.6	-4.62	1.262	67.0	0.415	0.856	93.1	226.9	---	1.212	3.83	0.924	67.1	356.0	6.9	0.411
4-4480	4-4670	0.475	252.1	-14.5	-5.75	1.272	69.2	0.391	0.877	86.3	230.0	---	1.220	4.68	0.936	68.2	2.4	12.3	0.395
4-4480	4-4680	0.450	254.9	-20.8	-7.58	1.282	71.2	0.369	0.897	79.4	233.1	---	1.228	6.25	0.946	69.2	8.4	19.4	0.386
4-4480	4-4690	0.454	256.4	-32.5	-11.38	1.290	73.2	0.351	0.914	72.4	235.9	---	1.235	9.80	0.954	70.1	13.3	30.7	0.392
4-4480	4-4700	0.639	244.1	-57.2	-25.37	1.298	75.0	0.336	0.931	65.6	238.6	---	1.243	23.55	0.961	70.8	17.7	56.3	0.520
4-4480	4-4720	0.351	270.6	37.7	9.62	1.310	78.8	0.308	0.960	50.1	243.6	---	1.256	-11.92	0.972	72.2	56.2	-11.6	0.376
4-4480	4-4730	0.274	279.0	25.9	4.53	1.316	80.5	0.300	0.972	42.7	245.3	---	1.264	-7.06	0.977	72.7	59.2	-0.2	0.343
4-4480	4-4740	0.235	286.5	13.1	2.34	1.320	82.2	0.294	0.984	35.2	247.8	---	1.273	-5.12	0.981	73.0	65.7	6.0	0.316
4-4480	4-4750	0.207	295.0	6.8	1.07	1.324	83.9	0.290	0.995	27.4	249.7	---	1.283	-4.11	0.984	73.2	73.4	9.7	0.306
4-4480	4-4760	0.186	305.3	1.4	0.20	1.328	85.7	0.288	1.005	19.5	251.4	---	1.294	-3.51	0.988	73.3	81.7	12.1	0.301
4-4480	4-4770	0.171	317.6	-3.6	-0.47	1.331	87.4	0.289	1.014	11.5	252.9	---	1.306	-3.15	0.991	73.3	90.4	13.4	0.298
4-4480	4-4780	0.164	332.2	-8.3	-1.02	1.334	89.3	0.291	1.022	4.2	254.1	---	1.320	-2.92	0.995	73.1	99.4	13.8	0.298
4-4480	4-4790	0.168	348.1	-12.1	-1.51	1.337	91.2	0.297	1.030	354.7	615.1	0.724	1.336	-2.80	0.998	72.7	108.7	13.4	0.301
4-4480	4-4800	0.184	3.9	-14.5	-1.97	1.340	93.3	0.306	1.037	345.8	615.8	0.720	1.355	-2.76	1.002	72.2	118.0	12.2	0.308
4-4480	4-4810	0.211	18.3	-15.6	-2.44	1.342	95.6	0.320	1.044	336.6	616.1	0.710	1.378	-2.80	1.006	71.4	127.5	10.4	0.320
4-4480	4-4820	0.251	30.7	-15.7	-2.93	1.344	98.2	0.339	1.051	326.8	615.8	0.695	1.407	-2.92	1.010	70.3	137.1	7.8	0.338
4-4480	4-4820	0.582	87.6	-5.1	-2.93	1.154	119.2	0.489	0.700	237.2	886.3	0.558	1.042	-2.92	0.737	102.5	250.7	-29.0	0.317
4-4480	4-4830	0.305	41.4	-15.2	-3.48	1.347	101.3	0.365	1.057	316.2	634.8	0.671	1.443	-3.15	1.014	68.7	146.9	4.6	0.344
4-4480	4-4830	0.553	87.7	-6.4	-3.48	1.186	117.7	0.467	0.692	237.2	895.8	0.369	1.015	-3.15	0.728	93.7	238.9	-29.0	0.271
4-4480	4-4840	0.378	50.8	-14.4	-4.15	1.349	105.1	0.403	1.063	304.6	612.8	0.635	1.492	-3.52	1.019	66.4	157.0	0.8	0.404
4-4480	4-4840	0.560	88.2	-7.5	-4.15	1.143	118.0	0.472	0.689	236.4	906.6	0.364	1.014	-3.52	0.725	85.9	226.7	-23.2	0.274
4-4480	4-4850	0.477	59.5	-13.5	-5.03	1.351	110.0	0.457	1.069	291.5	609.4	0.581	1.538	-4.12	1.024	63.0	167.7	-3.6	0.463
4-4480	4-4850	0.600	39.2	-8.3	-5.03	1.182	120.0	0.502	0.688	234.6	912.5	0.342	1.033	-4.12	0.727	78.0	218.4	-24.8	0.318
4-4480	4-4860	0.618	68.3	-12.4	-6.32	1.353	116.8	0.537	1.076	276.0	603.6	0.498	1.653	-5.15	1.029	57.7	179.5	-8.6	0.555
4-4480	4-4860	0.684	91.0	-8.7	-6.32	1.182	124.2	0.564	0.688	231.3	918.8	0.300	1.076	-5.15	0.731	68.7	275.9	-23.4	0.407
4-4480	4-4870	0.838	94.5	-8.7	-8.56	1.144	132.0	0.670	0.689	224.7	922.0	0.227	1.152	-7.16	0.737	56.5	219.0	-23.6	0.555
4-4480	4-4920	0.739	229.6	4.2	3.42	1.134	53.2	0.492	0.679	132.0	879.1	0.270	1.088	6.06	0.740	116.1	359.6	8.8	0.492
4-4480	4-4930	0.515	261.0	4.1	1.67	1.360	68.5	0.484	1.098	70.6	467.6	0.567	1.630	4.57	1.056	118.4	44.6	25.4	0.526
4-4480	4-4930	0.616	232.3	2.7	1.67	1.135	59.5	0.510	0.680	126.8	884.0	0.333	1.027	4.57	0.745	105.4	0.3	9.9	0.367
4-4480	4-4940	0.392	271.8	1.9	0.58	1.362	74.8	0.423	1.105	53.6	460.9	0.637	1.573	3.76	1.060	114.3	58.9	28.6	0.453
4-4480	4-4940	0.553	233.5	1.1	0.58	1.135	62.7	0.462	0.680	124.6	891.9	0.366	0.994	3.76	0.747	96.9	355.2	8.2	0.295
4-4480	4-4950	0.306	284.0	-0.9	-0.21	1.364	79.5	0.388	1.112	38.6	456.0	0.681	1.542	3.28	1.064	117.9	72.7	30.5	0.408
4-4480	4-4950	0.818	225.2	-0.2	-0.21	1.097	48.3	0.672	0.643	139.8	917.2	0.211	1.075	3.28	0.690	61.0	312.2	-13.9	0.529
4-4480	4-4950	0.544	233.3	-0.4	-0.21	1.132	63.1	0.456	0.677	124.9	902.3	0.368	0.985	3.28	0.744	88.1	343.1	2.4	0.277
4-4480	4-4960	0.248	298.5	-4.6	-0.83	1.366	83.3	0.368	1.118	25.1	452.7	0.707	1.530	2.99	1.067	110.5	86.2	31.2	0.382
4-4480	4-4970	0.214	316.0	-8.8	-1.37	1.368	86.6	0.360	1.125	12.8	450.6	0.720	1.531	2.83	1.070	109.9	99.1	30.9	0.368
4-4480	4-4980	0.202	335.6	-12.8	-1.87	1.370	89.6	0.360	1.133	1.6	449.6	0.725	1.541	2.76	1.073	109.8	111.3	29.8	0.364
4-4480	4-4990	0.210	354.6	-15.6	-2.37	1.372	92.3	0.367	1.141	351.3	809.4	0.723	1.560	2.79	1.075	110.1	122.8	27.9	0.367
4-4480	4-5000	0.235	10.8	-17.1	-2.89	1.375	95.0	0.379	1.150	341.7	810.0	0.715	1.586	2.91	1.077	110.7	133.6	25.5	0.377
4-4480	4-5010	0.271	23.6	-17.7	-3.47	1.377	97.6	0.395	1.160	332.7	811.1	0.702	1.619	3.14	1.079	111.7	143.7	22.9	0.393
4-4480	4-5020	0.672	245.0	-6.9	-4.17	1.289	59.4	0.539	0.911	101.5	590.0	0.420	1.401	3.53	0.962	57.7	349.9	1.2	0.565
4-4480	4-5020	0.316	33.4	-18.2	-4.17	1.380	100.3	0.415	1.171	324.2	812.7	0.685	1.658	3.53	1.081	112.9	153.3	20.1	0.414
4-4480	4-5030	0.610	248.2	-9.7	-5.10	1.295	62.7	0.496	0.923	94.6	593.1	0.465	1.382	4.17	0.967	60.5	356.9	6.0	0.522
4-4480	4-5030	0.368	41.6	-19.0	-5.10	1.383	103.0	0.439	1.183	316.2	814.8	0.666	1.703	4.17	1.083	114.4	162.6	17.6	0.440
4-4480	4-5040	0.556	251.4	-14.0	-6.49	1.300	65.9	0.457	0.935	87.5	596.0	0.507	1.363	5.29	0.971	63.0	3.6	11.9	0.486
4-4480	4-5040	0.427	48.3	-20.7	-6.49	1.387	105.8	0.466	1.196	308.6	817.1	0.638	1.754	5.29	1.085	116.2	171.5	15.6	0.473
4-4480	4-5050	0.517	254.1	-21.5	-8.97	1.305	68.8	0.423	0.946	80.2	598.6	0.586	1.345	7.52	0.975	65.2	9.8	20.1	0.459
4-4480	4-5050	0.499	54.4	-24.3	-8.97	1.390	108.6	0.446	1.210	301.4	819.8	0.610	1.811	7.52	1.087	118.1	180.6	15.2	0.514
4-4480	4-5060	0.536	254.0	-37.5	-15.26	1.309	71.4	0.392	0.956	72.8	601.0	0.581	1.331	13.56	0.978	67.0	14.5	35.5	0.468
4-4480	4-5060	0.613	62.0	-33.8	-15.26	1.394	111.6	0.528	1.226	294.5	822.6	0.578	1.873	13.56	1.089	120.2	190.3	19.9	0.582
4-4480	4-5080	0.487	260.3	49.2	16.75	1.314	76.6	0.340	0.974	56.5	605.1	0.642	1.305	-10.91	0.981	70.2	57.3	-20.1	0.475
4-4490	4-4620	0.803	248.9	-2..	-2.18	1.172	50.4	0.637	0.719	130.0	207.3	---	1.177	2.16	0.801	56.0	334.2	-8.0	0.573

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
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DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4490	4-4630	0.744	25062	-3.3	-2.57	1.195	53.8	0.592	0.748	123.7	211.2	---	1.190	2.11	0.833	58.2	340.5	-5.3	0.542
4-4490	4-4640	0.693	253.4	-4.3	-2.94	1.215	56.6	0.550	0.776	117.3	214.9	---	1.203	2.13	0.860	60.2	346.9	-2.2	0.514
4-4490	4-4650	0.640	256.5	-5.5	-3.33	1.232	59.7	0.512	0.802	110.8	218.5	---	1.214	2.22	0.883	62.0	353.5	1.0	0.487
4-4490	4-4660	0.597	259.6	-7.0	-3.77	1.247	62.3	0.478	0.828	104.2	222.1	---	1.224	2.39	0.903	65.6	0.1	4.6	0.463
4-4490	4-4670	0.558	262.7	-8.9	-4.36	1.261	64.7	0.448	0.851	97.6	225.5	---	1.232	2.68	0.917	65.1	6.8	8.4	0.441
4-4490	4-4680	0.514	265.9	-11.4	-4.99	1.272	67.1	0.421	0.873	90.9	228.7	---	1.241	3.15	0.930	66.4	13.5	12.7	0.421
4-4490	4-4690	0.480	268.9	-15.2	-6.01	1.283	69.2	0.397	0.894	84.1	231.8	---	1.248	3.96	0.941	67.6	20.2	17.7	0.404
4-4490	4-4700	0.455	271.8	-21.4	-7.78	1.292	71.3	0.376	0.913	77.2	234.8	---	1.256	5.58	0.950	68.6	26.7	24.5	0.392
4-4490	4-4710	0.464	273.0	-34.1	-12.08	1.300	73.3	0.358	0.930	70.3	237.6	---	1.263	9.65	0.958	69.5	32.3	36.7	0.399
4-4490	4-4730	0.439	279.1	45.6	14.18	1.313	77.1	0.328	0.961	55.6	242.8	---	1.276	-16.97	0.971	71.1	68.6	-16.1	0.439
4-4490	4-4740	0.303	290.4	19.1	4.39	1.318	78.9	0.318	0.975	48.4	245.2	---	1.284	-7.35	0.976	71.6	68.4	1.9	0.349
4-4490	4-4750	0.261	296.9	8.1	1.62	1.323	80.6	0.310	0.987	41.1	247.4	---	1.293	-4.77	0.980	72.0	74.8	8.9	0.327
4-4490	4-4760	0.232	304.1	3.5	0.27	1.329	82.4	0.303	0.998	33.6	249.4	---	1.301	-3.61	0.985	72.4	82.7	12.5	0.316
4-4490	4-4770	0.208	312.6	-3.7	-0.57	1.332	84.1	0.299	1.009	25.9	251.3	---	1.311	-2.97	0.989	72.6	91.2	14.3	0.308
4-4490	4-4780	0.189	323.0	-8.3	-1.17	1.335	85.9	0.298	1.019	18.1	253.1	---	1.322	-2.58	0.993	72.7	100.1	15.0	0.304
4-4490	4-4790	0.177	335.7	-12.5	-1.65	1.338	87.7	0.298	1.028	10.1	254.6	---	1.334	-2.34	0.997	72.7	109.1	14.8	0.302
4-4490	4-4800	0.173	350.5	-16.1	-2.05	1.341	89.5	0.301	1.036	1.9	255.9	---	1.348	-2.26	1.001	72.5	118.2	13.8	0.302
4-4490	4-4810	0.178	6.6	-18.5	-2.42	1.344	91.4	0.308	1.043	353.3	616.9	0.722	1.364	-2.13	1.005	72.1	127.4	12.1	0.306
4-4490	4-4820	0.196	22.4	-19.4	-2.77	1.346	93.7	0.317	1.051	344.4	617.5	0.717	1.384	-2.12	1.010	71.6	136.6	9.8	0.314
4-4490	4-4830	0.225	36.7	-19.0	-3.13	1.348	96.2	0.332	1.057	335.0	617.6	0.707	1.408	-2.16	1.014	70.8	146.0	6.9	0.327
4-4490	4-4840	0.294	302.8	-5.4	-3.13	1.166	119.6	0.494	0.712	232.8	881.5	0.360	1.064	-2.16	0.755	106.5	271.2	-28.0	0.347
4-4490	4-4840	0.268	49.0	-17.8	-3.52	1.351	98.9	0.352	1.064	324.9	617.2	0.689	1.438	-2.28	1.019	69.0	155.4	3.5	0.347
4-4490	4-4840	0.542	102.7	-6.7	-3.52	1.156	117.1	0.456	0.701	239.3	891.6	0.381	1.020	-2.28	0.742	96.9	261.1	-29.4	0.274
4-4490	4-4850	0.327	59.6	-16.3	-3.92	1.353	102.3	0.381	1.070	313.9	615.8	0.662	1.478	-2.49	1.024	67.8	165.2	-0.5	0.377
4-4490	4-4850	0.534	103.0	-7.7	-3.97	1.152	116.6	0.450	0.696	238.8	900.8	0.383	1.009	-2.49	0.739	89.4	248.5	-29.3	0.265
4-4490	4-4860	0.406	69.0	-14.6	-4.54	1.355	106.4	0.422	1.076	301.7	613.3	0.622	1.531	-2.83	1.029	65.3	175.5	-4.9	0.422
4-4490	4-4860	0.557	103.7	-8.3	-4.54	1.150	117.7	0.467	0.694	237.6	909.3	0.370	1.018	-2.83	0.739	82.1	237.5	-27.7	0.279
4-4490	4-4870	0.518	77.9	-13.9	-5.30	1.357	111.9	0.484	1.082	287.6	609.0	0.559	1.606	-3.39	1.034	61.4	186.7	-9.7	0.491
4-4490	4-4870	0.614	105.0	-8.6	-5.30	1.150	120.6	0.510	0.693	235.2	916.6	0.340	1.047	-3.39	0.742	74.1	231.7	-26.1	0.341
4-4490	4-4880	0.722	107.3	-8.4	-6.50	1.151	126.0	0.589	0.694	230.7	921.8	0.285	1.104	-4.38	0.747	64.2	231.9	-25.6	0.454
4-4490	4-4930	0.849	243.5	2.8	2.79	1.142	47.5	0.677	0.685	136.0	877.3	0.221	1.148	5.68	0.751	124.8	13.2	12.2	0.598
4-4490	4-4940	0.610	271.4	1.6	0.82	1.364	63.9	0.538	1.105	80.9	472.2	0.519	1.700	4.07	1.060	122.0	53.7	25.7	0.587
4-4490	4-4940	0.671	287.8	1.2	0.82	1.144	56.8	0.569	0.887	127.9	879.2	0.310	1.064	4.07	0.757	111.9	17.8	14.7	0.431
4-4490	4-4950	0.456	282.0	-0.8	-0.26	1.366	71.3	0.458	1.112	62.2	463.6	0.602	1.621	3.19	1.064	113.5	69.1	28.3	0.469
4-4490	4-4950	0.573	249.9	-0.5	-0.26	1.145	61.8	0.474	0.688	123.7	885.2	0.361	1.014	3.19	0.760	102.6	17.0	15.1	0.326
4-4490	4-4960	0.352	293.5	-3.7	-0.98	1.367	77.0	0.411	1.118	46.1	457.7	0.659	1.577	2.69	1.067	113.3	83.7	29.5	0.439
4-4490	4-4960	0.528	250.7	-1.9	-0.98	1.144	64.2	0.439	0.687	122.1	893.7	0.386	0.988	2.69	0.760	94.8	30.0	12.5	0.271
4-4490	4-4970	0.281	306.4	-7.4	-1.52	1.369	81.5	0.383	1.125	31.8	453.6	0.693	1.556	2.40	1.070	111.4	97.4	29.3	0.394
4-4490	4-4970	0.769	243.0	-1.7	-1.52	1.111	51.3	0.631	0.654	136.3	918.1	0.241	1.067	2.40	0.710	63.9	351.2	-8.4	0.492
4-4490	4-4970	0.535	250.1	-2.9	-1.52	1.140	63.8	0.445	0.682	123.2	905.0	0.379	0.986	2.40	0.754	86.0	356.1	5.6	0.272
4-4490	4-4980	0.235	322.2	-11.5	-1.97	1.371	94.9	0.370	1.132	19.1	451.1	0.713	1.550	2.22	1.072	110.4	110.4	28.2	0.374
4-4490	4-4990	0.212	340.8	-15.5	-2.37	1.373	88.0	0.366	1.139	7.5	449.7	0.722	1.556	2.33	1.074	110.1	122.3	26.2	0.366
4-4490	4-5000	0.209	0.3	-18.3	-2.74	1.374	90.8	0.369	1.147	356.9	809.2	0.725	1.570	2.11	1.076	110.2	133.5	23.6	0.365
4-4490	4-5010	0.225	18.1	-19.4	-3.12	1.378	93.5	0.378	1.155	347.0	809.5	0.719	1.592	2.16	1.078	110.6	143.9	20.6	0.372
4-4490	4-5020	0.254	32.7	-19.4	-3.53	1.380	96.2	0.392	1.165	337.9	810.4	0.709	1.621	2.29	1.079	111.4	152.6	17.3	0.384
4-4490	4-5030	0.719	259.1	-6.0	-4.01	1.290	57.1	0.570	0.989	103.5	588.1	0.391	1.426	2.51	0.958	55.6	0.6	3.9	0.598
4-4490	4-5030	0.293	44.0	-19.0	-4.01	1.383	98.8	0.409	1.175	329.2	811.8	0.694	1.456	2.51	1.080	112.5	162.8	14.0	0.402
4-4490	4-5040	0.654	262.3	-8.0	-4.60	1.296	60.5	0.526	0.921	98.7	591.2	0.437	1.408	2.87	0.963	58.5	7.7	8.0	0.552
4-4490	4-5040	0.339	53.0	-18.7	-4.60	1.386	101.5	0.443	1.186	323.1	813.7	0.675	1.497	2.87	1.082	113.8	171.6	10.9	0.425
4-4490	4-5050	0.593	265.5	-10.7	-5.42	1.301	63.8	0.486	0.934	91.7	594.2	0.480	1.587	3.47	0.968	61.2	14.8	12.6	0.511
4-4490	4-5050	0.392	68.3	-18.9	-5.42	1.389	104.2	0.455	1.198	313.4	815.9	0.653	1.749	3.47	1.083	115.4	180.3	8.1	0.453
4-4490	4-5060	0.541	268.6	-13.0	-6.70	1.306	66.8	0.449	0.945	84.5	596.9	0.521	1.369	4.56	0.971	63.5	21.8	18.2	0.475
4-4490	4-5060	0.452	66.4	-20.1	-6.70	1.392	106.9	0.483	1.212	306.0	818.4	0.626	1.797	4.56	1.085	117.2	188.2	6.1	0.487
4-4490	4-5070	0.508	271.3	-23.0	-9.26	1.311	69.6	0.416	0.956	77.2	599.4	0.558	1.353	6.93	0.974	65.6	28.4	26.4	0.449
4-4490	4-5070	0.525	72.2	-23.7	-9.26	1.396	109.8	0.513	1.226	298.9	821.1	0.597	1.856	6.93	1.087	119.2	197.7	6.0	0.529
4-4490	4-5080	0.558	269.3	-42.6	-17.56	1.315	72.2	0.388	0.965	69.9	601.7	0.591	1.359	15.04	0.977	67.3	33.8	45.1	0.474
4-4500	4-4760	0.290	308.1	2.1	0.46	1.328	79.0	0.327	0.989	86.9	246.7	---	1.313	-3.82	0.980	71.0	84.2	12.8	0.359
4-4500	4-4770	0.261	314.2	-4.2	-0.83	1.331	80.7	0.319	1.001	39.6	249.0	---	1.321	-2.84	0.985	71.4	92.5	15.8	0.326
4-4500	4-4780	0.236	321.4	-8.6	-1.53	1.335	82.5	0.313	1.013	32.2	251.7	---	1.329	-2.06	0.990	71.8	101.2	16.9	0.317
4-4500	4-4790	0.214	330.1	-12.5	-1.99	1.339	84.3	0.309	1.023	24.6	253.1	---	1.339	-1.7	0.995	72.0	110.2	16.8	0.311
4-4500	4-4800	0.196	340.8	-16.1	-2.33	1.342	86.1	0.307	1.032	16.9	254.8	---	1.350	-1.53	0.999	72.1	119.1	15.9	0.307
4-4500	4-4810	0.185	353.8	-19.3	-2.60	1.345	87.9	0.308	1.041	8.9	256.4	---	1.362	-1.40	1.004	72.1	128.1	14.3	0.305
4-4500	4-4820	0.182	9.0	-21.6	-2.84	1.348	89.8	0.312	1.049	0.6	257.7	---	1.376	-1.33	1.009	71.9	137.1	12.1	0.307
4-4500	4-4830	0.188	25.3	-22.5	-3.06	1.350	91.9	0.318	1.057	352.8	618.7	0.721	1.393	-1.30	1.014	71.6	146.1	9.3	0.311
4-4500	4-4840	0.207	41.1	-21.9	-3.28	1.352	94.2	0.328	1.064	343.0	619.2	0.714	1.413	-1.30	1.019	71.0	155.2	6.1	0.321
4-4500	4-4850	0.259	55.3	-20.2	-3.51	1.355	96.7	0.344	1.070	333.3	619.2	0.703	1.438	-1.35	1.024	70.2	164.4	2.5	0.335
4-4500	4-4850	0.538	117.7	-6.8	-3.51	1.186	116.7	0.450	0.710	241.3	887.2	0.391	1.029	-1.35	0.758	100.0	281.9	-26.5	0.286
4-4500	4-4860	0.285	67.4	-17.9	-3.76	1.357	99.7	0.366	1.077	322.8	618.5	0.683	1.470	-1.44	1.029	68.9	173.9	-1.6	0.358
4-4500	4-4860	0.516	117.9	-7.7	-3.76	1.161	115.6	0.432	0.703	241.2	896.8	0.399	1.007	-1.44	0.752	92.4	270.6	-27.8	0.248
4-4500	4-4870	0.523	118.3	-8.1	-4.06	1.168	116.0	0.439	0.700	240.4	905.8	0.393	1.007	-1.59	0.752	85.5	258.3	-27.8	0.252
4-4500	4-4880	0.500	119.2	-8.1	-4.44	1.157	117.8	0.467	0.695	238.6	913.8	0.372	1.028	-1.84	0.754	78.4	249.6	-26.8	0.294
4-4500	4-4970	0.581	267.2	-3.6	-1.88	1.153	63.6	0.446	0.695	120.9	886.7	0.385	1.005	1.81	0.771	100.3	33.9	18.5	0.294
4-4500	4-4980	0.510	267.7	-4.6	-2.26	1.152	65.2	0.421	0.694	119.9	895.8	0.402	0.985	1.56	0.769	93.0	24.8	15.4	0.253
4-4500	4-4990	0.264	329.1	-13.4	-2.56	1.375	82.9	0.385	1.138	25.8	452.0	0.702	1.573	1.42	1.074	111.2	120.7	24.2	0.384
4-4500	4-4990	0.537	266.5	-4.9	-2.56	1.186	63.8	0.444	0.687	122.1	908.2	0.382	0.992	1.42	0.760	83.5	-8.5	7.9	0.277
4-4500	4-5000	0.228	346.2	-17.2	-2.82	1.377	86.3	0.374	1.145	13.8	450.1	0.717	1.573	1.33	1.075	110.5	132.4	21.5	0.370
4-4500	4-5010	0.214	5.3	-20.1	-3.06	1.379	89.2	0.374	1.152	2.8	449.3	0.722	1.582	1.30	1.077	110.4	143.3	18.3	0.365
4-4500	4-5020	0.219	24.2	-21.2	-3.29	1.381	92.0	0.379	1.160	352.7	809.2	0.721	1.600	1.30	1.078	110.7	153.3	14.8	0.368
4-4500	4-5030	0.240	40.6	-20.7	-3.52	1.383	94.7	0.389	1.169	343.3	809.9	0.714	1.624	1.35	1.078	111.3	162.8	11.2	0.378
4-4500	4-5040	0.272	52.6	-19.5	-3.79	1.386	97.3	0.404	1.179	334.5	811.1	0.702	1.656	1.45	1.079	112.2	171.8	7.6	0.393

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4550	4-4870	0.282	40.6	-23.1	-4.71	1.360	81.2	0.359	1.079	34.0	258.6	---	1.454	4.12	1.029	69.3	189.3	8.1	0.357
4-4550	4-4880	0.249	49.5	-21.3	-3.85	1.365	83.2	0.353	1.080	26.6	261.0	---	1.462	3.56	1.036	69.7	196.8	3.6	0.349
4-4550	4-4890	0.223	60.4	-19.8	-3.17	1.366	85.1	0.350	1.089	18.9	263.1	---	1.470	3.21	1.042	70.1	204.7	-0.4	0.344
4-4550	4-4900	0.203	73.9	-17.8	-2.60	1.369	87.2	0.348	1.098	10.7	264.9	---	1.480	3.01	1.048	70.3	213.0	-4.1	0.342
4-4550	4-4910	0.193	89.8	-14.9	-2.07	1.371	89.4	0.350	1.106	2.1	266.3	---	1.493	2.91	1.054	70.3	221.8	-7.3	0.344
4-4550	4-4920	0.197	107.2	-11.0	-1.57	1.373	91.9	0.356	1.113	352.9	627.1	0.717	1.509	2.90	1.059	70.1	231.2	-10.2	0.351
4-4550	4-4920	0.446	193.3	-3.9	-1.57	1.394	111.5	0.368	0.736	251.9	886.1	0.465	1.007	2.90	0.834	97.8	347.1	5.0	0.243
4-4550	4-4930	0.218	124.2	-6.6	-1.04	1.375	94.6	0.366	1.120	342.9	627.2	0.710	1.529	2.98	1.064	69.6	241.2	-12.5	0.364
4-4550	4-4930	0.427	193.3	-2.7	-1.04	1.390	110.7	0.353	0.731	251.9	896.2	0.473	0.989	2.98	0.810	92.1	337.6	3.0	0.212
4-4550	4-4940	0.259	139.3	-2.5	-0.47	1.377	97.7	0.383	1.126	331.9	626.2	0.695	1.558	3.18	1.068	68.6	252.0	-14.1	0.385
4-4550	4-4940	0.431	193.6	-1.2	-0.47	1.388	110.9	0.357	0.728	251.2	905.5	0.469	0.988	3.18	0.810	86.9	327.7	-0.2	0.214
4-4550	4-4950	0.457	194.4	0.5	0.21	1.382	112.2	0.378	0.728	249.3	914.1	0.453	1.003	3.51	0.811	81.7	320.8	-3.2	0.246
4-4550	4-5050	0.532	351.0	-9.3	-4.55	1.388	84.4	0.432	0.729	113.8	879.6	0.414	1.044	-4.04	0.797	104.2	127.7	8.1	0.298
4-4550	4-5060	0.481	352.4	-8.5	-3.75	1.389	86.8	0.393	0.729	111.2	886.8	0.442	1.016	-3.50	0.794	98.3	124.2	8.0	0.242
4-4550	4-5070	0.282	49.6	-15.4	-3.10	1.394	92.2	0.415	1.189	27.0	452.5	0.696	1.682	-3.18	1.075	132.9	194.4	-14.6	0.405
4-4550	4-5070	0.461	352.9	-7.4	-3.10	1.387	67.8	0.379	0.728	110.4	895.9	0.452	1.004	-3.18	0.789	92.5	114.8	9.7	0.216
4-4550	4-5080	0.241	66.1	-14.4	-2.54	1.396	95.5	0.406	1.196	15.5	450.8	0.711	1.681	-2.99	1.074	112.2	204.9	-18.5	0.393
4-4550	4-5080	0.487	351.6	-5.7	-2.54	1.383	66.5	0.401	0.722	111.0	908.3	0.432	1.012	-2.99	0.778	84.5	98.0	13.6	0.243
4-4550	4-5090	0.221	84.4	-13.0	-2.03	1.398	88.6	0.404	1.204	5.0	450.0	0.718	1.689	-2.90	1.074	112.0	215.2	-21.9	0.391
4-4550	4-5100	0.221	102.7	-9.8	-1.54	1.400	91.4	0.408	1.212	355.3	869.9	0.718	1.706	-2.90	1.075	112.2	225.4	-24.8	0.396
4-4550	4-5110	0.238	118.7	-6.1	-1.04	1.402	94.1	0.416	1.221	346.1	830.4	0.712	1.729	-2.98	1.076	112.7	235.6	-27.2	0.407
4-4550	4-5120	0.268	131.8	-2.6	-0.56	1.404	96.7	0.429	1.230	337.5	811.4	0.702	1.759	-3.16	1.077	113.5	245.7	-29.1	0.423
4-4600	4-4960	0.271	125.7	4.8	0.95	1.371	81.1	0.387	1.127	32.4	266.2	---	1.563	2.74	1.071	68.4	272.8	-16.5	0.394
4-4600	4-4970	0.243	135.7	8.4	1.49	1.374	83.4	0.380	1.137	24.4	268.4	---	1.569	2.68	1.074	69.0	282.3	-16.5	0.387
4-4600	4-4980	0.222	148.4	12.1	1.95	1.376	85.7	0.376	1.146	15.9	270.1	---	1.576	2.30	1.078	69.4	291.9	-15.8	0.383
4-4600	4-4980	0.416	249.3	5.4	1.95	1.212	109.5	0.739	0.771	260.4	874.6	0.509	1.032	2.30	0.858	101.8	60.6	28.6	0.251
4-4600	4-4990	0.211	164.1	15.6	2.36	1.379	88.1	0.375	1.154	6.8	271.2	---	1.587	2.22	1.080	69.6	301.6	-14.3	0.384
4-4600	4-4990	0.379	268.9	7.2	2.36	1.206	107.7	0.308	0.762	261.5	885.8	0.527	0.997	2.22	0.849	96.2	51.6	28.7	0.196
4-4600	4-5000	0.215	182.2	18.0	2.75	1.381	90.8	0.378	1.162	357.1	631.6	0.723	1.601	2.22	1.081	69.5	311.5	-12.0	0.389
4-4600	4-5000	0.370	269.0	8.6	2.75	1.204	107.3	0.300	0.759	261.4	895.9	0.531	0.986	2.22	0.846	91.8	40.3	26.9	0.176
4-4600	4-5010	0.236	200.6	18.7	3.15	1.383	93.7	0.386	1.169	346.5	631.2	0.717	1.621	2.29	1.082	69.0	321.4	-9.1	0.400
4-4600	4-5010	0.378	269.5	9.6	3.15	1.203	107.6	0.306	0.757	260.5	905.2	0.526	0.988	2.29	0.840	87.7	30.2	23.6	0.183
4-4600	4-5020	0.279	217.3	18.0	3.60	1.384	97.1	0.402	1.176	334.9	629.6	0.703	1.649	2.44	1.083	68.0	331.5	-5.5	0.420
4-4600	4-5020	0.402	270.4	10.2	3.60	1.202	108.7	0.324	0.757	258.9	913.6	0.512	1.002	2.44	0.839	83.7	24.4	20.5	0.211
4-4600	4-5030	0.444	271.7	10.5	4.11	1.203	110.7	0.356	0.758	256.2	921.0	0.488	1.027	2.70	0.836	79.2	23.1	18.9	0.258
4-4600	4-5140	0.467	76.7	2.0	0.85	1.209	67.1	0.392	0.766	105.4	877.5	0.665	1.066	-2.80	0.814	103.3	215.9	-23.1	0.268
4-4600	4-5150	0.421	78.4	3.7	1.38	1.209	69.4	0.356	0.767	102.0	883.6	0.694	1.039	-2.51	0.814	98.7	215.8	-24.0	0.219
4-4600	4-5160	0.257	144.0	9.9	1.82	1.402	84.	0.430	1.249	18.7	449.9	0.711	1.787	-2.34	1.080	113.3	299.2	-27.6	0.430
4-4600	4-5160	0.394	79.4	5.3	1.82	1.209	70.	0.334	0.767	99.9	891.1	0.511	1.023	-2.34	0.814	94.4	211.2	-23.5	0.187
4-4600	4-5170	0.237	162.5	13.2	2.21	1.404	87.7	0.426	1.257	7.7	448.6	0.721	1.793	-2.24	1.083	112.9	301.5	-25.7	0.426
4-4600	4-5170	0.387	79.5	6.6	2.21	1.208	71.1	0.328	0.765	99.6	900.4	0.515	1.016	-2.24	0.813	89.8	201.0	-20.2	0.174
4-4600	4-5180	0.238	181.2	15.5	2.58	1.406	90.8	0.429	1.265	357.5	807.7	0.723	1.808	-2.21	1.086	112.8	311.9	-23.2	0.430
4-4600	4-5180	0.493	79.4	5.7	2.58	1.197	65.8	0.412	0.749	109.7	920.0	0.441	1.053	-2.21	0.797	77.1	174.2	-4.4	0.272
4-4600	4-5180	0.444	76.6	6.5	2.58	1.202	68.3	0.372	0.756	105.4	915.6	0.475	1.038	-2.21	0.805	81.1	180.8	-8.9	0.226
4-4600	4-5190	0.257	198.0	16.4	2.96	1.408	93.7	0.437	1.274	347.9	807.7	0.718	1.830	-2.25	1.090	113.2	321.5	-20.5	0.441
4-4650	4-5200	0.290	211.6	16.4	3.36	1.410	96.5	0.449	1.284	338.9	808.3	0.708	1.860	-2.39	1.094	113.9	330.7	-17.5	0.456
4-4650	4-5050	0.272	214.5	18.5	3.62	1.380	83.1	0.402	1.187	24.4	269.8	---	1.664	-2.34	1.079	68.1	3.1	-4.7	0.422
4-4650	4-5050	0.361	344.1	11.8	3.62	1.222	106.7	0.299	0.798	269.5	876.9	0.559	1.037	-2.34	0.868	99.9	131.9	7.6	0.203
4-4650	4-5060	0.246	227.1	18.3	3.21	1.382	85.5	0.398	1.196	15.8	271.1	---	1.672	-2.20	1.080	68.5	11.5	-0.9	0.415
4-4650	4-5060	0.334	345.4	11.3	3.21	1.218	105.5	0.278	0.791	270.6	885.9	0.572	1.011	-2.20	0.859	95.3	123.1	8.0	0.162
4-4650	4-5070	0.229	242.4	17.3	2.83	1.385	88.1	0.397	1.205	6.8	271.9	---	1.683	-2.14	1.090	68.6	19.7	2.7	0.412
4-4650	4-5070	0.326	343.4	10.2	2.83	1.216	105.2	0.272	0.788	270.5	895.6	0.574	1.003	-2.14	0.853	91.6	113.0	9.3	0.149
4-4650	4-5080	0.226	259.9	15.3	2.46	1.387	90.8	0.400	1.213	357.1	632.0	0.728	1.698	-2.14	1.080	68.5	28.6	6.2	0.414
4-4650	4-5080	0.332	343.8	8.7	2.46	1.215	105.5	0.278	0.787	269.6	904.5	0.569	1.006	-2.14	0.849	88.3	104.2	11.1	0.156
4-4650	4-5090	0.242	277.8	12.1	2.09	1.388	93.8	0.408	1.221	346.8	631.4	0.722	1.719	-2.20	1.080	68.0	38.0	9.3	0.421
4-4650	4-5090	0.349	344.6	7.0	2.09	1.215	106.4	0.292	0.787	269.9	912.5	0.558	1.017	-2.20	0.846	84.9	99.1	12.7	0.173
4-4650	4-5100	0.278	294.1	8.4	1.69	1.390	97.2	0.424	1.228	335.5	629.8	0.709	1.747	-2.33	1.080	67.0	48.0	12.3	0.436
4-4650	4-5100	0.378	345.9	5.2	1.69	1.216	107.9	0.316	0.788	265.4	919.7	0.539	1.037	-2.33	0.844	81.4	97.8	14.0	0.213
4-4650	4-5110	0.422	347.6	3.3	1.21	1.217	110.1	0.351	0.790	261.9	925.9	0.512	1.067	-2.36	0.842	77.4	99.7	15.0	0.260
4-4650	4-5230	0.388	163.2	11.8	3.92	1.226	71.8	0.324	0.804	92.2	871.2	0.543	1.064	2.48	0.864	102.3	316.9	-7.9	0.254
4-4650	4-5240	0.274	226.6	18.1	3.47	1.407	85.0	0.448	1.302	10.2	445.0	0.719	1.884	2.28	1.108	113.2	3.9	7.2	0.456
4-4650	4-5240	0.340	165.9	12.1	3.47	1.227	74.2	0.288	0.806	87.1	875.9	0.574	1.037	2.28	0.869	99.1	320.8	-5.5	0.211
4-4650	4-5250	0.252	246.2	17.4	3.07	1.408	88.6	0.445	1.309	4.7	443.4	0.727	1.892	2.17	1.113	112.8	13.7	11.2	0.450
4-4650	4-5250	0.304	168.2	12.1	3.07	1.228	75.9	0.261	0.807	82.7	881.8	0.596	1.018	2.17	0.873	96.3	322.8	-5.5	0.178
4-4700	4-5110	0.358	59.1	4.8	1.43	1.253	106.9	0.319	0.842	277.7	862.4	0.574	1.110	-4.26	0.888	104.6	199.8	-23.9	0.257
4-4700	4-5120	0.288	56.2	2.3	0.56	1.243	103.6	0.263	0.825	282.9	877.2	0.608	1.042	-3.69	0.872	97.7	190.3	-24.9	0.173
4-4700	4-5130	0.284	291.4	-0.6	-0.13	1.396	82.5	0.431	1.238	25.2	269.1	---	1.770	-3.34	1.078	66.6	77.6	15.4	0.439
4-4700	4-5130	0.268	55.3	-0.6	-0.13	1.240	102.7	0.247	0.820	284.4	888.2	0.618	1.022	-3.34	0.886	95.8	181.1	-23.3	0.141
4-4700	4-5140	0.257	302.4	-3.8	-0.70	1.398	84.9	0.426	1.247	17.2	270.6	---	1.778	-3.13	1.080	67.0	86.5	16.1	0.429
4-4700	4-5140	0.264	55.3	-3.2	-0.70	1.238	102.5	0.243	0.818	284.4	897.8	0.619	1.016	-3.13	0.863	90.7	172.0	-19.6	0.131
4-4700	4-5150	0.239	315.8	-7.2	-1.22	1.400	87.4	0.424	1.256	8.8	271.7	---	1.789	-3.02	1.082	67.3	95.7	16.2	0.423
4-4700	4-5150	0.271	55.9	-5.5	-1.22	1.238	102.8	0.247	0.817	284.4	906.4	0.615	1.019	-3.02	0.862	87.9	165.2	-15.0	0.135
4-4700	4-5160	0.233	331.7	-10.4	-1.72	1.402	90.0	0.426	1.264	359.9	632.4	0.726	1.802	-3.00	1.084	67.3	105.2	15.5	0.421
4-4700	4-5160	0.285	56.9	-7.3	-1.72	1.238	103.5	0.257	0.817	281.7	914.1	0.607	1.027	-3.00	0.862	85.2	161.8	-11.1	0.151
4-4700	4-5170	0.243	348.8	-13.0	-2.23	1.404	92.9	0.432	1.272	350.4	632.4	0.722	1.821	-3.06	1.087	67.0	114.9	14.1	0.424
4-4700	4-5170	0.308	58.4	-8.7	-2.23	1.239	104.5	0.273	0.818	279.1	921.0	0.594	1.042	-3.06	0.863	82.5	161.5	-8.6	0.175
4-4700	4-5180	0.273	5.7	-14.4	-2.78	1.405	96.1	0.443	1.279	340.1	631.6	0.712	1.845	-3.22	1.090	66.4	124.9	12.0	0.434
4-4700	4-5180	0.341	60.3	-9.8	-2.78	1.239	106.0	0.297	0.819	275.7	927.2	0.576	1.063	-3.22	0.866	79.5	163.6	-7.5	0.208
4-4700	4-5190	0.386	62.6	-10.5	-3.40	1.240	108.1	0.330	0.821	271.4	932.4	0.550	1.092	-3.50	0.868	76.2	167.6	-7.6	0.250
4-4750	4-4880	0.504	155.5	-6.7	-3.14	1.189	114.6	0.416	0.731	247.3	521.9	0.427	---	1.07	0.795	102.1	320.1	-12.5	0.288

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4750	4-4690	0.484	156.3	-6.6	-2.95	1.178	113.7	0.402	0.718	246.1	530.4	0.429	---	1.11	0.782	96.3	315.1	-15.4	0.247
4-4750	4-4930	0.480	156.9	-6.1	-2.74	1.172	113.6	0.408	0.711	244.8	539.1	0.426	---	1.17	0.777	97.6	306.4	-15.2	0.230
4-4750	4-4910	0.494	157.6	-5.4	-2.49	1.168	114.4	0.413	0.707	243.4	547.6	0.415	0.998	1.29	0.775	84.7	296.7	-17.0	0.243
4-4750	4-4920	0.533	158.6	-4.3	-2.18	1.167	116.4	0.444	0.705	241.4	555.6	0.392	1.019	1.49	0.777	78.2	289.7	-18.3	0.290
4-4750	4-5010	0.550	30.1	-8.1	-4.27	1.162	63.4	0.448	0.699	119.9	525.6	0.386	1.012	-1.49	0.772	101.1	78.2	19.1	0.292
4-4750	4-5020	0.519	308.4	-8.0	-3.95	1.159	64.9	0.425	0.696	119.2	535.0	0.400	0.991	-1.29	0.765	93.7	67.6	17.9	0.251
4-4750	4-5180	0.238	126.3	-27.1	-4.98	1.267	99.4	0.224	0.852	303.7	875.0	0.641	1.043	2.06	0.892	96.8	264.3	-11.3	0.153
4-4750	4-5190	0.212	123.6	-27.2	-4.46	1.264	98.3	0.206	0.845	307.3	888.2	0.671	1.019	1.63	0.889	93.0	255.1	-10.1	0.117
4-4750	4-5200	0.204	122.9	-26.1	-4.10	1.262	98.0	0.201	0.843	308.1	898.6	0.673	1.012	1.39	0.889	90.4	245.0	-9.3	0.103
4-4750	4-5210	0.203	123.4	-24.3	-3.84	1.262	98.1	0.202	0.842	307.4	907.4	0.672	1.012	1.23	0.890	88.1	236.0	-8.8	0.103
4-4750	4-5220	0.297	15.2	-17.4	-3.62	1.417	83.1	0.457	1.295	22.3	272.0	---	1.887	1.14	1.101	65.8	165.3	9.1	0.438
4-4750	4-5220	0.209	124.6	-22.1	-3.62	1.262	98.6	0.207	0.842	305.4	919.2	0.668	1.017	1.14	0.895	66.1	230.1	-9.1	0.113
4-4750	4-5230	0.270	27.0	-18.2	-3.42	1.419	85.5	0.453	1.303	14.3	273.8	---	1.894	1.09	1.106	66.5	173.5	5.6	0.430
4-4750	4-5230	0.221	126.4	-19.7	-3.42	1.262	99.3	0.216	0.843	302.6	922.1	0.660	1.025	1.09	0.897	84.2	227.8	-10.0	0.129
4-4750	4-5240	0.254	41.6	-18.4	-3.23	1.420	88.2	0.452	1.311	5.9	275.2	---	1.905	1.07	1.111	66.6	182.0	1.9	0.426
4-4750	4-5240	0.238	128.7	-17.1	-3.23	1.263	100.2	0.230	0.844	299.0	928.3	0.650	1.038	1.07	0.901	82.2	228.4	-11.4	0.150
4-4750	4-5250	0.250	58.5	-17.6	-3.05	1.422	91.0	0.455	1.319	356.8	635.9	0.719	1.919	1.08	1.115	66.6	190.9	-1.9	0.427
4-4750	4-5250	0.262	131.3	-14.6	-3.05	1.264	101.5	0.247	0.845	294.6	933.8	0.636	1.055	1.08	0.905	80.2	231.2	-13.0	0.177
4-4750	4-5260	0.265	76.4	-15.5	-2.85	1.423	94.2	0.462	1.326	346.8	635.8	0.811	1.939	1.13	1.119	66.3	200.3	-5.7	0.435
4-4750	4-5260	0.295	134.1	-12.6	-2.85	1.265	103.2	0.272	0.847	289.5	938.5	0.617	1.077	1.13	0.909	77.9	235.9	-14.8	0.210
4-4750	4-5270	0.335	137.4	-9.5	-2.63	1.266	105.5	0.304	0.849	283.4	942.4	0.590	1.107	1.22	0.914	75.2	241.9	-16.6	0.251
4-4750	4-5280	0.590	164.0	-5.9	-2.36	1.125	119.6	0.501	0.660	231.5	1260.4	0.330	0.991	1.38	0.710	89.6	316.8	-15.1	0.300
4-4800	4-4930	0.398	226.8	-3.3	-1.13	1.231	108.6	0.330	0.792	266.7	509.9	0.531	---	3.75	0.873	103.0	14.6	19.1	0.271
4-4800	4-4940	0.373	227.4	-1.4	-0.44	1.221	107.5	0.309	0.776	265.5	518.3	0.537	---	3.49	0.860	98.9	12.9	20.0	0.224
4-4800	4-4950	0.359	227.9	0.6	0.18	1.214	106.9	0.297	0.766	264.4	527.9	0.539	---	3.37	0.852	95.0	7.8	19.7	0.193
4-4800	4-4960	0.356	228.5	2.5	0.77	1.210	106.8	0.293	0.761	263.4	537.0	0.538	---	3.35	0.848	91.2	359.3	17.5	0.179
4-4800	4-4970	0.365	229.1	4.4	1.38	1.208	107.2	0.300	0.758	262.1	545.9	0.531	0.989	3.35	0.846	87.6	351.5	13.8	0.184
4-4800	4-4980	0.368	230.0	6.1	2.05	1.208	108.2	0.317	0.758	260.4	554.4	0.518	0.990	3.36	0.845	83.5	346.1	10.1	0.211
4-4800	4-4990	0.428	231.3	7.5	2.83	1.209	110.1	0.347	0.759	257.9	562.0	0.499	1.022	4.05	0.845	79.1	344.6	7.7	0.256
4-4800	4-5100	0.449	38.6	-4.8	-1.91	1.220	68.3	0.375	0.775	101.5	515.1	0.484	1.066	-4.16	0.831	103.5	178.3	-15.3	0.264
4-4800	4-5110	0.401	40.6	-3.2	-1.13	1.222	70.6	0.339	0.778	97.4	520.7	0.514	1.041	-3.75	0.831	99.4	178.8	-15.1	0.217
4-4800	4-5120	0.371	41.9	-1.5	-0.47	1.222	72.1	0.316	0.779	94.7	527.6	0.533	1.025	-3.50	0.830	95.6	175.8	-15.6	0.184
4-4800	4-5130	0.361	42.1	0.4	0.11	1.221	72.6	0.308	0.777	94.3	530.7	0.538	1.016	-3.38	0.826	91.5	167.1	-12.8	0.168
4-4800	4-5250	0.228	166.2	-68.8	-9.65	1.271	91.7	0.165	0.859	348.0	906.2	0.718	1.000	10.74	0.915	88.8	277.7	36.0	0.199
4-4800	4-5260	0.159	166.2	-52.9	-5.74	1.271	92.0	0.166	0.859	345.8	913.8	0.717	1.002	7.13	0.919	87.3	275.4	26.5	0.150
4-4800	4-5270	0.134	170.5	-38.1	-3.74	1.271	92.5	0.169	0.861	342.3	920.3	0.715	1.006	5.45	0.922	86.0	274.3	17.1	0.135
4-4800	4-5280	0.129	176.1	-25.1	-2.47	1.272	93.2	0.174	0.862	338.0	925.9	0.712	1.012	4.51	0.926	84.9	275.1	9.5	0.134
4-4800	4-5290	0.134	182.0	-14.7	-1.54	1.273	94.0	0.180	0.864	333.0	930.9	0.708	1.020	3.95	0.930	83.7	277.9	3.6	0.141
4-4800	4-5300	0.147	187.9	-6.8	-0.79	1.274	95.0	0.189	0.866	327.5	935.5	0.702	1.029	3.61	0.934	82.6	281.9	-0.5	0.153
4-4800	4-5310	0.279	103.2	-0.7	-0.14	1.427	83.9	0.476	1.349	19.0	277.1	---	1.940	3.42	1.135	66.0	251.0	-14.5	0.459
4-4800	4-5310	0.163	193.6	-1.1	-0.14	1.275	96.2	0.291	0.868	321.4	939.6	0.694	1.042	3.42	0.937	81.4	287.3	-3.3	0.169
4-4800	4-5320	0.257	117.2	2.6	0.46	1.429	86.7	0.472	1.357	10.4	278.7	---	1.998	3.35	1.138	66.5	260.6	-15.4	0.454
4-4800	4-5320	0.193	199.0	3.0	0.46	1.276	97.5	0.216	0.870	314.9	943.2	0.682	1.057	3.35	0.940	80.1	293.6	-4.9	0.190
4-4800	4-5330	0.250	134.2	6.1	1.06	1.430	89.7	0.472	1.364	7.0	279.5	---	2.009	3.38	1.141	66.6	270.7	-15.6	0.455
4-4800	4-5330	0.226	204.1	5.9	1.06	1.277	99.2	0.235	0.872	307.9	946.1	0.667	1.077	3.35	0.942	78.5	307.6	-5.5	0.215
4-4800	4-5340	0.264	152.9	9.2	1.69	1.432	93.0	0.477	1.372	350.6	639.3	0.717	2.026	3.53	1.142	66.4	284.3	-15.0	0.464
4-4800	4-5340	0.268	209.0	7.9	1.69	1.279	101.3	0.261	0.878	300.3	949.0	0.646	1.103	3.53	0.944	76.6	306.2	-5.2	0.247
4-4800	4-5350	0.322	213.9	9.3	2.40	1.280	103.9	0.296	0.877	292.1	950.9	0.617	1.136	3.82	0.945	74.2	316.2	-4.0	0.289
4-4800	4-5350	0.537	241.6	4.6	2.40	1.145	116.3	0.485	0.682	237.3	1256.1	0.378	0.985	3.82	0.753	93.1	26.6	22.3	0.274
4-4800	4-5360	0.549	242.1	6.1	3.27	1.143	116.8	0.454	0.680	236.6	1265.5	0.371	0.988	4.31	0.749	85.5	15.2	18.8	0.285
4-4850	4-4970	0.322	295.1	12.9	3.35	1.263	103.8	0.285	0.864	289.0	492.7	0.618	---	0.05	0.936	104.5	73.1	22.7	0.261
4-4850	4-4980	0.295	295.6	14.1	3.37	1.260	102.7	0.257	0.840	288.2	502.0	0.624	---	0.03	0.918	101.2	75.3	22.9	0.211
4-4850	4-4990	0.277	296.0	15.0	3.37	1.262	102.0	0.238	0.825	287.5	511.5	0.629	---	0.03	0.906	98.2	74.7	22.8	0.172
4-4850	4-5000	0.266	296.4	15.6	3.38	1.236	101.5	0.227	0.816	286.9	521.1	0.631	---	0.02	0.897	95.4	75.6	22.4	0.144
4-4850	4-5010	0.262	296.8	15.8	3.39	1.233	101.4	0.222	0.811	286.1	530.4	0.631	---	0.02	0.891	92.7	62.8	21.2	0.128
4-4850	4-5020	0.265	297.4	15.6	3.39	1.232	101.1	0.223	0.808	285.0	539.4	0.628	---	0.02	0.886	90.2	53.6	19.4	0.125
4-4850	4-5030	0.274	298.2	15.1	3.39	1.231	102.0	0.230	0.808	283.4	547.9	0.622	0.994	0.02	0.885	87.7	46.3	17.5	0.136
4-4850	4-5040	0.291	299.3	14.2	3.40	1.232	102.8	0.243	0.809	281.3	555.8	0.612	1.006	0.02	0.881	85.1	42.6	16.5	0.158
4-4850	4-5050	0.316	300.7	13.0	3.40	1.233	104.1	0.264	0.811	278.5	562.9	0.597	1.024	0.02	0.880	82.3	42.4	16.4	0.188
4-4850	4-5060	0.352	302.5	11.6	3.40	1.235	105.9	0.292	0.814	274.8	569.2	0.576	1.051	0.02	0.879	79.2	45.0	17.1	0.228
4-4850	4-5070	0.403	304.9	10.0	3.41	1.237	108.4	0.333	0.817	270.1	574.3	0.545	1.089	0.02	0.879	75.5	49.7	18.4	0.279
4-4850	4-5190	0.363	130.1	11.3	3.38	1.258	73.3	0.321	0.854	80.2	499.7	0.580	1.127	-0.02	0.895	105.4	290.5	-22.2	0.275
4-4850	4-5200	0.388	134.8	13.6	3.39	1.261	76.2	0.282	0.859	71.7	500.8	0.616	1.102	-0.02	0.901	102.9	299.9	-22.7	0.239
4-4850	4-5210	0.263	140.0	16.2	3.38	1.264	78.6	0.253	0.864	65.1	501.8	0.646	1.083	-0.02	0.907	101.0	309.2	-18.7	0.212
4-4850	4-5220	0.225	146.2	19.0	3.39	1.267	80.7	0.230	0.870	53.8	502.3	0.671	1.070	-0.02	0.914	99.7	318.7	-16.1	0.193
4-4850	4-5230	0.191	154.5	23.0	3.40	1.271	82.6	0.212	0.877	43.6	501.8	0.691	1.063	-0.02	0.922	98.9	328.6	-12.8	0.180
4-4850	4-5240	0.163	166.5	27.6	3.40	1.274	84.9	0.200	0.885	31.8	499.8	0.708	1.061	-0.02	0.930	98.6	339.2	-8.9	0.175
4-4850	4-5250	0.424	122.2	9.3	3.40	1.229	69.8	0.357	0.804	95.5	573.3	0.517	1.091	-0.02	0.870	74.4	228.1	-18.0	0.272
4-4850	4-5250	0.141	185.5	32.5	3.40	1.279	87.1	0.194	0.894	18.1	495.9	0.720	1.067	-0.02	0.939	98.9	350.6	-4.2	0.178
4-4850	4-5260	0.385	127.1	11.5	3.41	1.238	73.4	0.306	0.819	85.8	573.5	0.568	1.070	-0.02	0.887	77.2	239.2	-20.5	0.227
4-4850	4-5260	0.134	213.1	34.6	3.41	1.284	89.6	0.198	0.905	2.4	490.1	0.726	1.084	-0.02	0.950	99.8	2.8	1.1	0.191
4-4850	4-5270	0.297	132.5	14.0	3.41	1.240	76.4	0.265	0.832	75.8	573.4	0.611	1.053	-0.03	0.901	79.4	251.0	-22.4	0.199
4-4850	4-5270	0.152	243.3	30.3	3.41	1.291	92.5	0.214	0.919	345.8	843.4	0.722	1.115	-0.03	0.961	101.4	15.2	6.3	0.216
4-4850	4-5280	0.251	138.3	17.0	3.42	1.252	79.0	0.235	0.843	65.7	573.3	0.645	1.041	-0.03	0.912	80.9	262.8	-23.5	0.170
4-4850	4-5280	0.197	264.3	23.1	3.42	1.298	95.8	0.240	0.935	329.9	837.5	0.707	1.161	-0.03	0.974	103.7	27.3	11.1	0.253
4-4850	4-5290	0.215	144.8	20.3	3.44	1.257	81.0	0.213	0.852	55.9	573.5	0.670	1.033	-0.05	0.921	81.8	274.1	-23.7	0.154
4-4850	4-5290	0.260	277.3	17.9	3.44	1.306	99.4	0.286	0.956	315.9	833.6	0.681	1.227	-0.05	0.987	106.5	38.9	15.1	0.300
4-4850	4-5300	0.186	152.0	24.0	3.48	1.261	82.8	0.198	0.859	46.5	574.3	0.689	1.029	-0.09	0.929	82.4	284.5	-23.3	0.146
4-4850	4-5310	0.169	160.2	30.6	3.91	1.264	84.3	0.188	0.865	37.4	575.4	0.703	1.027	-0.52	0.935	82.7	294.6	-25.0	0.142
4-4850	4-5320	0.145	170.5	29.7	3.26	1.267	85.7	0.181	0.870	28.7	576.8	0.713	1.027	0.13	0.940	82.8	302.7	-19.2	0.141

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4850	4-5330	0.134	182.4	33.5	3.34	1.269	87.0	0.177	0.874	20.2	578.5	0.719	1.029	0.06	0.943	82.7	311.1	-17.7	0.143
4-4850	4-5340	0.127	196.5	36.0	3.36	1.271	88.2	0.176	0.878	11.8	580.3	0.724	1.033	0.04	0.946	82.5	319.2	-15.6	0.147
4-4850	4-5350	0.125	212.0	36.9	3.37	1.273	89.5	0.177	0.882	3.5	582.1	0.726	1.038	0.03	0.949	82.2	327.1	-13.1	0.154
4-4850	4-5360	0.128	227.7	35.9	3.38	1.275	90.7	0.180	0.886	355.2	584.0	0.726	1.045	0.02	0.950	81.8	334.7	-10.3	0.161
4-4850	4-5370	0.137	242.0	33.3	3.38	1.276	92.1	0.186	0.889	346.9	945.9	0.723	1.054	0.02	0.951	81.5	342.4	-7.3	0.171
4-4850	4-5380	0.152	254.2	29.7	3.39	1.278	93.5	0.195	0.892	338.6	947.7	0.718	1.066	0.02	0.951	80.6	350.0	-4.2	0.183
4-4850	4-5390	0.299	183.4	16.3	3.39	1.427	83.7	0.489	1.395	19.3	278.5	---	2.077	0.02	1.142	65.7	333.5	-10.9	0.484
4-4850	4-5390	0.172	264.3	25.9	3.39	1.279	95.0	0.207	0.895	330.2	949.4	0.710	1.080	0.02	0.950	79.7	357.7	-0.9	0.198
4-4850	4-5400	0.278	197.8	17.7	3.39	1.429	86.6	0.485	1.403	10.4	279.6	---	2.084	0.02	1.142	66.1	342.4	-7.4	0.478
4-4850	4-5400	0.199	272.6	22.2	3.39	1.281	96.7	0.223	0.898	321.8	951.0	0.698	1.098	0.02	0.950	78.6	5.5	2.5	0.216
4-4850	4-5410	0.270	215.0	18.3	3.40	1.430	89.8	0.485	1.411	0.8	280.0	---	2.096	0.02	1.141	66.2	351.3	-3.7	0.478
4-4850	4-5410	0.233	279.7	18.8	3.40	1.282	98.7	0.243	0.900	313.2	952.4	0.681	1.120	0.02	0.949	77.2	13.5	5.9	0.239
4-4850	4-5420	0.283	233.8	17.4	3.40	1.432	93.2	0.491	1.418	350.2	639.3	0.723	2.114	0.02	1.140	65.9	0.6	0.3	0.485
4-4850	4-5420	0.276	285.9	15.7	3.40	1.283	101.0	0.271	0.903	304.4	953.5	0.659	1.148	0.02	0.947	75.5	21.9	9.3	0.268
4-4850	4-5420	0.521	319.3	6.8	3.40	1.156	115.3	0.429	0.706	241.2	1250.3	0.403	1.005	0.02	0.767	97.1	115.0	21.5	0.254
4-4850	4-5430	0.514	319.4	6.9	3.40	1.154	115.0	0.424	0.703	240.9	1260.0	0.405	1.001	0.02	0.759	90.0	102.1	23.0	0.241
4-4850	4-5440	0.537	320.0	6.6	3.41	1.153	116.2	0.442	0.702	239.8	1268.6	0.391	1.012	0.02	0.754	83.3	92.2	25.5	0.269
4-4860	4-4940	0.516	303.9	2.8	1.10	1.407	110.3	0.539	1.299	299.7	457.0	0.599	---	2.35	1.122	119.8	62.2	25.1	0.569
4-4860	4-4950	0.432	305.3	-2.4	-0.80	1.349	107.7	0.433	1.076	297.7	465.1	0.609	---	4.17	1.050	115.3	67.7	30.5	0.465
4-4860	4-4960	0.522	315.4	-46.7	-17.50	1.310	105.6	0.359	0.967	296.2	473.6	0.620	---	20.79	1.000	111.0	53.5	61.0	0.512
4-4860	4-4970	0.384	310.4	33.9	9.89	1.283	103.9	0.307	0.906	294.7	482.6	0.628	---	-6.68	0.965	107.2	80.6	3.7	0.322
4-4860	4-4980	0.314	309.0	24.6	6.07	1.265	102.5	0.270	0.870	293.9	491.9	0.635	---	-2.94	0.940	103.8	84.5	12.5	0.249
4-4850	4-4990	0.282	309.0	22.2	4.97	1.253	101.5	0.243	0.847	293.2	501.4	0.641	---	-1.93	0.923	100.6	86.4	14.6	0.200
4-4860	4-5000	0.262	309.1	21.1	4.42	1.245	100.8	0.228	0.833	292.8	511.1	0.645	---	-1.47	0.911	97.7	85.6	15.2	0.163
4-4860	4-5010	0.250	309.3	20.3	4.08	1.240	100.4	0.215	0.824	292.2	520.7	0.647	---	-1.22	0.902	95.1	81.5	15.1	0.136
4-4860	4-5020	0.245	309.7	19.3	3.83	1.237	100.3	0.211	0.820	291.5	530.0	0.647	---	-1.07	0.896	92.6	74.0	14.7	0.121
4-4860	4-5030	0.248	310.2	18.2	3.63	1.236	100.5	0.212	0.818	290.4	539.0	0.644	---	-0.98	0.892	90.3	65.1	14.0	0.119
4-4860	4-5040	0.256	311.0	16.7	3.45	1.236	100.9	0.218	0.817	288.8	547.4	0.639	0.996	-0.93	0.888	87.9	57.9	13.6	0.129
4-4860	4-5050	0.268	312.1	15.0	3.29	1.236	101.7	0.230	0.818	286.6	555.2	0.630	1.007	-0.91	0.886	85.6	54.2	13.8	0.148
4-4860	4-5060	0.289	313.6	13.2	3.13	1.238	102.8	0.248	0.820	283.8	562.3	0.617	1.024	-0.92	0.885	83.1	53.9	14.5	0.175
4-4860	4-5070	0.320	315.4	11.2	2.97	1.239	104.4	0.272	0.823	280.2	568.5	0.599	1.048	-0.96	0.884	80.3	56.3	15.7	0.209
4-4860	4-5080	0.362	317.7	9.2	2.78	1.241	106.5	0.306	0.827	275.7	573.8	0.574	1.080	-1.03	0.884	77.1	60.8	17.1	0.252
4-4860	4-5090	0.421	320.5	7.2	2.56	1.244	109.4	0.352	0.831	270.1	578.0	0.538	1.124	-1.15	0.884	73.3	67.0	18.5	0.306
4-4860	4-5100	0.505	324.0	5.2	2.28	1.246	113.5	0.416	0.835	263.1	580.6	0.488	1.183	-1.35	0.885	68.4	74.8	19.8	0.379
4-4860	4-5110	0.629	328.5	3.2	1.86	1.250	119.6	0.508	0.841	253.8	581.0	0.414	1.268	-1.68	0.887	61.6	84.3	20.6	0.481
4-4860	4-5120	0.975	357.2	0.7	1.15	0.980	142.8	0.817	0.558	204.3	901.1	0.102	1.015	-2.31	0.426	85.3	155.4	8.4	0.564
4-4860	4-5180	0.609	134.0	8.4	4.61	1.256	61.3	0.497	0.852	103.6	497.7	0.429	1.276	1.62	0.893	117.9	281.9	-20.2	0.468
4-4860	4-5190	0.487	139.6	10.1	4.22	1.259	67.4	0.410	0.859	92.5	496.1	0.507	1.211	1.32	0.899	112.0	292.9	-18.8	0.378
4-4860	4-5200	0.400	144.7	11.9	3.95	1.262	71.7	0.348	0.864	82.5	495.8	0.564	1.165	1.14	0.905	107.9	303.0	-16.8	0.316
4-4860	4-5210	0.333	149.9	13.8	3.74	1.265	75.1	0.302	0.870	73.1	496.0	0.608	1.132	1.02	0.911	105.0	312.5	-14.3	0.272
4-4860	4-5220	0.851	119.3	3.6	3.56	1.171	47.2	0.679	0.725	133.0	565.6	0.232	1.217	0.95	0.778	52.9	202.4	-8.3	0.588
4-4860	4-5220	0.280	155.5	16.0	3.56	1.268	77.9	0.267	0.876	63.6	496.2	0.642	1.110	0.95	0.918	102.9	321.8	-11.3	0.241
4-4860	4-5230	0.758	122.8	4.2	3.39	1.185	52.3	0.612	0.742	126.2	568.5	0.288	1.196	0.92	0.802	57.3	210.0	-11.0	0.520
4-4860	4-5230	0.236	162.2	18.4	3.39	1.271	80.4	0.241	0.882	53.8	496.1	0.669	1.094	0.92	0.925	101.4	331.0	-7.8	0.218
4-4860	4-5240	0.668	126.5	4.9	3.24	1.198	57.2	0.544	0.760	119.0	571.1	0.347	1.173	0.91	0.825	62.3	218.1	-13.4	0.454
4-4860	4-5240	0.198	170.9	21.2	3.24	1.275	82.6	0.221	0.888	43.0	495.1	0.692	1.085	0.91	0.933	100.5	340.5	-3.8	0.204
4-4860	4-5250	0.581	130.3	5.7	3.08	1.210	61.7	0.477	0.778	111.4	573.3	0.407	1.149	0.93	0.846	66.4	226.9	-15.7	0.393
4-4860	4-5250	0.166	183.1	24.4	3.08	1.278	84.8	0.208	0.896	31.2	493.1	0.709	1.083	0.93	0.941	100.1	350.5	0.7	0.196
4-4860	4-5260	0.499	134.4	6.5	2.91	1.222	65.9	0.415	0.795	103.2	575.1	0.465	1.125	0.98	0.866	70.1	236.3	-17.4	0.336
4-4860	4-5260	0.142	201.3	27.3	2.91	1.283	87.0	0.202	0.904	18.0	489.8	0.721	1.087	0.98	0.949	100.1	1.0	5.5	0.197
4-4860	4-5270	0.424	138.8	7.4	2.71	1.212	69.8	0.359	0.811	94.6	576.3	0.520	1.102	1.07	0.883	73.3	246.5	-18.5	0.287
4-4860	4-5270	0.131	226.8	27.6	2.71	1.237	89.4	0.205	0.914	3.5	485.3	0.727	1.102	1.07	0.959	100.8	12.2	10.6	0.206
4-4860	4-5280	0.358	143.5	8.2	2.46	1.240	73.2	0.311	0.825	85.3	577.1	0.569	1.082	1.22	0.898	76.0	257.2	-18.6	0.246
4-4860	4-5280	0.143	254.1	22.8	2.46	1.293	92.1	0.218	0.927	348.3	840.3	0.725	1.129	1.22	0.969	102.0	23.9	15.5	0.225
4-4860	4-5290	0.300	148.7	8.5	2.11	1.248	76.1	0.272	0.838	75.8	577.6	0.610	1.065	1.47	0.911	78.1	268.1	-17.3	0.215
4-4860	4-5290	0.179	274.9	15.5	2.11	1.299	95.1	0.243	0.941	333.6	835.5	0.712	1.170	1.47	0.980	103.8	35.8	20.1	0.254
4-4860	4-5300	0.252	154.5	7.7	1.56	1.254	78.6	0.242	0.848	66.0	578.0	0.643	1.053	1.93	0.921	79.6	278.7	-14.0	0.192
4-4860	4-5300	0.233	288.8	8.7	1.56	1.306	98.4	0.279	0.958	320.2	832.1	0.690	1.225	1.93	0.991	106.1	47.5	24.2	0.294
4-4860	4-5310	0.211	160.9	2.7	0.46	1.258	80.7	0.220	0.857	56.4	578.4	0.669	1.045	2.96	0.929	80.6	288.2	-7.1	0.181
4-4860	4-5310	0.301	298.2	2.0	0.46	1.314	102.0	0.325	0.976	308.4	830.4	0.660	1.293	2.96	1.003	108.9	58.6	28.7	0.344
4-4860	4-5320	0.192	167.6	-22.6	-3.39	1.262	82.6	0.204	0.864	46.9	579.1	0.688	1.040	6.72	0.936	81.3	295.2	12.0	0.199
4-4860	4-5320	0.385	305.4	-11.3	-3.39	1.322	105.7	0.376	0.997	298.1	830.3	0.622	1.372	6.72	1.015	112.1	68.0	37.6	0.410
4-4860	4-5330	0.522	132.9	76.7	23.75	1.266	84.2	0.192	0.871	37.3	579.9	0.703	1.038	-20.50	0.941	81.8	6.9	-65.9	0.380
4-4860	4-5330	0.679	323.8	47.9	23.75	1.330	109.7	0.432	1.018	288.8	831.4	0.579	1.458	-20.50	1.026	115.5	78.0	-11.8	0.570
4-4860	4-5340	0.596	152.4	16.1	7.33	1.414	66.4	0.577	1.330	67.6	260.2	---	2.097	-4.16	1.132	57.8	293.1	-28.4	0.611
4-4860	4-5340	0.204	183.9	52.4	7.33	1.268	85.7	0.185	0.876	28.4	581.0	0.714	1.038	-4.16	0.945	81.9	327.9	-37.8	0.171
4-4860	4-5340	0.567	316.1	16.0	7.33	1.338	113.7	0.488	1.041	280.7	833.4	0.533	1.548	-4.16	1.036	119.0	91.8	16.2	0.517
4-4860	4-5350	0.539	157.1	13.4	5.43	1.416	69.0	0.558	1.343	61.0	263.8	---	2.094	-2.35	1.135	59.4	301.6	-24.3	0.584
4-4860	4-5350	0.164	198.0	47.1	5.43	1.271	87.0	0.181	0.881	19.4	582.3	0.721	1.040	-2.35	0.947	82.0	332.2	-26.1	0.162
4-4860	4-5350	0.643	319.4	10.1	5.43	1.346	117.8	0.544	1.064	273.2	836.0	0.485	1.642	-2.35	1.046	122.7	101.6	19.4	0.679
4-4860	4-5360	0.488	162.0	13.0	4.67	1.419	71.6	0.542	1.356	54.1	267.1	---	2.091	-1.67	1.138	60.9	310.3	-21.4	0.561
4-4860	4-5360	0.146	213.4	45.1	4.67	1.273	88.4	0.180	0.885	10.6	583.6	0.725	1.044	-1.67	0.949	81.9	338.9	-19.3	0.163
4-4860	4-5370	0.441	167.6	13.2	4.24	1.421	74.1	0.527	1.368	47.1	270.2	---	2.089	-1.33	1.139	62.3	318.9	-18.5	0.540
4-4860	4-5370	0.139	229.9	42.8	4.24	1.275	89.7	0.182	0.889	1.9	585.1	0.727	1.050	-1.33	0.951	81.6	346.0	-14.1	0.167
4-4860	4-5380	0.397	174.3	13.9	3.95	1.423	76.7	0.514	1.379	39.8	273.0	---	2.088	-1.14	1.140	63.4	327.4	-15.5	0.522
4-4860	4-5380	0.139	246.1	39.2	3.95	1.277	91.0	0.186	0.892	353.3	946.6	0.726	1.058	-1.14	0.951	81.2	353.3	-9.6	0.174
4-4860	4-5390	0.356	182.3	14.8	3.73	1.425	79.4	0.503	1.389	32.1	275.5	---	2.089	-1.02	1.141	64.4	335.8	-12.3	0.506
4-4860	4-5390	0.146	260.5	34.5	3.73	1.278	92.5	0.193	0.896	344.7	948.1	0.723	1.068	-1.02	0.951	80.7	0.7	-5.4	0.183
4-4860	4-5400	0.320	192.4	15.8	3.54	1.427	82.1	0.495	1.399	24.1	277.4	---	2.091	-0.95	1.141	65.2	344.2	-8.9	0.494
4-4860	4-5400	0.161	272.5	29.4	3.54	1.280	93.9	0.202	0.899	336.2	949.6	0.717	1.081	-0.95	0.950	79.9	8.2	-1.4	0.195

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4860	4-5410	0.291	294.9	16.7	3.38	1.428	84.9	0.490	1.408	15.5	278.9	---	2.097	-0.92	1.140	65.8	352.6	-5.3	0.485
4-4860	4-5410	0.182	282.3	24.4	3.38	1.281	95.6	0.216	0.902	327.6	951.0	0.707	1.096	-0.92	0.949	79.0	15.9	2.4	0.211
4-4860	4-5420	0.273	220.4	17.3	3.22	1.430	87.9	0.487	1.436	6.4	279.7	---	2.106	-0.91	1.140	66.1	1.3	-1.6	0.481
4-4860	4-5420	0.210	290.4	19.8	3.22	1.283	97.4	0.233	0.905	319.8	952.3	0.693	1.116	-0.91	0.948	77.8	23.9	6.0	0.230
4-4860	4-5430	0.272	238.3	10.3	3.06	1.431	91.2	0.490	1.424	356.5	639.6	0.727	2.121	-0.93	1.139	66.0	10.2	2.2	0.483
4-4860	4-5430	0.247	297.3	15.9	3.06	1.284	99.5	0.256	0.908	310.3	953.5	0.675	1.140	-0.93	0.947	76.3	32.2	9.4	0.254
4-4860	4-5430	0.536	334.8	5.9	3.06	1.161	116.2	0.842	0.713	241.6	1244.7	0.398	1.026	-0.93	0.773	101.5	136.2	14.0	0.278
4-4860	4-5440	0.294	256.8	14.2	2.88	1.432	94.8	0.497	1.431	345.5	638.5	0.719	2.142	-0.99	1.138	65.4	19.7	6.1	0.492
4-4860	4-5440	0.293	303.4	12.5	2.88	1.285	102.0	0.287	0.910	301.3	954.5	0.649	1.171	-0.99	0.946	74.4	40.9	12.5	0.285
4-4860	4-5440	0.508	334.6	6.0	2.88	1.157	114.8	0.420	0.709	242.0	1255.0	0.411	1.006	-0.99	0.763	93.6	124.1	16.5	0.238
4-4860	4-5450	0.342	273.9	11.2	2.68	1.434	89.0	0.533	1.438	333.3	636.0	0.701	2.175	-1.08	1.137	64.2	29.9	9.9	0.512
4-4860	4-5450	0.353	309.1	9.5	2.68	1.287	105.1	0.327	0.933	291.8	954.6	0.615	1.212	-1.08	0.945	71.8	50.2	15.4	0.326
4-4860	4-5450	0.514	334.9	5.5	2.68	1.156	115.2	0.426	0.707	241.3	1264.1	0.406	1.008	-1.08	0.757	87.0	112.7	18.4	0.245
4-4860	4-5460	0.421	288.9	8.1	2.44	1.435	104.1	0.540	1.445	319.2	631.6	0.665	2.224	-1.23	1.136	62.0	41.4	13.6	0.548
4-4860	4-5460	0.433	314.7	6.9	2.44	1.288	109.1	0.381	0.916	281.6	954.0	0.567	1.265	-1.23	0.944	68.3	60.3	17.7	0.381
4-4860	4-5460	0.550	335.7	4.6	2.44	1.155	117.0	0.455	0.706	239.7	1272.1	0.385	1.027	-1.23	0.753	80.2	105.6	19.5	0.287
4-4870	4-4940	0.572	314.8	1.6	0.68	1.479	110.9	0.658	1.783	306.3	447.7	0.610	---	2.84	1.212	122.6	67.2	26.2	0.665
4-4870	4-4950	0.468	316.6	-1.0	-0.37	1.399	108.2	0.510	1.264	304.1	455.6	0.620	---	3.71	1.114	118.1	73.4	29.4	0.536
4-4870	4-4960	0.394	318.1	-8.1	-2.40	1.345	105.8	0.409	1.065	302.3	464.0	0.629	---	5.64	1.046	113.6	79.1	35.4	0.440
4-4870	4-4970	0.388	321.7	-32.4	-9.44	1.300	103.9	0.338	0.965	301.0	472.8	0.639	---	12.46	0.999	109.7	80.4	33.2	0.406
4-4870	4-4990	0.346	324.9	42.8	10.92	1.267	101.2	0.254	0.875	299.1	491.6	0.662	---	-8.21	0.943	102.9	92.3	-6.2	0.266
4-4870	4-5000	0.280	322.5	33.3	7.15	1.255	100.3	0.230	0.853	296.8	501.3	0.657	---	-4.61	0.927	99.9	95.1	1.7	0.199
4-4870	4-5010	0.251	322.0	28.8	5.65	1.248	99.7	0.214	0.840	298.4	511.1	0.661	---	-3.27	0.915	97.2	94.5	4.3	0.159
4-4870	4-5020	0.236	321.8	25.9	4.81	1.244	99.4	0.204	0.833	298.0	520.8	0.662	---	-2.60	0.907	96.8	90.4	5.4	0.132
4-4870	4-5030	0.229	322.0	23.3	4.24	1.241	99.3	0.201	0.828	297.3	530.2	0.662	---	-2.22	0.901	92.5	83.2	6.1	0.118
4-4870	4-5040	0.228	322.5	20.8	3.81	1.240	99.5	0.202	0.827	296.2	539.0	0.660	---	-1.99	0.896	90.2	75.0	7.0	0.116
4-4870	4-5050	0.234	323.4	18.3	3.45	1.240	99.9	0.208	0.826	294.5	547.3	0.655	0.998	-1.85	0.893	88.1	68.4	8.4	0.124
4-4870	4-5060	0.245	324.6	15.7	3.13	1.241	100.6	0.219	0.826	292.3	555.0	0.647	1.009	-1.78	0.891	85.9	65.0	10.0	0.141
4-4870	4-5070	0.264	326.1	13.1	2.82	1.242	101.6	0.234	0.830	289.4	561.9	0.636	1.024	-1.77	0.889	83.6	64.8	11.7	0.165
4-4870	4-5080	0.290	328.1	10.6	2.51	1.244	102.9	0.255	0.833	285.8	568.1	0.620	1.045	-1.81	0.889	81.2	67.2	13.5	0.194
4-4870	4-5090	0.326	330.4	8.1	2.18	1.246	104.8	0.281	0.836	281.5	573.5	0.599	1.074	-1.91	0.889	78.4	71.6	15.1	0.231
4-4870	4-5100	0.375	333.1	5.8	1.81	1.248	107.2	0.322	0.840	276.2	577.9	0.570	1.111	-2.08	0.889	75.1	77.5	16.5	0.277
4-4870	4-5110	0.443	336.4	3.5	1.34	1.251	110.6	0.374	0.845	269.7	581.1	0.529	1.161	-2.35	0.890	71.1	84.9	17.4	0.335
4-4870	4-5120	0.540	340.4	1.5	0.72	1.254	115.3	0.446	0.850	261.6	582.6	0.471	1.229	-2.81	0.892	65.8	93.6	17.9	0.415
4-4870	4-5130	0.683	345.6	-0.4	-0.23	1.257	122.3	0.549	0.856	251.0	581.5	0.386	1.326	-3.59	0.895	58.3	104.1	17.6	0.530
4-4870	4-5130	0.932	11.2	-0.2	-0.23	0.997	140.0	0.787	0.570	206.9	897.4	0.122	1.019	-3.59	0.465	99.4	174.8	-1.1	0.532
4-4870	4-5140	0.993	13.0	-1.2	-1.97	0.986	143.9	0.827	0.563	204.0	904.0	0.098	1.028	-5.18	0.438	71.7	163.7	3.0	0.589
4-4870	4-5190	0.715	146.4	9.2	6.24	1.260	56.4	0.569	0.862	110.5	498.4	0.372	1.352	3.78	0.991	123.3	291.4	-16.8	0.558
4-4870	4-5200	0.557	153.0	10.7	5.21	1.263	64.2	0.458	0.868	97.2	494.7	0.470	1.266	2.91	0.908	115.7	303.3	-14.4	0.441
4-4870	4-5210	0.447	158.7	12.2	4.54	1.267	69.7	0.381	0.874	85.9	493.0	0.541	1.207	2.41	0.915	110.6	313.7	-11.5	0.363
4-4870	4-5220	0.365	164.3	13.7	4.06	1.270	75.8	0.325	0.880	75.5	492.3	0.594	1.167	2.11	0.921	107.1	323.4	-8.1	0.309
4-4870	4-5230	0.302	170.3	15.2	3.67	1.273	77.0	0.284	0.886	65.3	491.8	0.634	1.138	1.93	0.928	104.7	332.6	-4.4	0.271
4-4870	4-5240	0.835	136.2	3.5	3.33	1.178	48.3	0.666	0.736	131.1	567.3	0.246	1.225	1.82	0.798	53.2	220.1	-13.5	0.585
4-4870	4-5240	0.251	177.5	16.9	3.33	1.276	79.7	0.254	0.892	54.8	491.1	0.665	1.119	1.82	0.935	103.0	341.8	-0.4	0.244
4-4870	4-5250	0.744	139.8	3.9	3.02	1.192	53.2	0.600	0.753	124.2	570.4	0.302	1.204	1.77	0.821	57.9	228.1	-15.4	0.520
4-4870	4-5250	0.208	186.1	18.7	3.02	1.279	82.2	0.233	0.899	43.8	489.9	0.690	1.108	1.77	0.943	101.9	351.1	4.0	0.226
4-4870	4-5260	0.656	143.4	4.2	2.71	1.204	57.9	0.534	0.770	117.1	573.1	0.359	1.181	1.78	0.842	62.2	236.7	-16.9	0.457
4-4870	4-5260	0.172	198.0	20.6	2.71	1.282	84.4	0.218	0.906	31.9	487.9	0.708	1.104	1.78	0.951	101.3	0.7	8.7	0.216
4-4870	4-5270	0.572	147.2	4.5	2.39	1.216	62.3	0.470	0.787	109.5	575.5	0.417	1.157	1.84	0.862	66.2	245.7	-17.9	0.399
4-4870	4-5270	0.145	215.0	21.7	2.39	1.286	86.7	0.211	0.914	19.0	485.0	0.721	1.107	1.84	0.959	101.1	11.0	13.5	0.214
4-4870	4-5280	0.493	151.3	4.6	2.04	1.226	66.3	0.411	0.804	101.5	577.5	0.474	1.134	1.97	0.880	69.7	255.3	-18.0	0.348
4-4870	4-5280	0.131	238.3	20.6	2.04	1.290	89.1	0.212	0.923	5.3	481.3	0.727	1.120	1.97	0.967	101.5	21.9	18.4	0.219
4-4870	4-5290	0.421	155.6	4.5	1.61	1.236	70.0	0.357	0.819	93.0	579.0	0.526	1.111	2.19	0.895	72.7	265.3	-17.1	0.300
4-4870	4-5290	0.137	264.0	15.5	1.61	1.295	91.6	0.223	0.934	351.2	837.2	0.726	1.143	2.19	0.976	102.4	33.4	22.9	0.233
4-4870	4-5300	0.356	160.5	3.5	1.06	1.244	73.3	0.312	0.832	84.0	580.1	0.573	1.092	2.55	0.909	75.2	275.4	-14.8	0.263
4-4870	4-5300	0.166	285.2	8.3	1.06	1.301	94.4	0.243	0.947	337.4	833.5	0.717	1.178	2.55	0.985	103.9	45.4	27.1	0.257
4-4870	4-5310	0.300	165.4	1.0	0.25	1.250	76.1	0.275	0.844	74.7	580.9	0.612	1.076	3.18	0.920	77.2	285.2	-10.4	0.235
4-4870	4-5310	0.214	300.1	1.5	0.25	1.307	97.4	0.274	0.962	324.4	830.6	0.699	1.226	3.18	0.995	105.8	57.6	30.9	0.291
4-4870	4-5320	0.255	170.9	-5.5	-1.15	1.256	78.6	0.246	0.855	65.1	581.5	0.645	1.065	4.41	0.929	78.7	294.2	-2.6	0.219
4-4870	4-5320	0.278	310.4	-5.3	-1.15	1.314	100.8	0.314	0.979	312.8	829.1	0.672	1.286	4.41	1.006	108.3	69.4	34.9	0.335
4-4870	4-5330	0.235	176.3	-24.5	-4.49	1.261	80.7	0.224	0.863	59.6	582.1	0.670	1.057	7.59	0.936	79.8	301.3	12.6	0.229
4-4870	4-5330	0.361	318.5	-16.1	-4.49	1.321	104.3	0.360	0.998	302.4	828.9	0.638	1.358	7.59	1.016	111.1	80.4	41.6	0.396
4-4870	4-5340	0.676	142.2	-73.0	-26.05	1.265	82.5	0.209	0.871	46.5	582.8	0.689	1.053	29.00	0.941	80.5	311.3	46.0	0.519
4-4870	4-5350	0.391	173.9	70.8	17.00	1.268	84.3	0.196	0.877	36.0	583.2	0.705	1.049	-14.21	0.945	81.1	3.1	-56.3	0.296
4-4870	4-5350	0.621	334.8	35.7	17.00	1.336	112.0	0.466	1.040	284.6	831.8	0.555	1.524	-14.21	1.035	117.6	98.8	-1.4	0.542
4-4870	4-5360	0.587	169.6	19.4	8.60	1.416	67.5	0.571	1.345	64.7	261.0	---	2.113	-5.97	1.135	58.4	315.3	-26.8	0.612
4-4870	4-5360	0.226	200.0	57.0	8.60	1.271	85.8	0.189	0.882	26.9	584.1	0.715	1.049	-5.97	0.948	81.3	349.1	-37.2	0.197
4-4870	4-5360	0.618	334.1	17.0	8.60	1.344	115.9	0.520	1.062	277.0	834.3	0.509	1.614	-5.97	1.044	121.1	111.7	12.2	0.556
4-4870	4-5370	0.526	174.7	16.2	6.31	1.418	70.1	0.554	1.358	58.0	265.3	---	2.110	-3.85	1.137	60.0	322.8	-21.6	0.582
4-4870	4-5370	0.179	215.4	51.4	6.31	1.273	87.3	0.186	0.887	17.7	585.1	0.723	1.052	-3.85	0.950	81.4	352.0	-25.7	0.181
4-4870	4-5380	0.474	180.0	15.0	5.20	1.421	72.6	0.538	1.370	51.0	268.5	---	2.107	-2.91	1.138	61.4	330.7	-17.5	0.559
4-4870	4-5380	0.156	231.8	47.9	5.20	1.275	86.7	0.185	0.892	8.7	586.1	0.727	1.056	-2.91	0.950	81.3	357.7	-17.9	0.178
4-4870	4-5390	0.427	186.1	14.7	4.52	1.423	75.2	0.524	1.382	43.9	271.4	---	2.106	-2.40	1.139	62.7	338.7	-13.8	0.538
4-4870	4-5390	0.145	248.9	43.8	4.52	1.277	90.0	0.187	0.895	359.7	947.3	0.728	1.063	-2.40	0.951	81.0	4.3	-11.8	0.181
4-4870	4-5400	0.383	193.3	18.8	4.02	1.425	77.9	0.512	1.393	36.4	274.0	---	2.105	-2.09	1.139	63.8	346.7	-10.2	0.520
4-4870	4-5400	0.144	265.1	38.5	4.02	1.279	91.5	0.192	0.899	350.9	948.5	0.726	1.072	-2.09	0.951	80.6	11.4	-6.6	0.187
4-4870	4-5410	0.342	202.1	15.1	3.63	1.427	80.5	0.502	1.403	28.6	276.2	---	2.107	-1.91	1.139	64.1	354.7	-6.5	0.505
4-4870	4-5410	0.151	279.2	32.3	3.63	1.281	92.9	0.200	0.903	342.2	949.8	0.722	1.083	-1.91	0.950	80.1	18.7	-2.0	0.196
4-4870	4-5420	0.308	213.1	15.3	3.29	1.428	83.3	0.495	1.412	20.4	277.9	---	2.111	-1.81	1.139	65.3	2.8	-2.9	0.494
4-4870	4-5420	0.167	290.7	20.1	3.29	1.282	94.5	0.211	0.906	333.6	951.1	0.715	1.097	-1.81	0.949	79.3	26.3	2.1	0.208

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4870	4-5430	0.282	226.7	15.2	2.98	1.430	86.2	0.491	1.421	11.7	279.1	---	2.118	-1.77	1.138	65.8	11.2	0.7	0.486
4-4870	4-5430	0.190	300.1	20.5	2.98	1.284	96.2	0.226	0.909	325.0	952.3	0.704	1.114	-1.77	0.948	78.3	34.2	5.9	0.223
4-4870	4-5440	0.270	243.1	14.3	2.68	1.431	89.2	0.491	1.429	2.3	279.5	---	2.130	-1.78	1.137	65.9	19.9	4.3	0.484
4-4870	4-5440	0.220	308.0	15.6	2.68	1.285	98.2	0.245	0.912	316.3	953.5	0.688	1.135	-1.78	0.947	77.0	42.5	9.2	0.243
4-4870	4-5440	0.578	350.8	4.8	2.68	1.169	118.4	0.475	0.724	241.1	1238.3	0.380	1.068	-1.78	0.782	107.5	156.3	5.6	0.333
4-4870	4-5440	0.789	354.6	3.1	2.68	1.190	128.8	0.627	0.751	233.4	1230.5	0.280	1.222	-1.78	0.813	124.2	168.6	2.5	0.548
4-4870	4-5450	0.276	261.3	12.3	2.36	1.432	92.6	0.495	1.436	352.1	639.1	0.726	2.147	-1.85	1.136	65.6	29.1	7.7	0.488
4-4870	4-5450	0.260	314.7	11.5	2.36	1.286	100.4	0.271	0.915	307.5	954.4	0.667	1.162	-1.85	0.946	75.4	51.2	12.1	0.268
4-4870	4-5450	0.510	349.9	4.9	2.36	1.162	115.0	0.424	0.715	242.8	1249.7	0.412	1.018	-1.85	0.768	97.4	144.7	8.1	0.248
4-4870	4-5460	0.307	279.2	9.4	2.01	1.434	96.4	0.505	1.443	340.9	637.5	0.714	2.172	-1.98	1.136	64.8	39.1	11.0	0.500
4-4870	4-5460	0.311	320.7	8.1	2.01	1.288	105.2	0.304	0.917	298.3	955.0	0.639	1.196	-1.98	0.945	73.2	60.7	14.6	0.301
4-4870	4-5460	0.500	350.0	4.2	2.01	1.159	114.6	0.416	0.712	242.7	1259.3	0.416	1.009	-1.98	0.761	90.5	133.1	10.8	0.233
4-4870	4-5470	0.366	295.3	6.2	1.60	1.435	100.8	0.524	1.450	328.1	634.4	0.690	2.210	-2.19	1.135	63.3	50.0	14.0	0.524
4-4870	4-5470	0.377	326.4	5.2	1.60	1.289	106.5	0.348	0.920	288.7	954.9	0.600	1.241	-2.19	0.944	70.4	70.1	16.5	0.346
4-4870	4-5470	0.519	350.5	3.2	1.60	1.158	115.6	0.432	0.711	241.6	1267.9	0.404	1.018	-2.19	0.756	84.1	123.9	13.2	0.256
4-4880	4-4950	0.513	327.1	-0.7	-0.25	1.463	108.4	0.617	1.651	310.8	446.5	0.632	---	3.57	1.194	120.7	78.8	29.0	0.719
4-4880	4-4960	0.420	326.9	-4.4	-1.37	1.389	106.0	0.477	1.224	308.8	454.7	0.640	---	4.44	1.103	116.3	85.2	32.1	0.600
4-4880	4-4970	0.356	330.4	-12.2	-3.31	1.339	103.9	0.382	1.050	307.3	463.3	0.649	---	6.14	1.040	112.2	91.3	38.0	0.411
4-4880	4-4980	0.340	333.0	-30.9	-7.84	1.306	102.1	0.316	0.961	306.4	472.5	0.657	---	10.45	0.996	108.4	96.1	51.3	0.366
4-4880	4-5000	0.527	356.3	65.5	22.59	1.268	99.8	0.240	0.378	304.7	491.9	0.668	---	-20.42	0.944	102.0	91.2	-29.8	0.402
4-4880	4-5010	0.305	337.3	47.8	10.47	1.358	99.0	0.217	0.859	304.9	501.9	0.673	---	-8.53	0.929	99.2	100.2	-15.0	0.221
4-4880	4-5020	0.249	334.5	38.5	7.79	1.251	98.5	0.202	0.847	304.8	511.8	0.676	---	-5.48	0.918	96.6	100.7	-8.9	0.165
4-4880	4-5030	0.224	333.7	32.5	5.61	1.247	98.2	0.194	0.840	304.5	521.6	0.677	---	-4.13	0.910	94.3	97.0	-5.9	0.134
4-4880	4-5040	0.213	333.7	27.8	4.63	1.245	98.2	0.191	0.836	303.8	530.8	0.676	---	-3.40	0.904	92.2	90.5	-3.4	0.119
4-4880	4-5050	0.210	334.1	23.7	3.93	1.245	98.4	0.193	0.835	302.6	539.6	0.674	---	-2.97	0.900	90.1	83.1	-0.5	0.116
4-4880	4-5060	0.213	335.1	19.8	3.37	1.245	98.8	0.199	0.835	300.8	547.7	0.669	1.001	-2.71	0.897	88.1	77.4	2.6	0.123
4-4880	4-5070	0.223	336.4	16.2	2.90	1.246	99.5	0.208	0.837	298.5	555.2	0.663	1.011	-2.56	0.895	86.1	74.6	5.7	0.137
4-4880	4-5080	0.239	338.2	12.7	2.46	1.247	100.4	0.222	0.839	295.5	562.0	0.653	1.026	-2.49	0.894	84.0	74.8	8.4	0.158
4-4880	4-5090	0.261	340.3	9.6	2.04	1.249	101.6	0.241	0.842	291.8	568.1	0.639	1.045	-2.51	0.893	81.8	77.4	10.7	0.183
4-4880	4-5100	0.293	342.7	6.7	1.60	1.251	103.2	0.265	0.846	287.5	573.4	0.621	1.070	-2.59	0.893	79.4	81.8	12.6	0.214
4-4880	4-5110	0.334	345.5	4.0	1.12	1.253	105.3	0.237	0.850	282.4	577.9	0.597	1.102	-2.76	0.894	76.6	87.6	13.9	0.253
4-4880	4-5120	0.391	348.7	1.7	0.55	1.255	108.0	0.340	0.854	276.3	581.4	0.564	1.145	-3.05	0.896	73.2	94.7	14.7	0.301
4-4880	4-5130	0.469	352.5	-0.4	-0.16	1.258	111.8	0.398	0.859	269.0	583.7	0.517	1.201	-3.50	0.898	68.9	102.8	14.8	0.365
4-4880	4-5140	0.580	357.1	-2.2	-1.15	1.261	117.2	0.478	0.864	259.8	584.0	0.451	1.278	-4.26	0.901	63.1	112.3	14.2	0.454
4-4880	4-5140	0.932	25.6	-0.8	-1.15	1.021	139.8	0.779	0.587	208.7	892.9	0.129	1.044	-4.26	0.513	113.0	195.9	-10.7	0.550
4-4880	4-5150	0.746	3.1	-3.8	-2.75	1.264	125.3	0.593	0.871	247.7	581.4	0.354	1.387	-5.63	0.905	54.7	123.3	12.6	0.584
4-4880	4-5150	0.918	26.7	-1.9	-2.75	0.999	139.3	0.778	0.572	207.5	901.2	0.127	1.017	-5.63	0.468	85.7	181.0	-5.9	0.522
4-4880	4-5210	0.647	165.6	10.9	6.40	1.268	60.1	0.520	0.878	103.4	494.7	0.422	1.334	4.79	0.917	120.2	312.3	-10.2	0.519
4-4880	4-5220	0.506	172.2	12.0	5.17	1.271	67.0	0.422	0.884	90.4	491.4	0.511	1.257	3.80	0.924	123.7	323.2	-6.4	0.418
4-4880	4-5230	0.406	178.3	13.1	4.35	1.274	72.0	0.354	0.890	78.8	489.5	0.575	1.206	3.22	0.931	109.4	333.2	-2.4	0.350
4-4880	4-5240	0.330	184.6	14.1	3.72	1.277	75.8	0.306	0.896	67.8	488.3	0.622	1.170	2.86	0.938	106.5	342.5	1.8	0.303
4-4880	4-5250	0.270	191.7	15.0	3.20	1.280	78.8	0.271	0.902	56.8	487.1	0.658	1.146	2.64	0.945	104.5	351.8	6.2	0.270
4-4880	4-5260	0.818	153.3	3.0	2.74	1.186	49.4	0.651	0.747	129.0	569.2	0.260	1.233	2.53	0.817	53.6	238.6	-17.4	0.583
4-4880	4-5260	0.222	200.3	15.9	2.74	1.283	81.5	0.246	0.909	45.4	485.6	0.685	1.132	2.53	0.952	103.1	1.1	10.8	0.248
4-4880	4-5270	0.729	156.8	3.1	2.30	1.199	54.2	0.586	0.764	122.1	572.3	0.316	1.212	2.49	0.839	58.2	247.1	-18.3	0.520
4-4880	4-5270	0.181	211.7	16.4	2.30	1.286	83.9	0.229	0.916	33.5	483.6	0.706	1.125	2.49	0.959	102.3	10.9	15.5	0.235
4-4880	4-5280	0.642	160.4	3.0	1.86	1.211	58.7	0.522	0.781	115.0	575.1	0.373	1.188	2.53	0.858	62.3	255.9	-18.6	0.460
4-4880	4-5280	0.150	227.5	16.1	1.86	1.290	86.3	0.221	0.923	20.9	481.1	0.720	1.127	2.53	0.967	102.0	21.2	20.2	0.229
4-4880	4-5290	0.560	164.2	2.7	1.39	1.221	63.0	0.461	0.797	107.4	577.6	0.430	1.164	2.65	0.876	66.1	265.1	-18.1	0.404
4-4880	4-5290	0.132	248.8	13.7	1.39	1.294	88.6	0.220	0.932	7.7	477.9	0.727	1.137	2.65	0.975	102.2	32.2	24.7	0.231
4-4880	4-5300	0.484	168.3	2.0	0.85	1.231	66.3	0.404	0.813	99.4	579.7	0.464	1.141	2.88	0.892	69.5	274.5	-16.6	0.354
4-4880	4-5300	0.134	273.3	8.3	0.85	1.298	91.0	0.228	0.942	354.3	834.6	0.728	1.156	2.88	0.982	102.9	44.0	28.8	0.241
4-4880	4-5310	0.415	172.5	0.5	0.19	1.240	70.4	0.354	0.827	91.0	581.4	0.535	1.120	3.27	0.906	72.3	284.0	-13.7	0.311
4-4880	4-5310	0.157	295.0	1.5	0.19	1.303	93.7	0.244	0.954	341.2	831.6	0.721	1.187	3.27	0.991	104.0	56.4	32.3	0.260
4-4880	4-5320	0.353	177.1	-2.4	-0.72	1.248	73.6	0.311	0.840	82.1	582.6	0.579	1.101	3.92	0.916	74.7	293.1	-9.0	0.278
4-4880	4-5320	0.200	311.0	-4.7	-0.72	1.309	96.5	0.270	0.967	328.7	829.2	0.706	1.229	3.92	0.999	105.7	69.0	35.4	0.288
4-4880	4-5330	0.303	182.0	-8.6	-2.14	1.254	76.3	0.275	0.852	72.9	583.6	0.617	1.086	5.10	0.927	76.7	301.6	-1.5	0.255
4-4880	4-5330	0.259	322.4	-10.8	-2.14	1.315	99.6	0.305	0.983	317.2	827.9	0.683	1.282	5.10	1.008	107.8	81.7	38.4	0.327
4-4880	4-5340	0.274	186.8	-22.6	-4.88	1.259	78.7	0.248	0.862	63.4	584.3	0.648	1.095	7.61	0.935	78.1	308.6	10.9	0.253
4-4880	4-5340	0.337	331.2	-19.0	-4.88	1.021	102.9	0.347	1.000	306.9	827.7	0.653	1.346	7.61	1.017	110.3	93.9	42.8	0.380
4-4880	4-5350	0.354	185.3	-54.4	-13.35	1.264	80.8	0.227	0.870	54.0	584.9	0.673	1.068	15.85	0.940	79.2	313.6	34.0	0.335
4-4880	4-5350	0.483	341.7	-37.5	-13.35	1.328	106.4	0.393	1.019	297.6	828.5	0.618	1.419	15.85	1.025	113.1	103.9	54.9	0.487
4-4880	4-5370	0.340	198.2	67.0	14.34	1.271	84.5	0.199	0.884	34.0	585.7	0.708	1.060	-12.28	0.947	80.6	11.6	-46.3	0.277
4-4880	4-5370	0.628	350.4	28.9	14.34	1.343	114.1	0.498	1.060	280.9	832.7	0.532	1.588	-12.28	1.042	119.7	118.6	0.2	0.557
4-4880	4-5380	0.570	187.3	20.1	8.56	1.418	68.6	0.566	1.359	61.7	263.4	---	2.129	-6.73	1.136	59.0	335.7	-21.7	0.609
4-4880	4-5380	0.226	218.3	56.8	8.56	1.274	86.1	0.193	0.889	24.6	586.4	0.718	1.061	-6.73	0.949	80.8	6.3	-31.4	0.213
4-4880	4-5380	0.658	351.5	15.6	8.56	1.350	118.0	0.551	1.082	273.7	835.5	0.486	1.677	-6.73	1.049	123.1	130.9	7.7	0.587
4-4880	4-5390	0.510	192.7	56.9	6.33	1.421	71.2	0.549	1.372	54.9	266.7	---	2.126	-4.73	1.137	60.5	342.5	-16.2	0.580
4-4880	4-5390	0.180	234.2	51.3	6.33	1.276	87.6	0.190	0.894	15.4	587.2	0.724	1.064	-4.73	0.950	80.9	9.7	-21.2	0.196
4-4880	4-5400	0.458	198.3	15.4	5.09	1.423	73.7	0.534	1.384	67.9	269.7	---	2.124	-3.74	1.137	61.8	349.8	-11.7	0.556
4-4880	4-5400	0.156	251.1	46.6	5.09	1.278	89.0	0.190	0.899	6.2	588.1	0.728	1.069	-3.74	0.950	80.8	15.2	-13.7	0.192
4-4880	4-5410	0.410	204.9	14.6	4.27	1.425	76.3	0.521	1.396	40.4	272.4	---	2.123	-3.17	1.138	63.0	357.4	-7.7	0.536
4-4880	4-5410	0.145	268.2	41.1	4.27	1.280	90.4	0.193	0.903	357.3	949.0	0.723	1.077	-3.17	0.950	80.5	21.8	-7.6	0.193
4-4880	4-5420	0.367	212.6	14.1	3.65	1.427	79.0	0.510	1.406	33.0	274.7	---	2.124	-2.83	1.137	64.0	5.1	-3.9	0.518
4-4880	4-5420	0.144	284.2	34.4	3.65	1.282	91.0	0.199	0.906	348.4	950.1	0.726	1.087	-2.83	0.949	80.1	28.9	-2.5	0.198
4-4880	4-5430	0.328	222.2	13.6	3.14	1.428	81.7	0.502	1.416	25.1	276.7	---	2.123	-2.63	1.137	64.8	13.0	-0.3	0.504
4-4880	4-5430	0.153	297.7	27.3	3.14	1.283	93.5	0.208	0.910	339.7	951.2	0.720	1.099	-2.63	0.948	79.4	36.4	1.8	0.207
4-4880	4-5440	0.296	234.1	13.0	2.69	1.430	84.4	0.496	1.425	16.8	278.2	---	2.132	-2.52	1.136	65.4	21.1	3.2	0.494
4-4880	4-5440	0.171	308.7	20.6	2.69	1.285	95.1	0.220	0.913	331.0	952.4	0.712	1.114	-2.52	0.948	78.6	44.2	5.6	0.219
4-4880	4-5450	0.275	248.6	11.8	2.26	1.431	87.4	0.494	1.433	7.9	279.0	---	2.141	-2.49	1.136	65.7	29.7	6.5	0.487

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4880	4-5450	0.197	317.8	14.8	2.26	1.286	96.9	0.236	0.916	322.4	953.5	0.699	1.132	-2.49	0.947	77.5	52.5	8.8	0.234
4-4880	4-5460	0.268	265.6	9.8	1.83	1.433	90.5	0.495	1.441	358.4	639.2	0.728	2.154	-2.54	1.135	65.6	38.7	9.5	0.486
4-4880	4-5460	0.231	325.4	10.1	1.83	1.288	99.0	0.258	0.919	313.7	954.5	0.682	1.156	-2.54	0.946	76.1	61.2	11.5	0.255
4-4880	4-5460	0.526	5.5	3.7	1.83	1.168	115.9	0.437	0.723	243.2	1244.1	0.407	1.039	-2.54	0.774	101.7	164.2	-0.8	0.276
4-4880	4-5470	0.283	283.7	7.0	1.38	1.434	94.0	0.501	1.449	347.9	638.4	0.723	2.175	-2.66	1.135	65.2	49.4	12.2	0.492
4-4880	4-5470	0.274	332.0	6.4	1.38	1.289	101.4	0.285	0.922	304.8	955.3	0.659	1.185	-2.66	0.945	[illegible]	[illegible]	13.5	0.282
4-4880	4-5470	0.494	5.2	3.0	1.38	1.164	114.4	0.413	0.718	243.8	1254.3	0.421	1.014	-2.66	0.758	[illegible]	[illegible]	1.8	0.232
4-4880	4-5480	0.324	300.9	3.8	0.86	1.435	98.0	0.514	1.456	336.3	636.4	0.707	2.204	-2.88	[illegible]	[illegible]	[illegible]	14.4	0.568
4-4880	4-5480	0.331	338.0	3.3	0.86	1.290	104.3	0.321	0.925	295.5	955.6	0.627	1.222	[illegible]	[illegible]	[illegible]	[illegible]	14.9	[illegible]
4-4880	4-5480	0.497	5.4	1.8	0.86	1.162	114.6	0.416	0.716	243.3	1263.4	0.418	1.014	[illegible]	[illegible]	81.4	[illegible]	5.0	[illegible]
4-4890	4-4950	0.571	336.3	-0.5	-0.20	1.548	108.3	0.774	2.854	317.8	437.8	0.646	---	4.49	[illegible]	[illegible]	[illegible]	[illegible]	0.719
4-4890	4-4960	0.453	338.8	-3.1	-1.01	1.446	105.9	0.572	1.525	315.6	445.7	0.653	---	3.98	[illegible]	[illegible]	[illegible]	[illegible]	0.572
4-4890	4-4970	0.370	340.6	-7.6	-2.10	1.379	103.7	0.442	1.182	314.0	454.2	0.660	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0.460
4-4890	4-4980	0.315	341.9	-15.9	-3.80	1.353	101.6	0.354	1.033	312.9	463.3	0.667	---	[illegible]	[illegible]	110.3	10.7	38.7	0.379
4-4890	4-4990	0.298	343.8	-31.8	-7.04	1.303	100.2	0.293	0.954	312.4	472.9	0.675	---	[illegible]	[illegible]	106.9	110.0	49.4	0.331
4-4890	4-5000	0.417	355.3	-60.7	-16.67	1.283	99.0	0.250	0.908	312.6	483.0	0.681	---	18.46	0.964	103.6	112.1	72.1	0.390
4-4890	4-5020	0.394	358.3	64.5	16.55	1.260	97.7	0.204	0.863	311.6	503.2	0.687	---	-15.30	0.930	98.3	100.2	-31.4	0.299
4-4890	4-5030	0.262	347.2	50.2	9.29	1.255	97.2	0.192	0.853	311.9	513.3	0.689	---	-8.32	0.919	95.9	103.9	-22.5	0.187
4-4890	4-5040	0.217	344.8	40.5	6.52	1.251	97.0	0.185	0.847	311.7	523.0	0.690	---	-5.82	0.912	93.8	101.3	-17.1	0.144
4-4890	4-5050	0.198	344.3	33.0	5.00	1.250	97.0	0.183	0.844	310.9	532.2	0.689	---	-4.59	0.907	91.7	95.7	-12.5	0.120
4-4890	4-5060	0.192	344.8	26.7	3.98	1.249	97.3	0.185	0.843	309.6	540.7	0.687	0.999	-3.89	0.903	89.8	89.5	-7.6	0.119
4-4890	4-5070	0.193	345.9	21.2	3.22	1.250	97.7	0.191	0.844	307.7	548.6	0.683	1.005	-3.46	0.900	88.0	84.9	-2.8	0.123
4-4890	4-5080	0.201	347.5	16.3	2.60	1.251	98.3	0.200	0.846	305.1	555.9	0.677	1.014	-3.20	0.899	86.1	83.1	1.5	0.135
4-4890	4-5090	0.214	349.6	11.9	2.05	1.252	99.2	0.212	0.848	302.0	562.4	0.668	1.028	-3.07	0.898	84.3	83.8	5.1	0.153
4-4890	4-5100	0.235	352.0	8.1	1.54	1.254	100.3	0.228	0.851	298.3	568.4	0.657	1.046	-3.02	0.898	82.3	86.7	7.8	0.175
4-4890	4-5110	0.262	354.6	4.8	1.02	1.256	101.7	0.249	0.855	293.9	573.6	0.642	1.068	-3.07	0.898	80.1	91.3	9.8	0.202
4-4890	4-5120	0.298	357.6	2.0	0.48	1.258	103.5	0.277	0.859	288.8	578.2	0.621	1.097	-3.21	0.899	77.7	97.1	11.2	0.234
4-4890	4-5130	0.346	0.9	-0.4	-0.13	1.260	105.9	0.312	0.863	283.0	581.9	0.594	1.133	-3.45	0.901	74.8	104.0	11.8	0.274
4-4890	4-5140	0.411	4.6	-2.5	-0.86	1.263	109.0	0.359	0.868	276.1	584.5	0.556	1.180	-3.86	0.904	71.3	111.8	11.7	0.326
4-4890	4-5150	0.500	8.9	-4.2	-1.81	1.265	113.2	0.423	0.873	267.9	585.8	0.504	1.243	-4.52	0.907	66.7	120.5	10.8	0.397
4-4890	4-5160	0.628	14.2	-5.6	-3.20	1.268	119.4	0.513	0.879	257.5	585.0	0.428	1.330	-5.62	0.911	60.4	130.4	9.0	0.496
4-4890	4-5160	0.878	40.9	-2.5	-3.20	1.016	136.8	0.748	0.583	210.1	897.5	0.147	1.020	-5.62	0.503	97.4	200.6	-14.8	0.494
4-4890	4-5170	0.930	42.5	-3.9	-5.57	1.006	139.8	0.783	0.577	207.7	904.6	0.125	1.028	-7.73	0.483	74.2	189.1	-11.1	0.542
4-4890	4-5230	0.582	185.1	11.6	5.87	1.276	63.6	0.475	0.893	96.0	491.0	0.469	1.317	5.29	0.933	117.5	331.9	-1.9	0.484
4-4890	4-5240	0.456	191.8	12.2	4.60	1.279	69.7	0.390	0.899	83.1	487.8	0.549	1.250	4.30	0.940	102.1	342.3	2.7	0.397
4-4890	4-5250	0.365	198.4	12.6	3.70	1.282	74.2	0.331	0.906	71.1	485.7	0.606	1.206	3.71	0.947	108.4	352.0	7.4	0.338
4-4890	4-5260	0.295	205.6	12.8	2.99	1.284	77.7	0.290	0.912	59.5	484.0	0.648	1.176	3.35	0.954	106.0	1.5	12.0	0.298
4-4890	4-5270	0.239	214.0	12.8	2.39	1.287	80.7	0.261	0.918	47.8	482.2	0.679	1.157	3.04	0.961	104.4	11.2	16.6	0.270
4-4890	4-5280	0.799	170.4	2.1	1.84	1.195	50.6	0.636	0.758	126.7	571.1	0.276	1.240	3.04	0.836	54.2	258.0	-19.4	0.580
4-4890	4-5280	0.194	224.8	12.2	1.84	1.290	83.3	0.241	0.925	35.8	480.2	0.701	1.148	3.04	0.968	103.4	21.2	21.2	0.253
4-4890	4-5290	0.712	173.9	1.8	1.31	1.206	55.2	0.572	0.775	119.8	574.2	0.331	1.218	3.03	0.855	58.6	266.6	-19.1	0.518
4-4890	4-5290	0.159	239.2	10.6	1.31	1.294	85.7	0.231	0.932	23.4	477.8	0.717	1.147	3.03	0.975	102.9	31.9	25.6	0.243
4-4890	4-5300	0.627	177.5	1.3	0.76	1.218	59.7	0.510	0.791	112.6	577.1	0.380	1.194	3.12	0.873	62.6	275.5	-18.1	0.460
4-4890	4-5300	0.137	258.7	7.2	0.76	1.297	88.0	0.228	0.940	10.6	475.1	0.726	1.154	3.12	0.981	102.9	43.3	29.6	0.242
4-4890	4-5310	0.548	181.3	0.3	0.16	1.228	63.8	0.451	0.807	105.0	579.6	0.443	1.171	3.33	0.889	66.2	284.4	-16.1	0.407
4-4890	4-5310	0.134	281.9	1.5	0.16	1.301	90.4	0.233	0.949	357.8	832.4	0.728	1.171	3.33	0.988	103.3	55.5	33.0	0.248
4-4890	4-5320	0.475	185.3	-1.3	-0.56	1.237	67.5	0.396	0.822	97.9	581.7	0.496	1.148	3.68	0.903	69.5	293.3	-12.9	0.360
4-4890	4-5320	0.152	304.0	-4.8	-0.56	1.306	92.9	0.246	0.960	345.1	829.9	0.723	1.197	3.68	0.995	104.2	68.4	35.8	0.252
4-4890	4-5330	0.409	189.5	-4.3	-1.48	1.245	71.0	0.348	0.836	88.5	583.4	0.545	1.128	4.27	0.915	72.2	301.9	-8.3	0.321
4-4890	4-5330	0.189	321.3	-10.2	-1.48	1.311	95.6	0.268	0.972	333.0	827.9	0.711	1.233	4.27	1.003	105.6	81.6	37.8	0.286
4-4890	4-5340	0.353	194.0	-9.6	-2.80	1.252	74.0	0.308	0.849	79.7	584.7	0.588	1.110	5.29	0.925	74.5	310.0	-1.4	0.291
4-4890	4-5340	0.243	333.9	-15.2	-2.80	1.316	98.5	0.298	0.986	321.7	826.8	0.692	1.280	5.29	1.010	107.3	94.7	39.6	0.318
4-4890	4-5350	0.315	198.4	-19.9	-5.02	1.258	76.7	0.275	0.860	70.5	585.7	0.624	1.096	7.23	0.933	76.3	316.9	8.9	0.277
4-4890	4-5350	0.314	343.5	-21.2	-5.02	1.322	101.6	0.335	1.002	311.4	826.6	0.666	1.338	7.23	1.018	109.6	107.5	42.0	0.364
4-4890	4-5360	0.329	200.7	-41.0	-10.03	1.263	79.0	0.249	0.869	61.1	586.4	0.653	1.086	11.96	0.939	77.7	321.3	26.2	0.304
4-4890	4-5360	0.419	352.5	-32.2	-10.03	1.329	104.9	0.378	1.020	302.0	827.3	0.634	1.405	11.96	1.025	112.1	120.0	45.0	0.436
4-4890	4-5380	0.631	165.7	75.1	28.88	1.271	83.3	0.211	0.885	40.4	587.0	0.698	1.072	-27.49	0.946	79.8	40.6	-48.2	0.502
4-4890	4-5390	0.298	220.7	62.6	12.03	1.274	84.8	0.203	0.891	31.4	587.6	0.710	1.072	-10.91	0.948	80.1	22.1	-36.4	0.266
4-4890	4-5390	0.644	6.6	23.1	12.03	1.349	116.1	0.528	1.080	277.6	833.8	0.510	1.650	-10.91	1.046	121.5	138.1	-1.7	0.576
4-4890	4-5400	0.548	205.4	19.1	7.73	1.421	69.7	0.561	1.374	58.6	264.7	---	2.145	-6.89	1.135	59.5	354.3	-14.7	0.504
4-4890	4-5400	0.212	237.8	53.9	7.73	1.277	86.4	0.197	0.896	22.1	588.2	0.719	1.074	-6.89	0.949	80.4	21.5	-24.0	0.221
4-4890	4-5410	0.490	210.9	16.0	5.71	1.423	72.2	0.546	1.387	51.8	267.8	---	2.143	-5.15	1.135	60.9	0.8	-9.4	0.576
4-4890	4-5410	0.171	253.7	47.9	5.71	1.280	87.9	0.195	0.901	12.8	588.8	0.725	1.077	-5.15	0.949	80.4	25.8	-15.1	0.206
4-4890	4-5420	0.439	216.8	14.1	4.47	1.425	74.8	0.532	1.399	44.7	270.6	---	2.142	-4.21	1.136	62.1	7.9	-5.0	0.552
4-4890	4-5420	0.149	270.7	42.1	4.47	1.282	89.4	0.196	0.906	3.7	589.6	0.728	1.083	-4.21	0.949	80.3	31.8	-8.3	0.202
4-4890	4-5430	0.393	223.8	12.9	3.60	1.427	77.4	0.520	1.410	37.3	273.1	---	2.142	-3.66	1.136	63.2	15.3	-1.0	0.532
4-4890	4-5430	0.140	287.6	35.2	3.60	1.283	90.9	0.200	0.910	354.7	950.5	0.728	1.092	-3.66	0.949	80.0	38.7	-2.8	0.203
4-4890	4-5440	0.351	232.1	11.8	2.92	1.429	80.1	0.510	1.420	29.7	275.3	---	2.144	-3.32	1.135	64.1	23.0	2.5	0.516
4-4890	4-5440	0.142	302.9	27.4	2.92	1.285	92.4	0.207	0.913	345.9	951.5	0.725	1.102	-3.32	0.948	79.5	46.1	4.7	0.208
4-4890	4-5450	0.314	242.4	10.6	2.33	1.431	82.8	0.503	1.429	21.7	277.0	---	2.147	-3.13	1.135	64.4	31.1	5.8	0.502
4-4890	4-5450	0.154	315.9	19.9	2.33	1.287	94.0	0.217	0.917	337.3	952.6	0.718	1.115	-3.13	0.947	78.8	54.0	5.4	0.216
4-4890	4-5460	0.286	255.1	9.1	1.80	1.432	85.6	0.498	1.438	13.3	278.3	---	2.154	-3.04	1.135	65.3	39.5	8.7	0.493
4-4890	4-5460	0.175	326.5	13.3	1.80	1.288	95.7	0.230	0.920	328.7	953.7	0.708	1.132	-3.04	0.947	77.9	62.2	8.4	0.228
4-4890	4-5470	0.269	270.4	6.9	1.29	1.434	88.6	0.497	1.446	4.3	278.9	---	2.165	-3.03	1.134	65.5	48.4	11.3	0.488
4-4890	4-5470	0.204	335.3	8.1	1.29	1.290	97.6	0.248	0.923	320.1	954.8	0.695	1.152	-3.03	0.946	76.7	70.3	10.7	0.245
4-4890	4-5470	0.569	21.6	2.4	3.29	1.177	118.1	0.472	0.734	242.7	1247.4	0.388	1.080	-3.03	0.785	107.8	183.8	-9.1	0.334
4-4890	4-5470	0.761	25.2	1.6	3.29	1.195	127.6	0.611	0.759	235.4	1230.1	0.295	1.222	-3.03	0.813	122.9	195.4	-10.8	0.329
4-4890	4-5480	0.270	287.0	4.1	0.77	1.435	91.8	0.500	1.454	354.5	638.8	0.727	2.181	-3.12	1.134	65.4	57.9	13.4	0.489
4-4890	4-5480	0.242	342.7	4.1	0.77	1.291	99.8	0.270	0.926	311.4	955.6	0.676	1.176	-3.12	0.946	75.2	79.9	12.3	0.267
4-4890	4-5480	0.497	20.5	1.6	0.77	1.169	114.6	0.416	0.725	244.8	1249.1	0.423	1.026	-3.12	0.771	97.6	172.3	-7.3	0.246

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4890	4-5490	0.294	305.5	1.0	0.20	1.436	95.4	0.508	1.461	343.8	637.7	0.719	2.204	-3.31	1.134	64.8	68.1	15.0	0.497
4-4890	4-5490	0.291	349.5	0.9	0.20	1.292	102.3	0.300	0.929	302.4	956.2	0.650	1.206	-3.31	0.946	73.3	89.3	13.3	0.296
4-4890	4-5490	0.484	20.5	0.4	0.20	1.166	114.0	0.407	0.721	244.8	1258.7	0.429	1.015	-3.31	0.765	90.9	161.2	-4.2	0.226
4-4900	4-4960	0.496	347.3	-2.5	-0.85	1.519	105.3	0.707	2.276	322.9	437.2	0.667	---	3.69	1.262	120.8	96.0	29.4	0.657
4-4900	4-4970	0.392	349.6	-5.8	-1.63	1.428	103.1	0.523	1.408	321.1	445.5	0.672	---	4.04	1.151	116.6	102.4	31.0	0.521
4-4900	4-4980	0.320	351.1	-11.1	-2.63	1.367	103.2	0.403	1.147	319.9	454.5	0.679	---	4.68	1.075	112.6	108.9	33.5	0.419
4-4900	4-4990	0.273	352.1	-19.8	-4.06	1.327	99.6	0.323	1.012	319.4	464.1	0.685	---	5.78	1.022	108.8	115.5	38.1	0.345
4-4900	4-5000	0.258	353.3	-34.1	-6.46	1.300	98.3	0.269	0.945	319.4	474.3	0.691	---	7.85	0.986	105.4	122.4	46.9	0.295
4-4900	4-5010	0.312	358.1	-55.9	-11.74	1.282	97.2	0.231	0.905	320.0	484.8	0.696	---	12.83	0.960	102.3	130.7	63.8	0.302
4-4900	4-5030	0.695	63.0	75.5	32.45	1.262	96.3	0.193	0.866	318.9	505.2	0.699	---	-31.94	0.929	97.5	97.3	-39.4	0.548
4-4900	4-5040	0.305	1.4	63.5	12.60	1.258	95.9	0.182	0.857	319.9	515.6	0.702	---	-12.39	0.920	95.1	104.2	-34.2	0.236
4-4900	4-5050	0.218	354.6	49.8	7.66	1.255	95.7	0.177	0.853	319.8	525.3	0.702	---	-7.75	0.914	93.1	103.6	-27.0	0.162
4-4900	4-5060	0.185	353.5	39.0	5.36	1.254	95.8	0.176	0.851	318.9	534.3	0.701	---	-5.76	0.909	91.2	99.2	-20.3	0.133
4-4900	4-5070	0.173	354.0	29.9	3.98	1.254	96.1	0.178	0.850	317.4	542.6	0.699	1.002	-4.70	0.906	89.4	94.4	-13.6	0.123
4-4900	4-5080	0.172	355.5	22.3	3.00	1.255	96.5	0.184	0.852	315.2	550.1	0.695	1.008	-4.07	0.903	87.7	91.2	-7.3	0.125
4-4900	4-5090	0.178	357.6	15.9	2.24	1.256	97.2	0.192	0.854	312.5	557.1	0.690	1.018	-3.69	0.902	86.0	90.4	-2.0	0.135
4-4900	4-5100	0.190	0.1	10.5	1.60	1.257	98.0	0.203	0.857	309.1	563.4	0.682	1.031	-3.46	0.902	84.3	91.9	2.2	0.149
4-4900	4-5110	0.209	3.0	6.0	1.01	1.259	99.0	0.218	0.860	305.2	569.1	0.673	1.048	-3.35	0.902	82.5	95.3	5.3	0.168
4-4900	4-5120	0.234	6.0	2.4	0.45	1.261	100.3	0.236	0.864	300.7	574.2	0.660	1.068	-3.34	0.903	80.6	100.1	7.3	0.191
4-4900	4-5130	0.266	9.3	-0.5	-0.12	1.263	101.9	0.260	0.868	295.6	578.7	0.643	1.093	-3.42	0.904	78.5	106.1	8.6	0.219
4-4900	4-5140	0.307	12.9	-2.9	-0.73	1.266	103.9	0.289	0.872	289.9	582.5	0.620	1.125	-3.61	0.907	76.1	112.9	9.0	0.253
4-4900	4-5150	0.362	16.7	-4.8	-1.43	1.268	106.5	0.328	0.877	283.3	585.4	0.590	1.164	-3.83	0.909	73.1	120.5	8.6	0.295
4-4900	4-5160	0.435	20.9	-6.3	-2.31	1.270	110.0	0.379	0.882	275.7	587.3	0.547	1.216	-4.46	0.913	69.4	129.8	7.4	0.352
4-4900	4-5170	0.536	25.7	-7.5	-3.48	1.273	114.8	0.450	0.887	266.4	587.6	0.488	1.287	-5.31	0.917	64.5	137.9	5.5	0.429
4-4900	4-5170	0.870	55.4	-2.9	-3.48	1.036	136.1	0.736	0.597	212.0	893.1	0.158	1.037	-5.31	0.541	108.1	222.3	-22.0	0.504
4-4900	4-5180	0.684	31.7	-8.4	-5.27	1.276	121.9	0.551	0.893	254.7	585.4	0.401	1.385	-6.80	0.922	57.4	148.2	2.5	0.542
4-4900	4-5180	0.863	56.4	-4.3	-5.27	1.020	135.8	0.736	0.585	210.9	901.5	0.154	1.016	-6.80	0.511	85.7	207.4	-19.0	0.483
4-4900	4-5190	0.965	58.6	-5.6	-8.59	1.015	141.5	0.798	0.582	207.2	907.3	0.118	1.047	-9.83	0.505	63.9	199.3	-16.4	0.585
4-4900	4-5240	0.680	197.3	10.8	6.69	1.280	59.0	0.541	0.902	103.2	492.2	0.414	1.390	6.88	0.942	122.2	339.9	2.0	0.566
4-4900	4-5250	0.519	204.8	11.0	4.81	1.284	66.8	0.435	0.908	88.4	487.2	0.513	1.304	5.32	0.949	115.2	351.1	7.2	0.452
4-4900	4-5260	0.488	211.8	10.9	3.59	1.286	72.2	0.362	0.915	75.4	484.0	0.583	1.246	4.44	0.956	110.6	1.4	12.2	0.377
4-4900	4-5270	0.325	219.0	10.4	2.70	1.289	76.3	0.312	0.921	63.1	481.6	0.633	1.208	3.90	0.963	107.7	11.4	16.9	0.327
4-4900	4-5280	0.261	227.3	9.6	1.97	1.292	79.6	0.278	0.927	51.0	479.5	0.669	1.185	3.58	0.969	105.7	21.6	21.4	0.292
4-4900	4-5290	0.211	237.4	8.1	1.33	1.295	82.4	0.255	0.933	38.8	477.4	0.695	1.172	3.40	0.975	104.4	32.2	25.7	0.270
4-4900	4-5300	0.780	187.5	0.9	0.74	1.203	51.8	0.620	0.769	124.3	573.0	0.293	1.245	3.35	0.852	54.9	277.7	-19.2	0.576
4-4900	4-5300	0.172	250.6	5.5	0.74	1.298	84.0	0.242	0.940	26.5	475.1	0.713	1.168	3.33	0.982	103.7	43.4	29.6	0.257
4-4900	4-5310	0.694	191.0	0.2	0.14	1.214	56.4	0.557	0.786	117.3	576.1	0.348	1.223	3.37	0.870	59.2	286.2	-17.7	0.516
4-4900	4-5310	0.146	268.2	1.3	0.14	1.301	87.3	0.237	0.948	14.0	472.8	0.724	1.172	3.37	0.988	103.5	55.3	32.9	0.252
4-4900	4-5320	0.612	194.6	-0.8	-0.49	1.225	60.7	0.496	0.802	110.0	578.9	0.404	1.200	3.52	0.886	65.1	294.8	-15.3	0.460
4-4900	4-5320	0.137	290.0	-4.6	-0.49	1.305	89.7	0.239	0.957	1.5	470.4	0.728	1.186	3.52	0.994	103.7	68.1	35.6	0.254
4-4900	4-5330	0.535	198.4	-2.5	-1.20	1.235	64.6	0.439	0.817	102.3	581.4	0.458	1.177	3.81	0.900	66.5	303.2	-12.0	0.408
4-4900	4-5330	0.149	312.3	-10.6	-1.20	1.309	92.1	0.250	0.966	349.2	828.3	0.725	1.208	3.81	1.000	104.4	81.3	37.3	0.264
4-4900	4-5340	0.465	202.4	-5.1	-2.07	1.243	68.3	0.388	0.832	94.3	583.5	0.509	1.155	4.30	0.912	69.6	311.4	-7.5	0.364
4-4900	4-5340	0.181	330.9	-15.2	-2.07	1.313	94.7	0.268	0.978	337.4	828.7	0.716	1.239	4.30	1.006	105.5	94.7	38.3	0.283
4-4900	4-5350	0.405	206.5	-9.5	-3.24	1.251	71.6	0.342	0.845	85.8	585.2	0.556	1.135	5.12	0.922	72.2	319.1	-1.3	0.328
4-4900	4-5350	0.229	344.9	-18.8	-3.24	1.318	97.4	0.293	0.990	326.3	825.8	0.700	1.281	5.12	1.012	107.0	101.9	38.7	0.310
4-4900	4-5360	0.358	210.6	-17.3	-5.02	1.258	74.5	0.304	0.857	76.9	586.4	0.597	1.[illegible]	6.58	0.930	74.4	326.0	7.4	0.303
4-4900	4-5360	0.291	355.4	-23.0	-5.02	1.424	100.4	0.326	1.003	316.0	825.6	0.678	1.372	6.58	1.018	109.0	120.6	39.4	0.348
4-4900	4-5370	0.341	214.0	-31.7	-8.35	1.263	77.1	0.273	0.866	67.7	587.3	0.631	1.105	9.60	0.936	76.1	331.4	20.6	0.302
4-4900	4-5370	0.377	4.3	-29.9	-8.35	1.330	103.5	0.364	1.021	306.6	826.2	0.649	1.393	9.60	1.024	111.3	133.1	41.8	0.403
4-4900	4-5380	0.446	208.8	-57.5	-17.56	1.268	79.3	0.250	0.877	56.6	588.0	0.658	1.097	18.51	0.941	77.4	334.6	42.8	0.390
4-4900	4-5380	0.546	16.5	-45.0	-17.56	1.336	106.8	0.407	1.039	298.0	827.5	0.616	1.462	18.51	1.031	113.9	145.4	51.5	0.518
4-4900	4-5400	0.433	216.5	69.7	18.70	1.276	93.5	0.215	0.892	38.0	588.6	0.701	1.084	-18.34	0.946	79.4	40.4	-40.3	0.370
4-4900	4-5410	0.592	218.0	22.0	9.68	1.422	98.1	0.574	1.376	62.3	262.7	---	2.165	-9.61	1.133	58.4	6.2	-13.4	0.632
4-4900	4-5410	0.257	242.4	56.6	9.68	1.279	85.2	0.207	0.898	28.7	589.1	0.713	1.084	-9.61	0.947	79.7	33.5	-26.6	0.256
4-4900	4-5410	0.662	22.9	17.7	9.68	1.356	117.9	0.555	1.099	274.7	835.1	0.489	1.709	-9.61	1.049	123.3	157.2	-5.8	0.596
4-4900	4-5420	0.524	223.5	16.6	6.40	1.424	70.7	0.558	1.389	55.6	265.8	---	2.163	-6.63	1.133	89.9	11.6	-6.9	0.597
4-4900	4-5420	0.191	257.7	48.2	6.40	1.281	86.8	0.202	0.904	19.4	589.6	0.721	1.087	-6.63	0.948	79.9	35.9	-16.2	0.225
4-4900	4-5430	0.469	229.1	13.6	4.63	1.426	73.3	0.543	1.401	48.7	268.7	---	2.161	-5.18	1.134	61.2	18.2	-2.1	0.570
4-4900	4-5430	0.157	273.4	41.3	4.63	1.284	88.3	0.201	0.909	10.3	590.3	0.726	1.091	-5.18	0.948	79.9	41.3	-8.6	0.213
4-4900	4-5440	0.420	235.4	11.5	3.48	1.428	75.9	0.530	1.413	41.6	271.4	---	2.161	-4.36	1.134	62.4	25.4	1.9	0.547
4-4900	4-5440	0.139	290.1	34.1	3.48	1.286	89.8	0.203	0.913	1.3	591.0	0.728	1.098	-4.36	0.948	79.8	48.0	-2.8	0.209
4-4900	4-5450	0.376	242.7	9.8	2.62	1.430	78.5	0.519	1.423	34.2	273.7	---	2.162	-3.86	1.134	63.6	33.0	5.4	0.528
4-4900	4-5450	0.134	306.6	26.1	2.62	1.287	91.3	0.207	0.917	352.4	951.9	0.727	1.107	-3.86	0.947	79.4	55.4	1.8	0.210
4-4900	4-5460	0.336	261.6	8.1	1.92	1.432	81.1	0.510	1.433	26.5	275.7	---	2.164	-3.56	1.134	64.2	41.0	8.5	0.512
4-4900	4-5460	0.140	321.4	18.0	1.92	1.289	92.9	0.215	0.921	343.7	952.9	0.723	1.118	-3.56	0.947	78.9	63.3	5.4	0.215
4-4900	4-5470	0.302	262.6	6.2	1.31	1.433	83.8	0.504	1.442	18.4	277.3	---	2.169	-3.39	1.134	64.8	49.4	11.0	0.499
4-4900	4-5470	0.156	333.9	10.9	1.31	1.291	94.5	0.226	0.924	335.1	954.0	0.715	1.132	-3.39	0.947	78.1	71.6	8.1	0.224
4-4900	4-5480	0.278	276.0	3.9	0.75	1.435	86.7	0.501	1.451	9.9	278.4	---	2.178	-3.33	1.134	65.2	58.2	13.1	0.491
4-4900	4-5480	0.181	344.2	5.3	0.75	1.292	96.3	0.240	0.927	326.6	955.1	0.705	1.150	-3.33	0.947	77.1	80.3	10.0	0.237
4-4900	4-5490	0.268	292.0	1.0	0.19	1.436	89.7	0.501	1.459	0.8	278.8	---	2.190	-3.36	1.134	65.3	67.5	14.6	0.488
4-4900	4-5490	0.214	352.7	1.1	0.19	1.293	98.3	0.259	0.930	318.0	956.1	0.689	1.171	-3.36	0.947	75.9	89.3	11.2	0.254
4-4900	4-5490	0.512	36.1	0.4	0.19	1.176	115.4	0.429	0.732	245.4	1243.4	0.418	1.046	-3.36	0.778	101.7	191.9	-15.3	0.274
4-4900	4-5500	0.277	309.5	-2.1	-0.40	1.437	93.1	0.506	1.466	350.9	638.5	0.725	2.208	-3.49	1.135	65.0	77.4	15.6	0.490
4-4900	4-5500	0.256	0.0	-2.0	-0.40	1.295	100.5	0.283	0.933	309.2	956.8	0.669	1.197	-3.49	0.947	74.3	98.6	11.6	0.277
4-4900	4-5500	0.478	35.7	-0.9	-0.40	1.172	113.7	0.402	0.727	246.2	1253.8	0.435	1.020	-3.49	0.771	94.2	180.6	-13.2	0.228
4-4910	4-4960	0.553	353.8	-2.2	-0.78	1.616	103.9	0.904	7.113	330.7	429.1	0.683	---	3.42	1.376	122.5	101.5	28.3	0.761
4-4910	4-4970	0.421	356.9	-4.9	-1.42	1.489	102.1	0.634	1.875	328.6	437.3	0.686	---	3.57	1.225	118.5	107.4	29.0	0.592
4-4910	4-4980	0.330	358.8	-9.0	-2.14	1.408	100.3	0.469	1.300	327.4	446.2	0.691	---	3.86	1.125	114.4	113.6	30.3	0.468
4-4910	4-4990	0.269	359.8	15.2	-3.01	1.354	98.6	0.363	1.091	326.9	455.8	0.696	---	4.35	1.057	110.5	119.9	32.4	0.374

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4910	4-5000	0.232	0.0	-24.4	-4.19	1.319	97.3	0.292	0.990	327.1	466.1	0.701	---	5.17	1.010	107.0	126.2	36.4	0.305
4-4910	4-5010	0.220	0.1	-37.5	-5.96	1.296	96.2	0.248	0.933	327.8	476.9	0.705	---	6.61	0.977	103.8	132.8	43.8	0.258
4-4910	4-5020	0.250	1.9	-54.8	-9.21	1.280	95.3	0.212	0.900	328.8	488.0	0.709	---	9.55	0.955	100.9	141.2	57.1	0.245
4-4910	4-5030	0.403	20.2	-75.0	-17.92	1.271	94.7	0.191	0.880	330.2	499.1	0.712	---	17.95	0.939	98.3	156.6	76.3	0.335
4-4910	4-5050	0.425	29.6	77.1	19.24	1.261	94.5	0.173	0.861	328.9	518.9	0.712	---	-19.80	0.920	94.3	101.9	-41.7	0.345
4-4910	4-5060	0.232	2.7	60.5	9.26	1.259	94.4	0.170	0.858	328.9	528.5	0.712	---	-10.11	0.914	92.3	104.1	-34.8	0.191
4-4910	4-5070	0.176	0.2	45.7	5.75	1.258	94.5	0.170	0.857	327.8	537.2	0.711	---	-6.91	0.910	90.6	101.4	-26.4	0.145
4-4910	4-5080	0.155	1.0	33.3	3.89	1.259	94.8	0.173	0.857	326.0	545.1	0.709	1.006	-5.37	0.908	88.9	98.1	-18.0	0.129
4-4910	4-5090	0.151	3.2	22.9	2.69	1.260	95.3	0.179	0.859	323.5	552.3	0.706	1.012	-4.50	0.906	87.4	96.4	-10.4	0.128
4-4910	4-5100	0.156	6.1	14.7	1.80	1.261	95.9	0.186	0.862	320.4	558.9	0.701	1.022	-3.97	0.905	85.8	96.6	-4.4	0.135
4-4910	4-5110	0.167	9.4	8.2	1.09	1.263	96.7	0.197	0.865	316.8	564.9	0.695	1.035	-3.65	0.905	84.2	99.3	0.2	0.147
4-4910	4-5120	0.184	13.0	3.2	0.46	1.265	97.7	0.210	0.868	312.6	570.3	0.686	1.050	-3.46	0.906	82.6	103.3	3.3	0.163
4-4910	4-5130	0.207	16.7	-0.7	-0.11	1.267	98.9	0.226	0.872	308.0	575.2	0.676	1.069	-3.39	0.908	80.9	108.5	5.4	0.183
4-4910	4-5140	0.236	20.5	-3.6	-0.68	1.269	100.1	0.245	0.877	302.8	579.6	0.661	1.092	-3.41	0.910	79.1	116.4	6.4	0.206
4-4910	4-5150	0.273	24.4	-5.8	-1.27	1.271	102.1	0.271	0.881	297.1	583.3	0.643	1.119	-3.52	0.912	77.0	121.5	6.5	0.235
4-4910	4-5160	0.320	28.4	-7.4	-1.91	1.273	104.4	0.303	0.886	290.6	586.4	0.618	1.154	-3.76	0.916	74.5	129.0	5.9	0.270
4-4910	4-5170	0.381	32.7	-8.6	-2.68	1.276	107.3	0.344	0.891	283.3	588.6	0.584	1.197	-4.15	0.919	71.5	137.0	4.4	0.316
4-4910	4-5180	0.463	37.4	-9.4	-3.65	1.278	111.1	0.401	0.896	274.8	589.6	0.536	1.255	-4.77	0.924	67.6	145.6	2.3	0.378
4-4910	4-5180	0.916	70.2	-2.8	-3.65	1.066	138.3	0.755	0.619	212.9	887.7	0.152	1.087	-4.77	0.596	121.5	247.2	-26.0	0.576
4-4910	4-5190	0.578	42.8	-10.0	-5.01	1.281	116.6	0.480	0.901	264.5	588.8	0.469	1.334	-5.81	0.929	62.1	155.1	-0.7	0.465
4-4910	4-5190	0.825	70.7	-4.6	-5.01	1.035	133.4	0.706	0.595	213.4	897.6	0.175	1.016	-5.81	0.541	95.3	228.7	-25.2	0.457
4-4910	4-5200	0.750	49.6	-10.2	-7.21	1.284	124.8	0.594	0.909	251.2	585.1	0.369	1.446	-7.71	0.935	54.1	166.0	-4.7	0.596
4-4910	4-5200	0.871	72.1	-5.9	-7.21	1.027	136.0	0.737	0.569	211.3	905.2	0.155	1.024	-7.71	0.529	75.8	216.2	-22.7	0.499
4-4910	4-5260	0.601	217.3	9.5	4.98	1.288	62.9	0.491	0.917	95.1	487.9	0.466	1.368	6.25	0.957	119.1	359.7	10.9	0.519
4-4910	4-5270	0.462	224.8	6.9	3.39	1.291	69.6	0.401	0.923	80.5	483.3	0.553	1.294	4.99	0.964	113.3	10.9	16.1	0.422
4-4910	4-5280	0.363	232.2	7.9	2.30	1.294	74.5	0.340	0.930	67.4	480.1	0.614	1.245	4.25	0.971	109.5	21.6	20.8	0.359
4-4910	4-5290	0.289	240.2	6.5	1.47	1.297	78.2	0.299	0.936	54.8	477.5	0.656	1.215	3.81	0.977	107.1	32.5	25.1	0.316
4-4910	4-5300	0.232	249.7	4.3	0.77	1.300	81.3	0.271	0.942	42.4	475.7	0.687	1.197	3.54	0.982	105.5	43.7	28.9	0.287
4-4910	4-5310	0.189	261.8	1.0	0.14	1.303	84.0	0.254	0.949	30.1	473.0	0.707	1.190	3.41	0.988	104.6	55.6	32.2	0.270
4-4910	4-5320	0.759	204.7	-0.6	-0.46	1.212	53.1	0.603	0.780	121.7	574.8	0.310	1.251	3.39	0.867	55.8	297.2	-16.8	0.570
4-4910	4-5320	0.158	277.6	-3.8	-0.46	1.306	86.5	0.246	0.956	17.7	470.8	0.720	1.191	3.39	0.994	104.2	68.1	34.7	0.261
4-4910	4-5330	0.675	208.2	-1.6	-1.09	1.223	57.6	0.541	0.797	114.6	577.9	0.365	1.228	3.48	0.882	59.9	305.4	-14.1	0.511
4-4910	4-5330	0.144	297.7	-9.8	-1.08	1.309	88.9	0.246	0.964	5.5	468.8	0.726	1.201	3.48	0.998	104.2	81.1	36.3	0.259
4-4910	4-5340	0.596	211.8	-3.2	-1.75	1.233	61.7	0.485	0.813	107.2	580.7	0.420	1.205	3.69	0.896	63.6	313.5	-10.7	0.457
4-4910	4-5340	0.150	319.8	-15.5	-1.75	1.313	91.3	0.254	0.974	353.6	827.0	0.726	1.220	3.69	1.003	104.7	94.5	37.0	0.266
4-4910	4-5350	0.523	215.5	-5.5	-2.53	1.242	65.6	0.428	0.828	99.5	583.1	0.473	1.182	4.06	0.908	67.0	321.3	-6.4	0.407
4-4910	4-5350	0.174	339.6	-19.4	-2.53	1.317	93.8	0.268	0.983	342.0	825.6	0.720	1.247	4.06	1.008	105.6	107.7	36.8	0.280
4-4910	4-5360	0.457	219.4	-9.0	-3.52	1.250	69.1	0.379	0.842	91.3	585.1	0.523	1.161	4.69	0.918	69.9	328.8	-0.8	0.365
4-4910	4-5360	0.215	355.1	-22.0	-3.52	1.321	96.4	0.290	0.995	331.1	824.8	0.707	1.283	4.69	1.013	106.8	120.5	36.0	0.302
4-4910	4-5370	0.403	223.4	-14.8	-4.92	1.257	72.2	0.337	0.855	82.7	586.6	0.567	1.142	5.74	0.927	72.3	335.8	6.5	0.332
4-4910	4-5370	0.271	6.7	-24.5	-4.92	1.326	90.2	0.318	1.008	320.8	824.7	0.688	1.329	5.74	1.018	108.5	132.7	35.2	0.333
4-4910	4-5380	0.367	227.1	-24.7	-7.21	1.264	75.1	0.301	0.866	73.9	587.8	0.606	1.127	7.71	0.933	74.4	341.7	16.8	0.314
4-4910	4-5380	0.342	16.0	-28.6	-7.21	1.332	102.1	0.352	1.023	311.3	825.2	0.663	1.384	7.71	1.024	110.5	144.5	35.3	0.376
4-4910	4-5390	0.383	228.5	-42.6	-12.06	1.269	77.5	0.272	0.877	64.8	588.6	0.638	1.115	12.25	0.930	76.0	345.7	33.1	0.331
4-4910	4-5390	0.449	25.0	-36.9	-12.06	1.338	105.3	0.392	1.040	302.5	826.4	0.633	1.447	12.25	1.029	112.9	156.3	39.0	0.444
4-4910	4-5400	0.686	198.6	-68.5	-30.61	1.273	79.6	0.252	0.886	56.0	589.3	0.663	1.108	30.51	0.942	77.1	350.5	60.5	0.561
4-4910	4-5420	0.326	246.6	60.8	12.89	1.281	83.9	0.219	0.900	35.4	589.9	0.703	1.097	-13.59	0.945	79.0	46.0	-29.5	0.311
4-4910	4-5420	0.648	38.0	24.8	12.89	1.356	115.9	0.532	1.097	278.9	833.4	0.514	1.681	-13.59	1.046	121.8	163.1	-15.3	0.590
4-4910	4-5430	0.560	236.4	17.5	7.26	1.425	69.1	0.570	1.390	59.4	263.7	---	2.184	-8.26	1.131	58.8	22.4	-4.6	0.619
4-4910	4-5430	0.217	263.3	48.1	7.26	1.283	85.5	0.212	0.906	26.1	590.4	0.714	1.098	-8.26	0.946	79.3	45.7	-17.0	0.247
4-4910	4-5440	0.501	241.7	13.0	4.75	1.428	71.7	0.555	1.403	52.7	266.7	---	2.182	-6.06	1.132	60.2	28.5	0.8	0.588
4-4910	4-5440	0.168	277.4	39.2	4.75	1.286	87.1	0.208	0.911	17.0	591.0	0.722	1.101	-6.06	0.947	79.5	50.3	-8.4	0.225
4-4910	4-5450	0.449	247.4	10.1	3.27	1.430	74.3	0.541	1.415	45.8	269.5	---	2.181	-4.90	1.132	61.5	35.5	5.0	0.562
4-4910	4-5450	0.142	292.8	31.2	3.27	1.288	88.6	0.207	0.916	7.9	591.7	0.726	1.106	-4.90	0.947	79.4	56.8	-2.2	0.216
4-4910	4-5460	0.403	254.0	7.8	2.24	1.432	76.9	0.529	1.426	38.6	272.0	---	2.181	-4.22	1.132	62.6	43.1	8.3	0.541
4-4910	4-5460	0.130	309.2	22.9	2.24	1.290	90.2	0.210	0.920	359.1	952.5	0.727	1.113	-4.22	0.947	79.2	64.3	2.4	0.213
4-4910	4-5470	0.361	261.7	5.7	1.45	1.433	79.4	0.519	1.437	31.2	274.2	---	2.182	-3.80	1.132	63.5	51.1	11.9	0.522
4-4910	4-5470	0.130	325.2	14.6	1.45	1.292	91.7	0.215	0.924	350.4	953.4	0.725	1.123	-3.80	0.947	78.8	72.3	5.7	0.215
4-4910	4-5480	0.323	271.1	3.4	0.78	1.435	82.1	0.511	1.446	23.5	276.1	---	2.186	-3.54	1.133	64.3	59.4	13.2	0.507
4-4910	4-5480	0.141	339.6	7.2	0.78	1.293	93.3	0.223	0.928	341.8	954.5	0.721	1.135	-3.54	0.947	78.2	80.7	8.1	0.221
4-4910	4-5490	0.293	282.8	0.9	0.19	1.437	84.9	0.506	1.455	15.4	277.6	---	2.192	-3.41	1.133	64.8	68.2	14.8	0.496
4-4910	4-5490	0.161	351.7	1.5	0.19	1.295	95.0	0.235	0.931	333.3	955.5	0.712	1.150	-3.41	0.947	77.4	89.5	9.6	0.230
4-4910	4-5500	0.274	296.9	-2.0	-0.38	1.438	87.7	0.504	1.464	6.7	278.5	---	2.202	-3.38	1.134	65.1	77.4	15.8	0.489
4-4910	4-5500	0.190	1.7	-2.6	-0.38	1.296	96.8	0.250	0.934	324.8	956.6	0.701	1.168	-3.38	0.948	76.4	98.5	10.3	0.244
4-4910	4-5500	0.555	52.2	-0.7	-0.38	1.186	117.5	0.462	0.743	244.9	1236.7	0.400	1.087	-3.38	0.790	107.6	212.8	-21.4	0.333
4-4910	4-5500	0.737	55.8	-0.5	-0.38	1.203	126.4	0.595	0.767	237.6	1229.4	0.311	1.224	-3.38	0.816	121.8	224.4	1.6	0.517
4-4910	4-5510	0.271	313.4	-5.1	-0.95	1.439	90.9	0.506	1.471	357.5	638.7	0.727	2.216	-3.45	1.135	65.1	87.0	16.1	0.487
4-4910	4-5510	0.226	10.1	-5.4	-0.95	1.298	98.9	0.270	0.937	316.2	957.5	0.684	1.190	-3.45	0.949	75.1	107.6	10.2	0.262
4-4910	4-5510	0.480	51.0	-2.1	-0.95	1.178	113.8	0.404	0.834	247.3	1248.6	0.437	1.030	-3.45	0.777	97.5	200.9	-20.8	0.241
4-4920	4-4970	0.461	2.0	-4.5	-1.34	1.567	100.2	0.792	3.389	336.9	429.6	0.760	---	3.18	1.318	120.2	112.5	27.3	0.677
4-4920	4-4980	0.347	4.4	-8.0	-1.92	1.457	98.7	0.556	1.583	335.5	438.4	0.703	---	3.26	1.184	116.1	118.1	27.7	0.524
4-4920	4-4990	0.270	5.4	-13.1	-2.55	1.387	97.2	0.412	1.202	335.0	448.1	0.706	---	3.45	1.096	112.1	123.8	28.6	0.412
4-4920	4-5000	0.221	5.1	-20.2	-3.28	1.341	95.9	0.321	1.045	335.4	453.6	0.710	---	3.80	1.036	108.4	129.6	30.3	0.328
4-4920	4-5010	0.192	3.9	-29.8	-4.20	1.311	94.8	0.260	0.965	336.5	469.8	0.716	---	4.37	0.995	105.0	135.2	33.8	0.264
4-4920	4-5020	0.185	2.3	-41.7	-5.48	1.291	93.9	0.221	0.920	338.0	481.4	0.717	---	5.34	0.967	102.0	140.9	40.2	0.220
4-4920	4-5030	0.204	1.3	-55.5	-7.56	1.279	93.3	0.195	0.893	339.6	493.0	0.719	---	7.11	0.948	99.4	147.6	51.3	0.199
4-4920	4-5040	0.276	4.7	-70.8	-11.86	1.271	92.9	0.179	0.877	340.9	504.2	0.720	---	11.12	0.934	97.0	159.1	67.4	0.226
4-4920	4-5050	0.584	99.9	-83.3	-27.32	1.260	92.5	0.169	0.868	342.4	515.2	0.721	---	26.30	0.925	94.8	180.3	82.0	0.449
4-4920	4-5070	0.276	8.8	72.1	12.01	1.262	92.9	0.165	0.861	339.1	532.8	0.719	---	-13.58	0.914	91.4	193.8	-40.5	0.241
4-4920	4-5080	0.171	3.1	53.0	6.22	1.263	93.1	0.166	0.862	337.7	541.0	0.718	1.005	-8.04	0.911	89.8	102.7	-30.7	0.159

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4920	4-5090	0.139	4.8	36.2	3.72	1.263	93.5	0.170	0.863	335.5	548.4	0.717	1.010	-5.85	0.909	88.5	101.1	-20.5	0.136
4-4920	4-5100	0.131	8.3	22.4	2.27	1.265	94.0	0.175	0.866	332.5	555.1	0.714	1.017	-4.70	0.908	86.9	101.0	-11.9	0.130
4-4920	4-5110	0.135	12.5	12.0	1.28	1.266	94.6	0.183	0.869	329.0	561.2	0.710	1.027	-4.02	0.908	85.6	102.7	-5.3	0.135
4-4920	4-5120	0.146	17.0	4.5	0.51	1.268	95.4	0.192	0.872	325.1	566.9	0.705	1.040	-3.61	0.909	84.0	106.1	-0.6	0.145
4-4920	4-5130	0.162	21.6	-0.9	-0.12	1.270	96.4	0.203	0.876	320.6	572.0	0.698	1.054	-3.35	0.911	82.6	110.9	2.4	0.159
4-4920	4-5140	0.183	26.2	-4.7	-0.68	1.272	97.5	0.217	0.881	315.6	576.6	0.689	1.072	-3.22	0.912	81.1	116.9	4.2	0.176
4-4920	4-5150	0.210	30.8	-7.3	-1.22	1.275	98.8	0.234	0.885	310.4	579.8	0.678	1.092	-3.18	0.915	79.3	123.8	4.9	0.196
4-4920	4-5160	0.242	35.3	-9.1	-1.75	1.277	100.4	0.255	0.889	304.6	584.5	0.662	1.117	-3.23	0.918	77.6	133.9	4.7	0.220
4-4920	4-5170	0.283	39.8	-10.3	-2.32	1.279	102.4	0.282	0.894	298.2	587.6	0.642	1.147	-3.37	0.922	75.6	151.4	3.7	0.250
4-4920	4-5180	0.335	44.3	-11.0	-2.95	1.281	104.9	0.317	0.899	291.1	590.0	0.614	1.184	-3.63	0.926	73.0	185.3	1.9	0.287
4-4920	4-5190	0.403	49.0	-11.4	-3.73	1.284	108.1	0.362	0.904	283.0	591.5	0.576	1.232	-4.06	0.931	69.9	157.3	-0.4	0.337
4-4920	4-5200	0.495	54.2	-11.4	-4.74	1.286	112.5	0.425	0.909	273.5	591.6	0.523	1.296	-4.76	0.936	65.6	162.4	-3.5	0.406
4-4920	4-5200	0.811	85.3	-4.5	-4.74	1.052	132.5	0.690	0.607	215.5	493.6	0.188	1.026	-4.76	0.574	103.9	252.1	28.2	0.460
4-4920	4-5210	0.628	60.3	-11.3	-4.23	1.289	118.8	0.514	0.915	261.9	589.6	0.445	1.385	-5.96	0.942	59.6	172.7	-7.3	0.505
4-4920	4-5210	0.809	86.2	-5.9	-6.23	1.040	132.4	0.692	0.598	215.4	902.7	0.184	1.011	-5.96	0.554	85.3	236.7	-27.5	0.445
4-4920	4-5220	0.899	88.1	-6.9	-8.83	1.036	137.3	0.750	0.595	211.2	908.5	0.149	1.041	-8.27	0.551	66.8	227.4	-25.8	0.536
4-4920	4-5280	0.551	237.4	6.8	3.05	1.297	66.4	0.449	0.932	86.9	483.7	0.513	1.350	5.30	0.972	116.5	20.4	19.1	0.476
4-4920	4-5290	0.410	245.0	5.4	1.79	1.299	72.2	0.373	0.938	72.6	479.5	0.588	1.288	4.36	0.978	111.7	32.1	23.7	0.395
4-4920	4-5300	0.324	252.9	3.4	0.88	1.302	76.6	0.323	0.944	59.3	476.3	0.639	1.249	3.79	0.984	108.7	43.8	27.6	0.341
4-4920	4-5310	0.259	261.9	0.8	0.15	1.305	80.0	0.290	0.950	46.6	473.7	0.675	1.225	3.45	0.989	106.7	55.6	30.8	0.306
4-4920	4-5320	0.210	272.9	-2.9	-0.47	1.307	83.0	0.269	0.957	34.2	471.4	0.700	1.214	3.26	0.994	105.5	68.3	33.2	0.283
4-4920	4-5330	0.174	287.1	-7.9	-1.05	1.310	85.6	0.258	0.964	21.9	469.3	0.715	1.212	3.18	0.998	104.9	81.1	34.7	0.270
4-4920	4-5340	0.739	221.9	-2.2	-1.62	1.221	54.5	0.585	0.792	118.9	576.5	0.328	1.255	3.21	0.878	56.7	316.2	-12.3	0.562
4-4920	4-5340	0.155	305.3	-13.8	-1.62	1.313	88.0	0.255	0.971	9.9	467.5	0.724	1.218	3.21	1.002	104.7	94.3	35.2	0.265
4-4920	4-5350	0.657	225.4	-3.5	-2.21	1.232	58.8	0.526	0.808	111.8	579.5	0.383	1.233	3.34	0.892	60.6	323.9	-8.9	0.504
4-4920	4-5350	0.153	326.7	-19.4	-2.21	1.317	90.4	0.259	0.980	358.2	825.9	0.726	1.233	3.34	1.006	105.0	107.3	34.8	0.267
4-4920	4-5360	0.581	229.0	-5.5	-2.88	1.241	62.8	0.469	0.823	104.3	582.2	0.437	1.210	3.60	0.904	64.2	331.5	-4.8	0.491
4-4920	4-5360	0.170	347.4	-22.9	-2.88	1.320	92.8	0.270	0.989	346.8	824.7	0.722	1.256	3.60	1.010	105.7	120.0	33.6	0.277
4-4920	4-5370	0.511	232.7	-8.3	-3.68	1.250	66.5	0.417	0.838	96.4	584.4	0.488	1.188	4.04	0.914	67.4	338.9	0.2	0.466
4-4920	4-5370	0.204	4.4	-24.6	-3.68	1.325	95.3	0.288	1.000	336.0	824.0	0.712	1.288	4.04	1.014	106.7	132.2	31.8	0.294
4-4920	4-5380	0.450	236.5	-12.5	-4.74	1.257	69.9	0.371	0.852	80.2	586.3	0.536	1.168	4.76	0.923	70.2	345.9	6.4	0.364
4-4920	4-5380	0.251	17.4	-25.7	-4.74	1.329	97.9	0.312	1.012	325.8	823.9	0.696	1.328	4.76	1.016	108.1	143.6	29.8	0.320
4-4920	4-5390	0.402	240.3	-19.3	-6.32	1.264	72.9	0.331	0.864	79.6	587.8	0.578	1.151	6.03	0.929	72.5	352.5	14.4	0.333
4-4920	4-5390	0.311	27.4	-27.6	-6.32	1.334	100.8	0.342	1.026	316.2	824.4	0.675	1.377	6.03	1.023	109.9	154.6	28.3	0.354
4-4920	4-5400	0.379	253.4	-31.0	-9.14	1.270	75.6	0.298	0.875	70.7	588.9	0.614	1.137	8.56	0.935	74.4	357.8	26.1	0.321
4-4920	4-5400	0.391	3.8	-31.9	-9.14	1.340	103.8	0.378	1.041	307.3	825.4	0.648	1.435	8.56	1.027	112.1	165.4	28.6	0.403
4-4920	4-5410	0.442	241.3	-51.9	-16.21	1.275	78.0	0.272	0.885	61.8	589.7	0.648	1.126	15.34	0.938	75.9	0.5	45.9	0.367
4-4920	4-5410	0.530	46.3	-43.7	-16.21	1.345	106.9	0.418	1.058	299.1	827.0	0.615	1.501	15.34	1.032	114.5	176.7	34.9	0.491
4-4920	4-5430	0.470	243.4	67.9	20.03	1.283	82.4	0.233	0.901	41.8	590.5	0.691	1.111	-21.45	0.943	78.1	61.5	-33.6	0.422
4-4920	4-5440	0.252	270.1	48.8	8.52	1.286	84.2	0.224	0.908	32.7	591.1	0.705	1.111	-10.22	0.944	78.6	55.3	-18.1	0.275
4-4920	4-5440	0.649	53.5	16.0	8.52	1.363	117.5	0.556	1.116	376.4	834.6	0.495	1.738	-10.22	1.048	123.4	184.2	-18.3	0.596
4-4920	4-5450	0.533	254.6	12.3	4.83	1.429	70.1	0.568	1.405	56.7	881.6	---	2.203	-6.81	1.130	59.2	38.8	3.7	0.606
4-4920	4-5450	0.184	283.1	36.1	4.83	1.288	85.8	0.217	0.914	23.8	599.7	0.715	1.112	-6.81	0.945	78.9	54.0	-7.8	0.238
4-4920	4-5460	0.480	259.9	8.4	2.95	1.432	72.7	0.533	1.418	50.0	867.5	---	2.201	-5.22	1.130	60.5	45.6	8.0	0.578
4-4920	4-5460	0.149	296.6	26.5	2.95	1.291	87.4	0.214	0.919	14.8	592.3	0.722	1.116	-5.22	0.946	77.0	65.4	-1.1	0.223
4-4920	4-5470	0.4[illegible]2	265.7	5.7	1.76	1.434	75.2	0.540	1.429	43.0	270.2	---	2.201	-4.34	1.131	61.7	53.2	11.1	0.554
4-4920	4-5470	0.131	311.7	17.7	1.76	1.293	88.9	0.214	0.923	6.0	593.1	0.725	1.121	-4.34	0.946	78.9	72.9	3.5	0.217
4-4920	4-5480	0.388	272.5	3.2	0.89	1.435	77.8	0.529	1.440	35.8	272.6	---	2.202	-3.80	1.131	62.7	61.2	13.5	0.534
4-4920	4-5480	0.125	327.8	9.3	0.89	1.295	90.5	0.217	0.927	357.3	954.0	0.726	1.125	-3.80	0.947	78.6	81.5	6.6	0.216
4-4920	4-5490	0.348	280.6	0.8	0.20	1.437	80.4	0.520	1.459	28.4	274.7	---	2.204	-3.47	1.132	63.6	69.6	15.2	0.516
4-4920	4-5490	0.131	343.5	2.0	0.20	1.296	92.0	0.223	0.931	348.7	955.1	0.724	1.139	-3.47	0.947	78.2	89.7	8.6	0.219
4-4920	4-5500	0.314	290.6	-1.8	-0.39	1.439	83.0	0.513	1.459	20.6	276.5	---	2.209	-3.28	1.133	64.3	78.4	16.3	0.502
4-4920	4-5500	0.146	357.5	-3.5	-0.39	1.298	93.7	0.232	0.935	340.3	956.2	0.710	1.152	-3.28	0.948	77.5	98.5	9.6	0.225
4-4920	4-5510	0.288	302.9	-4.7	-0.94	1.440	85.8	0.509	1.468	12.4	277.9	---	2.216	-3.19	1.134	64.7	87.9	16.8	0.492
4-4920	4-5510	0.170	9.3	-7.2	-0.94	1.299	95.4	0.244	0.938	331.8	957.2	0.709	1.167	-3.19	0.950	76.7	107.5	9.8	0.235
4-4920	4-5520	0.274	317.7	-7.7	-1.47	1.441	88.7	0.508	1.476	5.7	278.6	---	2.227	-3.19	1.136	65.0	96.9	16.5	0.486
4-4920	4-5520	0.201	19.2	-9.4	-1.41	1.301	97.3	0.260	0.941	323.3	958.3	0.696	1.186	-3.19	0.951	75.6	116.6	9.2	0.250
4-4920	4-5520	0.493	66.6	-3.2	-1.47	1.185	114.4	0.414	0.741	248.1	1243.0	0.434	1.048	-3.19	0.786	101.3	222.3	-25.9	0.267
4-4930	4-4970	0.525	4.1	-4.4	-1.38	1.671	97.1	1.023	31.117	345.9	422.7	0.714	---	2.80	1.437	121.8	117.5	25.5	0.787
4-4930	4-4980	0.373	7.1	-7.6	-1.88	1.517	96.3	0.674	2.188	344.4	431.4	0.714	---	2.73	1.256	117.7	122.3	25.4	0.592
4-4930	4-4990	0.277	8.0	-12.2	-2.34	1.423	95.1	0.475	1.364	344.0	441.2	0.716	---	2.75	1.140	113.6	127.4	25.5	0.455
4-4930	4-5000	0.216	6.9	-18.4	-2.87	1.364	94.0	0.355	1.113	344.7	452.0	0.718	---	2.86	1.064	109.7	132.5	26.1	0.355
4-4930	4-5010	0.179	4.2	-26.3	-3.44	1.326	93.0	0.279	0.999	346.3	463.7	0.720	---	3.08	1.013	106.2	137.4	27.6	0.280
4-4930	4-5020	0.161	0.2	-35.5	-4.12	1.302	92.2	0.231	0.939	348.4	476.0	0.722	---	3.44	0.979	103.0	141.9	30.6	0.223
4-4930	4-5030	0.158	35.0	-45.4	-5.05	1.296	91.6	0.200	0.904	350.[illegible]	488.3	0.723	---	4.05	0.955	100.2	146.0	36.3	0.183
4-4930	4-5040	0.170	352.4	-55.5	-6.32	1.276	91.1	0.181	0.884	352.6	500.1	0.724	---	5.09	0.939	97.7	149.9	45.9	0.159
4-4930	4-5050	0.208	350.4	-66.3	-8.61	1.270	90.9	0.170	0.873	353.7	513.2	0.724	---	7.13	0.928	95.5	155.5	60.0	0.161
4-4930	4-5060	0.315	352.6	-79.7	-14.15	1.267	90.8	0.164	0.867	354.2	521.4	0.724	---	12.43	0.921	93.6	172.5	75.0	0.227
4-4930	4-5080	0.409	24.1	85.3	18.80	1.266	91.4	0.163	0.864	350.3	537.3	0.723	---	-20.98	0.915	90.4	104.3	-44.2	0.357
4-4930	4-5090	0.176	0.4	59.9	8.90	1.267	91.6	0.165	0.866	348.5	545.6	0.723	1.008	-9.33	0.911	88.9	103.7	-33.7	0.178
4-4930	4-5100	0.125	4.2	37.4	3.42	1.268	92.1	0.169	0.868	345.1	552.4	0.722	1.015	-6.09	0.910	87.5	103.7	-21.2	0.139
4-4930	4-5110	0.113	9.0	19.4	1.70	1.270	92.6	0.174	0.871	342.2	558.5	0.720	1.023	-4.61	0.910	86.2	105.4	-11.3	0.131
4-4930	4-5120	0.117	15.9	6.9	0.63	1.271	93.3	0.181	0.875	338.3	564.2	0.717	1.033	-3.80	0.911	84.9	108.4	-4.4	0.135
4-4930	4-5130	0.128	22.2	-1.4	-0.14	1.274	94.1	0.189	0.879	333.9	569.3	0.713	1.045	-3.31	0.913	83.7	112.9	0.1	0.143
4-4930	4-5140	0.143	28.4	-6.6	-0.74	1.276	95.0	0.199	0.884	329.1	574.1	0.708	1.060	-3.01	0.915	82.4	118.3	2.7	0.155
4-4930	4-5150	0.163	34.3	-9.9	-1.26	1.278	96.1	0.211	0.888	324.0	578.5	0.701	1.076	-2.83	0.917	81.1	124.5	4.0	0.170
4-4930	4-5160	0.186	40.0	-11.9	-1.73	1.280	97.3	0.226	0.893	318.5	582.5	0.691	1.098	-2.74	0.920	79.6	131.3	4.2	0.187
4-4930	4-5170	0.215	45.3	-13.0	-2.19	1.283	98.8	0.244	0.898	312.5	586.0	0.679	1.116	-2.73	0.924	78.1	138.4	3.5	0.208
4-4930	4-5180	0.251	50.5	-13.5	-2.65	1.285	100.5	0.266	0.902	306.0	589.1	0.662	1.142	-2.80	0.928	76.3	145.9	2.1	0.233
4-4930	4-5190	0.295	55.5	-13.5	-3.16	1.287	102.7	0.295	0.907	299.0	591.6	0.640	1.174	-2.96	0.933	74.2	153.0	0.1	0.265

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4930	4-5200	0.352	60.5	-13.3	-3.74	1.290	105.9	0.332	0.912	291.1	593.4	0.609	1.215	-3.23	0.938	71.6	162.0	-2.6	0.305
4-4930	4-5210	0.428	65.7	-12.8	-4.47	1.292	109.1	0.382	0.917	282.2	594.0	0.567	1.268	-3.66	0.943	68.3	170.7	-5.7	0.360
4-4930	4-5210	0.325	100.1	-4.3	-4.47	1.073	133.0	0.692	0.622	217.0	888.9	0.192	1.053	-3.66	0.611	112.6	275.5	-27.5	0.395
4-4930	4-5220	0.532	71.4	-12.2	-5.46	1.294	114.1	0.452	0.923	271.6	593.1	0.505	1.340	-4.39	0.949	63.6	180.2	-9.4	0.437
4-4930	4-5220	0.772	100.7	-5.7	-5.46	1.054	130.2	0.662	0.607	216.9	898.4	0.205	1.008	-4.39	0.580	93.2	259.7	-29.2	0.470
4-4930	4-5230	0.686	78.1	-11.3	-6.99	1.297	121.4	0.554	0.929	258.3	589.5	0.414	1.443	-5.67	0.956	56.7	191.2	-13.7	0.553
4-4930	4-5230	0.814	101.9	-6.6	-6.99	1.048	132.4	0.692	0.602	214.9	906.1	0.186	1.018	-5.67	0.573	76.7	246.5	-28.7	0.459
4-4930	4-5240	0.950	104.5	-7.0	-9.94	1.046	140.0	0.777	0.601	210.2	911.1	0.134	1.068	-8.37	0.576	57.8	241.2	-27.8	0.596
4-4930	4-5280	0.928	217.7	3.6	5.12	1.005	40.9	0.776	0.572	152.2	893.1	0.123	1.016	7.64	0.519	112.0	334.6	-3.7	0.575
4-4930	4-5290	0.621	249.5	4.7	2.54	1.302	62.0	0.510	0.940	94.6	485.6	0.460	1.419	5.31	0.979	120.6	29.9	21.0	0.544
4-4930	4-5300	0.470	257.6	2.9	1.12	1.305	69.4	0.415	0.946	78.8	479.8	0.554	1.338	4.16	0.985	114.4	42.8	25.4	0.438
4-4930	4-5310	0.367	265.4	0.6	0.18	1.307	74.5	0.352	0.952	64.7	475.8	0.617	1.288	3.50	0.990	110.5	55.5	28.7	0.371
4-4930	4-5320	0.291	273.9	-2.3	-0.52	1.310	78.5	0.311	0.958	51.5	472.8	0.660	1.257	3.11	0.994	108.1	68.2	31.1	0.326
4-4930	4-5330	0.235	284.0	-6.1	-1.10	1.312	81.7	0.285	0.965	38.9	470.3	0.689	1.240	2.88	0.998	106.5	81.0	32.5	0.297
4-4930	4-5340	0.195	296.7	-10.9	-1.62	1.315	84.4	0.270	0.971	26.6	468.2	0.709	1.234	2.76	1.000	105.7	94.0	33.0	0.279
4-4930	4-5350	0.169	313.1	-16.7	-2.14	1.318	87.0	0.264	0.978	14.6	466.5	0.720	1.237	2.73	1.006	105.3	106.8	32.5	0.270
4-4930	4-5360	0.719	239.1	-3.7	-2.60	1.231	55.8	0.568	0.803	116.1	578.0	0.347	1.260	2.79	0.887	57.6	334.4	-6.5	0.552
4-4930	4-5360	0.160	333.1	-22.0	-2.60	1.321	89.4	0.265	0.986	3.0	465.0	0.725	1.248	2.79	1.009	105.4	119.4	31.0	0.269
4-4930	4-5370	0.[illegible]0	242.6	-5.3	-3.13	1.240	59.9	0.511	0.819	108.8	580.9	0.401	1.238	2.95	0.899	61.4	341.8	-2.6	0.496
4-4930	4-5370	0.[illegible]0	354.2	-25.4	-3.13	1.325	91.7	0.273	0.995	351.8	824.0	0.723	1.267	2.95	1.012	105.8	131.4	28.9	0.275
4-4930	4-5380	0.566	246.2	-7.4	-3.74	1.249	63.8	0.457	0.834	101.2	583.5	0.453	1.215	3.23	0.909	64.8	349.2	1.8	0.444
4-4930	4-5380	0.194	12.7	-26.5	-3.74	1.328	94.2	0.287	1.005	341.1	823.4	0.716	1.294	3.23	1.015	106.7	142.8	26.2	0.288
4-4930	4-5370	0.500	249.8	-10.5	-4.51	1.257	67.4	0.407	0.849	93.3	585.6	0.503	1.194	3.69	0.918	67.8	356.4	7.0	0.398
4-4930	4-5390	0.233	27.2	-26.5	-4.51	1.332	96.7	0.308	1.016	330.9	823.2	0.703	1.329	3.69	1.018	107.9	153.6	23.4	0.309
4-4930	4-5400	0.443	253.6	-15.1	-5.56	1.264	70.6	0.364	0.862	85.1	587.4	0.548	1.175	4.47	0.925	70.4	3.4	13.3	0.360
4-4930	4-5400	0.283	38.3	-26.8	-5.56	1.337	99.4	0.334	1.029	321.3	823.6	0.685	1.373	4.47	1.022	109.4	163.8	20.8	0.337
4-4930	4-5410	0.400	257.3	-22.7	-7.22	1.271	73.5	0.327	0.874	76.5	588.7	0.588	1.159	5.87	0.931	72.6	9.9	21.6	0.331
4-4930	4-5410	0.347	47.1	-28.3	-7.22	1.342	102.3	0.366	1.044	312.3	824.5	0.661	1.426	5.87	1.026	111.3	173.8	19.2	0.374
4-4930	4-5420	0.389	259.9	-35.5	-10.51	1.276	76.1	0.297	0.884	67.7	589.8	0.622	1.147	8.92	0.935	74.3	15.2	34.3	0.323
4-4930	4-5420	0.434	55.0	-33.1	-10.51	1.347	105.3	0.403	1.059	303.8	825.9	0.633	1.486	8.92	1.030	113.5	183.9	20.2	0.427
4-4930	4-5430	0.524	251.1	-59.7	-21.15	1.281	78.4	0.273	0.894	58.9	590.6	0.650	1.138	19.32	0.938	75.7	17.7	59.0	0.415
4-4930	4-5430	0.626	68.5	-47.7	-21.15	1.353	108.4	0.443	1.077	296.0	827.7	0.600	1.554	19.32	1.035	116.0	194.6	31.2	0.548
4-4930	4-5450	0.307	277.2	51.7	10.86	1.288	82.7	0.238	0.909	39.6	591.7	0.693	1.126	13.16	0.982	77.6	65.5	-20.5	0.317
4-4930	4-5450	0.625	68.7	21.8	10.86	1.365	115.5	0.534	1.115	280.8	832.9	0.520	1.710	13.16	1.044	121.8	191.1	-26.7	0.587
4-4930	4-5460	0.566	267.7	13.5	4.80	1.431	68.4	0.582	1.407	60.7	262.4	---	2.229	-7.42	1.128	58.0	49.0	6.3	0.625
4-4930	4-5460	0.203	290.5	32.6	4.88	1.291	84.4	0.229	0.916	30.7	592.3	0.706	1.125	-7.42	0.944	78.1	67.3	-6.8	0.252
4-4930	4-5470	0.511	272.6	6.6	2.49	1.433	71.0	0.556	1.420	54.1	265.4	---	2.223	-5.27	1.129	59.4	55.8	10.9	0.594
4-4930	4-5470	0.161	302.1	20.4	2.49	1.294	86.1	0.223	0.921	21.8	593.0	0.715	1.127	-5.27	0.945	78.4	73.6	0.8	0.230
4-4930	4-5480	0.463	277.8	3.4	1.14	1.436	73.5	0.552	1.432	47.4	268.2	---	2.222	-4.18	1.130	60.7	63.5	13.8	0.568
4-4930	4-5480	0.138	315.2	10.8	1.14	1.296	87.7	0.221	0.926	13.0	593.8	0.722	1.131	-4.18	0.946	78.4	81.4	5.4	0.221
4-4930	4-5490	0.418	283.8	0.6	0.24	1.437	76.1	0.540	1.443	40.4	270.8	---	2.222	-3.54	1.131	61.8	71.6	15.8	0.545
4-4930	4-5490	0.727	330.2	2.5	0.24	1.298	89.2	0.221	0.931	4.4	594.8	0.725	1.137	-3.54	0.947	78.3	89.9	8.1	0.217
4-4930	4-5500	0.376	290.9	-1.6	-0.44	1.439	78.6	0.530	1.454	33.3	273.2	---	2.223	-3.15	1.132	62.8	80.1	17.1	0.526
4-4930	4-5500	0.127	346.1	-4.5	-0.44	1.300	90.8	0.225	0.935	355.9	955.8	0.725	1.145	-3.15	0.948	78.0	88.7	9.6	0.217
4-4930	4-5510	0.339	299.5	-4.2	-1.00	1.441	81.2	0.522	1.463	25.8	275.3	---	2.226	-2.91	1.133	63.6	88.8	17.8	0.510
4-4930	4-5510	0.137	1.6	-9.6	-1.00	1.301	92.3	0.231	0.938	347.4	956.9	0.722	1.155	-2.91	0.950	77.5	107.6	10.1	0.221
4-4930	4-5520	0.368	310.0	-6.9	-1.49	1.442	83.9	0.516	1.472	18.0	277.0	---	2.232	-2.78	1.135	64.3	97.8	17.5	0.497
4-4930	4-5520	0.155	15.3	-12.6	-1.49	1.303	94.0	0.240	0.942	339.0	953.0	0.716	1.168	-2.78	0.951	76.9	116.7	9.7	0.229
4-4930	4-5540	0.286	323.0	-9.9	-1.95	1.444	86.7	0.513	1.481	9.7	278.2	---	2.240	-2.73	1.137	64.7	107.0	16.7	0.488
4-4930	4-5530	0.181	27.0	-14.1	-1.95	1.304	95.8	0.253	0.945	330.6	959.1	0.706	1.184	-2.73	0.954	76.0	125.7	8.5	0.240
4-4930	4-5530	0.530	82.8	-3.9	-1.95	1.195	116.1	0.442	0.751	248.0	1236.5	0.420	1.083	-2.73	0.798	106.5	244.6	-28.0	0.319
4-4930	4-5530	0.726	86.6	-2.6	-1.95	1.213	125.7	0.586	0.777	239.7	1228.2	0.322	1.232	-2.73	0.825	121.6	257.1	-26.6	0.519
4-4940	4-4980	0.424	8.5	-7.5	-1.98	1.594	92.6	0.839	4.479	354.3	425.4	0.722	---	2.19	1.346	119.5	126.2	23.2	0.679
4-4940	4-4990	0.298	6.8	-11.3	-2.37	1.465	92.1	0.555	1.621	354.1	435.3	0.722	---	2.09	1.190	115.2	130.5	22.9	0.506
4-4940	4-5000	0.222	4.3	-17.4	-2.74	1.388	91.3	0.395	1.194	355.3	446.6	0.723	---	2.07	1.092	111.1	134.8	22.8	0.386
4-4940	4-5010	0.178	359.4	-24.1	-3.11	1.340	90.5	0.299	1.032	357.6	459.1	0.723	---	2.11	1.029	107.2	138.9	23.2	0.298
4-4940	4-5020	0.155	352.9	-31.2	-3.51	1.310	89.9	0.241	0.954	0.7	112.3	---	---	2.22	0.987	103.8	142.5	24.5	0.233
4-4940	4-5030	0.145	346.3	-37.9	-3.97	1.291	89.3	0.206	0.911	3.8	125.5	---	---	2.43	0.960	100.8	145.2	27.2	0.183
4-4940	4-5040	0.145	340.9	-44.1	-4.53	1.280	89.0	0.185	0.887	6.4	138.0	---	---	2.77	0.941	98.2	146.6	32.3	0.148
4-4940	4-5050	0.153	337.3	-50.3	-5.30	1.273	88.8	0.173	0.874	8.0	149.6	---	---	3.33	0.929	96.9	146.6	40.4	0.125
4-4940	4-5060	0.171	335.6	-57.3	-6.56	1.269	88.8	0.167	0.867	8.5	159.9	---	---	4.33	0.921	95.9	145.6	52.1	0.118
4-4940	4-5070	0.211	335.0	-66.7	-8.80	1.268	88.9	0.164	0.864	7.8	169.1	---	---	6.45	0.916	92.1	147.4	66.1	0.137
4-4940	4-5080	0.348	325.5	-81.3	-15.74	1.268	89.1	0.163	0.864	6.5	177.4	---	---	13.21	0.913	90.5	173.5	78.5	0.234
4-4940	4-5100	0.200	352.1	65.8	8.25	1.270	90.0	0.167	0.868	0.0	190.8	---	1.013	-11.13	0.910	87.9	105.0	-36.1	0.206
4-4940	4-5110	0.115	359.7	34.2	2.90	1.212	90.5	0.171	0.872	356.5	556.9	0.723	1.021	-5.96	0.911	86.6	106.6	-19.5	0.142
4-4940	4-5120	0.102	7.5	11.5	0.91	1.274	91.1	0.175	0.876	352.5	562.4	0.723	1.030	-4.15	0.912	85.4	109.9	-8.1	0.132
4-4940	4-5130	0.106	15.8	-2.1	-0.18	1.276	91.8	0.181	0.881	348.1	567.5	0.721	1.041	-3.26	0.914	84.3	114.4	-1.3	0.135
4-4940	4-5140	0.115	24.3	-9.9	-0.89	1.279	92.6	0.188	0.886	343.2	572.2	0.719	1.052	-2.74	0.916	83.2	119.9	2.5	0.143
4-4940	4-5150	0.129	32.5	-14.3	-1.48	1.281	93.6	0.197	0.890	338.1	576.6	0.715	1.066	-2.42	0.919	82.0	126.1	4.3	0.153
4-4940	4-5160	0.146	40.3	-16.5	-1.86	1.284	94.6	0.207	0.895	332.7	580.7	0.710	1.081	-2.23	0.922	80.9	132.8	4.9	0.166
4-4940	4-5170	0.167	47.5	-17.4	-2.24	1.286	95.8	0.220	0.900	326.9	584.5	0.702	1.098	-2.12	0.926	79.7	139.8	4.4	0.181
4-4940	4-5180	0.192	54.2	-17.5	-2.59	1.288	97.2	0.235	0.905	320.8	587.9	0.692	1.118	-2.07	0.930	78.3	147.1	3.1	0.199
4-4940	4-5190	0.223	60.3	-17.0	-2.93	1.291	98.8	0.254	0.910	314.2	590.9	0.679	1.141	-2.08	0.935	76.8	154.7	1.3	0.221
4-4940	4-5200	0.261	66.0	-16.2	-3.30	1.293	100.7	0.277	0.915	307.1	593.4	0.661	1.169	-2.15	0.940	75.1	162.5	-1.2	0.247
4-4940	4-5210	0.309	71.5	-15.3	-3.70	1.295	103.1	0.308	0.920	299.4	595.3	0.637	1.203	-2.30	0.945	72.9	170.7	-4.1	0.280
4-4940	4-5220	0.371	77.0	-14.1	-4.17	1.297	106.2	0.340	0.925	290.7	596.3	0.603	1.247	-2.54	0.951	70.2	179.3	-7.3	0.325
4-4940	4-5230	0.455	82.6	-12.9	-4.78	1.300	110.3	0.404	0.930	280.8	596.1	0.554	1.306	-2.94	0.957	66.6	188.5	-11.0	0.386
4-4940	4-5230	0.754	115.3	-5.3	-4.78	1.069	129.0	0.540	0.617	219.0	894.2	0.220	1.014	-2.94	0.608	100.2	282.8	-27.2	0.417
4-4940	4-5240	0.575	88.9	-11.6	-5.65	1.302	116.0	0.484	0.936	268.9	593.9	0.483	1.389	-3.61	0.963	61.3	198.9	-14.9	0.475
4-4940	4-5240	0.757	116.1	-6.1	-5.65	1.060	129.2	0.649	0.609	217.9	902.9	0.214	1.005	-3.61	0.596	84.6	268.2	-28.7	0.410

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4940	4-5250	0.839	117.7	-6.5	-7.11	1.057	133.7	0.704	0.607	215.0	909.8	0.179	1.034	-4.88	0.595	68.6	258.3	-28.5	0.494
4-4940	4-5300	0.857	235.8	1.5	1.74	1.020	45.1	0.727	0.580	148.8	893.9	0.159	1.002	4.09	0.551	105.7	350.6	1.5	0.512
4-4940	4-5310	0.548	269.6	0.5	0.24	1.310	65.7	0.467	0.954	86.2	481.3	0.509	1.399	3.59	0.991	117.8	53.5	25.8	0.493
4-4940	4-5320	0.421	277.7	-1.9	-0.65	1.313	72.0	0.388	0.990	70.9	476.2	0.588	1.393	2.91	0.995	112.8	67.1	28.4	0.406
4-4940	4-5330	0.332	285.9	-4.9	-1.27	1.315	76.5	0.337	0.966	57.1	472.5	0.640	1.292	2.51	0.999	109.7	80.3	29.9	0.350
4-4940	4-5340	0.267	295.2	-8.6	-1.76	1.318	80.5	0.305	0.972	44.1	469.8	0.676	1.269	2.27	1.003	107.7	93.3	30.3	0.313
4-4940	4-5350	0.219	306.7	-13.1	-2.17	1.320	83.3	0.285	0.979	31.7	467.6	0.700	1.258	2.13	1.006	106.6	106.1	29.8	0.290
4-4940	4-5360	0.187	321.2	-18.3	-2.55	1.323	85.8	0.275	0.985	19.8	465.8	0.714	1.257	2.07	1.008	106.0	118.5	28.3	0.277
4-4940	4-5370	0.780	253.0	-3.7	-2.92	1.230	52.7	0.610	0.799	120.2	576.4	0.311	1.287	2.08	0.882	54.5	344.9	-3.7	0.600
4-4940	4-5370	0.170	339.5	-23.4	-2.92	1.326	88.2	0.273	0.993	8.2	464.4	0.722	1.264	2.08	1.011	105.8	130.4	26.0	0.272
4-4940	4-5380	0.699	256.4	-4.9	-3.30	1.240	57.0	0.552	0.815	113.2	579.4	0.365	1.265	2.15	0.893	58.5	352.2	-0.0	0.540
4-4940	4-5380	0.169	0.2	-26.8	-3.30	1.329	90.6	0.278	1.001	357.1	823.4	0.723	1.279	2.15	1.013	106.1	141.7	23.1	0.275
4-4940	4-5390	0.622	259.8	-6.5	-3.72	1.249	61.1	0.497	0.830	105.8	582.2	0.418	1.243	2.31	0.904	62.2	359.6	4.0	0.485
4-4940	4-5390	0.186	7.0	-27.7	-3.72	1.332	93.0	0.288	1.010	346.5	822.8	0.719	1.302	2.31	1.015	106.7	152.4	19.8	0.284
4-4940	4-5400	0.552	263.4	-8.7	-4.22	1.257	64.8	0.445	0.845	98.2	584.6	0.469	1.222	2.57	0.912	65.4	6.9	8.3	0.435
4-4940	4-5400	0.216	36.2	-26.9	-4.22	1.336	95.5	0.305	1.021	336.3	822.7	0.709	1.333	2.57	1.018	107.7	162.6	16.4	0.301
4-4940	4-5410	0.488	267.1	-11.8	-4.86	1.265	68.2	0.399	0.859	90.3	586.6	0.516	1.202	3.00	0.920	68.2	14.3	13.2	0.391
4-4940	4-5410	0.258	48.6	-25.8	-4.86	1.340	98.1	0.328	1.033	326.6	823.0	0.694	1.372	3.00	1.021	109.0	172.4	13.1	0.324
4-4940	4-5420	0.433	270.9	-16.3	-5.79	1.272	71.3	0.358	0.872	82.0	588.3	0.559	1.184	3.73	0.926	70.6	21.7	19.0	0.353
4-4940	4-5420	0.311	58.1	-25.4	-5.79	1.345	100.8	0.356	1.046	317.4	823.7	0.673	1.419	3.73	1.024	110.7	181.8	10.3	0.354
4-4940	4-5430	0.393	274.6	-23.6	-7.37	1.277	74.1	0.324	0.883	73.5	589.6	0.597	1.169	5.11	0.931	72.6	28.8	26.8	0.326
4-4940	4-5430	0.376	65.9	-26.6	-7.37	1.350	103.7	0.389	1.061	308.8	824.9	0.648	1.474	5.11	1.028	112.7	191.2	8.7	0.393
4-4940	4-5440	0.389	277.0	-37.5	-10.94	1.283	76.6	0.296	0.893	64.8	590.6	0.629	1.158	8.50	0.935	74.3	35.0	40.1	0.319
4-4940	4-5440	0.466	73.3	-31.9	-10.94	1.355	106.8	0.427	1.077	300.7	826.6	0.618	1.537	8.50	1.032	115.0	201.0	10.6	0.447
4-4940	4-5450	0.663	252.8	-66.2	-28.74	1.287	78.8	0.275	0.902	56.2	591.5	0.654	1.150	26.12	0.938	75.4	45.5	72.7	0.505
4-4940	4-5460	0.445	278.1	61.7	17.89	1.291	77.1	0.255	0.910	46.3	592.2	0.678	1.142	-20.68	0.940	76.6	79.0	-27.3	0.420
4-4940	4-5470	0.226	299.4	29.0	4.89	1.089	82.4	0.243	0.917	37.6	592.9	0.694	1.140	-7.86	0.942	77.2	75.5	-5.5	0.267
4-4940	4-5470	0.623	83.7	9.7	8.63	1.372	116.9	0.554	1.144	210.6	833.9	0.504	1.764	-7.86	1.047	123.3	215.3	-26.5	0.587
4-4940	4-5480	0.544	285.4	4.4	1.70	1.036	69.3	0.4[illegible]	[illegible]	56.4	263.2	---	2.245	-4.92	1.127	58.3	66.1	13.8	0.610
4-4940	4-5480	0.178	309.3	13.0	4.78	1.297	87.5	0.[illegible]	0.923	28.9	593.7	0.706	1.140	-4.92	0.944	77.6	81.9	3.7	0.237
4-4940	4-5490	0.495	290.3	0.9	0.33	[illegible]	[illegible]	[illegible]	0.434	51.8	266.2	---	2.244	-3.66	1.129	59.6	74.0	16.5	0.582
4-4940	4-5490	0.152	320.3	2.8	0.33	[illegible]	[illegible]	[illegible]	0.929	20.2	594.6	0.715	1.142	-3.66	0.946	77.8	90.1	8.2	0.225
4-4940	4-5500	0.450	295.7	-1.7	-0.[illegible]	[illegible]	[illegible]	[illegible]	1.446	45.0	269.0	---	2.243	-2.98	1.130	60.9	82.3	18.0	0.558
4-4940	4-5500	0.138	333.3	-5.2	-0.[illegible]	[illegible]	[illegible]	[illegible]	0.933	11.6	595.6	0.721	1.146	-2.98	0.947	77.8	98.9	10.5	0.219
4-4940	4-5510	0.407	301.9	-4.0	-1.[illegible]	[illegible]	[illegible]	[illegible]	1.457	38.1	271.5	---	2.243	-2.57	1.132	62.0	90.8	18.7	0.537
4-4940	4-5510	0.132	348.2	-11.6	-1.76	[illegible]	89.4	0.229	0.938	3.1	596.6	0.723	1.152	-2.57	0.949	77.7	107.9	11.3	0.217
4-4940	4-5520	0.368	309.3	-6.3	-1.64	1.443	79.4	0.531	1.467	30.9	273.9	---	2.245	-2.32	1.134	62.9	99.5	18.6	0.518
4-4940	4-5520	0.135	4.1	-16.1	-1.64	1.305	91.0	0.232	0.942	354.8	957.8	0.723	1.160	-2.32	0.951	77.4	117.0	11.1	0.219
4-4940	4-5530	0.333	318.4	-8.8	-2.04	1.445	82.0	0.524	1.476	23.4	275.9	---	2.249	-2.17	1.136	63.7	108.4	17.9	0.503
4-4940	4-5530	0.186	19.5	-18.6	-2.04	1.306	92.6	0.239	0.945	346.4	959.0	0.720	1.171	-2.17	0.954	76.9	126.0	10.0	0.224
4-4940	4-5540	0.305	329.6	-11.4	-2.40	1.446	84.7	0.519	1.485	15.5	277.6	---	2.255	-2.09	1.138	64.3	117.3	16.6	0.491
4-4940	4-5540	0.166	33.1	-19.3	-2.40	1.306	94.3	0.248	0.949	338.0	960.1	0.713	1.184	-2.09	0.956	76.2	135.0	8.3	0.232
4-4950	4-4980	0.535	3.1	-7.3	-2.29	1.702	86.9	1.093	7.764	5.8	60.8	---	---	1.52	1.471	121.9	129.5	20.9	0.809
4-4950	4-4990	0.348	2.2	-11.3	-2.58	1.515	87.7	0.659	2.111	5.8	71.0	---	---	1.37	1.249	117.1	132.8	20.4	0.573
4-4950	4-5000	0.250	357.9	-16.2	-2.83	1.412	87.6	0.441	1.289	7.7	83.0	---	---	1.29	1.120	112.6	136.2	20.0	0.425
4-4950	4-5010	0.198	350.9	-21.3	-3.06	1.351	87.3	0.322	1.060	11.2	96.6	---	---	1.25	1.041	108.4	139.4	19.8	0.319
4-4950	4-5020	0.172	343.0	-25.9	-3.28	1.315	86.9	0.253	0.960	15.5	111.1	---	---	1.25	0.991	104.6	142.0	20.1	0.244
4-4950	4-5030	0.160	335.9	-29.5	-3.51	1.292	86.5	0.234	0.910	19.7	125.4	---	---	1.29	0.959	101.3	143.4	21.3	0.189
4-4950	4-5040	0.156	330.9	-32.5	-3.76	1.279	86.3	0.222	0.883	23.0	138.6	---	---	1.38	0.938	98.5	143.1	23.8	0.147
4-4950	4-5050	0.155	328.1	-35.3	-4.05	1.272	86.3	0.180	0.868	24.9	150.4	---	---	1.53	0.925	96.0	140.7	27.9	0.119
4-4950	4-5060	0.157	327.3	-38.6	-4.42	1.268	86.3	0.173	0.861	25.3	160.7	---	---	1.77	0.917	93.9	135.8	33.7	0.102
4-4950	4-5070	0.161	328.0	-42.8	-4.96	1.267	86.5	0.170	0.859	24.4	169.7	---	---	2.19	0.912	92.1	129.5	40.7	0.095
4-4950	4-5080	0.171	329.8	-48.8	-5.84	1.267	86.8	0.169	0.860	22.4	177.5	---	---	2.95	0.909	90.5	124.1	48.8	0.099
4-4950	4-5090	0.200	331.8	-58.5	-7.74	1.269	87.2	0.169	0.862	19.7	184.5	---	1.008	4.75	0.908	89.1	124.2	60.2	0.119
4-4950	4-5100	0.357	319.1	-78.0	-15.96	1.271	87.6	0.171	0.866	16.5	190.9	---	1.014	12.86	0.908	87.8	161.5	77.4	0.233
4-4950	4-5110	0.304	336.1	75.5	13.36	1.273	88.3	0.173	0.870	11.9	196.3	---	1.020	-16.56	0.909	86.7	108.0	-41.3	0.291
4-4950	4-5120	0.111	354.6	21.4	1.89	1.276	88.8	0.176	0.875	7.8	201.6	---	1.029	-5.20	0.911	85.6	110.2	-14.1	0.141
4-4950	4-5130	0.102	3.4	-3.5	-0.28	1.278	89.5	0.180	0.880	3.1	206.5	---	1.039	-3.13	0.913	84.5	115.4	-1.2	0.131
4-4950	4-5140	0.106	13.0	-15.1	-1.24	1.281	90.3	0.185	0.886	358.2	571.1	0.722	1.049	-2.29	0.916	83.5	121.3	4.4	0.136
4-4950	4-5150	0.114	23.3	-20.8	-1.80	1.284	91.1	0.190	0.891	352.9	575.4	0.721	1.061	-1.84	0.919	82.6	127.7	6.8	0.144
4-4950	4-5160	0.124	33.7	-23.4	-2.19	1.286	92.1	0.198	0.896	347.4	579.4	0.719	1.074	-1.58	0.923	81.6	134.5	7.4	0.154
4-4950	4-5170	0.136	43.7	-24.1	-2.48	1.289	93.1	0.206	0.902	341.7	583.2	0.716	1.088	-1.41	0.927	80.6	141.5	6.8	0.169
4-4950	4-5180	0.153	52.9	-23.7	-2.73	1.291	94.5	0.216	0.907	335.6	586.7	0.711	1.103	-1.31	0.931	79.5	148.7	5.5	0.178
4-4950	4-5190	0.173	61.3	-22.5	-2.95	1.294	95.6	0.229	0.912	329.3	590.0	0.703	1.121	-1.26	0.936	78.4	156.2	3.5	0.193
4-4950	4-5200	0.199	68.8	-20.5	-3.16	1.296	97.1	0.245	0.917	322.6	592.8	0.693	1.142	-1.24	0.941	77.1	163.8	1.1	0.212
4-4950	4-5210	0.231	75.7	-19.1	-3.38	1.298	98.9	0.264	0.923	315.4	595.3	0.679	1.166	-1.26	0.947	75.7	171.6	-1.8	0.234
4-4950	4-5220	0.271	81.9	-17.2	-3.60	1.301	101.0	0.289	0.928	307.7	597.3	0.659	1.196	-1.32	0.952	73.9	179.8	-4.9	0.262
4-4950	4-5230	0.323	87.9	-15.3	-3.86	1.303	103.7	0.322	0.933	299.2	598.5	0.632	1.233	-1.43	0.958	71.7	188.3	-8.3	0.298
4-4950	4-5240	0.392	93.7	-13.4	-4.17	1.305	107.1	0.367	0.938	289.7	598.8	0.594	1.282	-1.60	0.964	68.8	197.4	-11.9	0.347
4-4950	4-5240	0.754	130.1	-4.7	-4.17	1.086	128.8	0.638	0.629	220.7	889.8	0.228	1.030	-1.60	0.637	106.8	304.1	-22.0	0.438
4-4950	4-5250	0.488	99.8	-11.5	-4.58	1.307	111.8	0.430	0.943	278.7	597.6	0.538	1.349	-1.89	0.970	64.7	207.5	-15.6	0.417
4-4950	4-5250	0.720	130.7	-5.4	-4.58	1.073	127.1	0.618	0.618	220.3	899.2	0.236	0.999	-1.89	0.618	91.3	290.4	-25.2	0.384
4-4950	4-5260	0.628	106.7	-9.6	-5.21	1.310	118.6	0.522	0.949	265.2	594.0	0.453	1.445	-2.40	0.977	58.6	219.1	-19.3	0.532
4-4950	4-5260	0.761	131.7	-5.7	-5.21	1.068	129.3	0.648	0.613	218.5	907.3	0.216	1.011	-2.40	0.614	77.0	277.9	-26.6	0.424
4-4950	4-5270	0.886	134.0	-5.3	-6.36	1.067	136.2	0.732	0.613	214.1	912.8	0.164	1.062	-3.43	0.617	60.4	272.3	-26.8	0.554
4-4950	4-5320	0.649	281.2	-1.7	-0.94	1.315	60.9	0.533	0.961	95.1	484.3	0.449	1.478	2.54	0.996	122.2	63.5	35.1	0.565
4-4950	4-5320	0.805	253.5	-0.9	-0.94	1.033	48.3	0.687	0.588	146.1	895.4	0.184	0.991	2.54	0.575	99.9	5.4	-5.7	0.463
4-4950	4-5330	0.489	289.6	-4.1	-1.65	1.318	68.8	0.433	0.968	78.1	477.5	0.549	1.387	1.96	1.000	113.6	78.2	26.9	0.451
4-4950	4-5340	0.381	297.8	-7.0	-2.10	1.320	74.2	0.369	0.974	63.4	473.0	0.685	1.333	1.63	1.004	111.6	91.8	27.4	0.380
4-4950	4-5350	0.305	306.6	-10.4	-2.44	1.323	78.3	0.328	0.980	50.0	469.8	0.659	1.301	1.44	1.006	109.1	104.8	26.9	0.334

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4950	4-5360	0.249	316.9	-14.4	-2.71	1.325	81.6	0.302	0.986	37.3	467.3	0.688	1.284	1.32	1.009	107.6	117.3	25.3	0.304
4-4950	4-5370	0.208	329.8	-19.0	-2.94	1.327	84.4	0.288	0.993	25.3	465.4	0.707	1.279	1.26	1.011	106.7	129.1	23.9	0.287
4-4950	4-5380	0.183	346.2	-23.6	-3.16	1.330	87.0	0.282	1.000	13.7	464.0	0.718	1.282	1.24	1.012	106.4	140.4	20.0	0.278
4-4950	4-5390	0.759	270.3	-4.5	-3.39	1.240	54.0	0.594	0.811	117.4	577.7	0.329	1.293	1.26	0.887	55.6	2.7	2.9	0.586
4-4950	4-5390	0.173	5.8	-27.8	-3.39	1.333	89.4	0.283	1.008	2.7	463.0	0.722	1.293	1.26	1.014	106.4	151.1	16.6	0.277
4-4950	4-5400	0.680	273.7	-5.7	-3.62	1.249	58.2	0.538	0.827	110.3	580.7	0.382	1.271	1.33	0.898	59.4	10.0	6.4	0.528
4-4950	4-5400	0.180	26.2	-28.0	-3.62	1.336	91.8	0.291	1.016	352.0	822.4	0.721	1.312	1.33	1.016	106.9	161.4	12.8	0.283
4-4950	4-5410	0.605	277.2	-7.1	-3.89	1.258	62.3	0.485	0.842	102.9	583.3	0.434	1.250	1.44	0.907	62.8	17.6	10.1	0.474
4-4950	4-5410	0.201	44.0	-26.7	-3.89	1.340	94.2	0.304	1.026	341.8	822.2	0.714	1.338	1.44	1.018	107.6	171.1	9.0	0.296
4-4950	4-5420	0.537	280.7	-9.1	-4.21	1.265	65.7	0.436	0.856	95.3	585.6	0.483	1.229	1.63	0.914	65.9	25.3	13.9	0.426
4-4950	4-5420	0.235	58.1	-24.6	-4.21	1.344	96.7	0.323	1.037	332.1	822.4	0.702	1.373	1.63	1.020	108.8	180.6	5.2	0.315
4-4950	4-5430	0.475	284.5	-11.7	-4.65	1.272	68.9	0.392	0.869	87.3	587.5	0.526	1.210	1.94	0.921	68.5	33.2	16.0	0.383
4-4950	4-5430	0.279	68.8	-22.7	-4.65	1.348	99.4	0.348	1.049	322.8	823.0	0.684	1.415	1.94	1.023	110.2	189.8	1.8	0.340
4-4950	4-5440	0.421	288.4	-15.5	-5.31	1.279	71.9	0.355	0.881	79.1	589.1	0.569	1.194	2.48	0.928	70.8	41.3	22.6	0.346
4-4950	4-5440	0.333	77.1	-21.6	-5.31	1.352	102.1	0.378	1.063	314.0	824.0	0.662	1.465	2.48	1.026	112.0	198.8	-1.1	0.373
4-4950	4-5450	0.380	292.3	-21.1	-6.52	1.284	74.6	0.323	0.892	70.7	590.4	0.604	1.180	3.59	0.931	72.6	49.5	28.7	0.318
4-4950	4-5450	0.396	84.0	-22.1	-6.52	1.357	105.1	0.412	1.079	305.7	825.4	0.635	1.523	3.59	1.030	114.0	207.9	-2.7	0.412
4-4950	4-5460	0.371	295.1	-35.2	-9.81	1.289	77.0	0.297	0.902	62.1	591.5	0.634	1.170	6.77	0.935	74.1	57.5	40.8	0.307
4-4950	4-5460	0.482	90.6	-27.2	-9.81	1.363	108.2	0.450	1.095	297.9	827.3	0.603	1.588	6.77	1.034	116.4	217.5	-0.4	0.464
4-4950	4-5480	0.252	309.5	25.5	4.87	1.296	81.2	0.260	0.918	44.6	593.4	0.679	1.157	-8.12	0.941	76.1	83.7	-4.0	0.282
4-4950	4-5480	0.583	97.3	10.5	4.87	1.374	114.8	0.534	1.133	283.2	852.0	0.528	1.737	-8.12	1.045	121.7	226.1	-30.8	0.564
4-4950	4-5490	0.578	298.8	1.4	0.59	1.438	67.5	0.594	1.423	62.6	261.0	---	2.268	-3.95	1.126	57.1	76.6	16.9	0.625
4-4950	4-5490	0.200	318.0	3.8	0.59	1.299	83.1	0.249	0.925	36.0	594.3	0.695	1.155	-3.95	0.943	76.7	90.4	8.4	0.284
4-4950	4-5500	0.539	303.1	-2.1	-0.81	1.440	70.0	0.579	1.436	56.1	264.1	---	2.266	-2.66	1.128	58.5	84.7	19.1	0.597
4-4950	4-5500	0.174	327.0	-6.1	-0.81	1.302	84.8	0.241	0.931	27.4	595.3	0.704	1.155	-2.66	0.946	77.1	99.2	12.5	0.230
4-4950	4-5510	0.484	307.9	-4.4	-1.54	1.442	72.5	0.564	1.448	49.6	267.0	---	2.265	-2.04	1.130	59.9	93.2	19.9	0.572
4-4950	4-5510	0.156	337.9	-12.9	-1.54	1.304	86.4	0.2[illegible]	0.936	18.9	596.4	0.715	1.157	-2.04	0.948	77.2	108.3	13.8	0.223
4-4950	4-5520	0.440	313.4	-6.3	-2.00	1.444	75.1	0.552	1.459	42.8	269.8	---	2.265	-1.70	1.132	61.1	101.8	19.9	0.549
4-4950	4-5520	0.145	351.0	-18.3	-2.00	1.306	88.0	0.235	0.940	10.5	597.5	0.720	1.161	-1.70	0.951	77.2	117.5	13.7	0.219
4-4950	4-5530	0.399	319.9	-8.3	-2.34	1.445	77.6	0.541	1.470	35.8	272.3	---	2.265	-1.49	1.135	62.1	110.5	19.3	0.529
4-4950	4-5530	0.141	6.1	-22.2	-2.34	1.308	89.6	0.236	0.945	2.2	598.7	0.722	1.167	-1.49	0.953	77.1	126.7	12.6	0.219
4-4950	4-5540	0.361	327.7	-10.4	-2.61	1.447	80.1	0.533	1.480	28.6	274.7	---	2.268	-1.36	1.137	63.0	119.2	18.0	0.512
4-4950	4-5540	0.145	22.1	-24.3	-2.61	1.310	91.2	0.239	0.949	353.9	960.0	0.721	1.176	-1.36	0.956	76.7	135.8	10.9	0.222
4-4950	4-5550	0.328	337.4	-12.5	-2.84	1.448	82.8	0.526	1.489	21.1	276.7	---	2.272	-1.28	1.140	63.8	127.9	16.2	0.498
4-4950	4-5550	0.156	37.4	-24.5	-2.84	1.311	92.8	0.246	0.952	345.0	961.2	0.718	1.186	-1.28	0.960	76.2	144.7	8.5	0.228
4-4960	4-4990	0.465	356.5	-10.5	-3.70	1.583	81.1	0.811	3.710	19.9	69.0	---	---	0.42	1.328	120.4	133.7	18.2	0.679
4-4960	4-5000	0.321	350.7	-14.3	-3.39	1.435	82.4	0.499	1.400	22.9	82.2	---	---	0.37	1.147	114.8	136.1	17.6	0.475
4-4960	4-5010	0.253	343.0	-17.6	-3.26	1.357	82.9	0.348	1.072	28.0	97.4	---	---	0.34	1.046	109.9	138.2	17.1	0.347
4-4960	4-5020	0.220	335.7	-20.0	-3.32	1.313	83.0	0.270	0.952	34.0	113.5	---	---	0.32	0.986	105.5	139.6	17.0	0.259
4-4960	4-5030	0.205	330.2	-21.6	-3.38	1.288	83.0	0.229	0.896	39.3	128.8	---	---	0.32	0.950	101.8	139.6	17.3	0.196
4-4960	4-5040	0.196	326.8	-22.7	-3.43	1.274	83.0	0.207	0.866	42.8	142.4	---	---	0.32	0.928	98.6	137.7	18.3	0.152
4-4960	4-5050	0.191	325.3	-23.6	-3.49	1.266	83.1	0.195	0.854	44.5	154.0	---	---	0.34	0.915	95.9	133.4	20.1	0.122
4-4960	4-5060	0.186	325.3	-24.7	-3.56	1.263	83.4	0.189	0.848	44.4	163.8	---	---	0.37	0.907	93.7	127.6	22.4	0.104
4-4960	4-5070	0.182	326.4	-26.0	-3.64	1.263	83.7	0.185	0.847	42.9	172.1	---	---	0.41	0.903	91.8	119.9	24.6	0.096
4-4960	4-5080	0.177	328.4	-27.7	-3.75	1.264	84.1	0.183	0.850	40.3	179.4	---	---	0.49	0.902	90.1	114.2	26.3	0.095
4-4960	4-5090	0.172	331.3	-29.9	-3.91	1.266	84.5	0.182	0.854	37.0	185.8	---	1.009	0.62	0.902	88.7	111.1	27.8	0.098
4-4960	4-5100	0.169	334.9	-33.2	-4.19	1.269	85.1	0.181	0.859	33.1	191.5	---	1.014	0.87	0.903	87.5	110.9	29.7	0.104
4-4960	4-5110	0.171	339.1	-39.2	-4.89	1.272	85.7	0.182	0.864	28.7	196.8	---	1.022	1.55	0.905	86.3	113.8	34.4	0.112
4-4960	4-5120	0.273	337.5	-65.9	-11.30	1.275	87.3	0.183	0.871	24.0	201.7	---	1.030	7.93	0.908	85.3	136.2	64.8	0.175
4-4960	4-5130	0.122	353.1	-9.3	-0.89	1.278	87.1	0.185	0.877	19.0	206.3	---	1.039	-2.51	0.911	84.4	116.4	3.2	0.131
4-4960	4-5140	0.125	0.9	-24.5	-2.33	1.282	87.8	0.187	0.883	13.8	210.6	---	1.049	-1.10	0.914	83.5	123.4	12.2	0.133
4-4960	4-5150	0.125	10.2	-29.3	-2.74	1.285	88.7	0.191	0.890	8.4	214.7	---	1.059	-0.72	0.918	82.6	130.0	13.5	0.140
4-4960	4-5160	0.126	20.8	-31.6	-2.94	1.288	89.6	0.195	0.896	2.7	218.6	---	1.071	-0.54	0.922	81.8	136.8	13.0	0.148
4-4960	4-5170	0.129	32.4	-32.3	-3.07	1.291	90.5	0.201	0.902	356.9	582.3	0.721	1.083	-0.45	0.927	81.0	143.8	11.6	0.157
4-4960	4-5180	0.135	44.2	-31.8	-3.16	1.293	91.6	0.207	0.908	350.9	585.9	0.719	1.096	-0.42	0.932	80.1	150.9	9.6	0.167
4-4960	4-5190	0.145	55.7	-30.2	-3.23	1.296	92.7	0.216	0.913	344.6	589.2	0.716	1.110	-0.35	0.937	79.2	158.2	7.2	0.178
4-4960	4-5200	0.159	66.2	-27.8	-3.29	1.299	94.0	0.226	0.919	338.1	592.2	0.711	1.127	-0.33	0.942	78.3	165.6	4.4	0.191
4-4960	4-5210	0.179	75.6	-25.0	-3.34	1.301	95.4	0.239	0.924	331.2	595.0	0.704	1.145	-0.32	0.948	77.2	173.2	1.4	0.207
4-4960	4-5220	0.205	84.0	-22.0	-3.40	1.303	97.1	0.255	0.930	323.9	597.4	0.693	1.166	-0.32	0.954	76.0	181.1	-1.9	0.226
4-4960	4-5230	0.238	91.4	-19.0	-3.45	1.306	99.0	0.275	0.935	316.2	599.4	0.678	1.192	-0.33	0.959	74.6	189.2	-5.3	0.249
4-4960	4-5240	0.282	98.2	-16.2	-3.51	1.308	101.4	0.302	0.940	307.8	600.6	0.656	1.224	-0.35	0.965	72.8	197.7	-8.7	0.279
4-4960	4-5250	0.339	104.6	-13.5	-3.59	1.310	104.4	0.338	0.945	298.5	601.3	0.626	1.265	-0.38	0.971	70.5	206.8	-12.2	0.319
4-4960	4-5250	0.781	145.2	-3.9	-3.59	1.106	130.0	0.649	0.645	222.0	884.9	0.226	1.064	-0.38	0.671	114.8	323.5	-15.0	0.488
4-4960	4-5260	0.417	110.9	-11.0	-3.67	1.312	108.3	0.388	0.951	288.0	600.7	0.582	1.320	-0.43	0.977	67.3	216.7	-15.6	0.375
4-4960	4-5260	0.700	145.5	-4.6	-3.67	1.086	125.9	0.598	0.627	222.4	895.2	0.252	1.002	-0.43	0.642	97.1	311.0	-18.9	0.379
4-4960	4-5270	0.528	117.5	-8.7	-3.80	1.315	113.7	0.460	0.956	275.6	598.3	0.516	1.396	-0.53	0.983	62.7	227.9	-18.9	0.456
4-4960	4-5270	0.708	146.2	-4.7	-3.80	1.079	126.4	0.607	0.621	221.3	904.0	0.244	0.997	-0.53	0.634	83.9	298.0	-21.8	0.380
4-4960	4-5280	0.695	125.1	-6.4	-4.00	1.317	121.8	0.569	0.962	260.2	592.9	0.415	1.510	-0.70	0.989	55.4	241.0	-21.3	0.582
4-4960	4-5280	0.785	147.6	-4.2	-4.00	1.076	130.5	0.662	0.619	218.5	911.2	0.209	1.028	-0.70	0.634	69.8	289.0	-23.2	0.462
4-4960	4-5330	0.856	269.7	-2.3	-2.64	1.049	45.7	0.714	0.597	146.2	889.6	0.171	1.024	0.80	0.600	113.4	29.1	12.8	0.525
4-4960	4-5340	0.577	301.2	-6.0	-2.90	1.323	64.6	0.489	0.975	86.6	480.1	0.498	1.452	0.58	1.004	119.3	88.3	24.4	0.510
4-4960	4-5340	0.771	270.7	-3.0	-2.90	1.045	50.4	0.558	0.594	144.1	897.6	0.203	0.985	0.58	0.592	90.6	18.9	8.8	0.429
4-4960	4-5350	0.443	309.5	-8.7	-3.05	1.325	71.3	0.408	0.981	70.6	474.3	0.581	1.381	0.46	1.007	114.1	102.4	24.0	0.418
4-4960	4-5360	0.350	318.0	-11.4	-3.15	1.327	76.1	0.356	0.987	56.5	470.4	0.656	1.339	0.39	1.009	110.8	115.3	22.5	0.360
4-4960	4-5370	0.283	327.5	-15.1	-3.22	1.330	79.8	0.323	0.994	43.5	467.5	0.673	1.314	0.35	1.011	108.8	127.4	20.1	0.323
4-4960	4-5380	0.234	339.0	-18.9	-3.29	1.332	82.9	0.303	1.000	31.2	465.4	0.697	1.303	0.33	1.012	107.6	138.8	17.1	0.299
4-4960	4-5390	0.200	353.5	-22.8	-3.35	1.335	85.6	0.293	1.007	19.6	463.9	0.711	1.302	0.32	1.014	107.0	149.6	13.5	0.287
4-4960	4-5400	0.181	11.4	-26.0	-3.40	1.337	88.1	0.291	1.014	8.5	462.8	0.719	1.309	0.32	1.015	106.9	159.9	9.7	0.282
4-4960	4-5410	0.738	287.6	-4.8	-3.46	1.249	55.2	0.579	0.823	114.6	578.9	0.346	1.299	0.33	0.891	56.5	20.6	9.2	0.572
4-4960	4-5410	0.178	33.6	-27.1	-3.46	1.340	90.5	0.295	1.022	357.8	822.1	0.721	1.328	0.33	1.018	107.1	169.8	5.6	0.285

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4960	4-5420	0.661	291.0	-5.8	-3.52	1.257	59.3	0.525	0.838	107.5	581.7	0.398	1.278	0.35	0.901	60.1	28.3	12.2	0.516
4-4960	4-5420	0.190	50.8	-25.8	-3.52	1.344	92.9	0.305	1.031	347.6	821.8	0.717	1.346	0.35	1.017	107.7	179.3	1.5	0.294
4-4960	4-5430	0.589	294.5	-6.9	-3.60	1.265	63.0	0.475	0.852	100.2	584.3	0.448	1.257	0.39	0.909	63.3	36.2	15.1	0.464
4-4960	4-5430	0.215	66.6	-23.0	-3.60	1.347	95.3	0.320	1.042	337.8	821.8	0.706	1.376	0.39	1.019	108.6	188.7	-2.4	0.310
4-4960	4-5440	0.522	298.1	-8.3	-3.69	1.273	66.4	0.429	0.866	92.5	586.5	0.495	1.238	0.44	0.916	66.2	44.5	17.8	0.417
4-4960	4-5440	0.252	78.8	-20.0	-3.69	1.351	97.9	0.341	1.053	328.4	827.3	0.694	1.413	0.44	1.022	109.8	197.8	-6.2	0.332
4-4960	4-5450	0.461	301.9	-10.0	-3.81	1.279	69.6	0.388	0.879	84.7	588.3	0.548	1.220	0.54	0.922	68.7	53.0	20.4	0.375
4-4960	4-5450	0.298	88.2	-17.3	-3.81	1.355	100.6	0.368	1.066	319.4	823.1	0.674	1.458	0.54	1.025	111.3	206.8	-9.6	0.360
4-4960	4-5460	0.407	306.0	-12.2	-4.02	1.285	72.4	0.353	0.891	76.6	590.0	0.577	1.205	0.71	0.927	70.8	61.9	22.8	0.340
4-4960	4-5460	0.351	95.5	-15.3	-4.02	1.360	103.4	0.398	1.081	311.0	824.3	0.650	1.511	0.71	1.028	113.2	215.8	-12.4	0.394
4-4960	4-5470	0.300	310.3	-15.5	-4.43	1.290	75.0	0.323	0.901	68.3	591.3	0.610	1.192	1.09	0.932	72.9	71.0	25.5	0.311
4-4960	4-5470	0.411	101.5	-14.2	-4.43	1.365	106.4	0.433	1.097	302.9	826.0	0.621	1.572	1.09	1.033	115.3	224.8	-14.5	0.433
4-4960	4-5480	0.328	314.6	-23.2	-5.86	1.295	77.3	0.299	0.910	59.9	592.6	0.638	1.182	2.50	0.936	73.8	80.5	31.0	0.288
4-4960	4-5480	0.487	106.8	-15.9	-5.86	1.370	109.5	0.472	1.114	295.3	827.9	0.588	1.639	2.50	1.038	117.7	234.1	-14.4	0.479
4-4960	4-5490	0.281	320.5	21.7	4.67	1.298	79.4	0.280	0.918	51.4	593.7	0.662	1.175	-8.05	0.939	74.9	92.1	-1.9	0.297
4-4960	4-5490	0.543	110.9	10.9	4.67	1.375	112.8	0.512	1.132	288.0	830.2	0.552	1.712	-8.05	1.043	120.3	237.8	-33.9	0.541
4-4960	4-5500	0.232	327.7	-10.3	-1.86	1.302	81.4	0.265	0.926	43.0	594.8	0.680	1.171	-1.56	0.943	75.6	99.8	17.5	0.251
4-4960	4-5500	0.607	114.4	-3.8	-1.86	1.381	116.2	0.555	1.151	281.0	832.8	0.513	1.790	-1.56	1.049	123.1	250.4	-24.8	0.577
4-4960	4-5510	0.568	316.1	-6.1	-2.56	1.442	68.2	0.593	1.437	60.5	261.9	---	2.289	-0.88	1.128	57.3	96.0	22.0	0.613
4-4960	4-5510	0.206	335.1	-16.3	-2.56	1.304	83.2	0.254	0.932	34.3	596.0	0.695	1.169	-0.88	0.946	76.2	109.3	18.9	0.238
4-4960	4-5520	0.521	320.4	-7.5	-2.85	1.444	70.7	0.578	1.450	54.1	265.0	---	2.287	-0.62	1.130	58.8	104.6	21.7	0.587
4-4960	4-5520	0.184	344.1	-20.6	-2.85	1.307	84.9	0.247	0.938	26.3	597.2	0.706	1.169	-0.62	0.949	76.5	118.7	18.3	0.230
4-4960	4-5530	0.475	325.4	-8.8	-3.00	1.446	73.2	0.504	1.461	47.5	267.9	---	2.286	-0.49	1.133	60.1	113.2	20.9	0.563
4-4960	4-5530	0.167	355.2	-24.2	-3.00	1.309	86.5	0.243	0.943	18.0	598.4	0.714	1.172	-0.49	0.952	76.7	128.0	16.8	0.224
4-4960	4-5540	0.432	331.2	-10.1	-3.11	1.448	75.7	0.553	1.472	40.7	270.7	---	2.286	-0.42	1.136	61.2	121.7	19.5	0.541
4-4960	4-5540	0.155	8.6	-27.3	-3.11	1.311	88.1	0.241	0.947	9.7	599.7	0.719	1.176	-0.42	0.956	76.7	137.1	14.6	0.222
4-4960	4-5550	0.392	338.0	-11.6	-3.19	1.449	78.3	0.543	1.483	33.7	273.3	---	2.287	-0.37	1.139	62.3	130.2	17.6	0.522
4-4960	4-5550	0.151	23.9	-29.0	-3.19	1.313	89.7	0.242	0.951	1.5	601.0	0.721	1.182	-0.37	0.959	76.5	146.0	12.0	0.223
4-4960	4-5560	0.354	346.3	-13.3	-3.26	1.451	80.8	0.535	1.492	26.5	275.6	---	2.290	-0.34	1.142	63.2	138.7	15.3	0.506
4-4960	4-5560	0.154	40.1	-29.1	-3.26	1.314	91.3	0.246	0.955	353.2	962.3	0.720	1.191	-0.34	0.963	76.2	154.8	9.0	0.226
4-4970	4-5000	0.464	345.9	-12.3	-4.01	1.463	74.6	0.585	1.568	42.3	85.4	---	---	-0.93	1.180	119.1	133.8	15.6	0.567
4-4970	4-5010	0.356	338.9	-14.2	-3.81	1.355	76.7	0.389	1.061	49.7	102.9	---	---	-0.79	1.042	112.5	134.7	15.1	0.393
4-4970	4-5020	0.30	333.2	-15.3	-3.65	1.301	77.7	0.301	0.921	57.1	120.5	---	---	-0.71	0.968	107.0	134.7	14.7	0.285
4-4970	4-5030	0.281	329.5	-15.8	-3.52	1.275	78.4	0.260	0.864	62.7	136.1	---	---	-0.66	0.928	102.5	133.2	14.6	0.213
4-4970	4-5040	0.265	327.7	-16.1	-3.41	1.259	78.8	0.238	0.838	65.6	149.0	---	---	-0.64	0.905	98.8	129.7	14.9	0.166
4-4970	4-5050	0.254	327.3	-16.2	-3.30	1.253	79.3	0.226	0.828	66.2	159.6	---	---	-0.63	0.894	95.7	124.2	15.5	0.136
4-4970	4-5060	0.243	327.9	-16.3	-3.19	1.252	79.7	0.218	0.825	65.1	168.4	---	---	-0.65	0.889	93.2	117.6	16.1	0.119
4-4970	4-5070	0.233	329.4	-16.5	-3.06	1.253	80.3	0.212	0.827	62.6	175.7	---	---	-0.69	0.887	91.1	111.6	16.4	0.111
4-4970	4-5080	0.222	331.8	-16.5	-2.92	1.256	80.8	0.208	0.832	59.2	182.1	---	1.005	-0.75	0.888	89.4	107.7	16.3	0.110
4-4970	4-5090	0.211	334.0	-16.4	-2.75	1.259	81.5	0.204	0.839	55.2	187.8	---	1.010	-0.86	0.890	88.0	106.1	15.8	0.113
4-4970	4-5100	0.199	337.1	-16.0	-2.51	1.264	82.1	0.201	0.846	50.7	193.0	---	1.016	-1.04	0.894	86.8	106.8	14.6	0.118
4-4970	4-5110	0.188	340.8	-14.6	-2.14	1.268	82.8	0.199	0.854	45.8	197.8	---	1.024	-1.35	0.897	85.7	109.1	12.4	0.124
4-4970	4-5120	0.172	345.1	-12.6	-1.43	1.272	83.6	0.198	0.862	40.7	202.3	---	1.033	-2.00	0.901	84.7	112.3	7.9	0.132
4-4970	4-5130	0.159	350.1	-9.8	0.73	1.276	84.4	0.198	0.870	35.4	206.6	---	1.042	-4.11	0.906	83.9	115.3	-4.6	0.150
4-4970	4-5150	0.201	359.9	-49.5	-6.83	1.284	86.1	0.199	0.885	24.2	214.5	---	1.061	3.56	0.915	82.3	139.2	38.0	0.157
4-4970	4-5160	0.168	9.3	-42.7	-5.10	1.288	87.0	0.200	0.892	18.4	218.2	---	1.071	1.87	0.920	81.6	142.0	26.6	0.154
4-4970	4-5170	0.154	19.3	-40.6	-4.46	1.291	87.9	0.203	0.899	12.5	221.8	---	1.082	1.29	0.925	80.9	147.7	20.9	0.159
4-4970	4-5180	0.147	30.6	-39.4	-4.12	1.294	88.9	0.207	0.906	6.4	225.2	---	1.093	1.01	0.931	80.3	154.2	16.7	0.166
4-4970	4-5190	0.143	43.0	-38.0	-3.90	1.297	90.0	0.211	0.913	0.1	228.5	---	1.106	0.85	0.937	79.6	161.0	12.9	0.174
4-4970	4-5200	0.145	56.0	-35.8	-3.73	1.300	91.1	0.218	0.919	353.6	591.7	0.719	1.119	0.75	0.942	78.8	168.1	9.2	0.183
4-4970	4-5210	0.151	68.6	-32.6	-3.59	1.303	92.4	0.226	0.925	346.9	594.6	0.716	1.134	0.68	0.948	78.1	175.4	5.6	0.194
4-4970	4-5220	0.164	80.3	-28.8	-3.48	1.306	93.8	0.236	0.931	339.9	597.3	0.711	1.150	0.65	0.954	77.2	182.9	1.9	0.206
4-4970	4-5230	0.183	90.7	-24.7	-3.37	1.308	95.4	0.249	0.936	332.5	599.6	0.704	1.169	0.63	0.960	76.2	190.7	-1.7	0.222
4-4970	4-5240	0.210	99.7	-20.6	-3.26	1.310	97.2	0.265	0.942	324.7	601.6	0.692	1.192	0.64	0.966	75.0	198.8	-5.3	0.242
4-4970	4-5250	0.246	107.7	-16.8	-3.14	1.313	99.3	0.287	0.947	316.3	603.0	0.675	1.219	0.66	0.973	73.6	208.3	-8.8	0.267
4-4970	4-5260	0.294	114.9	-13.3	-3.02	1.315	101.9	0.316	0.953	307.2	603.3	0.651	1.254	0.71	0.978	71.8	216.4	-12.1	0.300
4-4970	4-5270	0.358	121.7	-10.2	-2.86	1.317	105.3	0.356	0.958	297.0	603.6	0.617	1.299	0.79	0.984	69.2	226.3	-15.2	0.344
4-4970	4-5270	0.694	160.4	-3.7	-2.86	1.099	125.4	0.588	0.637	224.3	890.8	0.262	1.012	0.79	0.666	102.6	329.6	-11.0	0.392
4-4970	4-5280	0.448	128.4	-7.4	-2.67	1.319	109.7	0.413	0.963	285.4	602.0	0.565	1.361	0.92	0.990	65.7	237.1	-17.9	0.408
4-4970	4-5280	0.673	160.9	-3.6	-2.67	1.090	124.4	0.577	0.628	223.6	900.2	0.266	0.991	0.92	0.653	89.7	317.4	-14.6	0.356
4-4970	4-5290	0.579	135.6	-4.9	-2.37	1.322	116.1	0.497	0.969	271.5	598.2	0.487	1.451	1.15	0.995	60.2	249.5	-20.1	0.505
4-4970	4-5290	0.714	161.8	-2.9	-2.37	1.086	126.6	0.609	0.625	221.9	908.5	0.245	1.006	1.15	0.651	77.3	306.4	-17.4	0.399
4-4970	4-5300	0.832	163.9	-1.8	-1.86	1.085	133.0	0.691	0.625	217.7	914.4	0.193	1.057	1.60	0.653	62.4	301.8	-18.4	0.524
4-4970	4-5350	0.692	312.2	-7.5	-4.55	1.327	59.2	0.561	0.982	96.6	484.2	0.431	1.533	-1.37	1.008	124.1	97.2	21.3	0.591
4-4970	4-5350	0.798	287.4	-4.6	-4.55	1.061	49.2	0.669	0.605	143.2	890.8	0.200	1.009	-1.37	0.616	107.4	45.6	15.4	0.466
4-4970	4-5360	0.521	321.0	-9.8	-4.15	1.329	67.7	0.456	0.989	78.9	476.6	0.538	1.440	-1.03	1.010	117.1	111.8	19.9	0.469
4-4970	4-5360	0.930	282.7	-3.0	-4.15	1.024	41.2	0.770	0.578	151.0	908.7	0.133	1.023	-1.03	0.549	63.9	9.1	3.0	0.579
4-4970	4-5360	0.756	287.5	-4.5	-4.15	1.054	51.4	0.643	0.599	142.7	900.5	0.214	0.985	-1.03	0.602	89.1	31.0	11.0	0.414
4-4970	4-5370	0.406	329.4	-12.4	-3.91	1.332	73.4	0.390	0.995	63.8	471.7	0.607	1.383	-0.85	1.012	112.9	124.7	17.5	0.394
4-4970	4-5380	0.325	338.3	-15.1	-3.73	1.334	77.7	0.348	1.001	50.2	468.3	0.653	1.349	-0.75	1.013	110.3	136.6	14.5	0.347
4-4970	4-5390	0.265	348.7	-18.1	-3.59	1.336	81.1	0.322	1.007	37.7	465.8	0.683	1.331	-0.68	1.014	108.7	147.6	10.9	0.316
4-4970	4-5400	0.222	1.5	-21.3	-3.47	1.339	84.0	0.307	1.014	25.9	464.0	0.703	1.325	-0.65	1.015	107.8	158.1	6.9	0.299
4-4970	4-541	0.193	17.6	-23.9	-3.36	1.341	86.6	0.300	1.021	14.6	462.8	0.714	1.327	-0.63	1.015	107.4	168.2	2.8	0.290
4-4970	4-542	0.179	36.7	-25.1	-3.24	1.344	89.1	0.301	1.029	3.8	461.9	0.719	1.338	-0.64	1.016	107.4	177.9	-1.4	0.290
4-4970	4-5430	0.718	305.0	-4.6	-3.13	1.257	56.3	0.566	0.834	112.1	580.0	0.362	1.306	-0.67	0.894	57.3	39.2	14.4	0.558
4-4970	4-5430	0.101	56.5	-23.9	-3.13	1.347	91.5	0.307	1.037	353.5	821.5	0.719	1.356	-0.67	1.017	107.8	187.5	-5.6	0.296
4-4970	4-5440	0.643	308.4	-5.1	-3.00	1.265	60.2	0.515	0.849	105.0	582.7	0.412	1.286	-0.72	0.903	60.7	47.3	16.5	0.504
4-4970	4-5440	0.199	74.1	-20.8	-3.00	1.350	93.9	0.319	1.047	343.6	821.4	0.713	1.381	-0.72	1.019	108.5	196.9	-9.6	0.308
4-4970	4-5450	0.573	311.9	-5.7	-2.85	1.273	63.0	0.467	0.863	97.6	585.2	0.460	1.266	-0.80	0.911	63.7	55.6	18.2	0.454
4-4970	4-5450	0.228	88.1	-17.0	-2.85	1.354	96.4	0.337	1.058	334.1	821.6	0.702	1.414	-0.80	1.021	109.5	206.2	-13.4	0.327

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4970	4-5460	0.508	315.5	-6.2	-2.65	1.280	67.0	0.423	0.876	90.1	527.3	0.505	1.247	-0.93	0.917	66.4	64.3	19.4	0.410
4-4970	4-5460	0.268	98.8	-13.4	-2.65	1.358	99.0	0.359	1.070	325.0	822.3	0.685	1.454	-0.93	1.024	110.8	215.5	-16.8	0.352
4-4970	4-5470	0.448	319.4	-6.4	-2.36	1.286	70.0	0.385	0.889	82.3	589.2	0.546	1.231	-1.16	0.924	68.7	73.3	19.8	0.371
4-4970	4-5470	0.316	107.1	-10.0	-2.36	1.362	101.8	0.387	1.083	316.4	823.3	0.634	1.502	-1.16	1.027	112.4	224.7	-20.0	0.382
4-4970	4-5480	0.393	323.5	-5.9	-1.88	1.291	72.8	0.352	0.900	74.4	590.9	0.583	1.217	-1.59	0.929	70.6	82.4	19.1	0.338
4-4970	4-5480	0.371	115.7	-6.7	-1.88	1.367	104.7	0.419	1.098	308.1	824.6	0.639	1.558	-1.59	1.031	114.4	233.9	-23.0	0.419
4-4970	4-5490	0.343	328.1	-2.8	-0.77	1.296	75.3	0.325	0.910	66.3	592.4	0.614	1.205	-2.64	0.934	72.2	91.6	15.9	0.312
4-4970	4-5490	0.431	119.1	-2.3	-0.77	1.372	107.7	0.454	1.115	300.3	826.4	0.608	1.621	-2.64	1.036	116.6	242.8	-26.5	0.461
4-4970	4-5500	0.318	332.1	20.4	5.01	1.300	77.5	0.302	0.918	58.2	593.8	0.641	1.196	-8.37	0.938	73.5	100.8	-1.4	0.317
4-4970	4-5500	0.508	124.4	12.8	5.01	1.377	110.9	0.493	1.132	292.8	828.5	0.574	1.690	-8.37	1.042	119.0	249.7	-37.0	0.523
4-4970	4-5510	0.341	334.4	-41.8	-10.22	1.303	79.6	0.284	0.926	49.9	595.2	0.663	1.189	6.91	0.942	74.4	116.3	43.8	0.290
4-4970	4-5510	0.607	130.0	-21.6	-10.22	1.382	114.2	0.533	1.151	285.6	830.9	0.537	1.765	6.91	1.048	121.6	262.2	-12.3	0.565
4-4970	4-5520	0.259	343.7	-29.9	-5.74	1.307	81.5	0.270	0.933	41.7	596.5	0.681	1.165	2.48	0.946	75.2	122.0	29.3	0.255
4-4970	4-5530	0.562	333.2	-11.4	-4.74	1.446	68.9	0.592	1.451	58.6	262.9	---	2.310	1.54	1.131	57.6	116.5	23.7	0.604
4-4970	4-5530	0.223	351.7	-28.7	-4.74	1.309	83.3	0.260	0.939	33.5	597.8	0.695	1.184	1.54	0.950	75.7	130.6	24.3	0.242
4-4970	4-5540	0.514	337.8	-11.5	-4.28	1.468	71.4	0.578	1.463	52.2	266.0	---	2.309	1.14	1.134	59.0	124.9	21.5	0.579
4-4970	4-5540	0.197	1.1	-29.7	-4.28	1.312	85.0	0.253	0.945	25.4	599.2	0.706	1.184	1.14	0.954	76.0	139.4	20.5	0.234
4-4970	4-5550	0.468	343.0	-12.0	-4.00	1.449	73.9	0.565	1.475	45.6	269.0	---	2.308	0.92	1.137	60.3	133.2	19.3	0.556
4-4970	4-5550	0.177	12.6	-31.1	-4.00	1.314	86.6	0.249	0.950	17.2	600.6	0.713	1.186	0.92	0.958	76.1	148.1	16.9	0.229
4-4970	4-5560	0.424	349.1	-12.8	-3.81	1.451	76.4	0.553	1.485	38.8	271.8	---	2.307	0.79	1.141	61.5	141.4	16.7	0.535
4-4970	4-5560	0.164	26.3	-32.3	-3.81	1.316	88.2	0.247	0.954	9.1	602.1	0.718	1.190	0.79	0.962	76.1	156.7	13.3	0.227
4-4970	4-5570	0.384	356.3	-13.7	-3.66	1.453	78.9	0.544	1.495	31.7	274.3	---	2.309	0.71	1.144	62.5	149.5	13.9	0.517
4-4970	4-5570	0.158	41.9	-32.3	-3.66	1.317	89.8	0.249	0.958	0.9	603.5	0.720	1.196	0.71	0.967	75.9	165.2	9.5	0.229
4-4980	4-5010	0.535	338.3	-11.8	-5.06	1.347	67.4	0.476	1.033	76.4	113.5	---	---	-2.55	1.029	118.3	128.8	13.8	0.491
4-4980	4-5020	0.441	334.3	-12.2	-4.45	1.276	70.4	0.371	0.866	84.0	131.2	---	---	-2.10	0.932	110.3	127.5	13.4	0.341
4-4980	4-5030	0.393	332.2	-12.2	-4.02	1.245	72.2	0.324	0.812	88.2	145.5	---	---	-1.83	0.887	104.1	124.7	13.2	0.252
4-4980	4-5040	0.363	331.6	-12.0	-3.67	1.232	73.4	0.298	0.792	89.4	156.6	---	---	-1.67	0.866	99.3	120.3	13.1	0.198
4-4980	4-5050	0.341	332.1	-11.8	-3.38	1.229	74.4	0.281	0.787	88.3	165.6	---	---	-1.58	0.858	95.5	114.7	13.2	0.165
4-4980	4-5060	0.323	333.3	-11.5	-3.10	1.231	75.3	0.268	0.790	85.9	173.0	---	---	-1.54	0.858	92.6	109.2	13.2	0.148
4-4980	4-5070	0.306	335.1	-11.2	-2.84	1.236	76.1	0.258	0.797	82.3	179.5	---	---	-1.55	0.861	90.2	105.1	13.1	0.140
4-4980	4-5080	0.290	337.3	-10.8	-2.56	1.241	77.0	0.249	0.806	78.1	184.8	---	1.006	-1.61	0.866	88.4	103.0	12.8	0.138
4-4980	4-5090	0.274	339.8	-10.1	-2.26	1.247	77.8	0.241	0.816	73.4	189.9	---	1.012	-1.72	0.871	86.9	103.0	12.1	0.140
4-4980	4-5100	0.257	342.6	-9.1	-1.90	1.254	78.7	0.234	0.826	68.3	194.5	---	1.020	-1.90	0.878	85.7	104.8	11.0	0.143
4-4980	4-5110	0.241	345.7	-7.5	-1.44	1.260	79.6	0.228	0.837	63.0	198.8	---	1.028	-2.21	0.884	84.6	107.8	9.1	0.148
4-4980	4-5120	0.224	349.1	-4.4	-0.80	1.266	80.4	0.223	0.848	57.6	202.9	---	1.037	-2.71	0.890	83.7	111.7	5.9	0.153
4-4980	4-5130	0.209	352.9	1.6	0.27	1.271	81.3	0.220	0.858	52.0	206.9	---	1.046	-3.63	0.897	83.0	116.0	0.6	0.162
4-4980	4-5140	0.201	356.8	16.0	2.51	1.276	82.2	0.217	0.868	46.2	210.7	---	1.056	-5.75	0.903	82.3	119.9	-9.8	0.181
4-4980	4-5150	0.304	354.4	56.2	11.46	1.281	83.2	0.215	0.877	40.5	214.4	---	1.065	-14.57	0.909	81.6	123.0	-34.1	0.286
4-4980	4-5160	0.580	317.7	-76.4	-26.12	1.286	84.3	0.212	0.886	33.8	217.7	---	1.074	23.14	0.916	81.1	197.6	61.7	0.411
4-4980	4-5170	0.256	9.2	-56.8	-9.59	1.290	85.2	0.213	0.894	28.1	221.3	---	1.084	6.74	0.922	80.5	161.6	43.1	0.199
4-4980	4-5180	0.201	20.1	-48.4	-6.70	1.294	86.2	0.213	0.902	22.0	224.7	---	1.095	3.98	0.928	80.0	161.4	29.9	0.183
4-4980	4-5190	0.176	30.5	-44.4	-5.46	1.297	87.2	0.215	0.910	15.7	228.0	---	1.106	2.88	0.935	79.4	165.9	22.0	0.182
4-4980	4-5200	0.161	42.2	-41.9	-4.74	1.301	88.4	0.218	0.917	9.2	231.1	---	1.117	2.30	0.941	78.9	171.8	16.1	0.186
4-4980	4-5210	0.153	55.2	-39.3	-4.25	1.304	89.5	0.222	0.924	2.6	234.1	---	1.129	1.96	0.948	78.3	178.4	11.1	0.192
4-4980	4-5220	0.150	69.0	-36.0	-3.87	1.307	90.8	0.228	0.931	355.7	596.9	0.719	1.143	1.76	0.954	77.7	185.3	6.6	0.200
4-4980	4-5230	0.154	82.6	-31.7	-3.56	1.309	92.2	0.235	0.937	348.6	599.5	0.716	1.157	1.63	0.961	77.0	192.7	2.5	0.210
4-4980	4-5240	0.166	95.2	-26.8	-3.28	1.312	93.7	0.245	0.943	341.1	601.8	0.711	1.174	1.56	0.967	76.2	200.4	-1.5	0.223
4-4980	4-5250	0.186	106.3	-21.7	-3.01	1.314	95.4	0.259	0.949	333.2	603.8	0.703	1.194	1.54	0.973	75.3	208.5	-5.2	0.239
4-4980	4-5260	0.215	116.0	-16.9	-2.74	1.317	97.4	0.276	0.954	324.9	605.3	0.691	1.218	1.56	0.979	74.2	217.0	-8.6	0.260
4-4980	4-5270	0.255	124.4	-12.6	-2.45	1.319	99.8	0.300	0.960	315.8	606.2	0.672	1.247	1.64	0.985	72.7	226.1	-11.8	0.287
4-4980	4-5280	0.309	132.1	-8.9	-2.12	1.321	102.7	0.332	0.965	305.9	606.3	0.645	1.285	1.78	0.991	70.7	235.9	-14.5	0.323
4-4980	4-5280	0.705	175.5	-2.7	-2.12	1.114	125.7	0.590	0.649	225.8	886.2	0.266	1.032	1.78	0.691	108.2	346.8	-2.6	0.422
4-4980	4-5290	0.383	139.2	-5.7	-1.71	1.323	106.5	0.377	0.970	294.8	605.2	0.605	1.336	2.02	0.996	67.9	246.6	-16.4	0.375
4-4980	4-5290	0.653	175.8	-2.4	-1.71	1.101	123.1	0.557	0.637	225.7	896.2	0.282	0.992	2.02	0.673	94.8	335.5	-6.3	0.349
4-4980	4-5300	0.488	146.5	-2.9	-1.16	1.326	111.7	0.443	0.976	281.9	602.5	0.544	1.408	2.42	1.001	63.7	258.3	-18.2	0.450
4-4980	4-5300	0.666	176.5	-1.6	-1.16	1.095	123.9	0.569	0.632	224.6	905.1	0.272	0.992	2.42	0.667	83.3	323.9	-9.6	0.359
4-4980	4-5310	0.647	154.4	-0.5	-0.29	1.328	119.3	0.542	0.982	266.2	596.9	0.450	1.515	3.14	1.006	57.2	271.7	-18.7	.566
4-4980	4-5310	0.741	177.8	-0.3	-0.29	1.094	127.9	0.624	0.631	221.9	912.6	0.237	1.024	3.14	0.667	70.8	316.4	-12.0	0.441
4-4980	4-5360	0.882	302.7	-5.9	-6.90	1.072	44.9	0.719	0.612	145.0	886.6	0.172	1.353	-4.17	0.631	119.0	66.6	17.5	0.555
4-4980	4-5370	0.620	332.2	-10.6	-5.51	1.333	63.0	0.517	0.996	88.4	480.2	0.481	1.511	-2.92	1.012	121.1	120.0	15.8	0.537
4-4980	4-5370	0.757	304.8	-6.1	-5.51	1.071	51.7	0.635	0.612	140.8	892.6	0.223	1.000	-2.92	0.627	102.4	61.2	16.5	0.423
4-4980	4-5380	0.475	340.8	-12.6	-4.74	1.336	70.1	0.432	1.002	71.9	473.8	0.569	1.435	-2.30	1.014	115.6	133.2	12.6	0.439
4-4980	4-5380	0.845	301.7	-4.2	-4.74	1.046	46.4	0.707	0.593	146.2	908.1	0.174	1.012	-2.30	0.581	73.5	30.9	9.9	0.502
4-4980	4-5380	0.771	303.7	-5.0	-4.74	1.058	50.7	0.651	0.602	142.7	904.6	0.210	0.994	-2.30	0.602	81.5	40.1	12.3	0.430
4-4980	4-5390	0.375	349.3	-14.7	-4.23	1.338	75.1	0.378	1.008	57.6	469.6	0.628	1.389	-1.95	1.014	112.2	145.0	8.8	0.378
4-4980	4-5400	0.303	358.9	-17.0	-3.84	1.340	79.0	0.343	1.014	44.6	466.6	0.666	1.363	-1.74	1.015	110.0	155.9	4.8	0.339
4-4980	4-5410	0.249	10.3	-19.2	-3.53	1.342	82.2	0.323	1.021	32.5	464.5	0.692	1.350	-1.62	1.015	108.8	166.3	0.5	0.315
4-4980	4-5420	0.210	24.5	-21.2	-3.24	1.345	85.0	0.311	1.028	21.0	463.0	0.708	1.348	-1.55	1.016	108.1	176.3	-3.8	0.302
4-4980	4-5430	0.186	42.0	-22.1	-2.98	1.347	87.6	0.308	1.035	10.1	461.9	0.716	1.354	-1.54	1.016	107.8	186.1	-8.1	0.298
4-4980	4-5440	0.178	61.6	-21.0	-2.71	1.350	90.1	0.311	1.043	359.7	821.3	0.719	1.368	-1.57	1.017	108.0	195.8	-12.2	0.300
4-4980	4-5450	0.700	322.3	-3.7	-2.42	1.264	57.3	0.555	0.845	109.7	581.0	0.376	1.315	-1.65	0.897	57.9	58.4	17.9	0.546
4-4980	4-5450	0.186	80.5	-17.9	-2.42	1.353	92.5	0.319	1.052	349.6	821.0	0.716	1.389	-1.65	1.019	108.5	205.5	-16.1	0.310
4-4980	4-5460	0.627	325.7	-3.7	-2.10	1.272	61.0	0.506	0.860	102.6	583.7	0.425	1.295	-1.80	0.905	61.1	66.8	18.8	0.494
4-4980	4-5460	0.209	96.4	-13.7	-2.10	1.357	95.0	0.334	1.063	340.0	821.0	0.708	1.417	-1.80	1.021	109.3	215.1	-19.6	0.325
4-4980	4-5470	0.559	329.2	-3.5	-1.70	1.279	64.4	0.461	0.873	95.4	586.1	0.471	1.276	-2.03	0.913	64.0	75.5	19.0	0.447
4-4980	4-5470	0.243	109.0	-9.5	-1.70	1.360	97.5	0.353	1.074	330.7	821.4	0.695	1.453	-2.03	1.023	110.4	224.8	-22.8	0.347
4-4980	4-5480	0.496	332.8	-2.8	-1.17	1.286	67.5	0.420	0.886	87.9	588.3	0.514	1.258	-2.41	0.920	66.5	84.3	18.3	0.406
4-4980	4-5480	0.287	118.3	-5.5	-1.17	1.364	100.2	0.377	1.087	321.9	822.2	0.677	1.496	-2.41	1.027	111.8	234.5	-25.8	0.375
4-4980	4-5490	0.438	336.2	-3.1	-0.37	1.291	70.4	0.384	0.898	80.3	590.2	0.553	1.242	-3.07	0.926	68.6	93.1	16.2	0.370
4-4980	4-5490	0.339	125.8	-1.5	-0.37	1.369	103.0	0.406	1.101	313.4	823.4	0.654	1.347	-3.07	1.031	113.6	244.2	-28.5	0.409

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4980	4-5500	0.387	340.7	3.5	1.08	1.296	73.0	0.353	0.908	72.6	592.0	0.588	1.229	-4.39	0.932	70.4	101.7	11.7	0.343
4-4980	4-5500	0.398	132.0	3.6	1.08	1.373	105.9	0.438	1.116	305.4	824.9	0.627	1.605	-4.39	1.036	115.5	253.7	-71.8	0.450
4-4980	4-5510	0.355	344.4	17.5	4.88	1.301	75.4	0.327	0.918	64.7	593.7	0.617	1.218	-8.05	0.937	71.9	109.8	0.2	0.336
4-4980	4-5510	0.472	137.6	13.6	4.88	1.378	109.0	0.474	1.143	297.8	826.7	0.595	1.670	-8.05	1.042	117.8	262.5	-3.1	0.504
4-4980	4-5530	0.392	348.1	-50.9	-13.67	1.308	79.7	0.288	0.934	48.6	596.8	0.665	1.203	10.76	0.947	74.0	145.2	7.9	0.322
980	4-5540	0.283	359.6	-38.7	-7.86	1.311	81.6	0.275	0.940	40.6	598.4	0.682	1.199	5.06	0.952	74.7	145.4	32.4	0.268
980	4-5550	0.556	350.3	-14.8	-6.01	1.449	69.5	0.592	1.465	56.7	264.0	---	2.331	3.36	1.135	57.9	137.0	22.1	0.598
980	4-5550	0.237	8.4	-35.2	-6.01	1.313	83.3	0.265	0.946	32.7	599.9	0.695	1.198	3.36	0.956	75.2	152.1	24.8	0.251
980	4-5560	0.506	355.2	-14.0	-5.08	1.451	72.0	0.578	1.477	50.3	267.2	---	2.329	2.57	1.139	59.3	144.8	18.7	0.573
980	4-5560	0.206	18.3	-34.3	-5.08	1.316	85.0	0.259	0.952	24.6	601.5	0.706	1.198	2.57	0.961	75.5	159.8	19.2	0.242
4-4980	4-5570	0.459	0.7	-13.8	-4.49	1.452	74.5	0.565	1.488	43.7	270.2	---	2.328	2.12	1.143	60.6	152.6	15.4	0.550
4-4980	4-5570	0.183	30.1	-34.2	-4.49	1.318	86.7	0.255	0.956	16.6	603.0	0.713	1.200	2.12	0.966	75.6	167.7	14.4	0.237
4-4980	4-5580	0.415	7.2	-14.0	-4.06	1.454	77.0	0.554	1.498	36.9	273.0	---	2.328	1.85	1.147	61.7	160.4	12.1	0.531
4-4980	4-5580	0.168	44.3	-33.8	-4.06	1.319	88.3	0.253	0.961	8.5	604.6	0.717	1.204	1.85	0.970	75.6	175.8	9.9	0.235
4-4990	4-5020	0.657	337.0	-10.3	-6.34	1.236	59.3	0.518	0.796	111.4	142.5	---	---	-4.51	0.876	118.2	119.9	13.1	0.472
4-4990	4-5030	0.555	336.3	-10.0	-5.14	1.198	63.6	0.446	0.741	112.9	154.0	---	---	-3.55	0.818	108.1	116.8	12.9	0.338
4-4990	4-5040	0.497	336.8	-9.6	-4.35	1.189	66.3	0.403	0.729	111.8	162.9	---	---	-2.99	0.801	100.9	112.5	12.7	0.263
4-4990	4-5050	0.457	338.2	-9.1	-3.76	1.191	68.2	0.372	0.732	109.1	170.1	---	---	-2.65	0.801	95.8	107.8	12.7	0.220
4-4990	4-5060	0.427	340.1	-8.7	-3.28	1.198	69.7	0.348	0.742	105.4	176.3	---	---	-2.46	0.809	92.0	103.8	12.6	0.197
4-4990	4-5070	0.400	342.3	-8.2	-2.85	1.208	71.1	0.328	0.755	101.0	181.7	---	1.002	-2.35	0.819	89.2	101.3	12.5	0.185
4-4990	4-5080	0.376	344.7	-7.6	-2.45	1.218	72.3	0.310	0.769	96.1	186.6	---	1.008	-2.32	0.831	87.0	100.6	12.3	0.179
4-4990	4-5090	0.354	347.3	-6.9	-2.06	1.228	73.5	0.295	0.784	90.8	191.1	---	1.015	-2.36	0.842	85.4	101.6	11.8	0.178
4-4990	4-5100	0.333	350.0	-6.9	-1.63	1.237	74.6	0.282	0.799	85.4	195.3	---	1.024	-2.47	0.853	84.1	104.1	10.9	0.178
4-4990	4-5110	0.311	352.9	-4.5	-1.16	1.246	75.7	0.271	0.813	79.7	199.3	---	1.033	-2.67	0.864	83.1	107.7	9.4	0.179
4-4990	4-5120	0.290	355.9	-2.5	-0.58	1.255	76.8	0.261	0.827	74.0	203.1	---	1.043	-3.00	0.874	82.3	112.0	7.3	0.181
4-4990	4-5130	0.271	359.2	0.8	0.17	1.262	77.9	0.253	0.840	68.1	206.8	---	1.052	-3.52	0.883	81.6	116.8	4.0	0.185
4-4990	4-5140	0.254	2.6	6.3	1.28	1.269	79.0	0.246	0.852	62.2	210.5	---	1.062	-4.41	0.892	81.0	121.7	-1.1	0.191
4-4990	4-5150	0.244	6.0	16.7	3.21	1.275	80.0	0.240	0.864	56.2	214.0	---	1.071	-6.14	0.900	80.5	126.3	-9.3	0.204
4-4990	4-5160	0.273	7.7	38.9	7.79	1.281	81.1	0.235	0.875	50.3	217.4	---	1.081	-10.52	0.908	80.0	129.8	-24.3	0.249
4-4990	4-5180	0.506	350.1	-72.7	-22.13	1.291	83.4	0.227	0.895	37.0	223.9	---	1.089	19.78	0.924	79.3	199.2	54.8	0.372
4-4990	4-5190	0.280	21.8	-57.0	-10.50	1.295	84.4	0.226	0.904	31.0	227.2	---	1.109	8.35	0.931	78.9	179.1	39.1	0.231
4-4990	4-5200	0.219	33.0	-48.7	-7.30	1.299	85.5	0.226	0.913	24.6	230.4	---	1.119	5.35	0.938	78.5	178.9	27.1	0.209
4-4990	4-5210	0.188	43.6	-44.1	-5.75	1.303	86.7	0.227	0.921	18.1	233.4	---	1.130	4.02	0.946	78.1	183.0	18.9	0.204
4-4990	4-5220	0.168	55.5	-40.6	-4.80	1.306	87.9	0.229	0.928	11.3	236.4	---	1.141	3.28	0.953	77.7	188.7	12.6	0.206
4-4990	4-5230	0.156	68.9	-37.2	-4.12	1.309	89.2	0.232	0.936	4.4	239.1	---	1.153	2.84	0.960	77.2	195.3	7.3	0.210
4-4990	4-5240	0.151	83.4	-32.9	-3.58	1.312	90.5	0.238	0.942	357.2	601.7	0.718	1.166	2.57	0.967	76.7	202.4	2.7	0.218
4-4990	4-5250	0.154	97.8	-27.7	-3.13	1.315	92.0	0.245	0.949	349.6	604.0	0.716	1.181	2.41	0.973	76.1	210.0	-1.5	0.227
4-4990	4-5260	0.166	111.1	-22.0	-2.71	1.318	93.7	0.255	0.955	341.7	605.9	0.711	1.199	2.33	0.980	75.4	218.0	-5.2	0.240
4-4990	4-5270	0.188	122.8	-16.3	-2.31	1.420	95.6	0.259	0.961	333.3	607.5	0.702	1.219	2.33	0.986	74.5	226.6	-8.5	0.257
4-4990	4-5280	0.221	133.0	-11.3	-1.89	1.522	97.8	0.288	0.966	324.3	608.5	0.688	1.245	2.40	0.992	73.3	235.8	-11.3	0.279
4-4990	4-5290	0.267	141.8	-7.0	-1.43	1.325	100.4	0.313	0.972	314.5	608.8	0.667	1.277	2.55	0.997	71.8	245.5	-13.6	0.309
4-4990	4-5290	0.745	191.0	-1.7	-1.43	1.133	127.5	0.612	0.667	226.7	880.9	0.259	1.074	2.55	0.723	115.3	3.8	5.4	0.483
4-4990	4-5300	0.330	149.8	-3.5	-0.89	1.327	103.7	0.349	0.978	303.8	608.1	0.636	1.319	2.81	1.002	69.6	256.0	-15.2	0.351
4-4990	4-5300	0.645	190.9	-1.3	-0.89	1.112	122.5	0.546	0.646	227.5	891.9	0.294	0.999	2.81	0.692	99.5	352.8	2.8	0.356
4-4990	4-5310	0.417	157.3	-0.6	-0.20	1.329	108.0	0.401	0.983	291.6	606.1	0.589	1.378	3.25	1.006	66.3	267.3	-16.1	0.410
4-4990	4-5310	0.635	191.4	-0.3	-0.20	1.105	122.0	0.541	0.640	226.8	901.3	0.294	0.985	3.25	0.683	88.5	341.2	-0.8	0.335
4-4990	4-5320	0.543	165.1	1.8	0.79	1.331	114.1	0.479	0.989	277.4	601.9	0.516	1.462	4.01	1.011	61.4	279.7	-16.0	0.500
4-4990	4-5320	0.678	192.3	1.1	0.79	1.102	124.3	0.574	0.637	225.1	909.6	0.271	1.003	4.01	0.680	77.5	331.7	-4.2	0.384
4-4990	4-5330	0.792	194.3	2.6	2.45	1.102	130.3	0.655	0.637	221.1	915.8	0.220	1.054	5.45	0.681	64.3	328.3	-5.8	0.504
4-4990	4-5380	0.817	320.6	-7.2	-7.30	1.082	48.6	0.672	0.620	141.6	887.4	0.203	1.036	-5.35	0.642	113.1	84.4	16.9	0.491
4-4990	4-5390	0.561	351.9	-12.5	-5.70	1.339	86.0	0.485	1.009	81.2	477.0	0.520	1.499	-3.97	1.015	119.0	140.8	7.9	0.498
4-4990	4-5390	0.728	322.0	-6.8	-5.70	1.080	53.3	0.612	0.618	139.0	894.8	0.280	0.996	-3.97	0.635	98.0	75.8	16.4	0.393
4-4990	4-5400	0.436	0.5	-14.0	-4.73	1.341	72.1	0.415	1.016	65.7	471.6	0.595	1.437	-3.24	1.015	114.5	152.8	-3.5	0.418
4-4990	4-5410	0.347	9.5	-15.4	-4.06	1.343	76.6	0.370	1.022	52.1	467.9	0.644	1.400	-2.81	1.016	111.7	163.8	-0.9	0.367
4-4990	4-5420	0.281	19.8	-16.8	-3.52	1.346	80.2	0.342	1.028	39.5	465.2	0.677	1.388	-2.55	1.016	109.9	174.2	-5.4	0.336
4-4990	4-5430	0.232	32.3	-18.0	-3.07	1.348	83.3	0.325	1.035	27.8	463.4	0.698	1.371	-2.40	1.016	108.9	184.4	-9.8	0.317
4-4990	4-5440	0.198	47.9	-18.4	-2.66	1.350	86.0	0.317	1.042	16.6	462.0	0.711	1.373	-2.33	1.017	108.4	194.4	-14.1	0.309
4-4990	4-5450	0.180	66.5	-17.3	-2.27	1.353	88.6	0.316	1.050	6.0	461.1	0.718	1.382	-2.33	1.017	108.3	204.5	-18.1	0.308
4-4990	4-5460	0.758	336.3	-2.5	-1.86	1.263	54.2	0.596	0.842	114.3	579.1	0.340	1.343	-2.40	0.891	55.0	69.7	19.1	0.588
4-4990	4-5460	0.178	86.0	-14.3	-1.86	1.356	91.0	0.322	1.058	355.8	820.6	0.718	1.399	-2.40	1.019	108.7	214.6	-21.7	0.314
4-4990	4-5470	0.683	339.6	-2.2	-1.42	1.271	58.0	0.547	0.856	107.5	582.0	0.388	1.324	-2.55	0.900	58.4	78.1	19.3	0.535
4-4990	4-5470	0.194	103.6	-10.0	-1.42	1.359	93.5	0.332	1.068	345.9	820.4	0.713	1.423	-2.55	1.021	109.2	224.7	-24.8	0.327
4-4990	4-5480	0.613	342.9	-1.7	-0.90	1.278	61.6	0.500	0.870	100.5	584.6	0.435	1.305	-2.81	0.908	61.4	86.6	18.8	0.486
4-4990	4-5480	0.223	117.9	-5.5	-0.90	1.363	96.0	0.348	1.079	336.5	820.6	0.703	1.454	-2.81	1.023	110.1	234.9	-27.6	0.345
4-4990	4-5490	0.547	346.4	-0.5	-0.26	1.285	64.9	0.457	0.883	93.4	587.1	0.480	1.286	-3.21	0.916	64.1	95.2	17.4	0.442
4-4990	4-5490	0.263	128.9	-1.3	-0.26	1.366	98.6	0.369	1.091	327.5	821.2	0.688	1.493	-3.21	1.027	111.3	245.2	-29.9	0.370
4-4990	4-5500	0.487	349.9	1.6	0.63	1.291	67.9	0.418	0.895	86.1	589.3	0.521	1.270	-3.88	0.923	66.5	103.6	16.7	0.404
4-4990	4-5500	0.312	137.6	2.7	0.63	1.370	101.3	0.395	1.104	318.8	822.1	0.668	1.539	-3.88	1.031	112.8	255.4	-32.0	0.401
4-4990	4-5510	0.434	353.6	5.8	2.04	1.296	70.7	0.384	0.907	78.6	591.4	0.558	1.255	-5.08	0.930	68.5	111.7	10.0	0.373
4-4990	4-5510	0.369	144.6	7.4	2.04	1.375	104.2	0.424	1.118	310.6	823.3	0.644	1.593	-5.08	1.036	114.6	265.6	-34.3	0.43
4-4990	4-5520	0.395	357.2	15.3	4.79	1.301	73.2	0.355	0.917	71.1	593.3	0.591	1.242	-7.63	0.936	70.1	119.2	1.2	0.357
4-4990	4-5520	0.439	150.7	14.5	4.79	1.379	107.2	0.418	1.134	302.8	825.0	0.615	1.653	-7.63	1.042	116.6	275.5	-38.1	0.487
4-4990	4-5530	0.483	356.3	41.5	13.43	1.305	75.5	0.331	0.926	63.6	595.2	0.619	1.232	-16.07	0.942	71.5	126.0	-19.4	0.406
4-4990	4-5530	0.570	159.0	32.0	13.43	1.384	110.2	0.494	1.151	295.3	826.9	0.583	1.720	-16.07	1.048	118.9	283.9	-49.0	0.578
4-4990	4-5550	0.400	4.6	-52.5	-14.24	1.312	79.8	0.293	0.941	47.5	598.7	0.666	1.217	11.99	0.953	73.6	167.5	43.2	0.336
4-4990	4-5560	0.293	16.3	-41.8	-8.63	1.315	81.6	0.280	0.948	39.7	600.5	0.682	1.213	6.58	0.959	74.2	166.8	29.7	0.281
4-4990	4-5570	0.546	7.7	-16.3	-6.46	1.452	70.1	0.591	1.478	55.0	265.3	---	2.352	4.61	1.141	58.2	156.7	17.9	0.594
4-4990	4-5570	0.242	25.8	-37.4	-6.46	1.317	83.4	0.270	0.953	31.9	602.2	0.695	1.211	4.61	0.964	74.7	172.1	21.5	0.261
4-4990	4-5580	0.495	12.8	-14.9	-5.25	1.453	72.6	0.577	1.490	48.5	268.9	---	2.350	3.62	1.145	59.6	163.9	13.7	0.569
4-4990	4-5580	0.208	35.9	-35.3	-5.25	1.319	85.1	0.264	0.958	24.0	603.9	0.706	1.211	3.62	0.969	75.0	179.0	15.3	0.251

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4990	4-5590	0.447	18.7	-14.1	-4.45	1.455	75.1	0.565	1.501	41.9	271.5	---	2.349	3.05	1.149	60.9	171.3	9.9	0.547
4-4990	4-5590	0.183	48.1	-33.9	-4.45	1.321	86.7	0.260	0.963	15.9	605.5	0.713	1.213	3.05	0.974	75.2	186.4	10.1	0.245
4-5000	4-5030	0.806	340.7	-8.7	-8.03	1.134	50.0	0.645	0.667	135.2	160.1	---	---	-6.94	0.721	119.2	112.2	13.3	0.516
4-5000	4-5040	0.684	342.4	-8.1	-6.92	1.123	56.0	0.564	0.657	131.9	166.8	---	---	-5.11	0.701	106.0	108.7	13.3	0.384
4-5000	4-5050	0.611	344.7	-7.5	-4.67	1.133	59.8	0.507	0.667	127.7	172.6	---	---	-4.15	0.713	97.5	105.1	13.3	0.313
4-5000	4-5060	0.558	347.3	-6.9	-3.80	1.149	62.8	0.463	0.683	123.1	177.8	---	---	-3.58	0.734	91.9	102.2	13.3	0.273
4-5000	4-5070	0.517	350.0	-6.4	-3.12	1.166	64.7	0.427	0.703	118.0	182.5	---	1.003	-3.24	0.757	88.1	100.6	13.2	0.250
4-5000	4-5080	0.482	352.8	-5.7	-2.55	1.183	66.6	0.397	0.723	112.7	187.0	---	1.010	-3.04	0.779	85.5	100.7	13.1	0.237
4-5000	4-5090	0.451	355.6	-5.0	-2.03	1.199	68.3	0.372	0.743	107.1	191.1	---	1.019	-2.94	0.799	83.6	102.2	12.7	0.229
4-5000	4-5100	0.422	358.4	-4.2	-1.54	1.213	69.8	0.350	0.762	101.4	195.1	---	1.029	-2.93	0.817	82.2	105.0	12.0	0.224
4-5000	4-5110	0.395	1.3	-3.0	-1.04	1.226	71.2	0.330	0.781	95.5	198.8	---	1.039	-3.00	0.834	81.2	108.8	10.9	0.220
4-5000	4-5120	0.369	4.3	-1.6	-0.49	1.238	72.6	0.314	0.799	89.6	202.5	---	1.049	-3.17	0.849	80.4	113.3	9.3	0.218
4-5000	4-5130	0.345	7.3	0.5	0.13	1.248	73.9	0.299	0.815	83.6	206.1	---	1.059	-3.46	0.862	79.8	118.4	7.0	0.217
4-5000	4-5140	0.322	10.3	3.4	0.91	1.257	75.2	0.287	0.831	77.6	209.6	---	1.069	-3.93	0.875	79.5	123.6	3.7	0.217
4-5000	4-5150	0.302	13.5	8.0	1.95	1.266	76.5	0.276	0.846	71.5	213.0	---	1.079	-4.70	0.886	78.9	128.9	-0.9	0.220
4-5000	4-5160	0.288	16.7	15.6	3.56	1.273	77.7	0.267	0.860	65.4	216.4	---	1.089	-6.04	0.897	78.6	133.9	-7.7	0.227
4-5000	4-5170	0.292	19.1	29.3	6.54	1.280	78.9	0.259	0.872	59.3	219.8	---	1.098	-8.77	0.906	78.3	138.0	-18.5	0.249
4-5000	4-5180	0.394	15.8	54.9	14.76	1.286	80.0	0.253	0.884	53.3	223.1	---	1.108	-16.74	0.916	78.0	141.0	-37.4	0.341
4-5000	4-5200	0.448	15.8	-67.9	-18.84	1.296	82.6	0.242	0.905	39.4	229.3	---	1.124	17.35	0.934	77.7	204.0	46.5	0.350
4-5000	4-5210	0.282	37.0	-53.8	-10.13	1.300	83.8	0.239	0.915	33.2	232.4	---	1.134	8.89	0.942	77.5	193.4	32.0	0.252
4-5000	4-5220	0.222	47.7	-45.7	-7.04	1.304	85.0	0.238	0.924	26.6	235.5	---	1.144	6.06	0.950	77.2	194.5	21.3	0.230
4-5000	4-5230	0.189	58.3	-40.6	-5.40	1.308	86.2	0.238	0.932	19.8	238.4	---	1.154	4.69	0.958	77.0	199.0	13.5	0.224
4-5000	4-5240	0.167	70.3	-36.3	-4.33	1.312	87.5	0.239	0.940	12.8	241.1	---	1.165	3.91	0.965	76.7	205.0	7.5	0.224
4-5000	4-5250	0.154	84.1	-31.9	-3.55	1.315	88.9	0.242	0.947	5.5	243.6	---	1.177	3.44	0.973	76.3	211.9	2.4	0.228
4-5000	4-5260	0.148	99.1	-26.8	-2.91	1.318	90.4	0.247	0.954	357.9	605.9	0.718	1.190	3.15	0.979	75.9	219.4	-1.9	0.235
4-5000	4-5270	0.153	114.1	-20.8	-2.35	1.320	92.0	0.255	0.961	350.0	607.9	0.716	1.205	2.99	0.986	75.4	227.5	-5.5	0.245
4-5000	4-5280	0.167	128.0	-14.6	-1.83	1.323	93.8	0.265	0.967	341.6	609.5	0.711	1.223	2.92	0.992	74.7	236.1	-8.6	0.258
4-5000	4-5290	0.194	140.2	-9.0	-1.32	1.325	95.9	0.280	0.973	332.6	610.6	0.701	1.245	2.95	0.998	73.8	245.3	-11.1	0.276
4-5000	4-5300	0.233	150.7	-4.4	-0.77	1.328	98.3	0.300	0.979	323.0	611.1	0.685	1.273	3.07	1.003	72.5	255.0	-12.9	0.301
4-5000	4-5310	0.286	159.8	-0.7	-0.16	1.330	101.2	0.329	0.985	312.5	610.7	0.661	1.308	3.32	1.007	70.8	265.3	-13.9	0.334
4-5000	4-5310	0.649	206.1	-0.2	-0.16	1.123	122.5	0.543	0.657	229.1	887.3	0.300	1.014	3.32	0.713	104.3	9.9	10.9	0.376
4-5000	4-5320	0.360	168.0	2.1	0.59	1.332	104.9	0.370	0.990	300.9	609.2	0.624	1.357	3.73	1.011	68.3	276.3	-14.1	0.382
4-5000	4-5320	0.616	206.4	0.9	0.59	1.114	120.9	0.521	0.648	228.8	897.1	0.310	0.985	3.73	0.699	93.1	358.5	8.1	0.326
4-5000	4-5330	0.463	176.0	4.3	1.58	1.334	110.0	0.430	0.996	287.6	606.1	0.567	1.425	4.41	1.015	64.5	288.0	-13.4	0.452
4-5000	4-5330	0.635	207.1	2.3	1.58	1.110	121.9	0.537	0.644	227.6	906.1	0.298	0.990	4.41	0.693	83.0	347.7	4.3	0.345
4-5000	4-5340	0.615	184.4	6.0	3.08	1.336	117.2	0.522	1.002	271.7	600.4	0.479	1.525	5.62	1.018	58.6	300.8	-11.5	0.559
4-5000	4-5340	0.710	208.5	5.9	3.08	1.108	125.7	0.592	0.643	225.0	913.6	0.262	1.024	5.62	0.692	71.8	341.6	1.6	0.427
4-5000	4-5350	0.869	211.5	5.3	5.82	1.110	134.1	0.700	0.644	219.1	917.9	0.193	1.095	8.09	0.693	57.2	342.1	1.1	0.587
4-5000	4-5400	0.672	2.7	-12.0	-6.87	1.342	60.7	0.553	1.016	91.8	481.5	0.455	1.578	-5.91	1.016	123.5	147.6	3.9	0.577
4-5000	4-5400	0.768	338.2	-7.6	-6.87	1.091	51.3	0.636	0.627	339.0	288.7	0.228	1.026	-5.91	0.649	108.3	101.1	14.8	0.442
4-5000	4-5410	0.512	11.6	-12.9	-5.26	1.344	68.4	0.461	1.023	74.8	474.4	0.551	1.495	-4.59	1.016	117.4	160.1	-1.1	0.470
4-5000	4-5410	0.708	359.0	-6.6	-5.26	1.087	54.3	0.597	0.624	137.6	897.2	0.252	0.997	-4.59	0.639	94.1	89.9	15.6	0.375
4-5000	4-5420	0.401	20.4	-13.7	-4.23	1.346	73.8	0.403	1.029	60.2	469.7	0.615	1.444	-3.84	1.016	113.7	171.5	-6.0	0.403
4-5000	4-5430	0.321	29.9	-14.3	-3.46	1.348	77.9	0.365	1.035	47.0	466.4	0.657	1.414	-3.40	1.016	111.3	182.2	-10.7	0.362
4-5000	4-5440	0.261	41.1	-14.7	-2.84	1.351	81.3	0.342	1.042	34.9	464.0	0.686	1.398	-3.13	1.017	109.9	192.7	-15.1	0.336
4-5000	4-5450	0.217	54.9	-14.4	-2.30	1.353	84.3	0.329	1.049	23.4	462.3	0.704	1.394	-2.98	1.017	109.1	203.2	-19.3	0.323
4-5000	4-5460	0.188	71.8	-13.0	-1.80	1.355	86.9	0.324	1.056	12.5	461.1	0.714	1.399	-2.92	1.018	108.7	213.7	-23.0	0.318
4-5000	4-5470	0.177	91.0	-10.0	-1.30	1.358	89.5	0.325	1.065	2.1	460.3	0.718	1.411	-2.95	1.019	108.8	224.3	-26.2	0.320
4-5000	4-5480	0.741	353.5	-1.1	-0.78	1.269	55.0	0.587	0.852	112.3	580.2	0.352	1.353	-3.07	0.895	55.5	89.4	19.5	0.576
4-5000	4-5480	0.184	109.9	-5.8	-0.78	1.361	92.0	0.332	1.074	352.0	819.9	0.717	1.431	-3.07	1.021	109.2	235.0	-28.8	0.330
4-5000	4-5490	0.689	356.7	-0.3	-0.21	1.277	58.7	0.539	0.867	105.6	583.0	0.399	1.334	-3.29	0.904	58.7	97.7	18.4	0.525
4-5000	4-5490	0.207	126.1	-1.4	-0.21	1.364	94.5	0.345	1.084	382.4	819.8	0.710	1.458	-3.29	1.024	109.9	245.8	-30.9	0.345
4-5000	4-5500	0.601	0.0	0.9	0.48	1.284	62.1	0.495	0.880	98.7	585.7	0.445	1.315	-3.66	0.913	61.6	106.0	16.5	0.479
4-5000	4-5500	0.242	138.9	2.7	0.48	1.368	97.1	0.363	1.095	333.1	820.1	0.698	1.492	-3.66	1.028	110.9	256.6	-32.5	0.367
4-5000	4-5510	0.539	3.4	3.0	1.36	1.290	65.3	0.454	0.893	91.7	587.2	0.488	1.298	-4.25	0.921	64.1	114.0	13.5	0.438
4-5000	4-5510	0.288	148.9	6.4	1.36	1.371	99.7	0.385	1.107	324.3	820.8	0.681	1.534	-4.25	1.032	112.2	267.3	-33.8	0.394
4-5000	4-5520	0.483	6.9	6.5	2.61	1.295	68.2	0.417	0.904	84.5	590.5	0.527	1.282	-5.23	0.928	66.3	121.8	8.9	0.404
4-5000	4-5520	0.343	156.8	10.3	2.61	1.375	102.5	0.412	1.121	315.8	821.8	0.659	1.583	-5.23	1.037	113.8	277.9	-34.9	0.429
4-5000	4-5530	0.438	10.2	13.3	4.70	1.300	70.9	0.385	0.915	77.2	592.7	0.563	1.267	-7.06	0.935	68.2	128.9	1.8	0.380
4-5000	4-5530	0.400	163.5	15.5	4.70	1.380	105.4	0.443	1.136	307.8	823.3	0.633	1.639	-7.06	1.043	115.6	288.3	-36.7	0.471
4-5000	4-5540	0.426	12.4	27.9	9.20	1.305	73.4	0.357	0.925	69.9	594.8	0.594	1.256	-11.30	0.942	69.8	134.9	-11.1	0.382
4-5000	4-5540	0.499	170.3	24.9	9.20	1.384	108.4	0.477	1.152	300.1	825.0	0.603	1.702	-11.30	1.049	117.7	298.5	-41.3	0.531
4-5000	4-5550	0.671	354.5	60.3	27.36	1.309	75.5	0.336	0.934	62.8	596.8	0.620	1.247	-29.22	0.949	71.0	143.0	-39.7	0.569
4-5000	4-5570	0.385	22.9	-50.8	-13.31	1.315	79.9	0.297	0.948	46.6	600.8	0.667	1.230	11.94	0.961	73.2	184.8	35.6	0.339
4-5000	4-5580	0.592	20.3	-19.4	-8.37	1.452	68.2	0.605	1.479	59.6	263.4	---	2.374	7.26	1.143	57.1	160.8	17.1	0.619
4-5000	4-5580	0.289	33.9	-41.1	-8.37	1.316	81.7	0.284	0.955	38.9	602.7	0.683	1.226	7.26	0.967	73.8	185.2	23.9	0.290
4-5000	4-5590	0.533	25.4	-16.1	-6.16	1.454	70.7	0.590	1.491	53.2	266.7	---	2.371	5.31	1.148	58.6	175.1	11.8	0.589
4-5000	4-5590	0.238	43.3	-36.2	-6.16	1.320	83.4	0.275	0.960	310.1	604.6	0.696	1.224	5.31	0.973	74.3	190.3	16.0	0.270
4-5000	4-5600	0.481	30.8	-14.2	-4.85	1.455	73.2	0.577	1.503	46.7	269.9	---	2.370	4.27	1.152	60.0	182.1	7.4	0.565
4-5000	4-5600	0.203	53.9	-33.2	-4.85	1.322	85.2	0.268	0.965	23.2	606.4	0.706	1.224	4.27	0.978	74.6	197.0	9.8	0.260
4-5010	4-5050	0.822	350.9	-6.5	-6.87	1.054	47.7	0.689	0.599	144.7	173.4	---	---	-6.87	0.580	104.1	106.5	14.2	0.467
4-5010	4-5060	0.730	354.3	-5.9	-4.98	1.080	52.9	0.617	0.619	139.2	177.7	---	---	-5.29	0.621	93.7	104.2	14.3	0.389
4-5010	4-5070	0.664	357.7	-5.3	-3.77	1.108	56.6	0.560	0.648	133.6	181.9	---	1.003	-4.40	0.664	87.6	103.0	14.3	0.343
4-5010	4-5080	0.612	1.0	-4.6	-2.89	1.134	59.5	0.512	0.668	127.9	185.9	---	1.010	-3.87	0.705	83.8	103.2	14.2	0.315
4-5010	4-5090	0.568	4.2	-3.9	-2.19	1.158	61.9	0.473	0.693	122.1	189.9	---	1.021	-3.55	0.737	81.4	104.8	14.0	0.297
4-5010	4-5100	0.530	7.3	-3.1	-1.57	1.179	64.0	0.438	0.718	116.2	193.7	---	1.032	-3.37	0.766	79.8	107.5	13.4	0.284
4-5010	4-5110	0.494	10.4	-2.2	-1.01	1.197	65.9	0.409	0.741	110.3	197.3	---	1.044	-3.29	0.791	78.7	111.3	12.6	0.274
4-5010	4-5120	0.462	13.4	-1.1	-0.46	1.213	67.7	0.383	0.763	104.3	200.9	---	1.055	-3.31	0.814	77.9	115.7	11.3	0.266
4-5010	4-5130	0.431	16.5	0.3	0.12	1.228	69.4	0.361	0.784	98.2	204.5	---	1.067	-3.43	0.833	77.4	120.7	9.4	0.260
4-5010	4-5140	0.403	19.3	2.2	0.75	1.240	70.9	0.342	0.803	92.2	207.9	---	1.078	-3.65	0.850	77.1	126.1	7.0	0.255

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5010	4-5150	0.377	22.3	4.7	1.49	1.251	72.4	0.325	0.821	86.1	211.3	---	1.088	-4.03	0.866	76.8	131.6	3.8	0.251
4-5010	4-5160	0.353	25.3	8.4	2.43	1.261	73.9	0.310	0.838	79.9	214.7	---	1.098	-4.69	0.880	76.7	137.1	-0.4	0.250
4-5010	4-5170	0.333	28.3	13.9	3.74	1.269	75.2	0.297	0.854	73.8	218.1	---	1.108	-5.44	0.893	76.5	142.4	-6.2	0.251
4-5010	4-5180	0.324	31.1	23.0	5.86	1.277	76.6	0.286	0.868	67.6	221.4	---	1.117	-6.46	0.905	76.5	147.1	-14.5	0.261
4-5010	4-5190	0.351	32.0	39.1	10.15	1.284	77.9	0.277	0.882	61.4	224.6	---	1.126	-7.47	0.916	76.4	150.5	-27.7	0.295
4-5010	4-5200	0.582	13.3	65.2	24.68	1.290	79.1	0.270	0.894	55.5	227.9	---	1.136	-25.11	0.926	76.2	154.3	-50.6	0.477
4-5010	4-5220	0.390	39.1	-61.2	-15.38	1.301	82.0	0.255	0.916	41.1	234.0	---	1.150	14.90	0.945	76.4	210.6	36.8	0.332
4-5010	4-5230	0.268	53.7	-48.0	-8.84	1.305	83.2	0.252	0.926	34.7	237.1	---	1.159	8.65	0.954	76.2	206.3	23.4	0.265
4-5010	4-5240	0.216	63.7	-39.8	-6.09	1.309	84.5	0.249	0.935	27.9	240.0	---	1.169	6.19	0.963	76.1	209.1	13.9	0.246
4-5010	4-5250	0.184	74.2	-34.1	-4.51	1.313	85.9	0.248	0.944	20.8	242.8	---	1.178	4.92	0.971	75.0	214.5	7.0	0.241
4-5010	4-5260	0.162	86.4	-29.0	-3.43	1.316	87.3	0.249	0.952	13.5	245.3	---	1.189	4.19	0.970	75.8	221.1	1.6	0.241
4-5010	4-5270	0.149	100.5	-23.8	-2.61	1.319	88.8	0.252	0.959	5.9	247.7	---	1.201	3.73	0.985	75.6	228.6	-2.7	0.244
4-5010	4-5280	0.146	116.0	-17.8	-1.93	1.322	90.4	0.250	0.966	358.0	609.7	0.719	1.214	3.46	0.992	75.2	236.7	-6.3	0.251
4-5010	4-5290	0.153	131.6	-11.5	-1.32	1.325	92.2	0.264	0.973	349.6	611.4	0.716	1.230	3.32	0.998	74.7	245.4	-9.0	0.261
4-5010	4-5300	0.172	145.9	-5.7	-0.74	1.327	94.1	0.275	0.980	340.7	612.6	0.710	1.249	3.29	1.003	74.2	254.6	-11.1	0.276
4-5010	4-5310	0.204	158.4	-0.9	-0.14	1.330	95.4	0.291	0.986	331.2	613.2	0.699	1.272	3.36	1.008	73.1	264.3	-12.3	0.296
4-5010	4-5320	0.250	169.0	2.6	0.50	1.332	99.0	0.314	0.991	320.9	613.0	0.680	1.303	3.55	1.012	71.7	274.5	-12.8	0.323
4-5010	4-5330	0.670	221.4	0.7	0.50	1.336	123.4	0.553	0.670	230.3	882.4	0.799	1.041	3.55	0.735	109.5	277.4	17.7	0.412
4-5010	4-5330	0.313	178.3	5.2	1.24	1.334	102.3	0.346	0.997	309.6	611.9	0.652	1.343	3.89	1.015	69.7	285.2	-12.4	0.361
4-5010	4-5330	0.608	221.6	2.0	1.24	1.122	120.2	0.510	0.656	230.5	892.8	0.321	0.992	3.89	0.714	97.4	16.1	16.1	0.327
4-5010	4-5340	0.399	186.8	7.0	2.17	1.336	106.6	0.394	1.003	297.0	609.5	0.608	1.398	4.46	1.018	66.8	296.3	-11.0	0.416
4-5010	4-5340	0.606	222.1	3.5	2.17	1.117	120.2	0.511	0.651	229.7	902.2	0.319	0.984	4.46	0.706	87.7	4.6	12.8	0.319
4-5010	4-5350	0.521	195.1	8.3	3.47	1.339	112.4	0.465	1.009	282.5	605.1	0.540	1.478	5.42	1.021	62.3	308.2	-9.6	0.499
4-5010	4-5350	0.653	223.1	5.0	3.47	1.115	122.5	0.505	0.649	228.0	910.6	0.295	1.004	5.42	0.702	77.9	356.2	5.3	0.371
4-5010	4-5360	0.763	225.1	6.4	5.55	1.115	128.1	0.623	0.650	224.1	916.9	0.245	1.054	7.19	0.701	65.9	353.7	7.0	0.487
4-5010	4-5410	0.854	353.3	-7.9	-8.44	1.098	46.8	0.692	0.634	141.3	884.8	0.195	1.073	-8.28	0.659	118.6	120.2	11.4	0.533
4-5010	4-5420	0.608	22.5	-11.7	-5.85	1.346	63.6	0.520	1.030	85.0	478.3	0.494	1.566	-5.99	1.017	121.3	167.1	-5.0	0.538
4-5010	4-5420	0.729	355.7	-7.1	-5.85	1.098	53.2	0.608	0.634	136.9	890.2	0.248	1.020	-5.99	0.654	104.5	116.9	11.6	0.405
4-5010	4-5430	0.469	31.3	-11.9	-4.35	1.348	70.3	0.443	1.036	69.1	472.2	0.577	1.496	-4.81	1.017	116.3	179.0	-10.3	0.449
4-5010	4-5430	0.915	349.7	-3.4	-4.35	1.059	42.2	0.752	0.602	147.7	910.9	0.150	1.055	-4.81	0.582	61.5	73.2	18.2	0.573
4-5010	4-5430	0.696	355.9	-5.6	-4.35	1.093	54.8	0.588	0.630	136.5	899.7	0.259	1.001	-4.81	0.642	90.5	103.5	14.3	0.364
4-5010	4-5440	0.370	40.3	-11.8	-3.33	1.350	75.2	0.394	1.043	55.1	468.0	0.632	1.454	-4.12	1.017	113.1	190.3	-15.1	0.394
4-5010	4-5450	0.297	50.5	-11.4	-2.54	1.353	79.1	0.363	1.049	42.4	465.1	0.669	1.430	-3.70	1.017	111.1	201.3	-19.5	0.360
4-5010	4-5460	0.242	62.7	-10.5	-1.89	1.355	82.3	0.343	1.056	30.5	462.9	0.693	1.419	-3.45	1.018	109.9	212.3	-23.4	0.340
4-5010	4-5470	0.204	77.8	-8.7	-1.30	1.357	85.2	0.333	1.063	19.2	461.3	0.709	1.418	-3.32	1.019	109.3	223.5	-26.8	0.330
4-5010	4-5480	0.183	95.9	-5.6	-0.75	1.360	87.9	0.331	1.071	8.5	460.1	0.717	1.426	-3.29	1.020	109.1	234.7	-29.4	0.329
4-5010	4-5490	0.180	115.3	-1.4	-0.19	1.363	90.5	0.334	1.080	358.2	879.4	0.719	1.441	-3.35	1.022	109.2	246.0	-31.5	0.334
4-5010	4-5500	0.726	10.6	0.6	0.41	1.274	55.7	0.580	0.863	110.5	581.2	0.363	1.363	-3.52	0.900	55.9	108.9	17.6	0.566
4-5010	4-5500	0.195	133.2	2.8	0.41	1.366	93.0	0.344	1.089	348.3	819.1	0.715	1.464	-3.52	1.025	109.7	257.3	-32.8	0.347
4-5010	4-5510	0.657	13.8	1.8	1.08	1.281	59.3	0.534	0.877	103.8	584.1	0.409	1.345	-3.81	0.909	58.9	116.8	15.3	0.518
4-5010	4-5510	0.226	148.0	6.5	1.08	1.369	95.5	0.358	1.100	338.8	819.1	0.706	1.494	-3.81	1.029	110.6	268.5	-33.5	0.365
4-5010	4-5520	0.592	17.0	3.7	1.90	1.288	62.6	0.491	0.890	97.0	586.8	0.453	1.326	-4.28	0.918	61.7	124.6	12.2	0.474
4-5010	4-5520	0.267	159.5	9.7	1.90	1.372	98.2	0.378	1.112	329.7	819.5	0.692	1.531	-4.28	1.033	111.7	279.4	-33.8	0.389
4-5010	4-5530	0.534	20.3	6.6	2.99	1.294	65.7	0.452	0.902	90.1	589.4	0.495	1.309	-5.05	0.927	64.1	132.0	7.8	0.437
4-5010	4-5530	0.319	168.6	12.8	2.99	1.376	100.9	0.402	1.125	321.1	820.3	0.673	1.576	-5.05	1.038	113.1	290.1	-33.8	0.419
4-5010	4-5540	0.484	23.5	11.6	4.60	1.299	68.5	0.417	0.913	83.1	591.9	0.533	1.294	-6.36	0.935	66.2	138.9	1.8	0.407
4-5010	4-5540	0.380	176.1	16.5	4.60	1.380	103.7	0.430	1.139	312.8	821.6	0.649	1.628	-6.36	1.044	114.7	300.5	-34.1	0.457
4-5010	4-5550	0.451	26.3	20.8	7.45	1.304	71.1	0.386	0.924	76.0	594.3	0.567	1.280	-8.91	0.942	68.0	145.0	-7.5	0.391
4-5010	4-5550	0.455	182.7	22.2	7.45	1.384	106.7	0.461	1.154	304.9	823.1	0.622	1.687	-8.91	1.051	116.7	310.7	-35.6	0.504
4-5010	4-5560	0.484	25.7	40.0	14.38	1.308	73.5	0.360	0.933	68.9	596.5	0.597	1.269	-15.57	0.950	69.5	149.7	-24.7	0.422
4-5010	4-5560	0.579	190.9	34.1	14.38	1.389	109.7	0.496	1.171	297.4	825.0	0.590	1.751	-15.57	1.058	118.8	321.1	-41.8	0.584
4-5010	4-5580	0.602	17.8	-63.5	-24.74	1.315	78.1	0.314	0.949	52.9	601.0	0.651	1.247	24.11	0.964	72.0	210.7	41.2	0.494
4-5010	4-5590	0.354	42.2	-46.5	-11.42	1.318	79.9	0.300	0.955	45.7	603.0	0.669	1.242	11.07	0.970	72.8	199.4	26.7	0.335
4-5010	4-5600	0.572	38.1	-17.5	-7.31	1.454	68.9	0.603	1.493	57.8	264.9	---	2.393	7.25	1.150	57.6	186.4	9.8	0.614
4-5010	4-5600	0.274	52.1	-37.4	-7.31	1.320	81.8	0.288	0.962	38.0	605.1	0.685	1.238	7.25	0.976	73.4	201.6	16.4	0.295
4-5010	4-5610	0.545	43.3	-14.2	-5.25	1.455	71.4	0.589	1.504	51.4	268.2	---	2.391	5.50	1.155	59.1	192.8	4.7	0.585
4-5010	4-5610	0.227	61.6	-32.0	-5.25	1.322	83.5	0.279	0.967	30.2	607.0	0.697	1.236	5.50	0.982	73.9	207.3	9.2	0.277
4-5020	4-5060	0.963	0.7	-5.2	-8.16	0.993	38.6	0.803	0.558	154.5	176.9	---	---	-8.93	0.457	102.5	109.3	15.2	0.570
4-5020	4-5070	0.852	5.0	-4.6	-5.30	1.030	45.4	0.722	0.582	148.1	180.2	---	1.002	-6.38	0.527	89.4	108.1	15.3	0.479
4-5020	4-5080	0.772	9.0	-3.9	-3.68	1.068	50.2	0.655	0.610	142.0	183.9	---	1.009	-5.08	0.592	82.7	108.0	15.3	0.423
4-5020	4-5090	0.709	12.7	-3.2	-2.58	1.102	53.9	0.598	0.639	136.0	187.6	---	1.021	-4.33	0.647	79.0	109.3	15.1	0.387
4-5020	4-5100	0.657	16.2	-2.5	-1.75	1.132	56.9	0.550	0.667	130.0	191.2	---	1.034	-3.87	0.693	76.9	111.7	14.6	0.362
4-5020	4-5110	0.611	19.5	-1.7	-1.07	1.158	59.5	0.508	0.694	124.0	194.9	---	1.047	-3.59	0.732	75.6	115.1	13.9	0.343
4-5020	4-5120	0.570	22.7	-0.8	-0.46	1.180	61.9	0.472	0.721	118.0	198.4	---	1.060	-3.44	0.765	74.9	119.3	12.8	0.328
4-5020	4-5130	0.531	25.8	0.2	0.11	1.199	64.0	0.440	0.745	111.9	202.0	---	1.073	-3.39	0.793	74.5	124.1	11.3	0.315
4-5020	4-5140	0.496	28.8	1.5	0.68	1.216	66.0	0.412	0.769	105.9	205.4	---	1.085	-3.44	0.817	74.3	129.3	9.3	0.304
4-5020	4-5150	0.463	31.8	3.2	1.29	1.231	67.8	0.387	0.790	99.8	208.9	---	1.097	-3.59	0.838	74.2	134.8	6.9	0.295
4-5020	4-5160	0.433	34.8	5.3	1.96	1.244	69.5	0.366	0.811	93.7	212.3	---	1.107	-3.86	0.857	74.2	140.4	3.7	0.288
4-5020	4-5170	0.405	37.7	8.2	2.78	1.255	71.1	0.347	0.830	87.6	215.7	---	1.117	-4.31	0.873	74.3	146.1	-0.2	0.282
4-5020	4-5180	0.380	40.7	12.3	3.84	1.265	72.7	0.330	0.847	81.4	219.0	---	1.127	-5.04	0.889	74.4	151.7	-5.1	0.278
4-5020	4-5190	0.362	43.5	18.5	5.38	1.274	74.2	0.316	0.863	75.2	222.4	---	1.136	-6.26	0.902	74.5	156.8	-11.8	0.279
4-5020	4-5200	0.360	45.7	28.7	8.01	1.281	75.7	0.303	0.878	69.0	225.7	---	1.145	-8.59	0.915	74.6	161.2	-21.4	0.290
4-5020	4-5210	0.417	44.4	46.7	14.01	1.288	77.1	0.293	0.892	62.8	228.9	---	1.154	-14.29	0.927	74.7	163.8	-37.3	0.343
4-5020	4-5230	0.668	20.0	-70.3	-29.42	1.300	80.2	0.272	0.917	48.3	235.2	---	1.166	29.71	0.948	75.2	234.3	39.6	0.545
4-5020	4-5240	0.333	60.4	-52.0	-11.74	1.305	81.5	0.267	0.928	42.2	238.3	---	1.175	12.32	0.958	75.2	218.8	26.0	0.316
4-5020	4-5250	0.247	71.3	-39.3	-6.93	1.309	82.8	0.263	0.938	35.5	241.3	---	1.184	7.81	0.967	75.2	219.1	14.0	0.273
4-5020	4-5260	0.204	80.6	-31.1	-4.63	1.313	84.2	0.259	0.947	28.5	244.1	---	1.193	5.83	0.975	75.3	223.7	6.0	0.259
4-5020	4-5270	0.176	91.1	-24.9	-3.22	1.317	85.7	0.258	0.956	21.2	246.7	---	1.202	4.76	0.983	75.2	230.2	0.2	0.255
4-5020	4-5280	0.156	103.6	-19.1	-2.22	1.320	87.2	0.258	0.964	13.6	249.1	---	1.213	4.12	0.990	75.1	237.7	-4.1	0.255
4-5020	4-5290	0.146	118.2	-13.1	-1.43	1.323	88.8	0.260	0.972	5.7	251.2	---	1.225	3.73	0.997	74.9	245.9	-7.4	0.259

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5020	4-5300	0.146	134.2	-6.9	-0.76	1.326	90.6	0.265	0.979	357.3	612.9	0.719	1.238	3.50	1.003	74.6	254.7	-9.8	0.267
4-5020	4-5310	0.158	150.2	-1.2	-0.14	1.329	92.5	0.273	0.986	348.5	614.2	0.716	1.255	3.40	1.008	74.1	264.0	-11.4	0.278
4-5020	4-5320	0.183	164.8	3.3	0.46	1.331	94.6	0.285	0.992	339.1	615.0	0.709	1.275	3.41	1.012	73.4	273.7	-12.1	0.293
4-5020	4-5330	0.222	177.3	6.5	1.09	1.334	97.1	0.303	0.998	329.0	615.0	0.696	1.301	3.53	1.016	72.4	283.7	-11.9	0.315
4-5020	4-5330	0.735	237.2	1.4	1.09	1.155	126.4	0.594	0.691	230.5	876.6	0.281	1.102	3.53	0.767	117.4	46.9	22.7	0.492
4-5020	4-5340	0.275	188.0	8.6	1.79	1.336	100.0	0.329	1.004	318.0	614.3	0.674	1.335	3.78	1.019	70.8	274.1	-10.9	0.346
4-5020	4-5340	0.610	236.8	2.9	1.79	1.131	120.2	0.507	0.666	232.0	888.3	0.328	1.004	3.78	0.730	101.6	35.1	22.5	0.540
4-5020	4-5350	0.348	197.3	9.8	2.62	1.338	103.7	0.367	1.010	306.0	612.4	0.640	1.381	4.22	1.021	68.5	304.8	-9.0	0.390
4-5020	4-5350	0.589	237.2	4.4	2.62	1.124	119.1	0.493	0.659	231.6	898.0	0.334	0.984	4.22	0.719	92.0	22.9	20.3	0.306
4-5020	4-5360	0.448	206.0	10.5	3.70	1.340	108.6	0.422	1.016	292.4	608.9	0.587	1.445	4.94	1.023	65.1	316.0	-6.2	0.454
4-5020	4-5360	0.613	237.9	5.8	3.70	1.121	120.3	0.511	0.656	230.4	906.9	0.321	0.992	4.94	0.713	82.9	12.4	16.8	0.331
4-5020	4-5370	0.592	214.7	10.9	5.28	1.342	115.4	0.506	1.023	276.5	603.2	0.505	1.540	6.18	1.025	59.7	328.0	-2.4	0.552
4-5020	4-5370	0.687	239.3	7.1	5.28	1.120	124.0	0.565	0.656	227.8	914.4	0.285	1.026	6.18	0.710	72.7	7.1	14.2	0.412
4-5020	4-5380	0.836	242.3	8.0	8.02	1.121	131.6	0.668	0.657	222.3	919.0	0.218	1.095	8.60	0.709	59.5	8.1	13.7	0.559
4-5020	4-5430	0.795	11.3	-7.0	-6.56	1.106	49.7	0.653	0.642	138.4	885.4	0.223	1.061	-7.48	0.664	114.1	137.2	6.5	0.479
4-5020	4-5440	0.553	42.2	-9.9	-4.44	1.350	66.1	0.495	1.048	78.9	475.7	0.527	1.561	-5.67	1.017	119.6	186.5	-13.6	0.508
4-5020	4-5440	0.698	13.1	-5.7	-4.44	1.105	54.7	0.587	0.641	135.1	891.8	0.265	1.018	-5.67	0.659	101.2	132.2	7.7	0.376
4-5020	4-5450	0.430	51.0	-9.3	-3.11	1.352	72.0	0.430	1.050	63.8	470.3	0.599	1.502	-4.68	1.018	115.4	198.6	-18.6	0.434
4-5020	4-5450	0.861	7.9	-2.8	-3.11	1.073	45.3	0.714	0.614	144.5	911.0	0.176	1.052	-4.68	0.600	65.5	94.4	18.5	0.524
4-5020	4-5450	0.690	12.7	-4.1	-3.11	1.098	54.9	0.585	0.636	135.7	902.2	0.264	1.007	-4.68	0.644	86.9	116.9	12.7	0.361
4-5020	4-5460	0.341	60.5	-8.4	-2.16	1.354	76.6	0.388	1.057	50.3	466.5	0.647	1.467	-4.08	1.018	112.7	210.3	-22.9	0.388
4-5020	4-5470	0.275	71.5	-6.9	-1.41	1.356	80.2	0.361	1.063	37.8	463.7	0.679	1.448	-3.72	1.019	111.0	222.0	-26.5	0.360
4-5020	4-5480	0.227	84.8	-4.6	-0.77	1.359	83.4	0.346	1.070	26.2	461.6	0.701	1.440	-3.51	1.020	110.0	233.8	-29.4	0.345
4-5020	4-5490	0.196	101.3	-1.3	-0.19	1.361	86.2	0.338	1.078	15.1	460.1	0.713	1.443	-3.41	1.022	109.5	245.6	-31.4	0.339
4-5020	4-5500	0.183	120.2	2.8	0.39	1.364	88.9	0.338	1.086	4.4	459.0	0.719	1.454	-3.40	1.024	109.4	257.4	-32.7	0.341
4-5020	4-5510	0.189	139.4	7.0	0.96	1.366	91.5	0.344	1.095	354.3	818.3	0.719	1.472	-3.50	1.027	109.7	269.1	-33.2	0.349
4-5020	4-5520	0.714	27.6	2.4	1.59	1.279	56.4	0.573	0.873	108.8	582.4	0.373	1.374	-3.70	0.907	55.2	127.6	13.8	0.557
4-5020	4-5520	0.213	156.1	10.3	1.59	1.369	94.0	0.355	1.105	344.5	818.1	0.713	1.498	-3.70	1.031	110.3	280.4	-33.0	0.364
4-5020	4-5530	0.647	30.7	4.0	2.33	1.285	59.8	0.529	0.807	102.2	585.3	0.418	1.355	-4.05	0.916	59.1	135.1	10.5	0.512
4-5020	4-5530	0.250	169.4	12.8	2.33	1.373	96.7	0.372	1.116	335.2	818.3	0.701	1.531	-4.05	1.035	111.2	291.3	-32.3	0.384
4-5020	4-5540	0.586	33.9	6.4	3.24	1.291	63.0	0.487	0.899	95.5	588.2	0.461	1.337	-4.61	0.926	61.7	142.3	6.4	0.471
4-5020	4-5540	0.297	179.9	15.0	3.24	1.376	99.3	0.393	1.129	326.2	818.9	0.685	1.572	-4.61	1.041	112.4	301.8	-31.3	0.411
4-5020	4-5550	0.531	37.0	10.1	4.48	1.297	66.0	0.450	0.911	88.7	590.9	0.501	1.321	-5.53	0.934	64.0	149.2	1.1	0.436
4-5020	4-5550	0.353	188.2	17.4	4.48	1.380	102.1	0.418	1.142	317.7	819.9	0.664	1.620	-5.53	1.047	113.9	311.9	-30.3	0.444
4-5020	4-5560	0.487	40.0	16.2	6.42	1.302	68.8	0.416	0.922	81.8	593.5	0.538	1.305	-7.16	0.943	66.0	155.4	-6.1	0.410
4-5020	4-5560	0.420	195.3	20.9	6.42	1.384	106.0	0.448	1.156	309.6	821.3	0.639	1.674	-7.16	1.053	115.7	321.7	-30.0	0.484
4-5020	4-5570	0.469	42.1	27.6	10.13	1.306	71.3	0.387	0.932	74.8	596.0	0.571	1.292	-10.57	0.951	67.8	160.6	-17.4	0.403
4-5020	4-5570	0.506	202.0	27.3	10.13	1.388	108.0	0.480	1.172	301.8	823.0	0.609	1.735	-10.57	1.061	117.7	331.7	-41.6	0.538
4-5020	4-5580	0.579	35.9	50.8	20.89	1.310	73.6	0.362	0.943	67.9	598.4	0.600	1.281	-21.04	0.959	69.2	164.3	-39.4	0.484
4-5020	4-5600	0.471	47.3	-55.1	-17.44	1.317	78.2	0.317	0.956	52.0	603.1	0.653	1.259	17.87	0.973	71.7	216.4	30.8	0.421
4-5020	4-5610	0.317	61.7	-39.5	-8.93	1.320	80.1	0.303	0.963	44.6	605.3	0.671	1.254	9.65	0.980	72.5	213.1	17.1	0.328
4-5020	4-5620	0.550	56.2	-14.2	-5.68	1.455	69.5	0.601	1.506	56.0	260.5	---	2.412	6.71	1.158	58.1	203.5	1.9	0.607
4-5020	4-5620	0.253	70.7	-30.8	-5.68	1.322	81.9	0.291	0.968	37.0	607.4	0.687	1.250	6.71	0.986	73.2	217.3	8.3	0.297
4-5030	4-5080	0.975	16.3	-3.5	-5.65	0.986	37.3	0.816	0.554	155.6	181.3	---	1.006	-7.44	0.431	84.1	114.9	15.9	0.576
4-5030	4-5090	0.881	20.7	-2.8	-3.49	1.030	43.4	0.744	0.583	149.2	184.4	---	1.017	-5.57	0.520	77.0	115.5	15.7	0.509
4-5030	4-5100	0.908	24.8	-2.1	-2.17	1.070	48.0	0.682	0.613	143.0	198.1	---	1.031	-4.56	0.591	73.6	117.3	15.4	0.465
4-5030	4-5110	0.747	28.6	-1.4	-1.23	1.106	51.7	0.626	0.644	136.9	131.6	---	1.047	-3.95	0.650	72.0	120.2	14.7	0.430
4-5030	4-5120	0.694	32.1	-0.7	-0.50	1.136	54.9	0.578	0.673	130.8	195.1	---	1.062	-3.58	0.698	71.1	123.9	13.8	0.405
4-5030	4-5130	0.647	35.4	0.2	0.12	1.162	57.7	0.536	0.701	124.8	198.7	---	1.077	-3.36	0.738	70.8	128.3	12.5	0.384
4-5030	4-5140	0.603	38.6	1.2	0.58	1.184	60.1	0.498	0.728	118.8	202.2	---	1.091	-3.25	0.771	70.8	133.3	10.8	0.367
4-5030	4-5150	0.563	41.6	2.3	1.22	1.204	62.4	0.465	0.754	112.8	205.7	---	1.104	-3.23	0.800	70.9	138.6	8.7	0.351
4-5030	4-5160	0.526	44.6	3.7	1.76	1.221	64.5	0.435	0.777	106.7	209.1	---	1.116	-3.30	0.825	71.1	144.1	6.2	0.338
4-5030	4-5170	0.491	47.6	5.4	2.35	1.235	66.5	0.409	0.800	100.6	212.6	---	1.127	-3.48	0.847	71.4	149.9	3.1	0.326
4-5030	4-5180	0.459	50.5	7.7	3.03	1.248	68.4	0.386	0.821	94.5	216.0	---	1.137	-3.78	0.867	71.7	155.7	-0.5	0.316
4-5030	4-5190	0.429	53.4	10.7	3.86	1.259	70.1	0.365	0.840	88.4	219.4	---	1.147	-4.28	0.884	72.1	161.4	-4.9	0.308
4-5030	4-5200	0.404	56.3	15.0	4.99	1.269	71.8	0.347	0.858	82.2	222.8	---	1.156	-5.09	0.900	72.4	167.0	-10.3	0.302
4-5030	4-5210	0.387	59.0	21.6	6.70	1.278	73.4	0.332	0.874	76.0	226.2	---	1.164	-6.50	0.915	72.7	172.2	-17.5	0.302
4-5030	4-5220	0.392	60.7	32.8	9.86	1.285	75.0	0.318	0.890	69.7	229.5	---	1.172	-9.37	0.928	73.1	176.4	-28.4	0.316
4-5030	4-5230	0.495	55.5	53.1	18.30	1.292	76.4	0.306	0.904	63.5	232.8	---	1.181	-17.60	0.940	73.3	178.5	-47.8	0.397
4-5030	4-5250	0.454	63.6	-59.5	-17.75	1.304	79.7	0.284	0.929	49.2	239.2	---	1.192	19.07	0.962	74.1	233.9	30.0	0.410
4-5030	4-5260	0.285	80.3	-39.7	-8.09	1.309	81.1	0.277	0.940	42.6	242.2	---	1.200	9.69	0.971	74.3	229.0	14.3	0.304
4-5030	4-5270	0.227	89.0	-28.0	-4.69	1.313	82.6	0.272	0.950	35.7	245.1	---	1.209	6.58	0.980	74.4	232.8	4.5	0.279
4-5030	4-5280	0.193	98.0	-20.0	-2.89	1.317	84.1	0.268	0.960	28.4	247.8	---	1.217	5.09	0.988	74.5	239.1	-1.8	0.270
4-5030	4-5290	0.169	108.7	-13.5	-1.72	1.321	85.7	0.266	0.968	20.8	250.2	---	1.226	4.25	0.995	74.6	246.7	-6.1	0.267
4-5030	4-5300	0.154	121.7	-7.4	-0.85	1.324	87.3	0.266	0.977	12.9	252.4	---	1.237	3.75	1.001	74.6	255.1	-9.1	0.268
4-5030	4-5310	0.147	136.9	-1.4	-0.15	1.327	89.0	0.269	0.984	4.6	254.2	---	1.249	3.44	1.007	74.4	264.1	-11.0	0.273
4-5030	4-5320	0.152	153.5	4.1	0.47	1.330	90.9	0.274	0.992	355.9	615.6	0.720	1.263	3.28	1.012	74.1	273.4	-12.0	0.281
4-5030	4-5330	0.169	169.8	8.3	1.05	1.332	92.9	0.283	0.998	346.6	616.5	0.716	1.281	3.23	1.016	73.6	283.1	-12.1	0.293
4-5030	4-5340	0.200	184.4	10.9	1.63	1.335	95.3	0.296	1.005	336.7	616.8	0.707	1.303	3.28	1.019	72.8	293.0	-11.3	0.310
4-5030	4-5350	0.245	196.8	12.2	2.24	1.337	98.0	0.317	1.011	326.0	616.9	0.691	1.331	3.44	1.022	71.6	303.1	-9.7	0.335
4-5030	4-5350	0.624	252.1	3.5	2.24	1.141	120.7	0.514	0.678	233.3	883.5	0.330	1.026	3.44	0.747	106.0	54.9	26.5	0.364
4-5030	4-5360	0.306	207.3	12.8	2.95	1.339	101.3	0.346	1.017	314.4	614.8	0.665	1.370	3.74	1.024	69.8	313.5	-7.3	0.370
4-5030	4-5360	0.581	252.3	5.0	2.95	1.131	118.6	0.483	0.668	235.2	893.6	0.345	0.990	3.74	0.731	95.9	43.0	25.9	0.302
4-5030	4-5370	0.389	216.5	12.8	3.82	1.341	105.4	0.390	1.023	301.6	612.1	0.624	1.423	4.25	1.025	67.1	324.1	-4.1	0.420
4-5030	4-5370	0.586	252.9	6.4	3.82	1.127	118.8	0.487	0.664	232.4	902.9	0.340	0.987	4.25	0.722	87.3	30.7	23.3	0.303
4-5030	4-5380	0.505	225.3	12.5	4.99	1.344	111.0	0.455	1.029	287.0	607.6	0.561	1.498	5.09	1.027	63.0	335.3	-0.1	0.495
4-5030	4-5380	0.634	253.9	7.6	4.99	1.125	121.1	0.523	0.662	230.6	911.2	0.316	1.008	5.09	0.718	78.2	22.6	20.3	0.356
4-5030	4-5390	0.737	255.9	8.4	6.81	1.126	126.3	0.597	0.663	226.9	917.5	0.267	1.058	6.59	0.715	67.4	20.6	18.8	0.463
4-5030	4-5440	0.906	25.5	-6.4	-7.53	1.111	43.7	0.727	0.648	142.3	883.0	0.177	1.120	-9.17	0.672	124.8	152.7	2.1	0.589
4-5030	4-5450	0.662	52.7	-8.0	-4.47	1.351	60.7	0.562	1.051	90.1	480.5	0.461	1.641	-6.39	1.018	124.1	193.8	-16.0	0.584

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5030	4-5450	0.747	29.0	-5.3	-4.47	1.112	52.0	0.621	0.650	135.9	886.2	0.246	1.053	-6.39	0.670	110.4	153.6	1.0	0.435
4-5030	4-5460	0.506	61.8	-7.0	-2.80	1.353	60.2	0.475	1.058	73.3	473.3	0.555	1.560	-5.02	1.019	118.3	206.9	-21.1	0.485
4-5030	4-5460	0.672	30.3	-3.8	-2.80	1.111	55.9	0.568	0.649	133.4	893.4	0.280	1.017	-5.02	0.664	98.5	147.3	3.2	0.352
4-5030	4-5470	0.397	70.8	-5.6	-1.69	1.355	73.6	0.419	1.064	58.8	468.4	0.618	1.510	-4.24	1.019	114.6	219.5	-25.2	0.423
4-5030	4-5470	0.804	26.0	-1.7	-1.69	1.086	48.4	0.673	0.626	141.2	910.8	0.205	1.048	-4.24	0.618	69.6	116.0	16.0	0.472
4-5030	4-5470	0.691	29.3	-2.2	-1.69	1.102	54.7	0.586	0.641	135.3	904.9	0.265	1.018	-4.24	0.646	83.1	130.0	10.6	0.364
4-5030	4-5480	0.316	80.9	-3.6	-0.87	1.357	77.8	0.383	1.071	45.6	464.8	0.661	1.481	-3.76	1.020	112.3	232.0	-28.4	0.385
4-5030	4-5490	0.257	92.8	-1.0	-0.20	1.360	81.3	0.361	1.078	33.3	462.1	0.689	1.466	-3.46	1.022	110.9	244.5	-30.7	0.362
4-5030	4-5500	0.216	107.6	2.4	0.39	1.362	84.4	0.348	1.085	21.8	460.1	0.707	1.463	-3.29	1.023	110.1	256.8	-32.0	0.351
4-5030	4-5510	0.193	125.3	6.6	0.93	1.364	87.2	0.344	1.093	10.8	458.7	0.717	1.469	-3.23	1.026	109.7	268.9	-32.4	0.348
4-5030	4-5520	0.189	144.8	10.7	1.47	1.367	89.9	0.346	1.102	0.3	457.7	0.720	1.483	-3.25	1.029	109.8	280.7	-32.1	0.353
4-5030	4-5530	0.772	41.5	2.7	2.04	1.275	53.4	0.612	0.870	113.6	580.6	0.337	1.402	-3.37	0.904	53.3	138.3	11.8	0.598
4-5030	4-5530	0.205	163.2	13.7	2.04	1.370	92.6	0.354	1.111	350.2	817.1	0.718	1.504	-3.37	1.033	110.2	291.9	-31.0	0.364
4-5030	4-5540	0.703	44.5	4.1	2.66	1.282	57.0	0.567	0.883	107.2	583.7	0.383	1.384	-3.61	0.915	56.4	145.6	8.5	0.550
4-5030	4-5540	0.235	178.5	15.7	2.66	1.373	95.2	0.367	1.121	340.6	817.0	0.709	1.534	-3.61	1.038	110.9	302.6	-29.5	0.381
4-5030	4-5550	0.638	47.6	6.0	3.40	1.289	60.3	0.524	0.896	100.7	586.7	0.427	1.365	-3.99	0.925	59.3	152.7	4.6	0.506
4-5030	4-5550	0.277	190.5	17.0	3.40	1.376	97.9	0.386	1.133	331.4	817.4	0.496	1.570	-3.99	1.043	111.9	312.8	-27.6	0.404
4-5030	4-5560	0.580	50.7	8.7	4.35	1.294	63.4	0.484	0.908	94.1	589.6	0.469	1.348	-4.61	0.934	61.8	159.5	-0.1	0.467
4-5030	4-5560	0.328	199.9	18.2	4.35	1.380	100.6	0.409	1.146	322.6	818.2	0.677	1.614	-4.61	1.049	113.2	322.5	-25.7	0.432
4-5030	4-5570	0.528	53.8	12.9	5.70	1.300	66.4	0.447	0.920	87.3	592.5	0.508	1.331	-5.65	0.944	64.0	166.0	-6.0	0.435
4-5030	4-5570	0.388	207.6	20.1	5.70	1.383	103.5	0.436	1.159	314.2	819.4	0.654	1.664	-5.65	1.056	114.8	331.8	-24.0	0.467
4-5030	4-5580	0.490	56.5	20.0	7.92	1.304	69.1	0.415	0.930	80.4	595.2	0.544	1.316	-7.58	0.952	65.9	171.9	-14.1	0.412
4-5030	4-5580	0.460	214.3	23.5	7.92	1.387	106.4	0.466	1.174	306.3	821.0	0.627	1.722	-7.58	1.063	116.7	341.1	-23.4	0.509
4-5030	4-5590	0.491	57.6	33.6	12.63	1.308	71.5	0.386	0.940	73.5	597.8	0.577	1.303	-12.02	0.961	67.6	176.5	-27.5	0.415
4-5030	4-5590	0.560	221.4	30.8	12.63	1.392	109.5	0.500	1.190	298.7	823.0	0.596	1.785	-12.02	1.071	118.7	350.8	-25.9	0.570
4-5030	4-5600	0.748	37.9	59.9	30.89	1.372	73.7	0.363	0.948	66.8	600.3	0.604	1.293	-30.00	0.969	69.0	181.6	-55.9	0.600
4-5030	4-5620	0.377	71.3	-43.5	-11.60	1.318	78.3	0.319	0.963	50.9	605.4	0.656	1.270	13.05	0.983	71.5	225.1	18.8	0.374
4-5030	4-5630	0.585	69.3	-14.3	-6.15	1.454	67.7	0.614	1.507	60.5	264.7	---	2.433	7.89	1.160	57.0	214.2	-0.7	0.631
4-5030	4-5630	0.282	81.0	-29.7	-6.15	1.321	80.3	0.304	0.970	43.4	607.6	0.674	1.265	7.89	0.989	72.3	227.2	7.2	0.320
4-5040	4-5100	0.992	32.8	-1.9	-3.17	0.996	36.2	0.824	0.562	155.5	184.5	---	1.025	-5.80	0.448	70.0	124.5	15.5	0.597
4-5040	4-5110	0.908	32.2	-1.2	-1.62	1.041	41.8	0.759	0.592	149.2	187.8	---	1.042	-4.50	0.536	67.4	126.6	15.0	0.542
4-5040	4-5120	0.839	41.1	-0.6	-0.61	1.080	46.3	0.700	0.623	143.1	191.3	---	1.059	-3.77	0.606	66.4	129.7	14.1	0.501
4-5040	4-5130	0.779	44.8	0.1	0.13	1.114	50.0	0.647	0.654	137.0	194.8	---	1.077	-3.32	0.663	66.2	133.5	13.0	0.469
4-5040	4-5140	0.726	48.3	0.9	0.73	1.144	53.3	0.600	0.683	131.0	198.3	---	1.093	-3.04	0.710	66.4	138.0	11.5	0.443
4-5040	4-5150	0.677	51.5	1.8	1.25	1.169	56.2	0.557	0.712	125.0	201.8	---	1.108	-2.88	0.750	66.8	143.0	9.6	0.420
4-5040	4-5160	0.632	54.7	2.8	1.73	1.191	58.8	0.519	0.739	119.0	205.3	---	1.122	-2.81	0.783	67.3	148.3	7.4	0.400
4-5040	4-5170	0.590	57.7	3.9	2.20	1.210	61.2	0.485	0.764	113.0	208.8	---	1.135	-2.82	0.812	67.9	153.9	4.9	0.383
4-5040	4-5180	0.550	60.7	5.3	2.68	1.226	63.4	0.454	0.788	107.0	212.4	---	1.146	-2.91	0.838	68.5	159.6	1.9	0.367
4-5040	4-5190	0.514	63.6	7.1	3.21	1.240	65.5	0.427	0.811	100.9	215.9	---	1.157	-3.10	0.860	69.1	165.5	-1.5	0.353
4-5040	4-5200	0.480	66.5	9.3	3.84	1.253	67.5	0.402	0.832	94.8	219.3	---	1.167	-3.41	0.880	69.7	171.5	-5.3	0.341
4-5040	4-5210	0.449	69.4	12.3	4.64	1.264	69.3	0.381	0.851	88.7	222.8	---	1.176	-3.91	0.898	70.2	177.5	-9.9	0.330
4-5040	4-5220	0.423	72.3	16.6	5.75	1.273	71.1	0.362	0.869	82.5	226.3	---	1.184	-4.76	0.914	70.8	183.4	-15.4	0.323
4-5040	4-5230	0.406	74.9	23.3	7.55	1.282	72.8	0.345	0.886	76.2	229.7	---	1.191	-6.30	0.928	71.3	188.9	-22.9	0.321
4-5040	4-5240	0.418	76.2	35.4	11.24	1.289	74.5	0.330	0.902	69.9	233.0	---	1.199	-9.74	0.942	71.8	193.5	-34.9	0.337
4-5040	4-5250	0.603	63.3	59.8	24.37	1.296	76.0	0.318	0.916	63.7	236.3	---	1.207	-23.63	0.954	72.2	196.1	-59.9	0.473
4-5040	4-5270	0.334	89.9	-41.9	-9.98	1.307	79.4	0.294	0.941	49.3	242.7	---	1.218	12.21	0.975	73.2	239.4	15.4	0.344
4-5040	4-5280	0.252	99.0	-24.6	-4.64	1.312	80.9	0.286	0.952	42.4	245.7	---	1.225	7.12	0.984	73.5	241.7	2.6	0.299
4-5040	4-5290	0.214	106.8	-14.7	-2.38	1.316	82.5	0.280	0.963	35.2	248.4	---	1.232	5.12	0.992	73.8	248.1	-4.3	0.285
4-5040	4-5300	0.187	115.9	-7.5	-1.07	1.320	84.1	0.276	0.972	27.7	251.0	---	1.241	4.09	0.999	74.0	255.9	-8.5	0.279
4-5040	4-5310	0.168	127.0	-1.4	-0.18	1.324	85.8	0.274	0.981	19.8	253.3	---	1.250	3.50	1.005	74.1	260.5	-11.1	0.278
4-5040	4-5320	0.156	140.7	4.4	0.51	1.327	87.5	0.274	0.989	11.6	255.2	---	1.260	3.13	1.011	74.1	273.6	-12.5	0.280
4-5040	4-5330	0.153	156.7	9.5	1.09	1.330	89.4	0.276	0.997	2.9	256.7	---	1.273	2.92	1.015	74.0	283.1	-12.8	0.286
4-5040	4-5340	0.163	173.8	13.3	1.61	1.333	91.4	0.282	1.004	353.8	617.7	0.721	1.288	2.82	1.019	73.6	292.7	-12.3	0.295
4-5040	4-5350	0.185	190.2	15.4	2.11	1.335	93.6	0.293	1.011	344.1	618.2	0.715	1.307	2.81	1.022	73.1	302.5	-10.9	0.308
4-5040	4-5360	0.221	204.5	16.0	2.62	1.338	96.1	0.308	1.018	333.6	617.9	0.704	1.332	2.90	1.024	72.1	312.3	-8.8	0.327
4-5040	4-5360	0.659	267.6	3.9	2.62	1.153	122.3	0.536	0.693	234.0	878.3	0.322	1.065	2.90	0.768	111.6	75.6	27.8	0.411
4-5040	4-5370	0.272	216.5	15.7	3.18	1.340	99.1	0.332	1.024	322.4	616.8	0.684	1.364	3.08	1.026	70.7	322.3	-5.9	0.355
4-5040	4-5370	0.581	267.5	5.5	3.18	1.138	118.5	0.480	0.677	234.7	889.1	0.352	1.002	3.08	0.743	99.8	64.3	28.8	0.309
4-5040	4-5380	0.341	226.7	14.9	3.84	1.342	102.8	0.366	1.030	310.2	614.7	0.653	1.408	3.41	1.027	68.6	332.6	-2.4	0.394
4-5040	4-5380	0.569	267.9	6.8	3.84	1.132	117.8	0.471	0.671	234.1	898.7	0.355	0.988	3.41	0.732	91.2	51.3	27.8	0.285
4-5040	4-5390	0.436	235.9	13.9	4.68	1.344	107.5	0.417	1.037	296.5	611.1	0.604	1.469	3.94	1.028	65.5	343.2	1.7	0.452
4-5040	4-5390	0.596	268.7	7.8	4.68	1.130	119.1	0.491	0.669	232.9	907.5	0.340	0.998	3.94	0.725	82.9	40.5	25.3	0.314
4-5040	4-5400	0.569	244.7	12.8	5.87	1.346	113.9	0.494	1.043	280.9	605.5	0.528	1.558	4.85	1.028	60.5	354.8	6.5	0.539
4-5040	4-5400	0.666	270.1	8.4	5.87	1.130	122.6	0.543	0.669	230.3	914.9	0.305	1.032	4.85	0.721	73.6	35.4	23.2	0.391
4-5040	4-5410	0.800	272.8	8.5	7.82	1.131	129.5	0.639	0.670	225.2	919.7	0.242	1.098	6.54	0.720	61.6	36.6	22.8	0.524
4-5040	4-5460	0.837	43.8	-4.3	-4.44	1.118	47.2	0.684	0.657	138.9	882.8	0.208	1.106	-6.94	0.678	120.2	170.5	-4.3	0.529
4-5040	4-5470	0.603	72.3	-4.7	-2.33	1.353	63.3	0.533	1.065	84.0	477.5	0.497	1.633	-5.09	1.019	122.1	215.2	-22.5	0.550
4-5040	4-5470	0.707	46.5	-3.0	-2.33	1.119	54.0	0.593	0.658	133.6	887.2	0.268	1.048	-5.09	0.677	107.4	170.0	-4.7	0.398
4-5040	4-5480	0.465	81.3	-3.0	-1.09	1.356	70.1	0.459	1.072	67.9	471.0	0.580	1.563	-4.11	1.020	117.1	228.9	-26.4	0.467
4-5040	4-5480	0.649	47.6	-1.6	-1.09	1.117	57.0	0.551	0.656	131.7	894.9	0.294	1.018	-4.11	0.671	96.2	162.6	-1.6	0.331
4-5040	4-5490	0.367	90.8	-6.8	-0.23	1.358	75.1	0.410	1.078	53.7	466.4	0.636	1.521	-3.53	1.022	114.0	242.2	-29.1	0.415
4-5040	4-5500	0.295	101.6	1.9	0.43	1.360	79.1	0.379	1.085	40.8	463.0	0.673	1.497	-3.17	1.023	112.0	255.2	-30.7	0.383
4-5040	4-5510	0.243	114.8	5.5	0.98	1.362	82.5	0.361	1.092	28.7	460.4	0.698	1.486	-2.96	1.026	110.8	267.9	-31.2	0.365
4-5040	4-5520	0.209	131.0	9.6	1.48	1.365	85.6	0.352	1.100	17.2	458.5	0.713	1.487	-2.84	1.029	110.1	280.2	-30.8	0.358
4-5040	4-5530	0.195	149.9	13.8	1.95	1.367	88.4	0.350	1.108	6.3	457.1	0.721	1.496	-2.81	1.032	109.9	291.8	-29.6	0.368
4-5040	4-5540	0.201	169.4	16.7	2.42	1.370	91.1	0.354	1.117	355.9	816.2	0.721	1.513	-2.85	1.036	110.1	302.8	-27.8	0.365
4-5040	4-5550	0.759	58.4	4.0	2.93	1.279	54.1	0.605	0.880	112.0	581.9	0.348	1.412	-2.99	0.913	53.7	156.1	6.0	0.590
4-5040	4-5550	0.224	186.6	18.2	2.93	1.373	93.7	0.365	1.127	346.0	815.9	0.716	1.538	-2.99	1.041	110.7	313.2	-25.5	0.379
4-5040	4-5560	0.692	61.4	5.5	3.50	1.285	57.6	0.560	0.893	105.6	585.1	0.393	1.393	-3.23	0.924	56.7	163.1	2.2	0.544
4-5040	4-5560	0.260	200.4	18.7	3.50	1.376	96.4	0.380	1.138	336.5	815.6	0.705	1.570	-3.23	1.047	111.5	323.0	-23.0	0.398

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5040	4-5570	0.630	64.5	7.5	4.19	1.291	60.8	0.419	0.905	99.2	588.2	0.436	1.375	-3.62	0.935	59.4	169.9	-2.0	0.502
4-5040	4-5570	0.306	211.1	19.0	4.19	1.379	99.2	0.400	1.150	327.4	816.5	0.689	1.610	-3.62	1.053	112.6	332.3	-20.3	0.422
4-5040	4-5580	0.573	67.5	10.4	5.11	1.297	63.9	0.480	0.917	92.6	591.3	0.477	1.357	-4.26	0.945	61.9	176.7	-6.9	0.464
4-5040	4-5580	0.360	219.6	19.6	5.11	1.383	102.0	0.425	1.163	318.8	817.6	0.668	1.657	-4.26	1.059	114.1	341.3	-17.8	0.452
4-5040	4-5590	0.524	70.6	14.9	6.48	1.302	66.8	0.444	0.928	85.8	594.2	0.516	1.341	-5.36	0.954	64.0	183.2	-13.0	0.433
4-5040	4-5590	0.422	226.6	21.0	6.48	1.386	104.9	0.453	1.177	310.6	819.0	0.643	1.710	-5.36	1.067	115.7	350.1	-15.8	0.488
4-5040	4-5600	0.491	73.2	22.7	8.91	1.306	69.4	0.413	0.938	79.0	597.1	0.551	1.326	-7.54	0.963	65.9	189.2	-21.6	0.413
4-5040	4-5600	0.497	233.0	24.3	8.91	1.390	107.9	0.485	1.192	302.8	820.9	0.614	1.770	-7.54	1.074	117.7	359.0	-15.2	0.533
4-5040	4-5610	0.514	72.9	38.7	14.95	1.310	71.9	0.385	0.948	72.1	599.8	0.583	1.312	-13.34	0.971	67.6	193.6	-37.4	0.429
4-5040	4-5630	0.491	77.5	-52.3	-17.64	1.317	76.6	0.337	0.964	56.8	605.2	0.639	1.288	19.74	0.986	70.4	239.7	23.2	0.463
4-5040	4-5640	0.314	92.2	-29.0	-6.75	1.270	78.6	0.320	0.971	49.5	607.6	0.660	1.281	9.10	0.992	71.4	236.9	6.2	0.345
4-5050	4-5130	0.931	53.9	0.1	0.17	1.056	40.7	0.769	0.606	148.8	190.4	---	1.071	-3.27	0.564	60.2	139.7	12.7	0.573
4-5050	4-5140	0.865	57.7	0.8	0.86	1.093	45.0	0.713	0.636	142.7	193.9	---	1.090	-2.79	0.630	60.9	143.6	11.4	0.535
4-5050	4-5150	0.805	61.3	1.5	1.39	1.126	48.8	0.662	0.667	136.7	197.4	---	1.108	-2.49	0.684	61.7	148.1	9.8	0.503
4-5050	4-5160	0.751	64.6	2.2	1.83	1.153	52.1	0.616	0.696	130.8	201.0	---	1.125	-2.31	0.729	62.6	153.0	7.8	0.475
4-5050	4-5170	0.701	67.8	3.1	2.22	1.177	55.0	0.573	0.724	124.8	204.6	---	1.140	-2.20	0.767	63.5	158.3	5.5	0.451
4-5050	4-5180	0.654	70.9	4.0	2.58	1.198	57.7	0.535	0.751	118.8	208.1	---	1.153	-2.17	0.799	64.5	163.8	2.9	0.430
4-5050	4-5190	0.611	73.9	5.1	2.95	1.216	60.2	0.500	0.777	112.8	211.7	---	1.166	-2.20	0.828	65.4	169.6	0.1	0.410
4-5050	4-5200	0.570	76.9	6.4	3.34	1.232	62.5	0.469	0.801	106.8	215.3	---	1.177	-2.29	0.853	66.3	175.6	-3.3	0.392
4-5050	4-5210	0.532	79.8	8.0	3.77	1.246	64.7	0.441	0.823	100.8	218.9	---	1.186	-2.46	0.875	67.2	181.8	-6.5	0.377
4-5050	4-5220	0.496	82.7	10.1	4.29	1.258	66.8	0.416	0.844	94.7	222.4	---	1.195	-2.75	0.895	68.0	188.1	-10.3	0.362
4-5050	4-5230	0.463	85.7	12.8	4.98	1.269	68.8	0.393	0.864	88.5	226.0	---	1.203	-3.21	0.912	68.8	194.5	-14.7	0.350
4-5050	4-5240	0.435	88.6	16.8	5.99	1.278	70.6	0.373	0.882	82.2	229.5	---	1.211	-4.02	0.928	69.5	201.0	-19.9	0.341
4-5050	4-5250	0.417	91.3	23.4	7.75	1.286	72.4	0.355	0.899	75.9	232.9	---	1.218	-5.58	0.943	70.2	207.2	-27.1	0.336
4-5050	4-5260	0.403	92.2	36.6	11.97	1.293	74.2	0.339	0.914	69.4	236.3	---	1.224	-9.61	0.956	70.8	212.6	-40.1	0.352
4-5050	4-5280	0.422	97.8	-49.0	-14.46	1.306	77.7	0.311	0.942	55.5	242.9	---	1.235	17.20	0.978	72.1	251.4	19.6	0.415
4-5050	4-5290	0.277	110.1	-20.9	-4.41	1.311	79.3	0.302	0.954	48.7	245.9	---	1.242	7.35	0.987	72.5	250.6	0.2	0.318
4-5050	4-5300	0.237	117.0	-8.8	-1.61	1.316	80.9	0.294	0.965	41.5	248.8	---	1.249	4.74	0.995	73.0	257.2	-7.6	0.299
4-5050	4-5310	0.209	124.7	-1.5	-0.23	1.320	82.6	0.287	0.976	34.0	251.4	---	1.256	3.58	1.003	73.3	265.4	-11.5	0.292
4-5050	4-5320	0.188	134.2	4.4	0.62	1.323	84.3	0.283	0.985	26.3	253.8	---	1.264	2.94	1.009	73.6	274.[illegible]	-13.5	0.289
4-5050	4-5330	0.171	146.0	9.6	1.24	1.327	86.1	0.281	0.994	18.1	255.8	---	1.273	2.57	1.014	73.7	283.[illegible]	-14.1	0.289
4-5050	4-5340	0.162	160.5	14.3	1.73	1.330	87.9	0.281	1.002	9.6	257.4	---	1.284	2.34	1.018	73.7	293.0	-13.8	0.292
4-5050	4-5350	0.163	177.4	17.8	2.15	1.333	89.9	0.284	1.010	0.6	258.6	---	1.297	2.22	1.021	73.5	302.6	-12.6	0.298
4-5050	4-5360	0.177	194.8	19.6	2.54	1.336	92.0	0.291	1.017	351.0	619.3	0.721	1.314	2.17	1.024	73.2	312.2	-10.6	0.308
4-5050	4-5370	0.203	211.0	19.6	2.93	1.338	94.4	0.303	1.024	340.9	619.3	0.714	1.335	2.19	1.027	72.5	321.8	-8.0	0.322
4-5050	4-5380	0.244	224.7	18.5	3.34	1.340	97.2	0.322	1.031	330.0	618.5	0.699	1.363	2.29	1.02[illegible]	71.4	331.5	-4.8	0.344
4-5050	4-5380	0.591	282.8	5.7	3.34	1.146	118.9	0.485	0.688	235.9	884.4	0.354	1.022	2.29	0.751	103.8	85.9	28.5	0.327
4-5050	4-5390	0.301	236.2	16.9	3.79	1.343	100.4	0.349	1.037	318.3	616.8	0.676	1.399	2.47	1.02[illegible]	69.7	341.4	-1.0	0.374
4-5050	4-5390	0.560	283.0	6.9	3.79	1.138	117.3	0.462	0.680	235.7	894.3	0.366	0.994	2.47	0.741	94.9	73.6	29.2	0.278
4-5050	4-5400	0.379	246.1	15.7	4.34	1.345	104.5	0.389	1.044	305.4	614.0	0.638	1.450	2.78	1.028	67.3	351.6	3.2	0.419
4-5050	4-5400	0.569	283.6	7.7	4.34	1.135	117.7	0.469	0.676	234.8	903.4	0.359	0.994	2.78	0.733	87.0	60.9	28.1	0.284
4-5050	4-5410	0.486	255.1	13.3	5.07	1.347	109.8	0.448	1.050	291.0	609.5	0.579	1.521	3.28	1.029	63.5	2.6	7.9	0.485
4-5050	4-5410	0.614	284.5	8.1	5.07	1.134	120.0	0.504	0.675	233.0	911.6	0.335	1.015	3.28	0.728	78.7	52.7	26.2	0.335
4-5050	4-5420	0.640	264.1	11.6	6.15	1.349	117.3	0.538	1.057	274.2	602.7	0.489	1.625	4.15	1.029	57.6	14.8	13.0	0.587
4-5050	4-5420	0.708	286.4	8.1	6.15	1.134	124.8	0.573	0.676	229.5	918.0	0.289	1.063	4.15	0.725	68.8	50.8	25.2	0.434
4-5050	4-5430	0.876	290.0	7.6	8.08	1.156	133.5	0.690	0.678	222.5	920.0	0.210	1.146	5.68	0.724	55.4	54.9	25.6	0.594
4-5050	4-5480	0.780	61.7	-1.8	-1.64	1.124	50.1	0.645	0.665	135.9	882.9	0.236	1.094	-4.77	0.686	116.3	188.4	-10.3	0.478
4-5050	4-5490	0.552	91.8	-0.7	-0.31	1.356	65.8	0.509	1.079	78.0	474.6	0.530	1.628	-3.64	1.022	120.4	237.9	-26.5	0.523
4-5050	4-5490	0.672	63.9	-0.4	-0.31	1.124	55.8	0.567	0.666	131.4	888.1	0.288	1.043	-3.64	0.685	104.8	186.9	-10.1	0.367
4-5050	4-5500	0.430	101.0	1.6	0.53	1.359	71.9	0.444	1.086	62.5	468.6	0.603	1.568	-3.01	1.024	116.1	252.1	-28.6	0.453
4-5050	4-5500	0.933	55.3	0.4	0.[illegible]	1.079	41.0	0.762	0.624	146.8	913.0	0.149	1.099	-3.01	0.605	56.3	139.1	13.2	0.991
4-5050	4-5500	0.627	64.6	0.8	0.53	1.123	58.1	0.534	0.664	130.0	896.2	0.309	1.018	-3.01	0.680	94.3	178.5	-6.5	0.512
4-5050	4-5510	0.342	111.0	4.4	1.[illegible]	1.361	76.6	0.403	1.093	48.6	464.3	0.655	1.532	-2.63	1.026	113.4	265.7	-29.4	0.409
4-5050	4-5520	0.277	122.9	7.8	1.61	1.563	80.4	0.376	1.100	35.8	461.0	0.686	1.513	-2.39	1.028	111.7	278.6	-29.2	0.383
4-5050	4-5530	0.233	137.5	11.8	2.02	1.365	83.8	0.362	1.107	23.7	458.5	0.707	1.507	-2.25	1.032	110.7	290.8	-28.0	0.370
4-5050	4-5540	0.208	155.3	15.9	2.39	1.367	86.8	0.355	1.115	12.4	456.7	0.719	1.511	-2.18	1.035	110.2	302.3	-26.1	0.365
4-5050	4-5550	0.203	175.0	19.0	2.76	1.370	89.[illegible]	0.356	1.123	1.6	455.4	0.723	1.524	-2.17	1.040	110.2	313.0	-23.6	0.368
4-5050	4-5560	0.216	193.7	20.2	3.13	1.373	92.3	0.364	1.133	351.3	814.7	0.721	1.545	-2.23	1.045	110.5	323.0	-20.7	0.378
4-5050	4-5570	0.746	75.3	5.0	3.53	1.282	54.8	0.597	0.890	110.4	583.4	0.359	1.420	-2.36	0.924	54.1	173.4	-0.5	0.583
4-5050	4-5570	0.245	209.4	20.1	3.53	1.375	95.0	0.376	1.143	341.5	814.6	0.713	1.573	-2.36	1.050	111.1	332.5	-17.6	0.393
4-5050	4-5580	0.680	78.3	6.4	4.00	1.288	58.2	0.553	0.902	104.0	586.7	0.403	1.402	-2.58	0.933	57.0	180.4	-4.3	0.538
4-5050	4-5580	0.285	221.7	19.5	4.00	1.378	97.8	0.396	1.154	332.2	814.9	0.699	1.609	-2.58	1.056	112.1	341.5	-14.4	0.414
4-5050	4-5590	0.619	81.4	8.4	4.59	1.294	61.4	0.513	0.915	97.5	589.9	0.446	1.384	-2.94	0.946	59.6	187.4	-8.5	0.497
4-5050	4-5590	0.334	231.3	19.0	4.59	1.382	100.5	0.416	1.166	323.4	815.8	0.681	1.652	-2.94	1.063	113.4	350.2	-11.3	0.440
4-5050	4-5600	0.564	84.5	11.3	5.40	1.299	64.4	0.475	0.926	90.9	593.1	0.486	1.366	-3.54	0.956	62.0	194.5	-13.2	0.461
4-5050	4-5600	0.390	238.9	19.0	5.40	1.385	103.4	0.442	1.180	315.0	817.1	0.658	1.701	-3.54	1.070	114.9	358.7	-8.5	0.472
4-5050	4-5610	0.516	87.5	15.7	6.68	1.304	67.2	0.440	0.937	84.2	596.1	0.524	1.349	-4.61	0.965	64.1	201.4	-19.0	0.431
4-5050	4-5610	0.453	245.3	20.0	6.68	1.389	106.4	0.472	1.194	306.9	818.9	0.630	1.758	-4.61	1.078	116.7	7.3	-6.4	0.508
4-5050	4-5620	0.485	90.1	23.9	9.20	1.308	69.9	0.409	0.947	77.3	599.1	0.559	1.334	-6.94	0.974	66.0	208.0	-27.7	0.412
4-5050	4-5620	0.530	251.2	23.3	9.20	1.393	109.4	0.505	1.210	299.3	821.0	0.599	1.820	-6.94	1.085	118.7	16.1	-6.1	0.554
4-5050	4-5630	0.540	87.9	43.5	17.30	1.312	72.3	0.382	0.956	70.4	601.9	0.590	1.321	-14.85	0.982	67.6	213.2	-47.0	0.445
4-5050	4-5650	0.350	103.8	-29.3	-7.67	1.318	76.9	0.336	0.971	55.3	607.3	0.645	1.298	10.50	0.995	70.4	246.8	5.8	0.374
4-5060	4-5160	0.885	74.4	1.8	2.12	1.108	44.1	0.722	0.652	142.0	196.3	---	1.122	-1.68	0.653	56.6	158.2	7.4	0.565
4-5060	4-5170	0.826	77.8	2.5	2.43	1.138	47.9	0.673	0.682	136.1	199.9	---	1.140	-1.52	0.708	58.1	163.1	5.3	0.533
4-5060	4-5180	0.771	81.1	3.2	2.70	1.164	51.2	0.627	0.711	130.2	203.5	---	1.157	-1.43	0.750	59.5	168.3	3.0	0.504
4-5060	4-5190	0.720	84.3	3.9	2.94	1.187	54.2	0.585	0.739	124.2	207.1	---	1.171	-1.38	0.787	60.9	173.9	0.5	0.479
4-5060	4-5200	0.672	87.3	4.8	3.17	1.206	57.0	0.547	0.766	118.3	210.8	---	1.184	-1.37	0.818	62.2	179.7	-2.2	0.455
4-5060	4-5210	0.627	90.3	5.7	3.40	1.223	59.6	0.512	0.791	112.3	214.4	---	1.196	-1.40	0.846	63.4	185.8	-5.2	0.434
4-5060	4-5220	0.585	93.3	6.8	3.65	1.238	62.0	0.480	0.815	106.3	218.1	---	1.206	-1.47	0.870	64.5	192.1	-8.2	0.415
4-5060	4-5230	0.544	96.2	8.2	3.95	1.252	64.2	0.451	0.837	100.2	221.7	---	1.215	-1.60	0.892	65.6	198.7	-11.5	0.398

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5060	4-5240	0.507	99.2	9.9	4.31	1.263	66.4	0.426	0.858	94.0	225.4	---	1.223	-1.82	0.911	66.6	209.6	-14.9	0.382
4-5060	4-5250	0.471	102.2	12.1	4.80	1.273	68.4	0.402	0.877	87.8	229.0	---	1.230	-2.18	0.928	67.8	212.7	-18.6	0.368
4-5060	4-5260	0.440	105.3	15.5	5.58	1.282	70.4	0.381	0.895	81.5	232.5	---	1.237	-2.82	0.944	68.5	216.0	-22.9	0.356
4-5060	4-5270	0.417	108.2	21.3	7.07	1.290	72.2	0.363	0.912	75.0	236.0	---	1.243	-4.19	0.957	69.3	221.4	-29.0	0.348
4-5060	4-5280	0.433	109.2	35.7	11.70	1.297	74.0	0.346	0.928	68.5	239.4	---	1.249	-8.70	0.970	70.1	234.6	-42.6	0.361
4-5060	4-5300	0.303	122.0	-16.1	-3.76	1.309	77.6	0.319	0.955	54.6	245.8	---	1.260	7.01	0.990	71.5	259.5	-3.0	0.335
4-5060	4-5310	0.263	128.1	-1.9	-0.39	1.314	79.4	0.308	0.967	47.4	248.8	---	1.266	3.75	0.998	72.1	266.6	-12.0	0.313
4-5060	4-5320	0.236	134.7	4.9	0.88	1.319	81.1	0.300	0.979	40.0	251.5	---	1.272	2.61	1.005	72.6	275.3	-15.1	0.305
4-5060	4-5330	0.212	142.8	9.8	1.57	1.323	82.8	0.293	0.989	32.3	254.0	---	1.279	2.05	1.011	72.9	284.5	-16.1	0.301
4-5060	4-5340	0.192	153.0	14.1	2.04	1.327	84.6	0.289	0.999	24.2	256.1	---	1.287	1.74	1.016	73.2	293.9	-15.9	0.299
4-5060	4-5350	0.178	165.7	18.1	2.38	1.330	86.5	0.287	1.007	15.8	257.9	---	1.297	1.55	1.020	73.4	303.4	-14.7	0.299
4-5060	4-5360	0.171	181.3	21.3	2.67	1.333	88.4	0.288	1.016	7.0	259.2	---	1.308	1.43	1.023	73.3	312.8	-12.8	0.303
4-5060	4-5370	0.175	198.8	22.9	2.92	1.336	90.5	0.292	1.023	357.6	620.0	0.724	1.323	1.38	1.026	73.1	322.2	-10.3	0.309
4-5060	4-5380	0.191	216.2	22.7	3.17	1.338	92.8	0.301	1.031	347.8	620.3	0.721	1.341	1.37	1.027	72.6	331.5	-7.2	0.320
4-5060	4-5390	0.222	231.7	21.0	3.41	1.341	95.4	0.315	1.038	337.2	619.8	0.711	1.365	1.40	1.028	71.8	340.9	-3.7	0.337
4-5060	4-5390	0.616	298.2	5.6	3.41	1.156	120.1	0.502	0.702	236.2	879.3	0.350	1.054	3.40	0.772	108.5	106.5	25.4	0.362
4-5060	4-5400	0.268	244.8	18.6	3.60	1.343	98.4	0.336	1.044	326.0	618.6	0.693	1.396	1.48	1.029	70.5	350.5	0.2	0.360
4-5060	4-5400	0.558	298.1	6.7	3.68	1.165	117.2	0.459	0.689	237.1	889.7	0.373	1.006	1.48	0.751	98.5	95.8	27.2	0.282
4-5060	4-5410	0.331	255.7	16.0	3.98	1.345	102.0	0.368	1.051	313.8	616.4	0.664	1.437	1.62	1.029	68.6	0.4	4.5	0.395
4-5060	4-5410	0.551	298.5	7.4	3.98	1.140	116.8	0.454	0.684	236.6	899.2	0.373	0.995	1.62	0.741	90.7	82.9	27.8	0.266
4-5060	4-5420	0.418	265.2	13.6	4.36	1.347	106.5	0.414	1.057	300.3	612.8	0.619	1.495	1.85	1.029	65.7	10.9	8.9	0.445
4-5060	4-5420	0.577	299.2	7.6	4.36	1.138	118.1	0.475	0.682	235.3	907.8	0.358	1.006	1.85	0.734	83.1	72.2	27.1	0.294
4-5060	4-5430	0.539	274.1	11.3	4.88	1.350	112.5	0.483	1.064	285.1	607.5	0.550	1.578	2.24	1.029	61.3	22.5	13.6	0.521
4-5060	4-5430	0.640	300.5	7.4	4.88	1.138	121.4	0.523	0.682	232.8	915.2	0.325	1.039	2.24	0.730	74.5	67.1	26.1	0.366
4-5060	4-5440	0.759	302.9	6.8	5.70	1.139	127.5	0.611	0.683	228.0	920.2	0.266	1.100	2.93	0.728	63.7	68.1	25.9	0.485
4-5060	4-5490	0.897	75.5	-0.5	-0.53	1.128	43.8	0.724	0.671	140.5	881.1	0.185	1.157	-3.88	0.694	126.6	203.3	-13.6	0.592
4-5060	4-5500	0.663	101.9	1.3	0.76	1.357	60.4	0.573	1.086	89.3	479.5	0.464	1.709	-2.72	1.024	124.8	246.4	-25.5	0.508
4-5060	4-5500	0.731	79.3	0.9	0.76	1.130	52.7	0.609	0.673	133.0	883.2	0.263	1.084	-2.72	0.696	113.0	206.9	-15.4	0.430
4-5060	4-5510	0.508	111.3	3.6	1.46	1.359	68.1	0.487	1.093	72.0	471.7	0.560	1.626	-2.14	1.026	118.9	261.5	-27.1	0.502
4-5060	4-5510	0.640	81.2	2.2	1.46	1.130	57.5	0.542	0.674	129.2	889.0	0.309	1.039	-2.14	0.695	102.5	204.5	-14.8	0.340
4-5060	4-5520	0.399	120.9	6.3	1.93	1.361	73.7	0.431	1.100	56.9	466.1	0.625	1.575	-1.80	1.029	115.2	275.5	-27.1	0.442
4-5060	4-5520	0.901	72.7	1.6	1.93	1.087	42.9	0.739	0.653	144.7	913.9	0.165	1.101	-1.80	0.623	57.8	157.0	7.8	0.564
4-5060	4-5520	0.605	81.7	3.1	1.93	1.128	59.3	0.515	0.672	128.2	897.5	0.326	1.018	-1.80	0.692	92.7	195.1	-11.0	0.296
4-5060	4-5530	0.320	131.7	9.6	2.28	1.363	78.1	0.396	1.107	43.1	461.9	0.669	1.545	-1.60	1.032	112.9	288.5	-26.1	0.406
4-5060	4-5540	0.263	144.9	13.3	2.56	1.365	81.8	0.374	1.114	30.4	458.8	0.697	1.531	-1.47	1.035	111.4	300.7	-24.2	0.385
4-5060	4-5550	0.226	161.2	17.2	2.81	1.367	85.1	0.363	1.122	18.5	456.4	0.714	1.529	-1.40	1.039	110.6	311.9	-21.7	0.375
4-5060	4-5560	0.210	180.3	20.3	3.05	1.370	88.1	0.360	1.130	7.3	454.7	0.723	1.537	-1.37	1.044	110.3	322.4	-18.6	0.373
4-5060	4-5570	0.213	200.1	21.6	3.28	1.372	90.9	0.364	1.139	356.6	813.7	0.724	1.553	-1.38	1.049	110.4	332.2	-15.3	0.379
4-5060	4-5580	0.233	217.6	21.2	3.52	1.375	93.7	0.374	1.148	346.5	813.2	0.719	1.578	-1.43	1.054	110.9	341.4	-11.7	0.391
4-5060	4-5590	0.732	92.2	5.5	3.79	1.284	55.5	0.588	0.899	108.6	585.0	0.370	1.428	-1.53	0.936	54.5	191.0	-6.9	0.577
4-5060	4-5590	0.267	231.6	19.8	3.79	1.378	96.4	0.389	1.159	336.9	813.4	0.708	1.610	-1.53	1.060	111.7	350.3	-8.2	0.408
4-5060	4-5600	0.667	95.3	6.8	4.11	1.290	58.9	0.546	0.912	102.3	588.4	0.414	1.410	-1.69	0.947	57.4	198.2	-10.5	0.533
4-5060	4-5600	0.310	242.4	18.4	4.11	1.381	99.2	0.409	1.170	327.9	814.0	0.692	1.649	-1.69	1.067	112.8	358.9	-4.7	0.430
4-5060	4-5610	0.607	98.4	8.6	4.52	1.296	62.1	0.506	0.924	95.8	591.7	0.457	1.391	-1.97	0.957	60.0	205.7	-14.2	0.494
4-5060	4-5610	0.360	250.9	17.2	4.52	1.384	102.0	0.433	1.183	319.2	815.2	0.671	1.695	-1.97	1.074	114.2	7.3	-1.4	0.458
4-5060	4-5620	0.551	101.5	11.0	5.12	1.301	65.0	0.469	0.936	89.1	595.0	0.497	1.373	-2.43	0.967	62.3	213.3	-18.2	0.459
4-5060	4-5620	0.417	257.7	16.7	5.12	1.388	104.9	0.460	1.197	311.0	816.9	0.646	1.747	-2.43	1.081	115.8	15.7	1.4	0.490
4-5060	4-5630	0.503	104.8	14.9	6.14	1.305	67.8	0.435	0.945	82.3	598.1	0.534	1.357	-3.33	0.976	64.4	221.1	-23.1	0.428
4-5060	4-5630	0.480	263.5	17.3	6.14	1.391	107.9	0.491	1.211	303.2	818.9	0.616	1.806	-3.33	1.088	117.7	24.2	3.5	0.527
4-5060	4-5640	0.470	107.6	22.8	8.48	1.309	70.4	0.405	0.955	75.4	601.1	0.568	1.341	-5.54	0.984	66.2	228.8	-30.9	0.407
4-5060	4-5640	0.556	268.9	20.2	8.48	1.395	111.1	0.525	1.227	295.7	811.4	0.593	1.871	-5.54	1.096	119.9	33.1	3.5	0.571
4-5060	4-5650	0.490	100.9	49.9	21.08	1.313	72.8	0.379	0.964	68.4	603.9	0.599	1.328	-18.02	0.991	67.8	237.9	-57.5	0.479
4-5060	4-5660	0.402	115.2	-33.1	-9.94	1.316	75.3	0.354	0.971	60.7	606.7	0.628	1.315	13.11	0.998	69.3	257.3	7.9	0.415
4-5070	4-5180	0.901	91.1	2.6	3.07	1.123	43.6	0.727	0.669	141.1	198.5	---	1.155	-0.55	0.689	53.4	173.3	2.4	0.591
4-5070	4-5190	0.842	94.5	3.2	3.17	1.151	47.3	0.679	0.698	135.2	202.1	---	1.172	-0.50	0.735	55.4	178.5	0.1	0.559
4-5070	4-5200	0.786	97.7	3.8	3.25	1.175	50.6	0.635	0.727	129.3	205.8	---	1.188	-0.47	0.775	57.2	184.0	-2.4	0.530
4-5070	4-5210	0.734	100.8	4.4	3.33	1.196	53.7	0.593	0.754	123.4	209.6	---	1.202	-0.46	0.809	58.8	189.9	-5.0	0.503
4-5070	4-5220	0.685	103.8	5.0	3.41	1.215	56.5	0.555	0.781	117.4	213.3	---	1.214	-0.46	0.839	60.4	196.1	-7.6	0.479
4-5070	4-5230	0.639	106.8	5.8	3.49	1.231	59.1	0.520	0.806	111.4	217.0	---	1.225	-0.48	0.865	61.8	202.6	-10.3	0.456
4-5070	4-5240	0.594	109.8	6.6	3.58	1.245	61.6	0.488	0.829	105.4	220.8	---	1.234	-0.51	0.889	63.2	209.5	-13.0	0.436
4-5070	4-5250	0.552	112.8	7.6	3.69	1.258	63.9	0.459	0.851	99.2	224.5	---	1.242	-0.56	0.909	64.4	216.7	-15.7	0.417
4-5070	4-5260	0.512	115.9	8.7	3.83	1.269	66.1	0.433	0.872	93.0	228.2	---	1.250	-0.65	0.928	65.6	224.2	-18.3	0.399
4-5070	4-5270	0.474	119.0	10.1	4.02	1.279	68.3	0.409	0.892	86.7	231.8	---	1.256	-0.80	0.944	66.7	232.1	-20.8	0.384
4-5070	4-5280	0.439	122.3	12.1	4.35	1.287	70.3	0.387	0.910	80.3	235.4	---	1.262	-1.09	0.958	67.8	240.3	-23.3	0.370
4-5070	4-5290	0.407	125.7	15.6	5.10	1.295	72.2	0.368	0.926	73.7	238.9	---	1.267	-1.80	0.971	68.7	248.9	-26.6	0.357
4-5070	4-5300	0.405	128.0	28.6	8.90	1.302	74.1	0.352	0.942	67.0	242.2	---	1.273	-5.55	0.982	69.6	257.9	-37.5	0.357
4-5070	4-5310	0.326	134.7	-5.8	-1.49	1.308	76.0	0.337	0.956	60.0	245.5	---	1.278	4.88	0.992	70.4	268.4	-10.1	0.345
4-5070	4-5320	0.295	139.7	7.5	1.71	1.313	77.8	0.324	0.969	52.9	248.5	---	1.283	1.71	1.000	71.1	276.9	-18.3	0.327
4-5070	4-5330	0.267	145.5	11.8	2.41	1.318	79.6	0.313	0.981	45.6	251.3	---	1.288	1.06	1.007	71.7	286.1	-19.4	0.320
4-5070	4-5340	0.241	152.6	15.0	2.73	1.322	81.4	0.305	0.992	37.9	253.9	---	1.295	0.78	1.013	72.3	295.5	-18.9	0.314
4-5070	4-5350	0.217	161.3	18.0	2.92	1.326	83.2	0.299	1.003	30.0	256.1	---	1.302	0.64	1.018	72.7	304.8	-17.5	0.310
4-5070	4-5360	0.198	172.3	20.9	3.06	1.330	85.1	0.295	1.012	21.7	258.0	---	1.310	0.55	1.021	72.9	314.1	-15.5	0.309
4-5070	4-5370	0.184	186.1	23.5	3.16	1.333	87.1	0.293	1.021	13.0	259.5	---	1.321	0.50	1.024	73.0	323.3	-12.9	0.310
4-5070	4-5380	0.179	202.6	25.1	3.25	1.336	89.1	0.295	1.029	3.9	260.5	---	1.333	0.47	1.026	73.0	332.5	-9.8	0.314
4-5070	4-5390	0.185	220.5	24.8	3.34	1.339	91.3	0.301	1.037	354.3	621.0	0.725	1.349	0.46	1.028	72.7	341.4	-6.4	0.321
4-5070	4-5400	0.205	237.5	22.9	3.42	1.341	93.7	0.311	1.044	344.1	620.8	0.719	1.369	0.46	1.029	72.1	350.5	-2.6	0.333
4-5070	4-5400	0.683	314.1	4.9	3.42	1.173	123.4	0.550	0.724	236.5	873.2	0.326	1.122	0.46	0.797	116.0	126.7	19.9	0.443
4-5070	4-5400	0.807	315.7	3.9	3.42	1.194	129.4	0.635	0.751	233.0	869.7	0.274	1.229	0.46	0.827	125.4	132.2	18.4	0.571
4-5070	4-5410	0.240	252.3	19.8	3.50	1.344	96.5	0.328	1.051	333.3	620.0	0.707	1.396	0.48	1.029	71.1	359.8	1.4	0.351
4-5070	4-5410	0.564	313.3	6.3	3.50	1.152	117.5	0.464	0.700	238.4	885.1	0.375	1.024	0.48	0.762	102.2	116.5	22.4	0.298

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5070	4-5420	0.291	264.5	16.6	3.59	1.346	99.7	0.353	1.058	321.7	618.3	0.685	1.431	0.51	1.029	69.6	9.5	5.5	0.377
4-5070	4-5420	0.540	313.4	6.9	3.59	1.146	116.3	0.445	0.693	238.2	894.8	0.384	1.001	0.51	0.749	94.2	108.9	24.2	0.258
4-5070	4-5430	0.362	274.9	13.5	3.70	1.348	103.6	0.389	1.064	309.0	615.5	0.650	1.478	0.57	1.029	67.4	19.7	9.7	0.416
4-5070	4-5430	0.549	313.9	6.9	3.70	1.143	116.8	0.454	0.690	237.3	903.8	0.377	1.002	0.57	0.741	86.9	93.0	25.0	0.266
4-5070	4-5440	0.459	284.1	10.8	3.84	1.350	108.7	0.442	1.071	295.0	611.3	0.597	1.544	0.67	1.029	64.0	30.4	13.9	0.473
4-5070	4-5440	0.590	314.8	6.5	3.84	1.142	118.9	0.486	0.689	235.5	911.8	0.354	1.023	0.67	0.736	79.2	85.1	24.9	0.314
4-5070	4-5450	0.597	293.1	8.3	4.05	1.352	115.5	0.522	1.077	278.9	605.0	0.516	1.639	0.82	1.029	58.8	43.4	18.0	0.561
4-5070	4-5450	0.673	316.5	5.8	4.05	1.143	123.2	0.549	0.689	232.2	918.3	0.311	1.068	0.82	0.733	70.2	83.1	24.7	0.403
4-5070	4-5460	0.818	319.7	4.6	4.39	1.144	130.8	0.655	0.691	233.9	921.6	0.239	1.144	1.12	0.732	58.3	86.8	24.7	0.543
4-5070	4-5310	0.829	93.6	2.3	2.32	1.134	47.6	0.676	0.680	136.6	880.4	0.220	1.140	-1.14	0.705	122.0	223.3	-17.7	0.556
4-5070	4-5520	0.607	121.4	5.3	2.66	1.359	63.3	0.542	1.100	82.5	475.8	0.504	1.697	-0.84	1.029	122.6	270.0	-24.7	0.566
4-5070	4-5520	0.688	96.8	3.6	2.66	1.136	55.1	0.575	0.682	130.2	883.5	0.290	1.073	-0.84	0.707	110.0	226.2	-18.8	0.400
4-5070	4-5530	0.469	130.9	7.9	2.87	1.361	70.3	0.468	1.107	65.8	468.6	0.580	1.625	-0.68	1.032	117.5	284.5	-24.1	0.484
4-5070	4-5530	0.611	98.5	4.6	2.87	1.136	59.1	0.516	0.682	127.0	889.8	0.330	1.034	-0.68	0.708	100.5	223.1	-18.1	0.317
4-5070	4-5540	0.371	141.2	10.8	3.01	1.363	75.5	0.420	1.114	50.9	463.3	0.646	1.582	-0.58	1.035	114.3	297.7	-22.3	0.434
4-5070	4-5540	0.871	89.9	2.7	3.01	1.095	44.7	0.716	0.642	142.6	914.9	0.182	1.103	-0.58	0.642	59.1	174.3	1.8	0.542
4-5070	4-5540	0.583	98.8	5.1	3.01	1.134	60.6	0.495	0.680	126.3	898.6	0.343	1.616	-0.58	0.705	91.3	212.6	-14.7	0.280
4-5070	4-5550	0.300	153.2	14.1	3.12	1.366	79.7	0.390	1.121	37.4	459.3	0.684	1.559	-0.52	1.039	112.3	309.7	-19.7	0.404
4-5070	4-5560	0.250	167.9	17.7	3.21	1.368	83.3	0.373	1.129	24.8	456.3	0.707	1.550	-0.49	1.043	111.1	320.8	-16.6	0.387
4-5070	4-5570	0.222	185.9	20.7	3.29	1.370	86.5	0.366	1.136	13.0	454.2	0.721	1.552	-0.47	1.048	110.6	331.1	-13.1	0.380
4-5070	4-5580	0.214	205.9	22.2	3.37	1.372	89.5	0.366	1.145	2.0	452.7	0.726	1.564	-0.46	1.053	110.4	340.8	-9.4	0.382
4-5070	4-5590	0.224	224.9	21.6	3.45	1.375	92.3	0.373	1.154	351.5	812.0	0.723	1.584	-0.47	1.059	110.7	350.0	-5.6	0.390
4-5070	4-5600	0.250	240.7	19.7	3.53	1.377	95.1	0.385	1.164	341.6	811.9	0.715	1.612	-0.49	1.065	111.3	358.8	-1.8	0.403
4-5070	4-5610	0.716	109.2	5.4	3.63	1.287	56.4	0.579	0.909	106.8	586.8	0.383	1.435	-0.53	0.948	55.0	209.1	-12.7	0.571
4-5070	4-5610	0.288	253.0	17.5	3.63	1.380	97.9	0.403	1.175	332.3	812.6	0.702	1.648	-0.53	1.071	112.2	7.4	1.9	0.422
4-5070	4-5620	0.652	112.3	6.4	3.75	1.293	59.7	0.537	0.921	100.4	590.3	0.424	1.416	-0.60	0.959	57.8	216.9	-15.6	0.529
4-5070	4-5620	0.334	262.5	15.5	3.75	1.383	100.7	0.424	1.187	323.5	813.4	0.683	1.690	-0.60	1.078	113.5	15.9	5.4	0.446
4-5070	4-5630	0.592	115.5	7.6	3.91	1.298	62.8	0.498	0.933	93.8	593.7	0.418	1.397	-0.71	0.968	60.4	225.0	-18.3	0.491
4-5070	4-5630	0.385	270.0	13.8	3.91	1.387	103.6	0.450	1.199	315.1	814.9	0.660	1.739	-0.71	1.085	115.0	24.4	8.6	0.475
4-5070	4-5640	0.535	118.8	9.2	4.15	1.353	65.7	0.462	0.944	87.1	596.9	0.508	1.379	-0.92	0.978	62.6	233.4	-21.0	0.456
4-5070	4-5640	0.442	276.1	12.6	4.15	1.390	106.5	0.479	1.213	307.1	816.4	0.632	1.795	-0.92	1.091	116.8	33.0	11.4	0.508
4-5070	4-5650	0.484	122.3	11.7	4.62	1.307	68.5	0.429	0.954	80.2	600.1	0.545	1.363	-1.34	0.986	64.7	242.2	-23.8	0.425
4-5070	4-5650	0.504	281.4	12.1	4.62	1.394	109.6	0.511	1.229	299.5	817.3	0.601	1.856	-1.34	1.098	118.8	41.7	13.6	0.545
4-5070	4-5660	0.442	125.8	16.9	5.96	1.311	71.1	0.399	0.963	73.2	603.1	0.578	1.348	-2.63	0.993	66.5	251.2	-28.4	0.460
4-5070	4-5660	0.574	286.1	13.5	5.96	1.397	112.7	0.545	1.245	292.2	822.1	0.566	1.923	-2.63	1.105	121.0	50.7	14.2	0.587
4-5080	4-5210	0.853	111.2	3.5	3.53	1.164	47.0	0.683	0.715	134.0	204.4	---	1.204	0.51	0.763	53.3	194.3	-5.5	0.582
4-5080	4-5220	0.797	114.3	3.9	3.44	1.186	50.3	0.639	0.743	128.1	208.2	---	1.218	0.89	0.800	55.4	200.2	-7.9	0.552
4-5080	4-5230	0.744	117.4	4.4	3.36	1.206	53.4	0.598	0.771	122.2	212.0	---	1.232	0.48	0.832	57.3	206.6	-10.3	0.525
4-5080	4-5240	0.694	120.5	4.8	3.28	1.224	56.3	0.560	0.797	116.2	215.8	---	1.243	0.48	0.861	59.0	213.3	-12.6	0.499
4-5080	4-5250	0.645	123.5	5.3	3.19	1.239	58.9	0.525	0.821	110.2	219.6	---	1.253	0.51	0.885	60.7	220.4	-14.8	0.476
4-5080	4-5260	0.600	126.5	5.7	3.09	1.252	61.5	0.493	0.845	104.1	223.4	---	1.261	0.55	0.907	62.2	227.8	-16.8	0.454
4-5080	4-5270	0.556	129.5	6.1	2.97	1.264	63.9	0.464	0.867	97.9	227.1	---	1.269	0.62	0.927	63.6	235.6	-18.5	0.434
4-5080	4-5280	0.513	132.7	6.4	2.81	1.275	66.1	0.437	0.887	91.6	230.9	---	1.275	0.73	0.944	64.9	243.8	-19.7	0.416
4-5080	4-5290	0.473	136.0	6.5	2.56	1.284	68.3	0.413	0.906	85.2	234.5	---	1.281	0.94	0.959	66.1	252.3	-20.4	0.399
4-5080	4-5300	0.433	139.5	5.9	2.09	1.292	70.4	0.392	0.924	78.7	238.1	---	1.286	1.36	0.972	67.3	261.0	-20.0	0.384
4-5080	4-5310	0.394	143.4	2.4	0.77	1.300	72.4	0.372	0.941	72.0	241.5	---	1.291	2.63	0.983	68.3	270.0	-17.0	0.373
4-5080	4-5330	0.349	150.9	22.9	6.10	1.312	76.2	0.341	0.970	58.0	247.9	---	1.301	-2.78	1.001	70.1	289.5	-29.8	0.350
4-5080	4-5340	0.307	156.7	20.0	4.67	1.317	78.1	0.328	0.983	50.8	250.8	---	1.306	-1.39	1.008	70.9	298.3	-24.9	0.338
4-5080	4-5350	0.275	163.1	20.2	4.18	1.322	80.0	0.318	0.995	43.2	253.5	---	1.311	-0.95	1.014	71.5	307.3	-21.9	0.330
4-5080	4-5360	0.246	170.8	21.4	3.92	1.326	81.9	0.309	1.006	35.4	255.8	---	1.318	-0.74	1.019	72.0	316.3	-19.0	0.325
4-5080	4-5370	0.221	180.3	23.0	3.75	1.330	83.8	0.304	1.017	27.2	257.8	---	1.325	-0.62	1.022	72.4	325.2	-15.9	0.321
4-5080	4-5380	0.201	192.3	24.7	3.63	1.333	85.7	0.300	1.026	18.7	259.5	---	1.334	-0.55	1.025	72.6	333.9	-12.6	0.319
4-5080	4-5390	0.188	207.2	25.9	3.53	1.336	87.7	0.300	1.035	9.9	260.7	---	1.345	-0.51	1.027	72.7	342.7	-9.0	0.320
4-5080	4-5400	0.185	224.4	25.8	3.44	1.339	89.9	0.303	1.043	0.5	261.4	---	1.359	-0.48	1.028	72.6	351.4	-5.3	0.324
4-5080	4-5410	0.194	242.2	23.8	3.35	1.342	92.2	0.310	1.051	350.7	621.5	0.724	1.377	-0.48	1.029	72.2	0.3	-1.4	0.332
4-5080	4-5420	0.218	258.5	20.5	3.27	1.344	94.8	0.323	1.058	340.3	621.1	0.716	1.399	-0.49	1.029	71.4	9.3	2.5	0.345
4-5080	4-5420	0.582	328.5	5.7	3.27	1.161	118.5	0.477	0.712	239.4	880.1	0.373	1.052	-0.49	0.775	106.4	135.3	15.8	0.328
4-5080	4-5430	0.258	272.4	16.7	3.18	1.347	97.7	0.342	1.065	329.2	619.9	0.701	1.429	-0.51	1.029	70.3	18.8	6.5	0.365
4-5080	4-5430	0.535	328.4	6.2	3.18	1.152	116.2	0.442	0.702	239.7	890.3	0.391	1.012	-0.51	0.757	97.5	125.4	18.0	0.262
4-5080	4-5440	0.315	283.9	13.1	3.08	1.349	101.2	0.378	1.071	317.3	617.7	0.675	1.468	-0.55	1.030	68.6	28.8	10.4	0.395
4-5080	4-5440	0.530	328.7	6.0	3.08	1.148	115.9	0.439	0.697	239.1	899.5	0.391	1.003	-0.55	0.748	90.4	113.7	20.0	0.249
4-5080	4-5450	0.394	293.8	9.8	2.96	1.351	105.4	0.412	1.078	304.3	614.5	0.634	1.522	-0.63	1.030	66.0	39.6	14.0	0.438
4-5080	4-5450	0.553	329.4	5.5	2.96	1.147	117.2	0.458	0.696	237.9	908.0	0.377	1.014	-0.63	0.742	83.3	103.9	21.2	0.277
4-5080	4-5460	0.503	302.9	7.0	2.79	1.353	111.0	0.473	1.084	289.7	609.6	0.572	1.597	-0.74	1.030	62.1	51.6	17.4	0.504
4-5080	4-5460	0.616	330.5	4.5	2.79	1.147	120.1	0.503	0.696	235.5	915.4	0.346	1.048	-0.74	0.738	75.5	99.2	21.8	0.341
4-5080	4-5470	0.712	332.8	3.3	2.55	1.148	125.4	0.581	0.697	231.1	920.7	0.292	1.101	-0.94	0.737	65.8	99.9	21.7	0.446
4-5080	4-5530	0.770	311.4	5.0	4.30	1.140	51.0	0.630	0.688	132.9	879.9	0.254	1.123	1.05	0.718	118.0	243.9	-19.9	0.488
4-5080	4-5540	0.555	141.0	9.0	4.01	1.362	66.2	0.514	1.114	75.5	472.0	0.542	1.687	0.80	1.035	120.5	292.5	-20.5	0.540
4-5080	4-5540	0.648	114.3	6.0	4.01	1.142	57.4	0.541	0.690	127.3	883.8	0.317	1.063	0.80	0.721	107.4	286.8	-20.1	0.370
4-5080	4-5550	0.432	151.0	11.6	3.82	1.364	72.5	0.450	1.121	59.2	465.3	0.616	1.626	0.66	1.039	116.2	305.9	-18.0	0.470
4-5080	4-5550	0.581	115.7	6.6	3.82	1.142	60.9	0.489	0.690	124.6	890.6	0.353	1.028	0.66	0.723	98.7	242.3	-19.4	0.296
4-5080	4-5560	0.344	162.1	14.4	3.69	1.366	77.4	0.410	1.128	44.7	460.3	0.666	1.591	0.58	1.043	113.5	318.0	-14.8	0.428
4-5080	4-5560	0.842	107.1	3.5	3.69	1.103	46.5	0.693	0.651	140.4	916.1	0.208	1.103	0.58	0.662	60.1	191.5	-4.3	0.523
4-5080	4-5560	0.560	115.9	6.6	3.69	1.139	61.9	0.473	0.688	124.1	899.8	0.362	1.013	0.58	0.721	90.2	230.8	-17.0	0.266
4-5080	4-5570	0.281	175.5	17.5	3.58	1.368	81.4	0.386	1.135	31.3	456.6	0.697	1.574	0.53	1.048	111.9	329.1	-11.2	0.403
4-5080	4-5580	0.239	192.1	20.3	3.49	1.370	84.9	0.374	1.143	18.9	453.9	0.716	1.570	0.50	1.052	110.9	339.3	-7.4	0.390
4-5080	4-5590	0.219	211.5	21.9	3.41	1.372	88.0	0.370	1.151	7.4	452.0	0.725	1.577	0.48	1.058	110.5	349.0	-3.4	0.387
4-5080	4-5600	0.219	231.4	21.3	3.32	1.375	90.9	0.374	1.160	356.5	810.9	0.726	1.593	0.48	1.063	110.6	358.3	0.6	0.390
4-5080	4-5610	0.237	248.9	19.1	3.24	1.377	93.8	0.383	1.169	346.3	810.5	0.721	1.617	0.49	1.069	111.0	7.3	4.5	0.401
4-5080	4-5620	0.268	262.9	16.3	3.15	1.380	96.6	0.398	1.179	336.7	810.8	0.710	1.649	0.52	1.075	111.8	16.1	8.2	0.416

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5080	4-5630	0.099	126.2	4.7	3.04	1.290	57.3	0.568	0.919	104.7	588.7	0.396	1.441	0.58	0.960	55.6	228.2	-17.1	0.567
4-5080	4-5630	0.309	273.6	13.5	3.04	1.383	99.4	0.417	1.191	327.7	811.7	0.694	1.687	0.58	1.082	112.9	24.9	11.7	0.437
4-5080	4-5640	0.635	129.4	5.2	2.90	1.295	60.5	0.527	0.931	98.2	592.2	0.440	1.421	0.66	0.970	58.4	236.6	-18.8	0.526
4-5080	4-5640	0.357	282.0	11.1	2.90	1.386	102.2	0.441	1.203	319.1	813.1	0.672	1.733	0.66	1.088	114.3	33.6	15.0	0.463
4-5080	4-5650	0.574	132.7	5.5	2.70	1.300	63.6	0.489	0.942	91.6	595.6	0.481	1.403	0.81	0.979	60.8	245.3	-20.1	0.489
4-5080	4-5650	0.410	288.7	8.9	2.70	1.389	105.1	0.468	1.216	311.0	815.0	0.647	1.785	0.81	1.094	115.9	42.5	18.0	0.493
4-5080	4-5660	0.517	136.2	5.5	2.38	1.305	66.5	0.454	0.953	84.8	598.9	0.520	1.385	1.09	0.987	64.1	254.4	-20.5	0.455
4-5080	4-5660	0.468	294.2	6.7	2.38	1.393	108.1	0.498	1.230	303.3	817.3	0.618	1.843	1.09	1.101	117.8	51.4	20.8	0.527
4-5080	4-5670	0.462	140.0	4.4	1.67	1.309	69.3	0.422	0.962	77.9	602.1	0.556	1.368	1.76	0.995	65.1	263.6	-19.6	0.426
4-5080	4-5670	0.529	299.0	4.1	1.67	1.396	111.2	0.531	1.245	295.9	820.0	0.585	1.906	1.76	1.107	119.9	60.3	23.7	0.565
4-5080	4-5680	0.412	144.1	-4.4	-1.46	1.313	71.8	0.393	0.971	70.7	605.0	0.589	1.353	4.84	1.001	66.9	273.1	-12.4	0.407
4-5080	4-5680	0.594	303.2	-3.1	-1.46	1.400	114.4	0.565	1.262	298.8	823.1	0.549	1.975	4.84	1.113	122.3	68.7	29.6	0.611
4-5090	4-5240	0.803	131.1	3.7	3.25	1.198	50.2	0.640	0.761	1.6.7	210.4	---	1.248	1.39	0.826	54.1	217.2	-13.0	0.572
4-5090	4-5250	0.749	134.2	3.9	3.02	1.216	53.4	0.690	0.788	120.8	214.3	---	1.260	1.38	0.856	56.1	224.1	-14.9	0.544
4-5090	4-5260	0.698	137.2	4.1	2.77	1.233	56.3	0.562	0.813	114.8	218.2	---	1.271	1.42	0.882	58.1	231.4	-16.6	0.518
4-5090	4-5270	0.649	140.2	4.1	2.51	1.247	59.0	0.528	0.838	108.7	222.1	---	1.280	1.50	0.905	59.8	239.0	-18.0	0.494
4-5090	4-5280	0.601	143.3	4.0	2.19	1.260	61.5	0.496	0.861	102.5	225.9	---	1.288	1.65	0.925	61.5	247.0	-18.9	0.471
4-5090	4-5290	0.556	146.4	3.7	1.80	1.271	64.0	0.466	0.883	96.3	229.7	---	1.294	1.90	0.943	63.0	255.3	-19.2	0.450
4-5090	4-5300	0.512	149.6	2.8	1.24	1.281	66.3	0.440	0.903	89.9	233.4	---	1.300	2.32	0.959	64.4	263.8	-18.7	0.432
4-5090	4-5310	0.470	153.0	0.8	0.32	1.290	68.5	0.416	0.922	83.4	237.1	---	1.305	3.11	0.972	65.7	272.4	-16.8	0.416
4-5090	4-5320	0.432	156.5	-4.7	-1.65	1.298	70.6	0.394	0.939	76.7	240.6	---	1.310	4.95	0.984	66.9	280.9	-11.9	0.405
4-5090	4-5330	0.445	157.8	-28.7	-9.88	1.305	72.6	0.376	0.956	70.0	243.9	---	1.315	13.06	0.994	68.0	289.5	6.2	0.441
4-5090	4-5340	0.568	151.1	53.1	21.06	1.311	74.7	0.357	0.971	62.7	247.2	---	1.318	-18.01	1.002	69.1	320.6	-54.9	0.478
4-5090	4-5350	0.367	167.4	30.8	8.44	1.317	76.6	0.343	0.985	55.6	250.1	---	1.323	-5.51	1.009	69.9	313.1	-32.4	0.369
4-5090	4-5360	0.316	174.0	25.9	6.11	1.322	78.6	0.331	0.998	48.2	252.8	---	1.328	-3.30	1.015	70.7	320.1	-25.0	0.352
4-5090	4-5370	0.279	181.1	24.6	5.09	1.326	80.5	0.321	1.010	40.5	255.3	---	1.334	-2.41	1.019	71.3	328.2	-20.1	0.342
4-5090	4-5380	0.248	189.5	24.6	4.49	1.330	82.4	0.314	1.021	32.5	257.4	---	1.341	-1.95	1.022	71.8	336.4	-15.9	0.335
4-5090	4-5390	0.221	199.9	25.2	4.07	1.334	84.4	0.309	1.031	24.2	259.2	---	1.349	-1.68	1.025	72.2	344.7	-11.9	0.330
4-5090	4-5400	0.201	212.8	25.7	3.74	1.337	86.4	0.306	1.040	15.6	260.6	---	1.359	-1.52	1.027	72.3	353.0	-7.9	0.329
4-5090	4-5410	0.189	228.6	25.4	3.47	1.340	88.5	0.307	1.049	6.5	261.5	---	1.371	-1.43	1.028	72.3	1.4	-4.0	0.330
4-5090	4-5420	0.189	246.1	23.6	3.23	1.343	90.7	0.312	1.057	357.0	621.9	0.727	1.386	-1.38	1.029	72.1	10.0	-0.1	0.334
4-5090	4-5430	0.202	263.5	20.3	2.99	1.345	93.1	0.321	1.064	347.0	621.8	0.723	1.406	-1.38	1.029	71.6	18.9	3.8	0.345
4-5090	4-5430	0.624	344.1	4.8	2.99	1.174	120.6	0.509	0.730	239.8	874.5	0.359	1.101	-1.38	0.738	112.0	152.8	8.4	0.386
4-5090	4-5440	0.230	279.0	16.2	2.74	1.348	95.8	0.335	1.072	336.5	621.1	0.712	1.431	-1.42	1.030	70.7	28.2	7.4	0.358
4-5090	4-5440	0.538	343.4	5.3	2.74	1.159	116 4	0.445	0.712	241.1	885.7	0.395	1.028	-1.42	0.767	101.0	143.9	10.2	0.277
4-5090	4-5450	0.275	292.0	12.1	2.48	1.350	99.0	0.357	1.078	325.2	619.5	0.693	1.463	-1.51	1.030	69.4	38.0	10.9	0.380
4-5090	4-5450	0.517	343.6	5.0	2.48	1.154	115.4	0.430	0.706	240.8	895.2	0.402	1.009	-1.51	0.755	93.6	133.3	12.6	0.243
4-5090	4-5460	0.339	302.9	8.5	2.17	1.352	102.7	0.389	1.085	313.0	617.0	0.663	1.507	-1.66	1.030	67.4	48.6	14.0	0.412
4-5090	4-5460	0.526	344.0	4.3	2.17	1.152	115.9	0.438	0.703	240.0	904.0	0.395	1.011	-1.66	0.748	86.9	122.7	15.0	0.251
4-5090	4-5470	0.428	312.5	5.4	1.78	1.354	107.3	0.436	1.092	299.5	613.3	0.616	1.568	-1.91	1.031	64.5	60.1	16.7	0.462
4-5090	4-5470	0.563	344.8	3.2	1.78	1.151	117.8	0.467	0.702	238.3	932.0	0.374	1.030	-1.91	0.744	79.9	115.8	16.5	0.295
4-5090	4-5480	0.551	321.5	2.8	1.25	1.356	113.5	0.505	1.098	284.3	607.6	0.544	1.653	-2.31	1.031	60.0	72.9	18.6	0.536
4-5090	4-5480	0.635	346.4	1.9	1.25	1.151	121.5	0.524	0.703	235.2	918.5	0.335	1.071	-2.31	0.743	71.7	114.0	17.2	0.374
4-5090	4-5490	0.760	349.3	0.5	0.41	1.153	128.0	0.614	0.704	229.6	922.5	0.270	1.139	-3.03	0.743	61.3	117.0	17.1	0.497
4-5090	4-5490	1.007	6.1	0.2	0.41	0.980	144.8	0.835	0.559	203.2	1256.1	0.092	1.026	-3.03	0.428	108.8	175.3	-0.2	0.596
4-5090	4-5550	0.715	129.2	7.1	5.46	1.146	54.2	0.586	0.697	129.3	879.5	0.289	1.105	2.73	0.732	114.4	264.4	-19.3	0.447
4-5090	4-5560	0.507	160.9	12.0	4.75	1.365	69.0	0.489	1.128	68.3	468.1	0.577	1.680	2.15	1.043	118.7	313.3	-13.5	0.518
4-5090	4-5560	0.609	131.7	7.7	4.75	1.148	59.7	0.507	0.698	124.4	884.3	0.345	1.052	2.15	0.736	105.0	265.9	-18.9	0.343
4-5090	4-5570	0.397	171.6	14.4	4.28	1.367	74.7	0.435	1.135	52.4	461.9	0.641	1.629	1.81	1.047	115.1	325.6	-9.8	0.459
4-5090	4-5570	0.551	132.9	7.9	4.28	1.148	62.6	0.462	0.698	122.0	891.5	0.376	1.021	1.81	0.739	97.2	261.5	-18.4	0.278
4-5090	4-5580	0.317	183.9	16.9	3.93	1.369	79.3	0.402	1.142	38.2	457.3	0.683	1.602	1.61	1.052	112.8	336.8	-5.7	0.423
4-5090	4-5580	0.613	124.3	4.0	3.93	1.111	48.3	0.670	0.660	138.3	917.4	0.218	1.102	1.61	0.684	61.0	209.0	-9.9	0.506
4-5090	4-5580	0.535	133.1	7.5	3.93	1.145	63.4	0.450	0.696	121.8	900.9	0.383	1.009	1.61	0.736	89.2	249.4	-17.4	0.254
4-5090	4-5590	0.262	199.0	19.2	3.64	1.371	83.1	0.384	1.150	25.0	453.8	0.709	1.591	1.48	1.057	111.5	347.2	-1.6	0.403
4-5090	4-5600	0.229	217.3	20.6	3.38	1.373	86.5	0.376	1.157	12.9	451.5	0.723	1.592	1.41	1.062	110.8	357.1	2.6	0.394
4-5090	4-5610	0.218	237.4	20.3	3.14	1.375	89.6	0.376	1.166	1.6	450.0	0.728	1.604	1.38	1.068	110.6	6.6	6.7	0.393
4-5090	4-5620	0.226	256.4	18.0	2.90	1.378	92.5	0.383	1.174	351.1	809.3	0.725	1.624	1.39	1.074	110.8	15.9	10.5	0.399
4-5090	4-5630	0.251	272.0	14.7	2.65	1.380	95.3	0.395	1.184	341.2	809.4	0.717	1.652	1.45	1.080	111.5	25.0	14.2	0.412
4-5090	4-5640	0.287	284.2	11.4	2.37	1.383	98.1	0.412	1.195	331.9	810.1	0.703	1.687	1.56	1.086	112.4	34.2	17.6	0.430
4-5090	4-5650	0.681	143.3	3.3	2.02	1.293	58.3	0.557	0.928	102.5	590.6	0.411	1.446	1.75	0.971	56.3	248.2	-19.4	0.563
4-5090	4-5650	0.331	293.6	8.3	2.02	1.386	100.9	0.433	1.206	323.2	811.4	0.684	1.729	1.75	1.091	115.6	43.4	20.7	0.452
4-5090	4-5660	0.617	146.6	2.9	1.56	1.298	61.5	0.517	0.940	95.9	594.2	0.454	1.426	2.07	0.980	59.0	257.0	-19.6	0.524
4-5090	4-5660	0.381	301.0	5.5	1.56	1.389	103.8	0.458	1.219	314.9	813.2	0.660	1.777	2.07	1.097	115.1	52.8	23.5	0.479
4-5090	4-5670	0.557	150.0	1.8	0.87	1.303	64.5	0.480	0.951	89.2	597.6	0.495	1.407	2.63	0.988	61.4	266.0	-18.7	0.488
4-5090	4-5670	0.437	307.1	2.6	0.87	1.392	106.7	0.486	1.232	307.1	815.4	0.633	1.831	2.63	1.103	116.9	62.1	26.1	0.511
4-5090	4-5680	0.500	153.5	-0.9	-0.39	1.307	67.4	0.445	0.961	82.3	600.8	0.533	1.389	3.76	0.996	63.6	275.0	-16.0	0.458
4-5090	4-5680	0.496	312.3	-1.0	-0.39	1.395	109.7	0.517	1.247	299.6	818.1	0.602	1.891	3.76	1.109	118.9	71.5	29.1	0.548
4-5090	4-5690	0.454	157.1	-10.2	-3.75	1.311	70.1	0.414	0.971	75.3	603.9	0.569	1.373	6.99	1.002	65.5	283.8	-8.2	0.440
4-5090	4-5690	0.565	317.0	-8.6	-3.75	1.399	112.8	0.550	1.262	292.4	821.0	0.568	1.957	6.99	1.114	121.1	80.6	34.4	0.595
4-5100	4-5390	0.276	199.5	25.9	5.27	1.331	81.0	0.325	1.024	37.5	256.7	---	1.357	-3.44	1.022	71.1	347.8	-15.5	0.352
4-5100	4-5400	0.244	208.6	25.1	4.48	1.334	83.0	0.318	1.035	29.4	258.6	---	1.364	-2.87	1.024	71.6	355.4	-10.8	0.344
4-5100	4-5410	0.218	219.8	24.6	3.90	1.338	85.0	0.314	1.045	21.0	260.2	---	1.373	-2.53	1.026	71.9	3.3	-6.5	0.339
4-5100	4-5420	0.198	233.7	23.9	3.44	1.341	87.1	0.313	1.054	12.3	261.4	---	1.384	-2.32	1.028	72.0	11.4	-2.4	0.337
4-5100	4-5430	0.188	250.0	22.2	3.03	1.344	89.3	0.315	1.063	3.1	262.1	---	1.397	-2.21	1.029	71.9	19.8	1.5	0.339
4-5100	4-5440	0.191	267.5	19.0	2.66	1.346	91.6	0.321	1.071	353.5	622.3	0.727	1.414	-2.17	1.029	71.6	28.5	5.1	0.344
4-5100	4-5450	0.209	284.3	14.9	2.28	1.349	94.1	0.332	1.078	343.4	622.0	0.721	1.436	-2.20	1.030	71.0	37.6	8.4	0.353
4-5100	4-5460	0.243	298.9	10.5	1.89	1.351	97.0	0.348	1.085	332.7	621.0	0.707	1.463	-2.29	1.030	70.0	47.3	11.4	0.369
4-5100	4-5460	0.511	358.4	3.9	1.89	1.161	115.2	0.425	0.714	242.5	890.8	0.410	1.018	-2.29	0.764	96.7	151.6	4.1	0.247
4-5100	4-5470	0.295	311.2	6.6	1.46	1.353	100.3	0.373	1.092	321.2	619.2	0.685	1.500	-2.46	1.031	68.5	57.6	14.0	0.394
4-5100	4-5470	0.506	358.7	3.0	1.46	1.157	115.0	0.423	0.711	242.0	899.9	0.410	1.011	-2.46	0.756	90.1	141.1	7.0	0.237

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5100	4-5480	0.527	359.3	1.9	0.94	1.156	116.1	0.440	0.709	240.8	908.3	0.397	1.021	-2.74	0.751	83.6	132.5	9.6	0.262
4-5100	4-5590	0.521	150.3	0.5	4.25	1.154	64.3	0.434	0.706	119.3	892.3	0.400	1.013	2.72	0.756	95.8	280.1	-15.3	0.261
4-5100	4-5600	0.292	206.7	17.6	3.73	1.372	81.2	0.397	1.156	31.4	454.2	0.698	1.615	2.44	1.062	112.2	354.9	4.1	0.419
4-5100	4-5600	0.509	150.3	7.6	3.73	1.152	64.8	0.427	0.704	119.4	902.1	0.404	1.004	2.44	0.756	88.4	267.6	-15.8	0.243
4-5100	4-5610	0.245	223.6	18.7	3.29	1.374	84.9	0.383	1.164	18.6	451.2	0.718	1.610	2.28	1.067	111.1	5.1	8.3	0.403
4-5100	4-5620	0.221	243.2	18.3	2.90	1.376	88.1	0.380	1.172	6.9	449.3	0.727	1.617	2.19	1.073	110.7	15.0	12.4	0.398
4-5100	4-5630	0.219	263.0	16.1	2.52	1.378	91.1	0.383	1.180	355.9	803.3	0.728	1.632	2.17	1.078	110.8	24.7	16.2	0.400
4-5100	4-5640	0.236	280.4	12.6	2.14	1.381	94.0	0.393	1.189	345.3	808.1	0.722	1.657	2.22	1.084	111.2	34.4	19.6	0.409
4-5100	4-5650	0.267	294.1	8.9	1.72	1.385	96.8	0.408	1.199	336.1	808.6	0.710	1.688	2.35	1.089	112.0	44.2	22.7	0.423
4-5150	4-5470	0.295	277.0	9.3	2.06	1.352	79.9	0.366	1.076	38.	257.6	---	1.469	-4.75	1.024	68.8	59.9	8.7	0.393
4-5150	4-5480	0.262	284.7	5.1	1.00	1.355	81.9	0.358	1.087	31.3	259.6	---	1.477	-3.98	1.027	69.4	67.9	11.7	0.379
4-5150	4-5490	0.234	294.1	1.3	0.22	1.359	83.9	0.353	1.097	23.4	261.3	---	1.485	-3.51	1.030	69.8	76.3	13.6	0.370
4-5150	4-5500	0.212	305.7	-2.6	-0.41	1.361	86.0	0.351	1.107	15.3	262.8	---	1.495	-3.22	1.032	70.0	85.2	14.7	0.363
4-5150	4-5510	0.199	319.6	-6.6	-0.96	1.364	88.2	0.351	1.116	6.9	263.9	---	1.507	-3.05	1.035	70.1	94.3	15.1	0.360
4-5150	4-5520	0.197	335.7	-10.2	-1.46	1.366	90.5	0.355	1.124	358.1	624.6	0.725	1.523	-2.97	1.038	69.9	103.7	14.7	0.360
4-5150	4-5520	0.494	73.6	-3.2	-1.46	1.199	114.3	0.414	0.758	251.1	877.6	0.444	1.071	-2.97	0.805	104.3	231.6	-27.1	0.289
4-5150	4-5530	0.209	352.5	-12.9	-1.96	1.369	93.0	0.362	1.132	348.8	624.8	0.722	1.541	-2.99	1.041	69.5	113.3	13.6	0.365
4-5150	4-5530	0.449	73.2	-4.8	-1.96	1.191	112.1	0.378	0.747	252.0	888.0	0.465	1.030	-2.99	0.794	97.1	222.7	-27.4	0.225
4-5150	4-5540	0.237	8.4	-14.4	-2.47	1.371	95.7	0.375	1.139	338.9	624.4	0.712	1.565	-3.08	1.044	68.9	123.1	11.7	0.375
4-5150	4-5540	0.437	73.3	-6.3	-2.47	1.188	111.5	0.368	0.743	251.9	897.4	0.470	1.016	-3.08	0.789	91.5	211.8	-25.7	0.203
4-5150	4-5550	0.282	22.4	-14.7	-3.04	1.373	98.8	0.393	1.146	328.2	623.3	0.695	1.596	-3.28	1.048	67.7	133.2	9.1	0.394
4-5150	4-5550	0.446	73.8	-7.5	-3.04	1.186	111.9	0.374	0.741	251.1	906.2	0.464	1.018	-3.28	0.789	86.3	201.7	-22.5	0.209
4-5150	4-5560	0.474	74.7	-8.5	-3.70	1.186	113.2	0.395	0.741	249.5	914.2	0.448	1.033	-3.61	0.790	81.1	195.5	-19.4	0.241
4-5150	4-5570	0.526	76.1	-9.3	-4.54	1.186	115.7	0.414	0.741	246.8	921.1	0.419	1.063	-4.15	0.793	75.3	193.8	-17.5	0.298
4-5150	4-5670	0.446	235.8	1.4	0.57	1.189	68.6	0.366	0.745	107.6	881.0	0.472	1.017	3.70	0.828	100.3	10.8	17.3	0.261
4-5150	4-5680	0.273	293.3	-0.8	-0.16	1.389	82.9	0.416	1.209	24.4	447.8	0.707	1.712	3.32	1.097	112.2	76.8	30.9	0.426
4-5150	4-5680	0.407	237.0	-0.8	-0.16	1.189	70.5	0.335	0.745	105.2	888.7	0.496	0.994	3.32	0.830	95.6	7.1	16.1	0.215
4-5150	4-5690	0.235	311.4	-4.4	-0.77	1.391	86.5	0.407	1.216	12.0	445.6	0.721	1.712	3.09	1.100	111.5	89.8	31.2	0.411
4-5150	4-5690	0.393	237.4	-2.2	-0.77	1.189	71.2	0.323	0.744	104.6	898.2	0.504	0.984	3.09	0.830	90.8	358.1	15.9	0.394
4-5150	4-5700	0.223	330.9	-8.3	-1.32	1.393	89.8	0.407	1.224	0.8	444.6	0.725	1.722	2.99	1.103	111.3	102.1	30.6	0.406
4-5150	4-5700	0.420	236.0	-3.5	-1.32	1.185	69.9	0.344	0.739	107.3	911.1	0.484	0.993	2.99	0.825	84.3	343.4	5.2	0.218
4-5150	4-5710	0.232	349.3	-11.2	-1.85	1.395	92.7	0.413	1.232	350.7	804.6	0.723	1.741	2.98	1.105	111.6	113.7	29.3	0.409
4-5150	4-5720	0.258	4.7	-13.0	-2.39	1.397	95.5	0.424	1.241	341.3	805.4	0.714	1.767	3.06	1.108	112.3	124.6	27.4	0.418
4-5150	4-5730	0.295	17.0	-14.1	-2.99	1.399	98.3	0.440	1.250	332.6	806.9	0.701	1.800	3.26	1.109	113.2	134.8	25.1	0.433
4-5200	4-5570	0.289	6.3	-19.4	-4.02	1.381	81.7	0.396	1.147	29.6	263.7	---	1.601	1.39	1.052	67.6	155.4	14.0	0.389
4-5200	4-5580	0.261	15.9	-20.2	-3.76	1.384	83.9	0.391	1.156	22.1	265.8	---	1.608	1.25	1.057	68.1	163.6	10.5	0.380
4-5200	4-5590	0.238	27.8	-21.0	-3.54	1.386	86.1	0.388	1.165	14.2	267.6	---	1.617	1.17	1.063	68.5	171.9	6.9	0.375
4-5200	4-5590	0.405	148.4	-10.2	-3.54	1.226	109.2	0.327	0.782	263.9	877.3	0.519	1.046	1.17	0.842	100.7	306.3	-15.1	0.239
4-5200	4-5600	0.223	42.4	-21.2	-3.34	1.389	88.4	0.388	1.173	5.8	269.0	---	1.629	1.13	1.068	68.7	180.3	3.1	0.373
4-5200	4-5600	0.369	147.8	-10.6	-3.34	1.230	107.5	0.308	0.774	265.2	888.4	0.536	1.013	1.13	0.837	95.1	299.0	-15.6	0.187
4-5200	4-5610	0.220	59.1	-20.3	-3.14	1.391	90.9	0.391	1.181	357.0	629.9	0.719	1.643	1.13	1.073	68.6	189.1	-0.7	0.375
4-5200	4-5610	0.357	147.8	-10.3	-3.14	1.218	107.0	0.299	0.771	265.3	898.3	0.540	1.001	1.13	0.837	90.7	288.9	-16.5	0.165
4-5200	4-5620	0.233	76.5	-17.9	-2.95	1.392	93.6	0.399	1.188	347.3	630.2	0.714	1.462	1.15	1.078	68.3	198.3	-4.5	0.383
4-5200	4-5620	0.361	148.1	-9.5	-2.95	1.217	107.2	0.302	0.769	264.6	907.4	0.537	1.001	1.15	0.839	86.8	278.5	-17.4	0.168
4-5200	4-5630	0.264	92.9	-14.5	-2.73	1.394	96.7	0.412	1.195	336.8	629.5	0.702	1.687	1.22	1.083	67.5	208.1	-8.3	0.398
4-5200	4-5630	0.379	148.8	-8.4	-2.73	1.216	108.1	0.317	0.769	262.9	915.7	0.525	1.012	1.22	0.842	83.0	271.2	-18.1	0.191
4-5200	4-5640	0.478	150.1	-6.9	-2.48	1.217	109.8	0.345	0.769	260.3	923.1	0.504	1.034	1.34	0.846	78.8	268.4	-18.7	0.233
4-5200	4-5650	0.469	151.9	-5.2	-2.16	1.217	112.6	0.389	0.770	256.4	929.2	0.470	1.070	1.53	0.850	74.0	269.6	-19.2	0.295
4-5200	4-5750	0.430	319.7	-10.8	-4.01	1.222	70.1	0.348	0.777	98.2	872.5	0.507	1.048	-1.38	0.858	103.1	106.7	18.0	0.253
4-5200	4-5760	0.291	15.2	-18.3	-3.74	1.409	83.0	0.442	1.258	22.8	447.2	0.702	1.815	-1.25	1.106	113.4	161.2	4.8	0.425
4-5200	4-5760	0.385	321.6	-11.4	-3.74	1.223	72.3	0.312	0.779	94.3	878.6	0.535	1.022	-1.25	0.857	99.1	107.4	17.3	0.205
4-5200	4-5770	0.255	32.9	-19.8	-3.52	1.411	86.6	0.435	1.265	11.3	445.7	0.715	1.816	-1.17	1.106	112.8	181.3	0.6	0.413
4-5200	4-5770	0.356	322.9	-11.7	-3.52	1.223	73.7	0.291	0.779	91.7	886.1	0.552	1.005	-1.17	0.854	95.6	103.8	17.0	0.171
4-5200	4-5780	0.242	51.7	-19.7	-3.31	1.412	89.7	0.435	1.273	0.9	445.2	0.719	1.826	-1.13	1.105	112.7	180.9	-3.4	0.411
4-5200	4-5780	0.345	325.3	-11.4	-3.31	1.223	76.2	0.282	0.778	90.9	895.2	0.559	0.997	-1.13	0.850	91.9	94.4	17.2	0.156
4-5200	4-5790	0.248	69.3	-18.0	-3.12	1.414	92.6	0.440	1.281	351.4	805.6	0.717	1.845	-1.13	1.105	113.0	190.0	-7.3	0.416
4-5200	4-5790	0.361	322.1	-10.1	-3.12	1.220	73.3	0.295	0.774	93.4	907.6	0.546	1.003	-1.13	0.843	86.8	77.7	17.4	0.172
4-5200	4-5800	0.269	84.2	-15.5	-2.92	1.416	95.4	0.450	1.289	342.6	806.7	0.709	1.870	-1.16	1.105	113.6	198.9	-11.0	0.427
4-5250	4-5650	0.349	223.2	-7.0	-2.02	1.245	105.9	0.295	0.813	276.1	867.8	0.573	1.054	4.25	0.889	101.8	5.4	18.7	0.250
4-5250	4-5660	0.281	91.2	-5.8	-1.18	1.395	81.7	0.423	1.203	28.3	270.0	---	1.711	3.79	1.092	67.1	239.4	-11.1	0.419
4-5250	4-5660	0.297	221.6	-4.8	-1.18	1.237	103.5	0.254	0.802	279.5	881.3	0.598	1.006	3.79	0.882	96.1	358.0	19.3	0.183
4-5250	4-5670	0.251	102.1	-2.7	-0.48	1.398	84.1	0.417	1.212	20.3	272.1	---	1.717	3.51	1.097	67.7	248.4	-13.2	0.412
4-5250	4-5670	0.279	221.1	-2.1	-0.48	1.235	102.7	0.240	0.797	280.5	892.3	0.606	0.989	3.51	0.880	92.4	349.1	17.7	0.154
4-5250	4-5680	0.230	115.7	0.9	0.15	1.400	86.6	0.414	1.220	11.8	273.8	---	1.725	3.37	1.101	68.1	257.9	-14.5	0.408
4-5250	4-5680	0.277	221.2	0.6	0.15	1.233	102.7	0.238	0.795	280.2	902.2	0.606	0.985	3.37	0.880	89.3	340.1	13.9	0.147
4-5250	4-5690	0.221	132.3	4.7	0.74	1.401	89.2	0.414	1.228	2.6	274.8	---	1.737	3.34	1.104	68.3	267.9	-15.0	0.410
4-5250	4-5690	0.287	221.9	3.1	0.74	1.233	103.1	0.245	0.795	278.9	911.0	0.600	0.990	3.34	0.880	86.5	333.5	9.5	0.157
4-5250	4-5700	0.231	150.6	8.2	1.35	1.403	92.2	0.410	1.236	352.7	635.0	0.716	1.753	3.42	1.107	68.1	278.2	-14.8	0.417
4-5250	4-5700	0.307	223.0	5.2	1.35	1.233	104.1	0.260	0.795	276.6	918.9	0.588	1.002	3.42	0.881	83.6	330.7	6.0	0.180
4-5250	4-5710	0.262	168.8	10.7	2.00	1.405	95.5	0.430	1.243	341.6	634.1	0.709	1.777	3.61	1.109	67.4	289.0	-13.6	0.433
4-5250	4-5710	0.340	224.7	7.0	2.09	1.234	105.6	0.284	0.796	273.3	925.8	0.570	1.022	3.61	0.882	80.6	321.2	3.9	0.216
4-5250	4-5720	0.388	226.8	8.4	2.76	1.235	107.8	0.320	0.798	269.0	931.6	0.542	1.053	3.97	0.882	77.0	334.3	3.3	0.265
4-5250	4-5830	0.435	43.1	-5.3	-1.98	1.242	69.3	0.368	0.810	94.2	866.4	0.512	1.108	-4.23	0.844	106.4	187.5	-16.5	0.289
4-5250	4-5840	0.377	46.0	-3.7	-1.17	1.244	72.1	0.325	0.812	88.5	870.3	0.548	1.076	-3.79	0.863	102.7	191.9	-19.8	0.238
4-5250	4-5850	0.261	109.4	-2.8	-0.51	1.421	85.1	0.459	1.315	15.6	447.0	0.712	1.919	-3.52	1.101	114.1	247.4	-29.9	0.445
4-5250	4-5850	0.334	48.4	-1.8	-0.51	1.245	74.2	0.294	0.813	83.8	875.1	0.574	1.053	-3.52	0.862	99.6	194.7	-22.8	0.199
4-5300	4-5430	0.589	224.2	5.7	3.37	1.131	119.1	0.490	0.678	233.6	531.7	0.346	---	-0.04	0.724	97.8	123.5	19.8	0.294
4-5300	4-5440	0.595	325.1	5.5	3.36	1.123	119.5	0.497	0.670	232.1	540.0	0.337	---	-0.05	0.708	90.0	113.4	21.6	0.289
4-5300	4-5710	0.311	297.4	11.6	3.45	1.253	103.5	0.270	0.844	286.7	859.1	0.616	1.072	-0.07	0.922	102.5	77.8	22.7	0.230
4-5300	4-5720	0.247	293.7	17.3	3.44	1.244	100.4	0.217	0.828	293.5	876.1	0.649	1.007	-0.06	0.908	96.3	67.5	21.5	0.147

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5300	4-5730	0.231	292.7	18.4	3.42	1.241	99.6	0.203	0.823	295.3	888.0	0.656	0.991	-0.05	0.903	93.0	56.9	19.6	0.120
4-5300	4-5740	0.229	292.8	18.5	3.41	1.240	99.5	0.201	0.822	295.2	898.0	0.656	0.987	-0.04	0.900	90.5	46.3	17.1	0.114
4-5300	4-5750	0.277	181.3	17.3	3.41	1.400	83.6	0.436	1.260	21.3	274.3	---	1.808	-0.04	1.109	67.2	330.7	-12.1	0.442
4-5300	4-5750	0.236	293.6	17.9	3.41	1.240	99.9	0.206	0.821	293.7	906.7	0.652	0.990	-0.04	0.897	88.3	38.6	14.8	0.121
4-5300	4-5760	0.255	195.1	19.0	3.40	1.402	86.2	0.432	1.269	12.5	275.5	---	1.816	-0.04	1.109	67.6	339.6	-8.7	0.437
4-5300	4-5760	0.249	294.9	16.9	3.40	1.240	100.6	0.216	0.822	291.3	914.4	0.644	0.999	-0.04	0.895	86.1	34.9	13.7	0.138
4-5300	4-5770	0.245	211.8	19.8	3.39	1.404	89.1	0.431	1.277	3.1	276.1	---	1.828	-0.04	1.109	67.7	348.5	-5.1	0.437
4-5300	4-5770	0.269	296.6	15.5	3.39	1.240	101.6	0.232	0.823	288.1	921.1	0.632	1.014	-0.04	0.893	83.9	34.7	13.7	0.162
4-5300	4-5780	0.253	230.4	19.2	3.39	1.406	92.2	0.436	1.285	352.9	635.8	0.725	1.845	-0.04	1.109	67.4	357.6	-1.1	0.442
4-5300	4-5780	0.298	298.7	13.9	3.39	1.241	103.0	0.254	0.824	284.1	927.1	0.615	1.033	-0.04	0.891	81.5	37.1	14.5	0.192
4-5300	4-5790	0.282	248.5	17.0	3.38	1.407	95.7	0.447	1.292	341.6	634.5	0.715	1.869	-0.04	1.108	66.7	7.1	3.0	0.455
4-5300	4-5790	0.336	301.2	12.2	3.38	1.242	105.0	0.283	0.826	279.4	932.3	0.592	1.060	-0.04	0.890	78.8	41.5	15.9	0.229
4-5300	4-5800	0.388	304.0	10.4	3.37	1.244	107.5	0.323	0.828	273.7	936.5	0.560	1.096	-0.04	0.888	75.4	47.3	17.5	0.277
4-5350	4-5480	0.490	34.4	1.7	0.75	1.193	114.1	0.409	0.755	250.5	518.1	0.446	---	-3.34	0.806	103.8	190.7	-14.7	0.279
4-5350	4-5490	0.469	35.0	0.4	0.19	1.183	113.2	0.394	0.741	249.2	526.3	0.449	---	-3.37	0.789	98.6	185.8	-14.6	0.239
4-5350	4-5500	0.463	35.6	-0.9	-0.40	1.176	112.9	0.389	0.735	248.1	534.7	0.448	---	-3.49	0.778	93.4	178.2	-12.9	0.218
4-5350	4-5510	0.471	36.3	-2.4	-1.04	1.173	113.3	0.396	0.729	246.9	543.0	0.440	1.017	-3.72	0.772	88.0	169.7	-9.8	0.222
4-5350	4-5520	0.497	37.1	-3.9	-1.80	1.170	114.6	0.416	0.727	245.8	551.0	0.424	1.030	-4.11	0.769	82.4	163.3	-6.5	0.251
4-5350	4-5630	0.476	194.1	7.2	3.18	1.175	66.9	0.392	0.731	112.5	520.9	0.444	1.017	4.22	0.801	99.3	329.9	1.1	0.267
4-5350	4-5640	0.440	195.1	5.9	2.36	1.174	68.6	0.364	0.730	110.8	533.2	0.465	0.996	3.77	0.804	93.9	324.6	0.3	0.225
4-5350	4-5650	0.447	194.2	4.1	1.67	1.169	68.2	0.371	0.723	112.7	548.5	0.455	0.992	3.51	0.799	87.0	310.0	-5.2	0.221
4-5350	4-5780	0.245	3.1	45.9	8.11	1.255	97.4	0.194	0.853	319.1	675.2	0.687	1.018	-8.21	0.914	95.6	116.6	-25.4	0.182
4-5350	4-5790	0.200	359.1	37.2	5.58	1.253	96.7	0.183	0.849	313.6	887.5	0.693	1.004	-6.00	0.907	92.8	109.5	-20.8	0.140
4-5350	4-5800	0.183	358.4	29.0	4.10	1.252	96.7	0.183	0.847	313.4	897.1	0.693	1.002	-4.84	0.905	90.7	103.1	-15.1	0.124
4-5350	4-5810	0.180	359.4	21.8	3.08	1.252	97.1	0.186	0.847	311.6	905.1	0.689	1.006	-4.16	0.900	88.8	98.6	-9.2	0.122
4-5350	4-5820	0.185	1.3	15.5	2.29	1.253	97.7	0.194	0.848	309.0	912.1	0.684	1.013	-3.74	0.898	87.1	96.8	-3.8	0.129
4-5350	4-5830	0.284	260.1	8.1	1.63	1.409	83.6	0.455	1.309	20.6	273.5	---	1.906	-3.50	1.103	66.1	46.5	9.6	0.464
4-5350	4-5830	0.197	3.6	10.3	1.63	1.253	98.4	0.204	0.850	305.6	918.4	0.676	1.023	-3.50	0.896	85.4	97.4	0.5	0.141
4-5350	4-5840	0.259	273.0	5.7	1.04	1.411	86.2	0.452	1.318	12.2	274.7	---	1.914	-3.37	1.104	66.5	55.2	11.9	0.456
4-5350	4-5840	0.215	6.3	6.0	1.04	1.254	99.4	0.218	0.851	301.6	924.1	0.666	1.036	-3.37	0.895	83.7	100.1	3.7	0.158
4-5350	4-5850	0.245	288.5	2.8	0.48	1.412	89.0	0.452	1.327	3.2	275.3	---	1.926	-3.34	1.104	66.6	84.3	13.7	0.452
4-5350	4-5850	0.239	9.3	2.5	0.48	1.255	100.7	0.235	0.853	297.2	929.2	0.655	1.053	-3.34	0.895	81.8	104.3	5.9	0.379
4-5350	4-5860	0.249	305.7	-0.5	-0.09	1.414	92.0	0.456	1.335	353.6	635.2	0.726	1.943	-3.41	1.105	66.5	74.0	14.9	0.453
4-5350	4-5860	0.269	12.3	-0.4	-0.09	1.256	102.2	0.257	0.855	292.2	933.8	0.635	1.075	-3.41	0.895	79.7	109.7	7.3	0.205
4-5350	4-5870	0.273	323.1	-3.6	-0.69	1.415	95.3	0.465	1.342	343.2	634.3	0.718	1.966	-3.58	1.106	65.9	84.2	15.5	0.461
4-5350	4-5870	0.309	15.6	-2.7	-0.69	1.258	106.2	0.285	0.857	286.7	937.9	0.613	1.101	-3.58	0.895	77.3	116.0	7.8	0.237
4-5350	4-5880	0.360	19.9	-4.6	-1.38	1.259	106.6	0.322	0.859	280.5	941.1	0.583	1.136	-3.88	0.896	74.4	123.0	7.5	0.278
4-5400	4-5530	0.389	104.2	-7.2	-2.36	1.246	108.4	0.336	0.822	271.7	507.3	0.546	---	-1.44	0.867	104.2	256.1	-27.5	0.260
4-5400	4-5540	0.364	104.7	-8.5	-2.63	1.236	107.3	0.313	0.804	270.8	515.9	0.552	---	-1.31	0.852	100.2	256.1	-28.0	0.214
4-5400	4-5550	0.349	105.1	-9.7	-2.85	1.228	106.6	0.299	0.793	270.0	524.7	0.556	---	-1.23	0.843	96.6	252.7	-28.3	0.180
4-5400	4-5560	0.343	105.6	-10.5	-3.06	1.224	106.3	0.292	0.786	269.2	533.4	0.557	---	-1.20	0.838	92.7	245.5	-27.9	0.159
4-5400	4-5570	0.345	106.1	-11.1	-3.26	1.221	106.5	0.293	0.782	268.2	542.1	0.553	1.011	-1.19	0.837	89.2	235.9	-26.4	0.154
4-5400	4-5580	0.356	106.8	-11.4	-3.47	1.220	107.0	0.301	0.781	266.9	550.4	0.546	1.016	-1.22	0.838	85.6	227.3	-24.1	0.165
4-5400	4-5590	0.379	107.8	-11.4	-3.69	1.220	108.1	0.318	0.781	264.9	558.2	0.532	1.030	-1.29	0.841	81.9	222.3	-22.1	0.192
4-5400	4-5600	0.416	109.2	-11.0	-3.95	1.221	109.9	0.348	0.782	262.2	565.1	0.510	1.054	-1.42	0.845	77.8	221.2	-21.2	0.236
4-5400	4-5610	0.474	111.2	-10.2	-4.28	1.223	112.7	0.392	0.785	258.2	570.9	0.477	1.093	-1.62	0.851	73.1	223.6	-21.3	0.297
4-5400	4-5710	0.404	283.6	-6.7	-2.30	1.235	71.4	0.332	0.804	91.7	505.2	0.536	1.071	1.48	0.888	104.6	72.1	27.7	0.273
4-5400	4-5720	0.349	286.7	-8.9	-2.59	1.237	74.2	0.290	0.807	85.3	509.0	0.573	1.041	1.33	0.891	101.3	77.9	28.2	0.222
4-5400	4-5730	0.309	289.3	-11.1	-2.83	1.239	76.2	0.260	0.810	79.8	513.6	0.599	1.021	1.24	0.892	98.6	82.0	29.2	0.184
4-5400	4-5740	0.281	291.6	-13.3	-3.05	1.241	77.7	0.239	0.813	75.2	519.2	0.618	1.007	1.20	0.893	96.2	83.5	30.2	0.155
4-5400	4-5750	0.263	293.3	-15.3	-3.26	1.242	78.7	0.225	0.814	71.8	525.9	0.631	0.997	1.19	0.894	94.0	80.9	31.2	0.133
4-5400	4-5760	0.423	279.6	-9.4	-3.48	1.214	70.3	0.342	0.771	99.6	563.7	0.508	1.034	1.23	0.849	78.7	21.0	13.2	0.253
4-5400	4-5760	0.259	293.5	-16.6	-3.48	1.241	79.0	0.220	0.813	71.2	535.3	0.634	0.992	1.23	0.888	91.3	70.2	31.1	0.123
4-5400	4-5830	0.293	42.9	-75.9	-12.90	1.273	91.9	0.174	0.871	347.4	880.4	0.720	1.022	9.79	0.912	94.0	201.2	53.8	0.188
4-5400	4-5830	0.340	83.3	-57.0	-12.90	1.290	98.0	0.244	0.905	317.1	859.1	0.684	1.126	9.79	0.936	102.5	215.8	24.8	0.261
4-5400	4-5850	0.108	31.8	27.4	2.25	1.271	93.6	0.169	0.867	348.8	901.2	0.720	1.014	-5.55	0.905	89.8	134.7	-30.7	0.123
4-5400	4-5860	0.101	37.0	-2.8	-0.22	1.272	92.1	0.172	0.868	345.8	907.7	0.719	1.017	-3.19	0.904	88.4	138.6	-15.2	0.102
4-5400	4-5870	0.110	43.5	-14.4	-1.24	1.273	92.7	0.175	0.869	342.1	913.5	0.717	1.022	-2.28	0.905	87.2	141.5	-6.7	0.102
4-5400	4-5880	0.121	50.3	-19.4	-1.81	1.274	93.3	0.181	0.871	337.8	918.8	0.714	1.029	-1.81	0.905	86.0	144.9	-2.3	0.108
4-5400	4-5890	0.134	57.0	-21.3	-2.20	1.275	94.1	0.187	0.873	333.2	923.8	0.710	1.036	-1.54	0.907	84.8	149.1	-0.2	0.117
4-5400	4-5900	0.149	63.3	-21.8	-2.49	1.276	95.0	0.195	0.875	328.4	928.4	0.705	1.046	-1.37	0.909	83.6	154.0	0.4	0.129
4-5400	4-5910	0.167	69.1	-21.3	-2.74	1.277	96.0	0.205	0.877	323.2	932.8	0.698	1.057	-1.27	0.911	82.4	159.5	-0.1	0.142
4-5400	4-5920	0.286	346.0	-14.8	-2.95	1.428	85.0	0.478	1.366	15.6	274.8	---	2.019	-1.21	1.114	65.4	133.4	14.7	0.456
4-5400	4-5920	0.187	76.5	-20.4	-2.95	1.278	97.2	0.217	0.879	317.7	936.9	0.689	1.070	-1.21	0.914	81.0	165.4	-1.3	0.158
4-5400	4-5930	0.263	359.8	-17.0	-3.15	1.429	87.7	0.476	1.375	7.3	276.1	---	2.020	-1.19	1.117	65.7	142.2	12.0	0.449
4-5400	4-5930	0.212	79.6	-19.1	-3.15	1.279	98.5	0.232	0.882	311.9	940.7	0.677	1.086	-1.19	0.917	79.6	171.8	-3.0	0.178
4-5400	4-5940	0.264	16.1	-18.5	-3.36	1.431	90.5	0.478	1.382	358.3	636.8	0.722	2.043	-1.20	1.121	65.4	151.2	8.9	0.448
4-5400	4-5940	0.242	84.4	-17.7	-3.36	1.280	100.1	0.251	0.884	305.7	944.2	0.662	1.106	-1.20	0.921	77.7	178.5	-5.2	0.201
4-5400	4-5950	0.277	33.7	-18.7	-3.57	1.432	93.7	0.484	1.390	348.6	636.7	0.717	2.062	-1.25	1.125	65.4	160.4	5.2	0.453
4-5400	4-5950	0.280	89.0	-16.2	-3.57	1.281	102.0	0.276	0.886	299.0	947.1	0.642	1.130	-1.25	0.925	76.0	185.7	-7.8	0.230
4-5400	4-5960	0.328	93.6	-14.6	-3.81	1.282	104.4	0.308	0.888	291.7	949.5	0.615	1.162	-1.38	0.930	73.7	193.4	-10.6	0.267
4-5400	4-5960	0.543	121.5	-7.2	-3.81	1.151	117.0	0.456	0.692	238.0	1255.9	0.376	1.007	-1.38	0.738	93.5	277.6	-27.0	0.266
4-5400	4-5970	0.546	121.8	-7.7	-4.10	1.148	117.2	0.459	0.689	237.5	1265.1	0.373	1.006	-1.50	0.738	85.7	264.4	-27.5	0.266
4-5450	4-5580	0.312	173.3	-37.4	-8.71	1.274	100.9	0.250	0.862	299.9	502.8	0.647	---	7.62	0.907	100.7	303.7	10.1	0.243
4-5450	4-5590	0.267	171.9	-30.9	-6.32	1.266	100.1	0.230	0.846	300.1	512.5	0.651	---	5.50	0.897	97.6	305.6	7.7	0.192
4-5450	4-5600	0.243	171.3	-26.2	-4.94	1.260	99.6	0.217	0.836	300.1	522.3	0.655	---	4.40	0.892	94.8	304.2	6.6	0.157
4-5450	4-5610	0.229	171.2	-22.1	-3.99	1.256	99.4	0.209	0.830	299.8	531.8	0.656	---	3.75	0.891	92.2	299.6	5.4	0.135
4-5450	4-5620	0.223	171.4	-18.4	-3.26	1.255	99.4	0.207	0.826	299.0	540.9	0.655	0.998	3.35	0.891	89.8	292.7	3.2	0.124
4-5450	4-5630	0.224	172.0	-14.8	-2.65	1.254	99.6	0.210	0.825	297.7	549.5	0.652	0.999	3.11	0.893	87.5	285.7	0.1	0.126
4-5450	4-5640	0.232	173.0	-11.3	-2.11	1.254	100.2	0.218	0.825	295.7	557.5	0.646	1.005	2.98	0.897	85.3	280.8	-3.2	0.137

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5450	4-5650	0.247	174.5	-7.9	-1.59	1.255	101.0	0.230	0.827	293.0	544.7	0.637	1.017	2.95	0.901	83.1	279.0	-6.2	0.158
4-5450	4-5660	0.271	176.4	-4.8	-1.06	1.256	102.2	0.248	0.829	289.4	571.2	0.623	1.035	3.01	0.905	80.7	280.2	-8.5	0.187
4-5450	4-5670	0.306	178.7	-2.0	-0.49	1.258	103.9	0.275	0.832	284.9	576.8	0.603	1.060	3.18	0.909	78.1	283.7	-10.0	0.224
4-5450	4-5680	0.355	181.6	0.6	0.17	1.260	106.3	0.311	0.835	279.3	581.3	0.575	1.095	3.48	0.913	75.0	289.2	-10.8	0.272
4-5450	4-5800	0.334	14.9	-11.9	-3.18	1.280	75.4	0.305	0.872	70.6	493.7	0.606	1.138	-3.31	0.922	105.6	169.9	-8.0	0.262
4-5450	4-5810	0.282	20.1	-13.6	-2.59	1.282	77.9	0.274	0.877	61.8	496.6	0.637	1.117	-3.09	0.922	103.6	177.8	-12.3	0.229
4-5450	4-5820	0.239	25.9	-15.0	-2.06	1.285	80.1	0.251	0.882	53.0	495.6	0.661	1.104	-2.98	0.923	102.1	185.9	-16.9	0.206
4-5450	4-5830	0.201	33.0	-9.9	-1.56	1.288	82.1	0.234	0.888	43.9	496.1	0.680	1.096	-2.95	0.924	101.0	194.4	-21.6	0.190
4-5450	4-5840	0.169	42.2	-8.1	-1.06	1.291	84.0	0.222	0.894	34.1	496.0	0.696	1.093	-3.02	0.927	100.4	203.9	-26.5	0.181
4-5450	4-5850	0.141	55.3	-4.7	-0.52	1.294	85.9	0.215	0.902	23.4	496.8	0.708	1.096	-3.17	0.930	100.2	214.8	-31.3	0.179
4-5450	4-5860	0.424	4.2	0.3	0.10	1.247	70.1	0.358	0.814	91.9	572.9	0.523	1.106	-3.44	0.861	74.5	111.2	12.0	0.289
4-5450	4-5870	0.122	74.5	1.0	0.10	1.298	88.0	0.214	0.911	11.3	492.3	0.716	1.105	-3.44	0.934	100.5	227.6	-35.8	0.185
4-5450	4-5870	0.355	9.1	2.9	0.85	1.257	73.6	0.310	0.830	81.9	572.4	0.572	1.087	-3.88	0.874	77.3	120.8	6.5	0.244
4-5450	4-5870	0.121	100.2	9.2	0.85	1.303	90.4	0.221	0.922	357.9	848.4	0.718	1.125	-3.88	0.940	191.3	242.1	-39.4	0.201
4-5450	4-5880	0.299	14.4	7.6	1.85	1.264	76.6	0.273	0.843	71.6	571.6	0.613	1.073	-4.60	0.884	79.4	129.7	-1.3	0.213
4-5450	4-5880	0.149	125.9	16.5	1.85	1.309	93.1	0.238	0.935	343.7	843.8	0.713	1.157	-4.60	0.948	102.8	257.5	-41.8	0.230
4-5450	4-5890	0.259	19.9	16.4	3.35	1.270	79.1	0.246	0.854	61.5	571.1	0.644	1.064	-5.83	0.893	80.9	137.2	-11.8	0.198
4-5450	4-5890	0.203	145.1	22.1	3.35	1.316	96.2	0.266	0.951	329.8	839.4	0.698	1.204	-5.83	0.957	104.9	272.6	-43.6	0.273
4-5450	4-5900	0.247	24.9	32.4	6.05	1.275	81.1	0.227	0.863	52.0	571.1	0.667	1.059	-8.26	0.900	81.7	142.4	-25.9	0.207
4-5450	4-5900	0.285	158.5	28.8	6.05	1.324	99.6	0.305	0.970	317.2	836.2	0.674	1.266	-8.26	0.968	107.6	286.7	-46.3	0.332
4-5450	4-5910	0.529	23.8	59.0	12.85	1.279	82.7	0.214	0.870	43.4	571.8	0.684	1.057	-14.62	0.906	82.1	144.5	-44.8	0.283
4-5450	4-5940	0.264	54.2	-66.9	-10.91	1.286	86.9	0.196	0.886	19.0	576.8	0.712	1.059	-9.69	0.922	82.1	212.3	37.6	0.211
4-5450	4-5950	0.195	70.9	-58.2	-7.38	1.268	88.1	0.195	0.890	12.0	579.4	0.716	1.063	-6.42	0.928	81.7	210.7	25.8	0.176
4-5450	4-5960	0.161	85.7	-51.1	-5.59	1.290	89.2	0.196	0.893	5.0	582.0	0.718	1.068	-4.90	0.933	81.3	213.4	16.6	0.167
4-5450	4-5970	0.145	100.3	-43.9	-4.45	1.292	90.3	0.198	0.896	357.9	944.8	0.718	1.074	-4.05	0.938	80.8	218.0	9.4	0.167
4-5450	4-5980	0.139	114.2	-36.1	-3.62	1.293	91.5	0.203	0.899	350.8	947.5	0.717	1.082	-3.53	0.943	80.2	223.8	3.7	0.172
4-5450	4-5990	0.142	126.7	-28.1	-2.96	1.294	92.8	0.209	0.902	343.6	950.1	0.713	1.091	-3.22	0.948	79.5	230.3	-1.0	0.180
4-5450	4-6000	0.154	137.5	-20.5	-2.39	1.296	94.2	0.218	0.905	336.1	952.6	0.707	1.103	-3.04	0.953	78.7	237.5	-4.8	0.193
4-5450	4-6010	0.278	73.5	-9.7	-1.86	1.442	85.9	0.498	1.419	12.5	278.9	---	2.126	2.96	1.146	65.5	218.9	-8.3	0.466
4-5450	4-6010	0.274	146.8	-13.9	-1.86	1.297	95.8	0.231	0.908	328.3	954.8	0.698	1.117	2.96	0.957	77.7	245.2	-7.9	0.209
4-5450	4-6020	0.263	89.3	-7.4	-1.34	1.443	88.8	0.497	1.427	3.6	280.1	---	2.136	2.97	1.150	65.8	228.2	-10.9	0.464
4-5450	4-6020	0.202	154.8	-8.6	-1.34	1.298	97.5	0.247	0.910	320.2	956.7	0.686	1.135	2.97	0.961	76.6	253.5	-10.3	0.230
4-5450	4-6030	0.266	107.2	-4.3	-0.80	1.445	92.1	0.500	1.434	353.8	660.4	0.717	2.152	3.08	1.153	65.7	238.2	-13.1	0.469
4-5450	4-6030	0.241	161.8	-4.3	-0.80	1.299	99.7	0.239	0.913	311.8	958.2	0.667	1.198	3.08	0.965	75.1	262.3	-12.0	0.257
4-5450	4-6030	0.477	198.4	-1.8	-0.80	1.174	113.3	0.395	0.712	245.5	1252.1	0.431	0.993	3.08	0.788	95.1	349.5	6.2	0.246
4-5450	4-6040	0.294	125.6	-0.9	-0.19	1.446	95.8	0.509	1.441	342.8	639.5	0.708	2.175	3.30	1.156	65.1	249.0	-14.8	0.484
4-5450	4-6040	0.291	168.3	-0.8	-0.19	1.301	102.3	0.299	0.915	302.3	959.0	0.641	1.189	3.30	0.968	73.1	271.7	-12.9	0.292
4-5450	4-6040	0.469	198.5	-0.4	-0.19	1.172	112.9	0.390	0.709	245.3	1242.0	0.433	0.986	3.30	0.787	86.7	338.3	3.0	0.234
4-5450	4-6050	0.491	199.1	1.2	0.54	1.171	114.0	0.407	0.708	244.1	1271.0	0.420	0.996	3.69	0.788	82.6	329.7	-0.5	0.260
4-5450	4-5530	0.562	177.7	7.4	2.93	1.501	109.7	0.674	1.892	310.3	448.7	0.617	---	-4.97	1.200	123.6	295.6	-28.9	0.672
4-5460	4-5540	0.465	179.6	13.2	4.48	1.421	107.0	0.522	1.312	308.8	456.7	0.627	---	-6.21	1.099	118.9	302.5	-31.3	0.547
4-5460	4-5550	0.408	181.7	23.8	7.15	1.367	104.7	0.418	1.095	307.9	465.2	0.637	---	-8.59	1.029	114.4	310.0	-36.8	0.459
4-5460	4-5560	0.429	186.9	44.3	13.36	1.330	102.7	0.345	0.987	307.5	474.2	0.647	---	-14.52	0.980	110.1	318.7	-50.4	0.428
4-5460	4-5580	0.641	217.3	-67.9	-27.96	1.287	100.3	0.259	0.889	306.2	493.4	0.658	---	27.36	0.926	102.9	289.3	33.4	0.507
4-5460	4-5590	0.338	188.8	-51.0	-12.07	1.275	99.2	0.232	0.865	307.0	503.5	0.665	---	11.75	0.912	99.6	305.1	24.0	0.273
4-5460	4-5600	0.259	184.5	-39.5	-7.56	1.268	98.5	0.213	0.851	307.5	513.6	0.669	---	7.53	0.904	96.7	309.2	18.9	0.200
4-5460	4-5610	0.224	183.1	-31.6	-5.37	1.263	98.1	0.201	0.842	307.7	523.5	0.672	---	5.65	0.900	94.1	308.5	16.2	0.154
4-5460	4-5620	0.206	182.7	-25.1	-4.02	1.260	97.9	0.195	0.836	307.5	533.1	0.673	---	4.62	0.899	91.7	308.3	13.6	0.135
4-5460	4-5630	0.198	182.9	-19.5	-3.06	1.258	97.9	0.194	0.833	308.7	542.2	0.672	0.995	4.01	0.900	89.5	298.1	10.1	0.124
4-5460	4-5640	0.199	183.6	-14.5	-2.29	1.258	98.2	0.197	0.833	305.2	550.7	0.669	0.997	3.63	0.902	87.4	292.1	5.7	0.125
4-5460	4-5650	0.206	184.8	-9.9	-1.64	1.258	98.7	0.204	0.833	303.1	558.6	0.664	1.003	3.41	0.906	85.4	288.2	1.3	0.135
4-5460	4-5660	0.221	186.5	-5.9	-1.04	1.259	99	0.215	0.835	300.1	565.7	0.655	1.014	3.31	0.909	83.4	287.3	-2.4	0.153
4-5460	4-5670	0.243	188.7	-2.3	-0.46	1.260	10	0.231	0.837	296.3	572.0	0.644	1.031	3.32	0.913	81.3	289.1	-5.1	0.179
4-5460	4-5680	0.274	191.3	0.7	0.15	1.262	102.2	0.254	0.840	291.7	577.5	0.627	1.054	3.43	0.917	79.1	293.0	-6.8	0.211
4-5460	4-5690	0.317	194.3	3.2	0.82	1.264	104.2	0.285	0.844	286.0	582.0	0.603	1.084	3.67	0.921	76.4	298.5	-7.5	0.252
4-5460	4-5700	0.378	197.9	5.2	1.63	1.266	107.1	0.328	0.848	279.2	585.4	0.570	1.126	4.09	0.924	73.1	305.3	-7.3	0.306
4-5460	4-5710	0.464	202.1	6.8	2.67	1.269	111.2	0.399	0.852	270.9	587.2	0.521	1.164	4.78	0.928	68.8	313.3	-6.1	0.379
4-5460	4-5720	0.593	207.3	8.0	4.20	1.271	117.2	0.479	0.858	260.3	586.7	0.447	1.209	5.98	0.931	62.5	322.6	-3.9	0.483
4-5460	4-5720	0.868	235.1	3.4	4.20	1.014	135.5	0.736	0.570	210.1	896.5	0.150	0.989	5.98	0.527	99.6	34.4	20.2	0.509
4-5460	4-5730	0.917	236.6	5.0	6.85	1.002	138.2	0.769	0.562	207.8	904.3	0.130	0.994	8.31	0.502	76.1	21.5	16.9	0.553
4-5460	4-5780	0.728	11.4	-10.6	-7.23	1.275	56.3	0.572	0.865	109.5	496.7	0.370	1.359	-7.24	0.923	123.9	152.2	0.9	0.563
4-5460	4-5790	0.563	18.1	-10.6	-5.17	1.278	64.3	0.462	0.871	95.8	492.9	0.469	1.273	-5.49	0.924	116.3	162.8	-4.0	0.437
4-5460	4-5800	0.452	23.8	-10.4	-3.89	1.281	69.6	0.387	0.876	84.6	491.5	0.537	1.216	-4.53	0.925	111.3	172.1	-8.6	0.355
4-5460	4-5810	0.371	29.1	-9.9	-2.96	1.284	73.5	0.335	0.882	74.6	491.2	0.586	1.177	-3.96	0.926	107.9	180.8	-13.1	0.299
4-5460	4-5820	0.309	34.6	-9.1	-2.23	1.287	76.5	0.298	0.887	65.2	491.5	0.623	1.151	-3.61	0.926	105.5	189.4	-17.6	0.260
4-5460	4-5830	0.259	40.5	-7.9	-1.61	1.289	79.0	0.270	0.893	55.9	491.9	0.652	1.134	-3.40	0.928	103.8	198.2	-22.1	0.233
4-5460	4-5840	0.758	4.9	-1.3	-1.04	1.206	52.9	0.604	0.753	123.6	569.2	0.298	1.209	-3.31	0.806	58.0	93.7	19.2	0.536
4-5460	4-5840	0.217	47.6	-6.1	-1.04	1.292	81.2	0.250	0.898	46.5	492.1	0.674	1.123	-3.31	0.929	102.5	207.6	-26.5	0.214
4-5460	4-5850	0.667	8.6	-0.7	-0.48	1.219	57.7	0.538	0.772	116.2	571.4	0.356	1.187	-3.32	0.823	62.6	102.3	17.8	0.467
4-5460	4-5850	0.181	56.6	-3.4	-0.48	1.295	83.3	0.235	0.905	36.6	491.8	0.692	1.118	-3.32	0.932	107.8	217.9	-30.8	0.203
4-5460	4-5860	0.581	12.5	0.2	0.09	1.231	62.1	0.475	0.789	108.3	573.1	0.415	1.164	-3.42	0.839	66.7	110.9	15.6	0.404
4-5460	4-5860	0.152	68.9	0.7	0.09	1.299	85.3	0.227	0.912	25.9	490.7	0.706	1.119	-3.42	0.935	101.4	229.4	-34.7	0.199
4-5460	4-5870	0.501	16.5	1.6	0.71	1.242	66.2	0.416	0.807	100.0	574.3	0.471	1.142	-3.62	0.853	70.4	119.7	12.1	0.347
4-5460	4-5870	0.131	86.6	7.0	0.71	1.302	87.4	0.224	0.921	14.2	488.5	0.715	1.126	-3.62	0.939	101.5	242.8	-38.0	0.203
4-5460	4-5880	0.426	20.8	3.9	1.43	1.252	69.9	0.363	0.822	91.1	574.9	0.523	1.121	-3.98	0.867	73.5	128.3	7.3	0.298
4-5460	4-5880	0.128	110.2	14.8	1.43	1.307	89.7	0.228	0.931	1.6	485.4	0.719	1.143	-3.98	0.945	102.1	256.7	-40.3	0.215
4-5460	4-5890	0.366	25.3	7.7	2.33	1.260	73.2	0.319	0.837	81.9	575.2	0.569	1.104	-4.54	0.879	76.0	136.5	0.8	0.259
4-5460	4-5890	0.148	135.2	21.1	2.33	1.312	92.3	0.241	0.943	348.3	841.7	0.716	1.170	-4.54	0.952	103.2	271.5	-41.4	0.238
4-5460	4-5900	0.317	30.0	14.0	3.58	1.267	76.0	0.284	0.849	72.6	576.5	0.608	1.091	-5.47	0.889	77.9	143.9	-7.8	0.233
4-5460	4-5900	0.194	155.4	25.1	3.58	1.318	95.1	0.264	0.957	335.1	837.9	0.705	1.210	-5.47	0.961	104.9	286.0	-41.7	0.273

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5460	4-5910	0.287	34.6	24.8	5.53	1.272	78.3	0.258	0.859	63.2	575.6	0.638	1.081	-7.12	0.898	79.2	149.9	-15.2	0.223
4-5460	4-5910	0.242	169.8	28.9	5.53	1.325	98.3	0.297	0.974	322.6	835.0	0.685	1.263	-7.12	0.971	107.1	299.7	-42.2	0.220
4-5460	4-5920	0.300	37.5	42.9	9.32	1.277	80.3	0.239	0.868	54.4	576.2	0.661	1.075	-10.62	0.906	80.1	153.6	-34.8	0.286
4-5460	4-5920	0.361	181.0	35.8	9.32	1.332	101.7	0.338	0.993	311.4	833.2	0.657	1.328	-10.62	0.982	109.7	312.6	-44.8	0.388
4-5460	4-5930	0.482	22.8	68.6	20.72	1.281	82.0	0.225	0.875	46.3	577.3	0.678	1.073	-21.74	0.913	80.5	155.1	-55.6	0.392
4-5460	4-5930	0.580	197.8	52.0	20.72	1.340	105.3	0.385	1.013	301.5	832.5	0.623	1.402	-21.74	0.994	112.6	324.2	-56.2	0.537
4-5460	4-5950	0.397	43.2	-73.6	-17.29	1.286	85.2	0.206	0.887	28.6	580.1	0.704	1.069	16.82	0.926	81.0	228.2	42.0	0.317
4-5460	4-5950	0.654	201.4	-34.4	-17.29	1.355	113.3	0.493	1.057	283.2	834.7	0.536	1.578	16.82	1.019	119.4	321.8	12.1	0.593
4-5460	4-5960	0.574	36.5	-22.4	-9.44	1.431	68.9	0.569	1.361	60.5	261.5	---	2.135	9.26	1.120	58.4	185.1	14.1	0.593
4-5460	4-5960	0.240	69.9	-61.4	-9.44	1.289	86.4	0.203	0.891	21.3	582.3	0.711	1.072	9.26	0.931	80.9	221.6	29.7	0.216
4-5460	4-5970	0.509	41.8	-17.2	-6.37	1.433	71.3	0.554	1.373	54.1	264.8	---	2.133	6.48	1.126	59.9	190.6	7.8	0.560
4-5460	4-5970	0.180	85.2	-52.4	-6.37	1.291	87.7	0.201	0.895	14.0	584.6	0.715	1.075	6.48	0.937	80.6	222.8	18.9	0.189
4-5460	4-5980	0.456	47.3	-14.2	-4.66	1.435	73.7	0.540	1.385	47.6	268.0	---	2.133	5.09	1.131	61.2	197.2	2.9	0.536
4-5460	4-5980	0.150	100.1	-44.5	-4.66	1.292	88.9	0.201	0.849	6.6	587.1	0.718	1.080	5.09	0.943	80.3	227.0	10.8	0.180
4-5460	4-5990	0.409	53.5	-12.1	-3.53	1.431	76.2	0.528	1.395	40.7	271.1	---	2.132	4.29	1.136	62.4	204.5	-1.2	0.515
4-5460	4-5990	0.135	115.2	-36.3	-3.53	1.298	90.1	0.203	0.902	359.2	959.5	0.719	1.086	4.29	0.948	79.9	232.7	4.5	0.181
4-5460	4-6000	0.366	60.9	-10.4	-2.68	1.439	78.7	0.518	1.406	33.6	273.9	---	2.133	3.80	1.141	63.5	212.3	-4.7	0.499
4-5460	4-6000	0.131	129.8	-27.5	-2.68	1.295	91.4	0.207	0.905	351.6	951.8	0.718	1.095	3.80	0.953	79.4	239.4	-0.5	0.186
4-5460	4-6010	0.327	69.8	-8.6	-1.97	1.441	81.2	0.510	1.415	26.2	276.4	---	2.136	3.51	1.145	64.4	220.5	-7.9	0.485
4-5460	4-6010	0.137	143.0	-19.0	-1.97	1.297	92.8	0.214	0.908	343.9	954.1	0.714	1.103	3.51	0.958	78.8	246.7	-4.3	0.195
4-5460	4-6020	0.284	81.0	-6.6	-1.35	1.442	83.9	0.503	1.423	18.2	278.5	---	2.140	3.35	1.149	65.1	229.2	-10.5	0.475
4-5460	4-6020	0.153	156.3	-11.5	-1.35	1.298	94.3	0.224	0.911	335.9	956.1	0.707	1.115	3.35	0.962	78.0	254.7	-7.3	0.268
4-5460	4-6030	0.270	95.0	-4.1	-0.77	1.444	86.8	0.500	1.431	9.7	280.1	---	2.147	3.30	1.152	65.6	238.4	-12.7	0.470
4-5460	4-6030	0.178	164.0	-5.6	-0.77	1.299	96.0	0.237	0.914	327.6	957.9	0.697	1.131	3.30	0.966	77.1	263.1	-9.3	0.225
4-5460	4-6030	0.592	215.6	-1.3	-0.77	1.190	118.8	0.481	0.732	243.1	1233.4	0.379	1.084	3.30	0.812	110.7	18.6	14.8	0.394
4-5460	4-6030	0.699	217.5	-1.1	-0.77	1.200	123.9	0.559	0.745	239.0	1229.4	0.328	1.161	3.30	0.827	118.8	28.2	15.2	0.502
4-5460	4-6040	0.262	111.8	-1.0	-0.17	1.445	89.9	0.500	1.439	0.4	280.9	---	2.159	3.36	1.155	65.6	248.3	-14.3	0.471
4-5460	4-6040	0.212	172.3	-1.1	-0.17	1.301	92.0	0.255	0.917	318.8	959.3	0.683	1.151	3.36	0.969	75.8	272.0	-10.6	0.248
4-5460	4-6040	0.480	214.0	-0.4	-0.17	1.179	113.3	0.396	0.719	246.5	1247.0	0.434	1.002	3.36	0.798	98.3	6.9	14.1	0.262
4-5460	4-6050	0.275	130.3	2.4	0.46	1.446	93.3	0.505	1.446	350.1	640.7	0.715	2.177	3.53	1.158	69.6	258.9	-15.2	0.479
4-5460	4-6050	0.257	179.6	2.3	0.46	1.302	100.4	0.280	0.919	309.6	960.2	0.662	1.177	3.52	0.972	74.2	281.2	-11.0	0.278
4-5460	4-6050	0.459	213.9	1.1	0.46	1.176	112.3	0.379	0.714	246.8	1257.4	0.443	0.985	3.53	0.795	91.6	355.6	11.5	0.230
4-5460	4-6060	0.315	148.6	5.4	1.18	1.447	97.3	0.517	1.453	338.4	639.1	0.702	2.204	3.84	1.160	64.7	270.3	-15.3	0.498
4-5460	4-6060	0.316	186.3	4.8	1.18	1.303	103.3	0.315	0.922	299.6	960.4	0.642	1.212	3.84	0.974	72.0	290.9	-10.7	0.318
4-5460	4-6060	0.468	214.3	2.7	1.18	1.174	112.7	0.386	0.712	246.1	1266.8	0.437	0.988	3.84	0.794	85.7	345.6	7.7	0.240
4-5470	4-5540	0.497	189.5	9.1	3.19	1.482	106.7	0.625	1.713	315.9	447.6	0.642	---	-4.54	1.177	121.3	306.7	-26.7	0.623
4-5470	4-5550	0.410	191.3	14.8	4.39	1.408	104.3	0.482	1.256	314.8	456.0	0.650	---	-5.41	1.084	116.8	313.4	-28.3	0.505
4-5470	4-5560	0.355	192.9	24.0	6.23	1.359	102.3	0.385	1.071	314.2	464.9	0.659	---	-6.94	1.020	112.4	320.5	-32.0	0.419
4-5470	4-5570	0.345	195.6	39.3	9.65	1.325	100.5	0.317	0.976	314.3	474.5	0.667	---	-10.06	0.977	108.4	328.8	-40.7	0.367
4-5470	4-5580	0.469	209.0	63.1	19.00	1.302	99.1	0.268	0.922	315.0	484.6	0.675	---	-19.12	0.947	104.6	340.2	-60.2	0.412
4-5470	4-5600	0.447	213.7	-67.4	-19.05	1.276	97.5	0.214	0.868	314.8	505.0	0.682	---	19.51	0.917	98.5	300.3	36.9	0.367
4-5470	4-5610	0.265	196.9	-50.6	-9.34	1.269	96.9	0.197	0.854	315.8	515.5	0.686	---	10.09	0.910	95.7	309.9	36.0	0.220
4-5470	4-5620	0.207	193.7	-38.1	-5.86	1.264	96.5	0.187	0.846	316.2	525.6	0.688	---	6.90	0.907	93.3	310.7	25.0	0.165
4-5470	4-5630	0.183	192.9	-28.3	-3.97	1.262	96.4	0.183	0.842	315.9	535.3	0.688	---	5.35	0.907	91.1	307.3	20.6	0.137
4-5470	4-5640	0.174	193.1	-20.2	-2.75	1.261	96.5	0.182	0.840	315.0	544.3	0.687	0.993	4.47	0.908	89.1	302.0	15.4	0.124
4-5470	4-5650	0.174	194.1	-13.4	-1.85	1.261	96.8	0.185	0.840	313.3	552.6	0.684	0.995	3.94	0.911	87.2	297.2	9.7	0.124
4-5470	4-5660	0.182	195.8	-7.7	-1.11	1.261	97.4	0.192	0.841	310.8	560.2	0.679	1.002	3.62	0.914	85.4	294.7	4.5	0.133
4-5470	4-5670	0.196	197.9	-3.0	-0.46	1.262	98.1	0.202	0.843	307.5	567.0	0.672	1.013	3.45	0.917	83.6	294.8	0.3	0.150
4-5470	4-5680	0.217	200.5	0.8	0.14	1.264	99.2	0.217	0.845	303.5	573.1	0.662	1.029	3.39	0.921	81.8	297.4	-2.5	0.172
4-5470	4-5690	0.246	203.5	3.8	0.75	1.265	100.6	0.237	0.849	298.6	578.3	0.648	1.049	3.44	0.924	79.8	301.7	-4.1	0.201
4-5470	4-5700	0.285	206.8	6.1	1.40	1.267	102.4	0.263	0.852	292.8	582.8	0.628	1.077	3.61	0.928	77.5	307.4	-4.6	0.237
4-5470	4-5710	0.337	210.5	7.8	2.14	1.270	104.9	0.300	0.856	286.1	586.2	0.600	1.113	3.92	0.931	74.7	314.2	-4.2	0.282
4-5470	4-5720	0.410	214.7	9.0	3.04	1.272	108.3	0.350	0.861	278.2	588.4	0.559	1.162	4.44	0.933	71.2	321.9	-2.8	0.342
4-5470	4-5730	0.513	219.6	9.8	4.27	1.275	113.1	0.422	0.866	268.5	588.9	0.500	1.231	5.32	0.936	66.2	330.7	-0.5	0.425
4-5470	4-5730	0.874	249.9	3.5	4.27	1.033	135.5	0.731	0.584	211.7	892.0	0.157	1.011	5.32	0.564	110.2	57.2	25.5	0.525
4-5470	4-5740	0.869	225.7	10.2	6.17	1.278	120.4	0.528	0.872	256.1	586.6	0.411	1.332	6.89	0.938	58.9	340.8	2.8	0.548
4-5470	4-5740	0.861	251.0	5.2	6.17	1.015	134.8	0.728	0.571	210.6	901.0	0.155	0.987	6.89	0.526	87.2	40.9	23.5	0.497
4-5470	4-5800	0.662	30.7	-9.3	-5.56	1.282	59.4	0.532	0.879	103.5	494.2	0.411	1.348	-6.65	0.927	121.3	171.6	-7.5	0.518
4-5470	4-5810	0.518	37.2	-8.7	-3.82	1.285	66.3	0.437	0.886	90.6	491.0	0.498	1.273	-5.23	0.928	114.8	181.9	-12.5	0.413
4-5470	4-5820	0.418	42.9	-7.8	-2.67	1.288	71.1	0.372	0.891	79.6	489.7	0.560	1.223	-4.42	0.929	110.6	191.5	-17.2	0.343
4-5470	4-5830	0.344	48.5	-6.6	-1.81	1.290	74.7	0.326	0.897	69.4	489.2	0.605	1.189	-3.92	0.930	107.6	200.9	-21.6	0.295
4-5470	4-5840	0.285	54.6	-4.9	-1.11	1.293	77.6	0.292	0.903	59.7	489.1	0.639	1.166	-3.62	0.932	105.5	210.6	-25.8	0.261
4-5470	4-5850	0.834	18.6	-0.5	-0.49	1.201	48.8	0.659	0.747	128.8	567.8	0.255	1.240	-3.45	0.797	53.6	104.6	19.0	0.595
4-5470	4-5850	0.238	61.5	-2.6	-0.49	1.296	80.1	0.267	0.908	49.9	488.9	0.665	1.151	-3.45	0.934	104.0	220.8	-29.7	0.239
4-5470	4-5860	0.744	22.1	0.1	0.08	1.213	53.6	0.595	0.765	121.8	570.4	0.310	1.220	-3.39	0.814	58.3	112.8	-17.3	0.527
4-5470	4-5860	0.198	70.2	0.5	0.08	1.299	82.4	0.250	0.915	39.8	488.3	0.686	1.144	-3.39	0.937	103.1	231.9	-33.2	0.224
4-5470	4-5870	0.658	25.7	1.0	0.65	1.225	58.1	0.532	0.782	114.5	572.6	0.366	1.199	-3.42	0.831	62.5	120.9	14.8	0.463
4-5470	4-5870	0.166	81.7	5.1	0.65	1.302	84.5	0.239	0.922	29.1	487.2	0.702	1.142	-3.42	0.940	102.5	244.0	-36.1	0.218
4-5470	4-5880	0.576	29.4	2.4	1.25	1.236	62.3	0.473	0.799	106.9	574.5	0.422	1.177	-3.56	0.846	66.3	129.1	11.5	0.404
4-5470	4-5880	0.143	97.8	11.4	1.25	1.306	86.7	0.233	0.930	17.7	485.3	0.713	1.147	-3.56	0.945	102.4	257.1	-38.1	0.219
4-5470	4-5890	0.501	33.3	4.3	1.91	1.246	66.2	0.417	0.815	98.8	576.0	0.475	1.156	-3.81	0.861	69.7	137.0	7.3	0.351
4-5470	4-5890	0.135	119.5	18.8	1.91	1.310	88.9	0.235	0.940	5.5	482.7	0.719	1.160	-3.81	0.950	102.8	271.0	-39.1	0.228
4-5470	4-5900	0.434	37.3	7.3	2.69	1.255	69.7	0.369	0.830	90.4	577.1	0.524	1.136	-4.23	0.874	72.5	144.8	1.8	0.307
4-5470	4-5900	0.149	144.0	24.5	2.69	1.315	91.4	0.244	0.951	352.8	839.5	0.718	1.183	-4.23	0.957	103.6	285.1	-39.0	0.246
4-5470	4-5910	0.377	41.5	11.9	3.71	1.263	72.8	0.327	0.844	81.8	577.9	0.567	1.120	-4.90	0.886	74.8	152.1	-5.2	0.272
4-5470	4-5910	0.186	165.1	27.3	3.71	1.320	94.1	0.263	0.964	340.1	836.3	0.711	1.217	-4.90	0.966	104.9	298.7	-38.1	0.273
4-5470	4-5920	0.335	45.7	19.2	5.15	1.269	75.5	0.294	0.855	73.0	578.7	0.604	1.107	-6.02	0.896	76.6	158.6	-14.3	0.249
4-5470	4-5920	0.242	180.7	29.2	5.15	1.326	97.1	0.290	0.979	327.8	833.5	0.695	1.263	-6.02	0.975	106.8	311.4	-37.0	0.312
4-5470	4-5930	0.316	49.4	31.2	7.54	1.274	77.8	0.268	0.865	64.3	579.5	0.633	1.097	-8.11	0.906	77.9	163.7	-26.5	0.245
4-5470	4-5930	0.320	192.3	32.5	7.54	1.333	100.3	0.326	0.996	316.5	831.7	0.671	1.321	-8.11	0.986	109.0	323.9	-36.9	0.364

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5470	4-5940	0.358	49.7	50.6	12.68	1.279	79.8	0.248	0.874	55.9	580.6	0.657	1.091	-12.96	0.914	78.7	166.0	-43.8	0.285
4-5470	4-5940	0.440	202.9	40.5	12.68	1.340	103.7	0.369	1.015	306.3	931.0	0.640	1.390	-12.96	0.997	111.7	335.3	-40.5	0.443
4-5470	4-5950	0.725	5.8	72.1	32.99	1.282	81.3	0.235	0.881	48.4	582.2	0.673	1.088	-32.98	0.922	79.2	171.9	-67.3	0.568
4-5470	4-5970	0.315	69.4	-65.4	-12.92	1.288	84.8	0.213	0.892	30.4	585.1	0.702	1.082	13.51	0.935	79.9	233.1	34.2	0.280
4-5470	4-5980	0.547	54.7	-18.3	-7.36	1.433	69.4	0.568	1.374	58.8	263.1	---	2.155	8.25	1.129	58.8	201.6	5.7	0.586
4-5470	4-5980	0.207	87.0	-52.7	-7.36	1.290	86.1	0.208	0.897	22.8	587.2	0.710	1.084	8.25	0.981	79.9	231.7	20.6	0.216
4-5470	4-5990	0.489	59.9	13.6	-4.84	1.435	71.9	0.553	1.386	52.3	266.5	---	2.153	6.05	1.134	60.3	207.7	0.1	0.556
4-5470	4-5990	0.160	101.3	82.9	-4.84	1.292	87.4	0.206	0.901	15.2	589.3	0.715	1.087	6.05	0.947	79.8	235.3	11.2	0.194
4-5470	4-6000	0.439	65.3	10.6	-3.34	1.437	74.4	0.540	1.398	45.6	269.7	---	2.152	4.88	1.139	61.6	214.9	-4.2	0.533
4-5470	4-6000	0.135	115.9	-33.9	-3.34	1.294	88.7	0.206	0.905	7.4	591.5	0.719	1.091	4.88	0.952	79.5	241.1	4.4	0.191
4-5470	4-6010	0.393	72.2	-8.2	-2.29	1.439	76.9	0.528	1.408	38.7	272.7	---	2.152	4.19	1.144	62.8	222.6	-7.7	0.514
4-5470	4-6010	0.124	131.8	-24.7	-2.29	1.296	90.1	0.208	0.908	359.6	953.6	0.720	1.097	4.19	0.957	79.2	248.0	-0.7	0.192
4-5470	4-6020	0.351	80.0	-6.0	-1.48	1.440	79.4	0.518	1.418	31.4	275.5	---	2.153	3.77	1.148	63.8	230.9	-10.5	0.498
4-5470	4-6020	0.125	146.6	-15.6	-1.48	1.297	91.5	0.212	0.911	351.8	955.6	0.718	1.105	3.77	0.962	78.7	255.6	-4.5	0.198
4-5470	4-6030	0.314	89.7	-3.6	-0.80	1.442	82.0	0.510	1.427	23.7	277.8	---	2.155	3.52	1.151	64.7	239.7	-12.8	0.486
4-5470	4-6030	0.137	160.3	-7.6	-0.80	1.299	93.0	0.219	0.915	343.4	957.5	0.714	1.115	3.52	0.966	78.2	263.8	-7.1	0.208
4-5470	4-6040	0.285	101.9	-0.9	-0.17	1.443	84.8	0.505	1.438	15.5	279.7	---	2.160	3.41	1.155	65.4	248.9	-14.5	0.478
4-5470	4-6040	0.158	172.1	-1.4	-0.17	1.300	94.6	0.230	0.918	334.9	959.1	0.707	1.128	3.41	0.970	77.4	272.4	-8.8	0.222
4-5470	4-6050	0.267	117.1	2.3	0.43	1.445	87.8	0.503	1.443	6.6	281.0	---	2.169	3.40	1.157	65.8	258.7	-15.4	0.475
4-5470	4-6050	0.188	182.0	3.0	0.43	1.301	96.5	0.244	0.920	326.0	960.4	0.695	1.145	3.40	0.972	76.4	281.4	-9.6	0.241
4-5470	4-6050	0.496	229.8	0.9	0.43	1.183	114.0	0.606	0.725	247.0	1241.4	0.430	1.019	3.40	0.808	101.9	25.2	20.5	0.288
4-5470	4-6060	0.267	134.9	5.7	1.05	1.446	91.1	0.504	1.451	356.9	641.4	0.719	2.182	3.50	1.159	65.8	269.0	-15.7	0.479
4-5470	4-6060	0.228	190.4	5.9	1.05	1.303	98.7	0.265	0.923	316.7	961.3	0.679	1.168	3.50	0.975	75.1	290.7	-9.5	0.266
4-5470	4-6060	0.456	229.4	2.5	1.05	1.179	112.0	0.374	0.719	248.0	1252.5	0.450	0.988	3.50	0.802	94.4	13.8	19.1	0.233
4-5470	4-6070	0.291	153.8	8.6	1.73	1.447	94.8	0.511	1.458	345.9	640.7	0.712	2.203	3.73	1.161	65.3	280.0	-15.1	0.491
4-5470	4-6070	0.280	197.9	7.9	1.73	1.304	101.3	0.293	0.926	306.9	961.6	0.654	1.197	3.73	0.977	73.3	300.2	-8.6	0.299
4-5470	4-6070	0.453	229.8	4.2	1.73	1.177	111.8	0.372	0.717	247.7	1262.4	0.450	0.984	3.73	0.800	88.6	2.6	15.6	0.226
4-5480	4-5540	0.542	198.0	7.3	2.64	1.559	105.9	0.773	2.904	323.4	438.9	0.658	---	-3.56	1.275	123.4	311.0	-23.6	0.715
4-5480	4-5550	0.430	200.3	11.2	3.36	1.459	103.6	0.570	1.547	322.0	447.1	0.665	---	-3.92	1.151	119.0	317.0	-23.7	0.570
4-5480	4-5560	0.352	201.9	16.8	4.28	1.393	101.5	0.438	1.196	321.4	456.0	0.672	---	-4.51	1.067	114.5	323.3	-24.6	0.460
4-5480	4-5570	0.302	203.0	25.2	5.56	1.348	99.7	0.349	1.043	321.4	465.6	0.680	---	-5.49	1.010	110.3	329.8	-27.1	0.377
4-5480	4-5580	0.264	204.3	37.7	7.64	1.318	98.2	0.287	0.962	322.0	475.8	0.686	---	-7.28	0.971	106.4	337.1	-33.0	0.319
4-5480	4-5590	0.323	208.4	55.6	11.92	1.297	97.0	0.243	0.915	323.1	486.5	0.692	---	-11.28	0.946	102.9	346.8	-45.9	0.303
4-5480	4-5600	0.398	251.5	75.9	27.02	1.284	96.0	0.213	0.886	324.9	497.6	0.698	---	-26.10	0.930	99.7	359.4	-69.0	0.471
4-5480	4-5620	0.302	210.6	-63.9	-12.41	1.269	95.2	0.183	0.857	325.0	518.5	0.700	---	13.89	0.915	98.6	307.1	39.6	0.264
4-5480	4-5630	0.196	202.4	-45.9	-6.39	1.265	94.9	0.175	0.850	325.5	528.8	0.702	---	8.16	0.913	92.4	311.0	32.6	0.173
4-5480	4-5640	0.161	201.1	-31.4	-5.82	1.263	94.9	0.172	0.847	325.1	538.3	0.702	---	5.88	0.914	90.4	308.8	25.9	0.138
4-5480	4-5650	0.150	201.6	-19.9	-2.32	1.262	95.1	0.172	0.846	323.9	547.1	0.700	0.991	4.70	0.915	88.5	304.8	18.8	0.124
4-5480	4-5660	0.150	203.2	-10.9	-1.30	1.263	95.5	0.176	0.846	321.9	555.0	0.698	0.995	4.01	0.918	86.9	301.5	11.9	0.123
4-5480	4-5670	0.159	205.6	-4.0	-0.51	1.264	96.0	0.182	0.848	319.0	562.3	0.693	1.002	3.59	0.921	85.3	300.5	6.0	0.132
4-5480	4-5680	0.173	208.4	1.1	0.15	1.265	96.8	0.192	0.850	315.3	568.7	0.687	1.013	3.35	0.925	83.7	301.9	1.7	0.147
4-5480	4-5690	0.194	211.7	4.8	0.75	1.266	97.8	0.205	0.853	310.9	574.5	0.678	1.028	3.23	0.928	82.0	305.3	-1.0	0.167
4-5480	4-5700	0.221	215.2	7.5	1.32	1.268	99.1	0.223	0.857	305.7	579.4	0.666	1.047	3.22	0.931	80.3	310.2	-2.3	0.193
4-5480	4-5710	0.256	219.0	9.3	1.90	1.270	100.8	0.246	0.861	299.8	583.7	0.649	1.072	3.31	0.934	78.3	316.2	-2.5	0.224
4-5480	4-5720	0.303	222.9	10.5	2.54	1.273	103.0	0.277	0.865	293.0	587.1	0.625	1.104	3.52	0.936	76.0	323.1	-1.7	0.263
4-5480	4-5730	0.365	227.2	11.1	3.29	1.275	105.9	0.319	0.869	285.2	589.5	0.592	1.147	3.88	0.938	73.0	330.7	-0.0	0.313
4-5480	4-5740	0.450	232.0	11.4	4.25	1.278	109.9	0.378	0.874	276.1	590.5	0.548	1.204	4.49	0.940	69.0	339.1	2.4	0.380
4-5480	4-5750	0.572	237.5	11.4	5.60	1.280	115.6	0.462	0.880	265.1	589.5	0.473	1.286	5.52	0.941	63.3	348.5	5.7	0.475
4-5480	4-5750	0.833	265.7	5.0	5.60	1.028	133.1	0.705	0.582	212.6	897.1	0.172	0.992	5.52	0.552	97.0	63.5	27.7	0.473
4-5480	4-5760	0.884	267.2	6.3	7.03	1.019	135.8	0.738	0.576	210.4	904.9	0.151	1.001	7.45	0.531	76.7	50.3	26.1	0.520
4-5480	4-5820	0.605	49.9	-6.9	-3.66	1.288	62.0	0.500	0.894	98.0	491.9	0.447	1.382	-5.75	0.931	119.2	191.4	-15.4	0.483
4-5480	4-5830	0.478	56.2	-5.7	-2.26	1.291	68.1	0.417	0.900	85.5	489.2	0.525	1.276	-4.65	0.933	113.7	202.1	-20.2	0.393
4-5480	4-5840	0.387	62.1	-4.1	-1.29	1.293	72.5	0.359	0.906	74.5	487.7	0.581	1.232	-4.01	0.934	110.0	212.5	-24.4	0.333
4-5480	4-5850	0.319	68.3	-2.1	-0.58	1.296	75.9	0.317	0.912	64.1	487.0	0.623	1.202	-3.61	0.936	107.4	223.0	-28.1	0.292
4-5480	4-5860	0.264	75.0	0.4	0.09	1.299	78.8	0.287	0.918	53.9	486.3	0.654	1.182	-3.37	0.939	105.6	234.0	-31.3	0.264
4-5480	4-5870	0.819	35.7	0.7	0.65	1.207	49.6	0.649	0.759	127.0	568.9	0.260	1.251	-3.24	0.806	53.9	123.5	16.2	0.585
4-5480	4-5870	0.219	83.5	3.8	0.65	1.302	81.3	0.266	0.925	43.6	485.5	0.679	1.170	-3.24	0.942	104.4	245.8	-33.8	0.246
4-5480	4-5880	0.733	39.1	1.6	1.19	1.219	54.2	0.588	0.776	120.2	571.6	0.320	1.232	-3.21	0.823	58.3	131.3	13.6	0.520
4-5480	4-5880	0.183	94.0	8.4	1.19	1.305	83.8	0.251	0.932	32.8	484.3	0.697	1.166	-3.21	0.945	103.6	258.2	-35.6	0.236
4-5480	4-5890	0.650	42.6	2.8	1.73	1.231	58.5	0.520	0.792	113.0	574.0	0.374	1.211	-3.27	0.840	62.3	138.9	10.3	0.459
4-5480	4-5890	0.157	108.7	14.5	1.73	1.308	85.8	0.244	0.939	21.5	482.5	0.711	1.168	-3.27	0.950	103.3	271.2	-36.5	0.234
4-5480	4-5900	0.573	46.2	4.4	2.31	1.241	62.6	0.471	0.809	105.6	576.1	0.428	1.189	-3.43	0.855	65.9	146.5	6.4	0.404
4-5480	4-5900	0.145	128.6	21.4	2.31	1.312	88.1	0.242	0.948	9.6	480.1	0.719	1.178	-3.43	0.956	103.4	284.6	-36.3	0.239
4-5480	4-5910	0.502	49.9	6.8	2.96	1.250	66.3	0.419	0.824	97.8	577.8	0.479	1.169	-3.71	0.870	69.0	154.0	1.7	0.355
4-5480	4-5910	0.152	152.3	26.7	2.96	1.316	90.5	0.249	0.959	357.3	837.3	0.720	1.197	-3.71	0.963	104.0	297.7	-35.1	0.253
4-5480	4-5920	0.439	53.8	10.1	3.76	1.258	69.6	0.373	0.838	89.8	579.3	0.526	1.150	-4.16	0.883	71.6	161.2	-4.1	0.314
4-5480	4-5920	0.179	174.3	28.9	3.76	1.321	93.1	0.263	0.971	344.9	834.5	0.715	1.226	-4.16	0.971	105.0	310.3	-33.2	0.275
4-5480	4-5930	0.387	57.7	15.2	4.82	1.265	72.5	0.334	0.851	81.5	580.6	0.567	1.134	-4.91	0.895	73.8	168.1	-11.3	0.282
4-5480	4-5930	0.226	191.2	29.8	4.82	1.327	95.9	0.286	0.984	332.8	832.0	0.703	1.266	-4.91	0.980	106.6	322.1	-31.0	0.306
4-5480	4-5940	0.350	61.5	23.0	6.40	1.271	75.1	0.301	0.862	73.1	581.9	0.602	1.121	-6.19	0.905	75.4	174.2	-20.6	0.263
4-5480	4-5940	0.290	203.6	30.4	6.40	1.333	99.0	0.317	1.000	321.5	830.2	0.683	1.318	-6.19	0.990	108.5	333.2	-29.2	0.347
4-5480	4-5950	0.341	64.5	35.8	9.22	1.276	77.4	0.276	0.871	64.8	583.2	0.631	1.112	-8.72	0.915	76.7	178.8	-33.8	0.263
4-5480	4-5950	0.376	215.4	33.9	9.22	1.339	102.3	0.356	1.018	311.0	829.4	0.656	1.380	-8.72	1.001	110.8	344.0	-28.2	0.403
4-5480	4-5960	0.421	61.1	56.6	16.22	1.280	79.4	0.256	0.879	56.7	584.6	0.654	1.105	-15.44	0.924	77.6	180.1	-53.3	0.327
4-5480	4-5960	0.522	224.6	45.9	16.22	1.346	105.7	0.399	1.037	301.6	829.5	0.623	1.451	-15.44	1.013	113.5	355.1	-35.0	0.497
4-5480	4-5980	0.478	51.5	-71.8	-20.83	1.287	83.1	0.226	0.893	39.0	587.6	0.691	1.094	22.16	0.939	78.9	247.5	36.8	0.412
4-5480	4-5990	0.589	61.6	-20.0	-8.78	1.431	67.6	0.582	1.375	63.3	261.3	---	2.176	10.39	1.131	57.8	212.9	4.1	0.615
4-5480	4-5990	0.244	91.2	-53.2	-8.78	1.289	84.5	0.219	0.898	31.4	569.5	0.702	1.094	10.39	0.945	79.0	240.4	22.2	0.251
4-5480	4-6000	0.522	72.9	-12.9	-4.96	1.434	70.1	0.566	1.388	56.9	264.8	---	2.174	6.86	1.137	59.3	218.2	-2.7	0.578
4-5480	4-6000	0.174	104.6	-39.8	-4.96	1.292	85.9	0.214	0.903	23.5	591.5	0.710	1.095	6.86	0.951	79.1	243.2	16.9	0.214

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5480	4-6010	0.469	78.2	-8.9	-3.03	1.436	72.6	0.551	1.400	50.3	268.2	---	2.172	5.23	1.142	60.7	225.3	-7.3	0.552
4-5480	4-6010	0.140	118.1	-29.1	-3.03	1.294	87.3	0.211	0.907	15.5	593.4	0.716	1.098	5.23	0.957	79.0	249.1	3.3	0.202
4-5480	4-6020	0.421	84.1	-5.9	-1.80	1.438	75.1	0.538	1.411	45.5	271.4	---	2.170	4.33	1.146	62.0	233.1	-10.6	0.531
4-5480	4-6020	0.123	133.0	-19.3	-1.80	1.295	88.7	0.210	0.911	7.4	595.3	0.719	1.102	4.33	0.962	78.9	256.3	-1.8	0.200
4-5480	4-6030	0.378	91.0	-3.4	-0.90	1.440	77.6	0.527	1.421	36.4	274.3	---	2.170	3.79	1.150	63.2	241.5	-13.1	0.513
4-5480	4-6030	0.119	149.1	-9.9	-0.90	1.297	90.2	0.212	0.914	359.2	957.1	0.721	1.108	3.79	0.966	78.6	264.3	-5.4	0.203
4-5480	4-6040	0.338	99.5	-0.8	-0.19	1.441	80.2	0.518	1.431	28.9	277.0	---	2.171	3.46	1.154	64.2	250.4	-14.9	0.499
4-5480	4-6040	0.126	164.2	-1.9	-0.19	1.299	91.6	0.217	0.916	350.7	958.8	0.719	1.117	3.46	0.970	78.2	272.8	-7.6	0.210
4-5480	4-6050	0.304	110.2	2.1	0.44	1.443	83.0	0.511	1.439	20.9	279.2	---	2.174	3.28	1.157	65.0	259.7	-16.6	0.488
4-5480	4-6050	0.143	178.7	4.0	0.44	1.300	93.3	0.225	0.921	342.0	960.3	0.714	1.128	3.28	0.973	77.6	281.7	-8.7	0.221
4-5480	4-6060	0.279	123.6	5.3	1.02	1.444	85.8	0.506	1.448	12.4	280.8	---	2.180	3.21	1.159	65.6	269.4	-16.4	0.482
4-5480	4-6060	0.169	190.5	7.8	1.02	1.301	95.1	0.236	0.924	333.1	961.5	0.706	1.142	3.21	0.975	76.8	290.8	-8.9	0.238
4-5480	4-6060	0.537	246.1	2.0	1.02	1.190	115.8	0.436	0.735	246.5	1234.9	0.414	1.055	3.21	0.820	107.0	45.2	24.9	0.340
4-5480	4-6060	0.732	249.7	1.4	1.02	1.208	125.3	0.580	0.759	238.8	1227.2	0.319	1.200	3.21	0.847	121.5	57.0	24.4	0.536
4-5480	4-6070	0.268	140.0	8.6	1.59	1.445	89.9	0.505	1.455	3.1	281.7	---	2.190	3.25	1.161	65.8	279.4	-16.0	0.481
4-5480	4-6070	0.205	200.6	10.1	1.59	1.303	97.1	0.253	0.927	323.7	962.3	0.692	1.161	3.25	0.977	75.7	300.0	-8.3	0.257
4-5480	4-6070	0.460	245.0	3.8	1.59	1.182	112.1	0.376	0.725	248.8	1247.4	0.453	0.998	3.25	0.809	97.4	33.5	24.9	0.294
4-5480	4-6080	0.278	158.6	11.5	2.20	1.446	92.4	0.509	1.462	352.8	641.6	0.719	2.206	3.39	1.162	65.7	289.9	-14.7	0.488
4-5480	4-6080	0.250	209.0	11.4	2.20	1.304	99.5	0.277	0.930	313.9	962.6	0.673	1.187	3.39	0.979	74.3	309.4	-6.9	0.285
4-5480	4-6080	0.445	245.0	5.4	2.20	1.179	111.3	0.363	0.722	249.0	1257.7	0.460	0.984	3.39	0.805	91.3	21.3	22.5	0.219
4-5490	4-5550	0.459	207.7	9.5	2.91	1.523	102.3	0.692	2.215	329.7	438.6	0.681	---	-2.93	1.233	120.9	326.9	-20.4	0.646
4-5490	4-5560	0.361	209.6	13.6	3.46	1.434	100.4	0.509	1.398	328.9	447.4	0.687	---	-3.16	1.122	116.4	326.4	-20.1	0.513
4-5490	4-5570	0.294	210.5	19.5	4.13	1.375	98.6	0.390	1.136	328.9	457.0	0.693	---	-3.53	1.048	112.1	332.1	-20.4	0.412
4-5490	4-5580	0.241	210.8	27.5	5.01	1.336	97.0	0.310	1.013	329.7	467.4	0.698	---	-4.13	0.997	108.1	337.9	-22.0	0.334
4-5490	4-5590	0.231	210.7	38.2	6.31	1.309	95.8	0.256	0.946	331.0	478.5	0.703	---	-5.16	0.964	104.4	344.1	-26.0	0.276
4-5490	4-5600	0.243	211.3	52.1	8.55	1.291	94.8	0.219	0.906	332.8	489.9	0.707	---	-7.16	0.943	101.1	351.4	-35.0	0.242
4-5490	4-5610	0.327	218.6	69.4	13.89	1.280	94.0	0.194	0.882	334.7	501.5	0.710	---	-12.25	0.930	98.1	2.7	-52.3	0.265
4-5490	4-5630	0.439	243.0	-78.7	-19.88	1.267	93.5	0.170	0.856	335.3	522.7	0.712	---	22.00	0.919	93.5	300.6	45.8	0.383
4-5490	4-5640	0.191	207.0	-54.8	-7.12	1.265	93.3	0.165	0.853	335.9	533.0	0.713	---	9.48	0.918	91.4	309.4	38.6	0.186
4-5490	4-5650	0.139	206.2	-33.7	-3.50	1.264	93.4	0.163	0.851	335.2	542.2	0.712	0.990	6.11	0.920	89.6	309.3	29.0	0.137
4-5490	4-5660	0.126	207.6	-17.5	-1.72	1.263	93.7	0.164	0.851	333.5	550.6	0.711	0.991	4.61	0.922	87.9	307.0	19.7	0.122
4-5490	4-5670	0.128	210.2	-6.1	-0.62	1.264	94.1	0.168	0.852	330.9	558.1	0.709	0.996	3.79	0.925	86.4	305.6	11.7	0.121
4-5490	4-5680	0.138	213.7	1.6	0.17	1.265	94.7	0.175	0.854	327.5	564.8	0.705	1.004	3.30	0.928	85.0	306.3	5.6	0.130
4-5490	4-5690	0.154	217.7	6.6	0.80	1.267	95.5	0.184	0.857	323.3	570.8	0.700	1.015	3.00	0.931	83.6	308.9	1.7	0.144
4-5490	4-5700	0.174	221.9	9.8	1.35	1.269	96.5	0.196	0.861	318.5	576.1	0.692	1.029	2.84	0.934	82.2	313.2	-0.6	0.163
4-5490	4-5710	0.199	226.2	11.8	1.85	1.271	97.7	0.212	0.864	313.0	580.8	0.682	1.047	2.78	0.936	80.7	318.7	-1.4	0.186
4-5490	4-5720	0.232	230.6	12.8	2.34	1.273	99.3	0.232	0.869	306.8	584.7	0.667	1.070	2.80	0.939	78.9	325.0	-1.1	0.213
4-5490	4-5730	0.273	235.0	13.2	2.86	1.275	101.2	0.259	0.873	299.9	588.0	0.647	1.099	2.92	0.941	76.9	332.0	0.2	0.247
4-5490	4-5740	0.326	239.5	13.2	3.45	1.278	103.8	0.294	0.878	292.2	590.4	0.620	1.136	3.15	0.942	74.4	339.6	2.1	0.289
4-5490	4-5750	0.397	244.3	12.9	4.15	1.280	107.2	0.342	0.883	283.4	591.8	0.580	1.185	3.54	0.943	71.1	347.8	4.8	0.344
4-5490	4-5760	0.496	249.5	12.3	5.08	1.287	111.8	0.410	0.888	273.2	591.6	0.523	1.252	4.18	0.945	66.6	356.8	8.1	0.419
4-5490	4-5760	0.833	280.5	4.7	5.08	1.044	132.9	0.698	0.595	214.2	892.6	0.180	1.010	4.18	0.581	106.4	88.0	28.3	0.479
4-5490	4-5770	0.640	255.7	11.5	6.47	1.266	118.7	0.509	0.894	260.7	589.1	0.439	1.349	5.30	0.946	60.0	7.1	12.0	0.529
4-5490	4-5770	0.830	281.5	5.9	6.47	1.030	132.8	0.700	0.585	213.0	901.4	0.175	0.994	5.30	0.550	86.8	72.0	28.7	0.465
4-5490	4-5780	0.930	283.5	6.5	8.94	1.026	138.3	0.764	0.582	209.6	907.9	0.137	1.026	7.51	0.538	66.7	62.8	27.8	0.566
4-5490	4-5830	0.719	61.8	-5.0	-3.38	1.290	56.3	0.580	0.903	107.0	494.5	0.379	1.426	-6.01	0.934	124.8	200.4	-17.3	0.574
4-5490	4-5840	0.556	68.9	-3.6	-1.72	1.293	64.2	0.473	0.909	92.6	489.7	0.680	1.339	-4.60	0.936	117.5	212.4	-22.0	0.455
4-5490	4-5850	0.443	75.2	-1.8	-0.66	1.296	69.8	0.399	0.916	80.4	487.1	0.550	1.281	-3.81	0.938	112.7	223.9	-25.9	0.379
4-5490	4-5860	0.360	81.5	0.3	0.10	1.299	73.9	0.347	0.922	69.2	485.5	0.602	1.242	-3.34	0.941	109.5	235.4	-29.0	0.327
4-5490	4-5870	0.296	88.2	3.0	0.71	1.301	77.2	0.310	0.928	58.5	484.3	0.640	1.215	-3.04	0.944	107.2	247.1	-31.3	0.292
4-5490	4-5880	0.245	96.1	6.5	1.23	1.304	80.0	0.283	0.934	47.8	483.1	0.669	1.199	-2.87	0.947	105.7	259.2	-32.9	0.269
4-5490	4-5890	0.806	52.7	2.0	1.70	1.213	50.3	0.640	0.770	125.4	570.2	0.277	1.263	-2.79	0.817	58.2	141.7	11.7	0.576
4-5490	4-5890	0.204	306.1	10.9	1.70	1.307	82.5	0.265	0.941	36.9	487.7	0.691	1.191	-2.79	0.951	104.7	271.7	-33.5	0.256
4-5490	4-5900	0.722	56.0	3.0	2.17	1.225	54.8	0.581	0.786	118.6	573.0	0.330	1.243	-2.78	0.834	58.4	149.0	8.5	0.515
4-5490	4-5900	0.174	119.5	16.5	2.17	1.310	84.9	0.254	0.949	25.6	479.9	0.707	1.190	-2.78	0.956	104.2	284.4	-33.3	0.249
4-5490	4-5910	0.643	59.5	4.4	2.64	1.235	58.9	0.523	0.802	111.6	575.5	0.383	1.222	-2.86	0.851	62.1	156.3	4.8	0.457
4-5490	4-5910	0.156	137.7	22.8	2.64	1.314	87.2	0.250	0.957	13.8	477.7	0.718	1.197	-2.86	0.962	104.1	296.9	-32.0	0.251
4-5490	4-5920	0.569	63.0	6.2	3.16	1.245	62.8	0.469	0.818	104.3	577.8	0.434	1.201	-3.03	0.866	65.5	163.6	0.6	0.405
4-5490	4-5920	0.155	160.2	27.9	3.16	1.318	89.7	0.254	0.967	1.7	475.2	0.722	1.212	-3.03	0.969	104.4	309.1	-29.9	0.260
4-5490	4-5930	0.502	66.6	8.6	3.76	1.253	66.3	0.419	0.833	96.7	579.8	0.483	1.182	-3.31	0.880	68.4	170.8	-4.3	0.360
4-5490	4-5930	0.175	182.9	29.8	3.76	1.322	92.2	0.264	0.978	349.5	832.6	0.719	1.236	-3.31	0.976	105.2	320.8	-27.3	0.277
4-5490	4-5940	0.443	70.3	12.1	4.52	1.261	69.6	0.375	0.846	88.9	581.6	0.528	1.163	-3.78	0.893	70.9	178.0	-10.0	0.321
4-5490	4-5940	0.212	201.2	29.4	4.52	1.327	94.9	0.283	0.990	337.6	830.3	0.710	1.271	-3.78	0.985	106.4	331.7	-24.3	0.302
4-5490	4-5950	0.394	74.0	17.3	5.56	1.267	72.4	0.338	0.858	81.0	583.3	0.568	1.148	-4.54	0.905	72.9	184.8	-17.0	0.291
4-5490	4-5950	0.265	214.7	28.8	5.56	1.333	97.8	0.310	1.005	326.3	828.6	0.693	1.317	-4.54	0.995	108.1	342.1	-21.5	0.336
4-5490	4-5960	0.360	77.6	25.3	7.19	1.273	74.9	0.367	0.868	72.9	584.9	0.602	1.135	-5.92	0.916	74.5	191.2	-26.1	0.272
4-5490	4-5960	0.333	224.8	29.6	7.19	1.339	100.9	0.345	1.021	315.7	827.7	0.669	1.373	-5.92	1.005	110.1	352.1	-19.6	0.379
4-5490	4-5970	0.359	80.0	38.8	10.40	1.278	77.2	0.281	0.878	64.8	586.5	0.631	1.125	-8.88	0.925	75.8	196.0	-39.8	0.276
4-5490	4-5970	0.425	233.4	33.6	10.40	1.345	104.2	0.385	1.039	306.0	827.7	0.639	1.438	-8.88	1.016	112.5	2.2	-20.2	0.437
4-5490	4-5980	0.499	70.6	62.0	20.47	1.282	79.1	0.262	0.886	56.9	588.2	0.654	1.118	-18.71	0.934	76.7	197.4	-63.6	0.379
4-5490	4-5980	0.615	246.6	47.1	20.47	1.351	107.7	0.429	1.058	297.2	828.5	0.604	1.511	-18.71	1.028	115.2	12.9	-30.0	0.557
4-5490	4-6000	0.303	96.5	-55.8	-11.30	1.288	82.9	0.232	0.899	39.6	591.5	0.691	1.107	12.53	0.949	78.0	249.7	24.6	0.301
4-5490	4-6010	0.555	86.2	-12.1	-5.01	1.432	68.3	0.580	1.389	61.3	263.1	---	2.194	7.49	1.139	58.3	228.8	-5.5	0.600
4-5490	4-6010	0.192	110.8	-35.7	-5.01	1.291	84.4	0.223	0.904	31.6	593.3	0.702	1.106	7.49	0.955	78.3	250.9	9.8	0.232
4-5490	4-6020	0.499	91.1	-6.9	-2.53	1.435	70.8	0.564	1.401	54.8	266.6	---	2.192	5.27	1.144	59.8	235.8	-10.3	0.571
4-5490	4-6020	0.150	122.5	-22.3	-2.53	1.293	85.9	0.218	0.909	23.4	595.2	0.718	1.107	5.27	0.950	78.5	256.9	1.2	0.212
4-5490	4-6030	0.451	96.4	-3.5	-1.15	1.437	73.3	0.549	1.413	48.1	270.0	---	2.189	4.16	1.148	61.2	243.8	-13.5	0.548
4-5490	4-6030	0.129	135.9	-11.6	-1.15	1.295	87.4	0.215	0.913	15.0	596.9	0.717	1.109	4.16	0.965	78.5	264.6	-3.9	0.207
4-5490	4-6040	0.406	102.7	-0.7	-0.22	1.438	75.9	0.537	1.424	41.1	273.1	---	2.188	3.52	1.152	62.5	252.3	-15.6	0.528
4-5490	4-6040	0.119	151.4	-23.4	-0.22	1.297	88.8	0.214	0.917	6.6	598.5	0.721	1.114	3.52	0.969	78.4	273.0	-7.1	0.207

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5490	4-6050	0.364	110.2	1.4	0.49	1.440	78.5	0.526	1.434	33.8	275.9	---	2.188	3.14	1.155	63.6	261.3	-16.8	0.512
4-5490	4-6050	0.121	168.0	5.2	0.49	1.298	90.4	0.216	0.921	357.9	960.0	0.722	1.120	3.14	0.973	78.1	281.9	-8.7	0.212
4-5490	4-6060	0.327	119.5	4.7	1.07	1.442	81.2	0.517	1.443	26.0	278.3	---	2.189	2.91	1.158	64.5	270.6	-17.3	0.499
4-5490	4-6060	0.133	184.0	10.4	1.07	1.300	92.0	0.222	0.924	349.1	961.3	0.719	1.129	2.91	0.976	77.7	291.0	-9.2	0.220
4-5490	4-6070	0.296	131.2	7.7	1.59	1.443	84.0	0.511	1.452	17.8	280.3	---	2.193	2.80	1.160	65.3	280.2	-17.1	0.490
4-5490	4-6070	0.155	198.0	13.4	1.59	1.301	93.7	0.231	0.927	339.9	962.4	0.714	1.141	2.80	0.978	77.1	300.2	-8.8	0.233
4-5490	4-6080	0.277	145.9	10.9	2.08	1.444	87.0	0.508	1.460	8.9	281.5	---	2.201	2.78	1.161	65.7	290.9	-16.0	0.486
4-5490	4-6080	0.186	209.7	14.7	2.08	1.303	95.7	0.244	0.931	330.5	963.1	0.703	1.158	2.78	0.979	76.2	309.5	-7.5	0.250
4-5490	4-6080	0.474	260.8	4.8	2.08	1.185	112.7	0.306	0.732	249.2	1241.9	0.449	1.014	2.78	0.817	100.8	54.5	28.1	0.264
4-5490	4-6090	0.274	163.5	13.8	2.59	1.446	90.3	0.508	1.467	359.2	642.0	0.722	2.213	2.85	1.162	65.8	300.1	-14.2	0.488
4-5490	4-6090	0.225	219.5	15.0	2.59	1.304	97.9	0.263	0.934	320.7	963.5	0.688	1.179	2.85	0.980	75.0	318.8	-5.5	0.273
4-5490	4-6090	0.443	260.5	6.5	2.59	1.182	111.1	0.360	0.727	250.0	1252.8	0.465	0.989	2.85	0.810	94.0	42.2	27.3	0.218
4-5500	4-5550	0.502	212.6	8.7	2.75	1.605	100.2	0.866	5.221	337.9	430.8	0.698	---	-2.13	1.334	122.5	324.8	-17.	0.739
4-5500	4-5560	0.378	215.1	12.2	3.12	1.484	98.6	0.604	1.771	337.0	439.5	0.701	---	-2.18	1.187	118.1	329.7	-16.6	0.575
4-5500	4-5570	0.294	216.1	16.9	3.51	1.406	97.0	0.443	1.267	337.0	449.1	0.705	---	-2.29	1.090	113.8	334.7	-15.9	0.453
4-5500	4-5580	0.238	215.8	23.7	3.96	1.355	95.5	0.340	1.075	338.0	459.7	0.710	---	-2.50	1.026	109.6	339.7	-15.8	0.361
4-5500	4-5590	0.205	214.4	30.9	4.52	1.321	94.3	0.272	0.980	339.7	471.2	0.713	---	-2.84	0.983	105.7	344.6	-16.7	0.290
4-5500	4-5600	0.185	212.2	40.2	5.29	1.299	93.3	0.227	0.927	342.0	483.2	0.717	---	-3.39	0.956	102.2	349.4	-19.4	0.235
4-5500	4-5610	0.187	210.0	50.8	6.48	1.284	92.6	0.197	0.895	344.4	495.4	0.719	---	-4.38	0.939	99.2	354.5	-25.6	0.195
4-5500	4-5620	0.217	209.1	63.2	8.76	1.275	92.0	0.178	0.876	346.6	507.4	0.720	---	-6.47	0.929	96.5	1.1	-36.4	0.181
4-5500	4-5630	0.347	221.3	79.4	15.58	1.269	91.7	0.166	0.865	348.2	518.8	0.721	---	-13.10	0.924	94.1	14.7	-59.3	0.249
4-5500	4-5650	0.202	208.3	-64.6	-8.32	1.264	91.7	0.157	0.855	347.3	538.4	0.721	---	11.17	0.923	90.3	306.5	42.9	0.208
4-5500	4-5660	0.117	206.8	-33.0	-2.90	1.263	91.9	0.157	0.855	346.0	547.0	0.720	0.989	5.94	0.924	88.7	309.5	29.2	0.134
4-5500	4-5670	0.106	209.9	-10.6	-0.88	1.264	92.2	0.160	0.856	343.7	554.8	0.719	0.992	4.12	0.927	87.2	309.4	17.2	0.118
4-5500	4-5680	0.111	214.5	2.5	0.22	1.265	92.7	0.164	0.858	340.4	561.6	0.717	0.998	3.23	0.930	85.9	310.1	8.6	0.119
4-5500	4-5690	0.122	219.7	9.8	0.95	1.267	93.4	0.170	0.861	336.4	567.7	0.714	1.007	2.72	0.933	84.7	312.4	3.1	0.129
4-5500	4-5700	0.138	225.2	13.8	1.50	1.268	94.2	0.178	0.864	331.6	573.2	0.710	1.018	2.42	0.936	83.5	316.3	-0.0	0.143
4-5500	4-5710	0.157	230.8	15.9	1.95	1.270	95.2	0.189	0.868	326.3	578.0	0.704	1.032	2.24	0.939	82.2	321.4	-1.4	0.160
4-5500	4-5720	0.181	236.2	16.6	2.35	1.273	96.4	0.203	0.872	320.4	582.3	0.695	1.049	2.15	0.941	80.9	327.3	-1.4	0.181
4-5500	4-5730	0.210	241.5	16.6	2.72	1.275	97.9	0.221	0.877	313.9	585.9	0.683	1.070	2.13	0.943	79.4	334.0	-0.4	0.205
4-5500	4-5740	0.247	246.5	16.1	3.11	1.277	99.7	0.244	0.881	306.8	589.0	0.666	1.096	2.18	0.945	77.6	341.1	1.3	0.234
4-5500	4-5750	0.293	251.4	15.2	3.52	1.280	101.9	0.274	0.886	299.0	591.4	0.643	1.129	2.30	0.946	75.5	348.8	3.7	0.270
4-5500	4-5760	0.353	256.4	14.2	4.00	1.282	104.9	0.315	0.891	290.5	592.9	0.611	1.171	2.52	0.947	72.8	356.9	6.5	0.315
4-5500	4-5770	0.434	261.6	13.0	4.59	1.285	108.8	0.370	0.896	280.9	593.3	0.565	1.228	2.88	0.947	69.2	5.7	9.9	0.376
4-5500	4-5770	0.874	295.6	4.0	4.59	1.067	134.9	0.718	0.614	215.0	887.3	0.173	1.055	2.88	0.620	117.7	113.0	24.8	0.533
4-5500	4-5780	0.547	267.3	11.7	5.40	1.287	114.2	0.448	0.902	269.6	591.9	0.498	1.306	3.48	0.948	64.0	15.5	13.6	0.461
4-5500	4-5780	0.802	296.2	5.3	5.40	1.042	131.2	0.678	0.595	215.0	897.3	0.191	0.998	3.48	0.572	95.6	95.8	27.9	0.439
4-5500	4-5790	0.715	274.1	10.2	6.68	1.291	122.3	0.562	0.908	255.6	587.8	0.398	1.419	4.56	0.949	56.2	27.0	17.7	0.588
4-5500	4-5790	0.849	297.4	5.9	6.68	1.035	133.8	0.711	0.590	213.0	905.1	0.171	1.009	4.56	0.553	77.7	82.7	28.4	0.483
4-5500	4-5850	0.657	80.9	-1.6	-0.95	1.295	59.3	0.543	0.918	101.1	491.7	0.420	1.416	-4.17	0.940	122.4	222.3	-22.8	0.534
4-5500	4-5860	0.513	87.9	0.3	0.13	1.298	66.3	0.448	0.925	87.2	487.4	0.510	1.339	-3.29	0.943	116.1	235.0	-26.2	0.433
4-5500	4-5870	0.411	94.4	2.5	0.85	1.301	71.4	0.383	0.931	75.0	484.7	0.575	1.287	-2.79	0.945	111.9	247.4	-28.6	0.367
4-5500	4-5880	0.335	101.1	5.2	1.38	1.303	75.3	0.336	0.937	63.6	482.9	0.622	1.252	-2.47	0.949	109.1	259.6	-30.0	0.323
4-5500	4-5890	0.275	108.7	8.5	1.82	1.306	78.5	0.303	0.943	52.5	481.3	0.657	1.230	-2.28	0.952	107.1	271.9	-30.5	0.293
4-5500	4-5900	0.228	118.1	12.6	2.21	1.309	81.3	0.280	0.950	41.3	479.6	0.684	1.217	-2.17	0.957	105.8	284.2	-30.1	0.274
4-5500	4-5910	0.793	69.6	3.1	2.57	1.219	51.0	0.631	0.781	123.7	571.6	0.288	1.273	-2.13	0.830	54.4	159.2	6.0	0.569
4-5500	4-5910	0.193	330.3	17.7	2.57	1.312	83.9	0.266	0.958	29.8	477.7	0.703	1.212	-2.13	0.962	105.0	296.3	-28.9	0.265
4-5500	4-5920	0.713	72.9	4.2	2.92	1.229	55.3	0.574	0.797	117.0	574.5	0.340	1.254	-2.14	0.847	58.4	166.3	2.6	0.511
4-5500	4-5920	0.169	146.8	23.4	2.92	1.316	86.3	0.259	0.966	18.1	475.5	0.716	1.216	-2.14	0.968	104.7	308.1	-26.7	0.263
4-5500	4-5930	0.636	76.3	5.5	3.30	1.239	59.4	0.518	0.812	110.1	577.1	0.391	1.233	-2.22	0.863	61.9	173.5	-1.2	0.456
4-5500	4-5930	0.161	168.0	28.1	3.30	1.319	88.7	0.259	0.975	6.1	473.1	0.722	1.227	-2.22	0.975	104.9	319.5	-24.0	0.268
4-5500	4-5940	0.565	79.7	7.3	3.71	1.248	63.1	0.466	0.827	103.0	579.6	0.442	1.213	-2.38	0.878	65.1	180.7	-5.4	0.407
4-5500	4-5940	0.172	190.9	30.0	3.71	1.323	91.3	0.267	0.985	354.0	830.7	0.722	1.248	-2.38	0.982	105.4	330.4	-20.7	0.280
4-5500	4-5950	0.500	83.3	9.7	4.21	1.256	66.5	0.419	0.841	95.6	581.9	0.489	1.193	-2.64	0.892	67.9	188.1	-10.0	0.363
4-5500	4-5950	0.200	210.6	29.1	4.21	1.328	93.9	0.282	0.997	342.2	828.5	0.715	1.278	-2.64	0.991	106.4	340.7	-17.2	0.300
4-5500	4-5960	0.443	86.9	13.1	4.85	1.263	69.6	0.376	0.854	87.9	584.0	0.532	1.175	-3.06	0.905	70.3	195.5	-15.3	0.327
4-5500	4-5960	0.244	225.3	27.3	4.85	1.333	96.7	0.305	1.010	330.9	826.9	0.702	1.318	-3.06	1.000	107.8	350.5	-13.8	0.328
4-5500	4-5970	0.395	90.7	17.9	5.78	1.269	72.4	0.340	0.865	80.1	585.9	0.571	1.160	-3.78	0.916	72.2	202.9	-21.6	0.298
4-5500	4-5970	0.301	236.2	26.2	5.78	1.338	99.7	0.336	1.025	320.2	826.0	0.681	1.369	-3.78	1.010	103.6	-0.1	-10.8	0.363
4-5500	4-5980	0.362	94.2	25.7	7.34	1.274	74.9	0.310	0.876	72.2	587.8	0.604	1.147	-5.16	0.927	73.8	210.1	-30.1	0.279
4-5500	4-5980	0.371	244.7	26.8	7.34	1.344	102.9	0.372	1.041	310.3	826.0	0.654	1.429	-5.16	1.020	111.7	9.5	-9.0	0.407
4-5500	4-5990	0.366	96.4	39.9	10.87	1.279	77.1	0.285	0.884	64.2	589.6	0.653	1.136	-8.49	0.936	75.3	216.2	-44.3	0.283
4-5500	4-5990	0.466	252.4	31.6	10.87	1.350	106.2	0.413	1.059	301.3	826.7	0.621	1.497	-8.49	1.031	114.2	19.4	-10.5	0.466
4-5500	4-6000	0.642	70.9	67.7	28.13	1.283	79.1	0.266	0.892	56.4	591.5	0.655	1.129	-25.57	0.944	76.0	227.5	-75.8	0.484
4-5500	4-6010	0.441	95.7	-64.3	-18.23	1.286	81.	0.247	0.899	47.2	593.1	0.677	1.121	20.98	0.952	76.9	262.2	30.3	0.415
4-5500	4-6020	0.588	99.6	-11.0	-4.92	1.431	66.5	0.593	1.390	65.6	261.3	---	2.215	7.85	1.142	57.2	239.3	-8.0	0.623
4-5500	4-6020	0.212	119.1	-31.1	-4.92	1.289	82.8	0.235	0.905	39.2	594.9	0.692	1.118	7.85	0.958	77.4	258.4	8.0	0.249
4-5500	4-6030	0.530	104.3	-4.4	-1.76	1.433	69.1	0.576	1.403	59.1	264.9	---	2.211	4.89	1.146	58.8	246.4	-13.4	0.590
4-5500	4-6030	0.165	129.3	-13.9	-1.76	1.292	84.4	0.227	0.911	30.8	596.6	0.704	1.117	4.89	0.964	77.8	264.8	-2.2	0.222
4-5500	4-6040	0.481	109.2	-0.8	-0.29	1.435	71.6	0.561	1.415	52.5	268.4	---	2.208	3.63	1.150	60.3	254.7	-16.2	0.565
4-5500	4-6040	0.141	140.8	-2.7	-0.29	1.294	86.0	0.221	0.915	22.4	598.3	0.713	1.118	3.63	0.988	78.0	273.1	-7.2	0.214
4-5500	4-6050	0.435	114.8	1.9	0.60	1.437	74.2	0.547	1.426	45.6	271.6	---	2.206	2.95	1.154	61.7	263.5	-17.8	0.544
4-5500	4-6050	0.128	154.7	6.0	0.60	1.296	87.6	0.218	0.920	13.7	599.8	0.719	1.120	2.95	0.972	78.1	282.1	-9.6	0.212
4-5500	4-6060	0.392	121.5	4.4	1.22	1.439	76.8	0.535	1.437	38.4	274.6	---	2.205	2.56	1.157	62.9	272.6	-18.4	0.526
4-5500	4-6060	0.125	170.9	12.9	1.22	1.298	89.1	0.218	0.924	4.9	601.1	0.723	1.125	2.56	0.975	78.0	291.3	-10.5	0.215
4-5500	4-6070	0.352	129.7	6.9	1.72	1.440	79.5	0.524	1.446	30.9	277.3	---	2.205	2.32	1.159	64.0	281.9	-18.2	0.511
4-5500	4-6070	0.131	188.0	17.3	1.72	1.299	90.7	0.221	0.927	356.9	962.3	0.723	1.132	2.32	0.978	77.7	300.6	-10.2	0.221
4-5500	4-6080	0.318	139.9	9.7	2.14	1.442	82.3	0.517	1.455	22.9	279.5	---	2.207	2.19	1.160	64.8	291.3	-17.3	0.499
4-5500	4-6080	0.146	204.0	19.4	2.14	1.301	92.5	0.227	0.931	346.6	963.2	0.719	1.142	2.19	0.979	77.3	309.9	-9.0	0.231
4-5500	4-6090	0.291	152.9	12.6	2.53	1.443	85.2	0.511	1.464	14.3	281.1	---	2.212	2.13	1.161	65.4	300.9	-15.7	0.492

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL
4-5500	4-6090	0.171	217.8	19.6	2.53	1.302	94.3	0.238	0.934	337.1	963.9	0.712	1.156
4-5500	4-6090	0.509	277.0	5.4	2.53	1.190	114.3	0.412	0.741	248.8	1235.5	0.436	1.046
4-5500	4-6090	0.742	281.6	3.4	2.53	1.212	125.7	0.585	0.771	239.3	1226.0	0.320	1.222
4-5500	4-6100	0.278	169.0	15.3	2.90	1.445	88.3	0.509	1.472	5.1	282.0	---	2.221
4-5500	4-6100	0.205	229.2	18.7	2.90	1.304	96.4	0.253	0.937	327.3	964.2	0.700	1.175
4-5500	4-6100	0.447	276.1	7.2	2.90	1.184	111.3	0.363	0.733	250.7	1247.6	0.467	0.999
4-5510	4-5550	0.573	214.7	8.4	2.82	1.713	96.9	1.124	-5.741	346.9	423.8	0.714	---
4-5510	4-5560	0.407	217.6	11.6	3.05	1.545	96.0	0.733	2.630	345.8	432.3	0.715	---
4-5510	4-5570	0.302	218.6	15.8	3.27	1.442	94.8	0.511	1.466	345.9	442.0	0.717	---
4-5510	4-5580	0.233	217.5	21.1	3.50	1.378	93.5	0.376	1.153	347.1	452.9	0.719	---
4-5510	4-5590	0.189	214.6	27.5	3.76	1.333	92.4	0.291	1.017	349.4	464.9	0.722	---
4-5510	4-5600	0.163	210.2	34.5	4.06	1.306	91.8	0.236	0.947	352.4	477.6	0.723	---
4-5510	4-5610	0.150	204.9	41.7	4.45	1.288	90.7	0.201	0.906	355.6	490.7	0.724	---
4-5510	4-5620	0.148	200.0	48.7	5.00	1.276	90.2	0.179	0.883	358.5	503.4	0.724	---
4-5510	4-5630	0.158	196.5	56.0	5.92	1.269	89.9	0.166	0.869	0.6	155.4	---	---
4-5510	4-5640	0.192	194.7	65.8	7.96	1.265	89.8	0.159	0.861	1.6	166.3	---	---
4-5510	4-5650	0.379	198.2	85.3	17.38	1.263	89.8	0.155	0.857	1.6	176.3	---	---
4-5510	4-5660	0.265	200.9	-76.4	-11.79	1.262	90.1	0.154	0.856	359.5	544.6	0.724	0.988
4-5510	4-5670	0.097	202.5	-23.3	-1.75	1.263	90.4	0.155	0.857	357.4	552.5	0.724	0.990
4-5510	4-5680	0.094	208.3	4.6	0.34	1.264	90.8	0.158	0.859	354.1	559.4	0.724	0.995
4-5510	4-5690	0.102	215.3	16.0	1.28	1.266	91.4	0.162	0.863	350.1	565.5	0.724	1.002
4-5510	4-5700	0.114	222.9	20.9	1.84	1.268	92.1	0.168	0.866	345.4	570.9	0.721	1.011
4-5510	4-5710	0.128	230.6	22.7	2.24	1.270	92.9	0.175	0.870	340.0	575.8	0.718	1.023
4-5510	4-5720	0.145	238.0	22.8	2.54	1.272	93.9	0.185	0.875	334.2	580.1	0.713	1.036
4-5510	4-5730	0.166	245.0	22.0	2.80	1.274	95.1	0.197	0.879	327.9	584.0	0.706	1.053
4-5510	4-5740	0.191	251.4	20.6	3.04	1.277	96.5	0.213	0.884	321.0	587.3	0.696	1.072
4-5510	4-5750	0.223	257.3	18.9	3.28	1.279	98.2	0.233	0.889	313.8	590.1	0.682	1.096
4-5510	4-5760	0.263	262.8	17.1	3.52	1.282	100.3	0.259	0.894	306.0	592.4	0.663	1.125
4-5510	4-5770	0.314	268.2	15.2	3.78	1.284	102.9	0.293	0.899	297.5	593.9	0.636	1.162
4-5510	4-5780	0.382	273.4	13.4	4.10	1.287	106.2	0.338	0.905	288.3	594.6	0.599	1.210
4-5510	4-5790	0.473	278.9	11.6	4.50	1.289	110.7	0.401	0.910	277.8	594.0	0.545	1.275
4-5510	4-5790	0.798	310.9	4.5	4.50	1.056	130.9	0.671	0.607	216.5	892.8	0.200	1.015
4-5510	4-5800	0.603	285.1	9.7	5.09	1.292	117.0	0.491	0.916	265.4	591.5	0.467	1.366
4-5510	4-5800	0.798	311.8	5.0	5.09	1.044	131.0	0.675	0.599	215.4	901.5	0.195	1.003
4-5510	4-5810	0.884	313.5	5.0	6.07	1.041	135.9	0.733	0.596	212.3	908.2	0.159	1.033
4-5510	4-5870	0.603	99.9	2.2	1.16	1.300	62.0	0.509	0.933	95.2	488.9	0.458	1.408
4-5510	4-5880	0.475	106.9	4.4	1.73	1.303	68.4	0.425	0.940	81.6	484.8	0.540	1.340
4-5510	4-5890	0.382	113.7	7.0	2.13	1.305	73.1	0.367	0.946	69.3	482.1	0.599	1.293
4-5510	4-5900	0.311	121.2	10.0	2.44	1.306	76.8	0.326	0.953	57.5	479.9	0.642	1.263
4-5510	4-5910	0.257	130.0	13.7	2.70	1.311	79.9	0.298	0.959	46.0	477.8	0.674	1.245
4-5510	4-5920	0.214	141.3	18.1	2.93	1.314	82.7	0.279	0.966	34.3	475.7	0.697	1.236
4-5510	4-5930	0.781	86.5	3.9	3.15	1.224	51.8	0.622	0.791	122.1	573.1	0.299	1.283
4-5510	4-5930	0.184	156.3	23.1	3.15	1.317	85.3	0.268	0.974	22.4	473.5	0.713	1.235
4-5510	4-5940	0.702	89.8	4.9	3.38	1.234	56.0	0.566	0.807	115.4	576.1	0.350	1.263
4-5510	4-5940	0.168	175.9	27.5	3.38	1.320	87.8	0.265	0.983	10.5	471.1	0.722	1.242
4-5510	4-5950	0.628	93.1	6.2	3.62	1.243	59.9	0.512	0.822	108.6	578.9	0.401	1.243
4-5510	4-5950	0.170	198.4	29.4	3.62	1.324	90.3	0.270	0.992	358.5	828.8	0.724	1.260
4-5510	4-5960	0.559	96.6	7.8	3.89	1.251	63.5	0.462	0.836	101.5	581.6	0.450	1.223
4-5510	4-5960	0.190	219.3	28.3	3.89	1.328	92.9	0.282	1.003	346.7	826.8	0.720	1.286
4-5510	4-5970	0.495	100.1	9.9	4.23	1.259	66.8	0.416	0.850	94.2	584.0	0.496	1.208
4-5510	4-5970	0.226	235.5	25.7	4.23	1.333	95.6	0.302	1.015	335.3	825.2	0.709	1.322
4-5510	4-5980	0.439	103.8	12.8	4.68	1.265	69.9	0.376	0.862	86.6	586.3	0.538	1.186
4-5510	4-5980	0.274	247.5	23.2	4.68	1.338	98.5	0.328	1.029	324.6	824.3	0.691	1.367
4-5510	4-5990	0.391	107.6	16.9	5.37	1.271	72.6	0.340	0.873	78.9	588.5	0.576	1.170
4-5510	4-5990	0.333	256.4	21.7	5.37	1.343	101.6	0.361	1.045	314.6	824.2	0.667	1.422
4-5510	4-6000	0.355	111.4	23.7	6.65	1.276	75.1	0.311	0.883	71.0	590.5	0.608	1.157
4-5510	4-6000	0.402	263.6	22.0	6.65	1.349	104.8	0.400	1.061	305.4	824.9	0.637	1.485
4-5510	4-6010	0.357	113.8	30.4	10.23	1.280	77.3	0.286	0.892	63.0	592.5	0.636	1.147
4-5510	4-6010	0.497	270.4	27.4	10.23	1.354	108.2	0.442	1.079	296.8	826.3	0.602	1.556
4-5510	4-6030	0.233	129.1	-25.4	-4.50	1.287	81.2	0.250	0.906	46.3	596.1	0.680	1.132
4-5510	4-6030	0.605	277.1	-9.2	-4.50	1.366	115.5	0.535	1.119	281.1	830.9	0.520	1.717
4-5510	4-6040	0.562	117.7	-1.2	-0.50	1.431	67.4	0.589	1.404	63.3	263.2	---	2.231
4-5510	4-6040	0.184	137.9	-3.5	-0.50	1.290	83.0	0.238	0.912	37.9	597.8	0.695	1.129
4-5510	4-6050	0.513	122.2	2.2	0.86	1.434	70.0	0.573	1.417	56.7	266.7	---	2.228
4-5510	4-6050	0.161	147.5	6.9	0.86	1.293	84.7	0.229	0.917	29.3	599.4	0.707	1.128
4-5510	4-6060	0.466	127.3	4.6	1.58	1.436	72.6	0.557	1.428	49.9	270.1	---	2.225
4-5510	4-6060	0.144	159.6	14.2	1.58	1.295	86.3	0.224	0.922	20.5	600.8	0.716	1.128
4-5510	4-6070	0.422	133.3	6.7	2.04	1.437	75.2	0.544	1.439	42.8	273.2	---	2.222
4-5510	4-6070	0.135	174.4	19.9	2.04	1.297	87.9	0.221	0.927	11.6	602.0	0.722	1.131
4-5510	4-6080	0.380	140.6	8.9	2.39	1.439	77.8	0.532	1.450	35.4	276.0	---	2.221
4-5510	4-6080	0.135	191.4	23.7	2.39	1.299	89.6	0.222	0.931	2.5	603.1	0.724	1.137
4-5510	4-6090	0.342	149.6	11.2	2.67	1.441	80.6	0.523	1.459	27.7	278.4	---	2.222
4-5510	4-6090	0.143	208.8	25.0	2.67	1.300	91.3	0.226	0.934	353.1	963.9	0.723	1.145
4-5510	4-6100	0.310	161.0	13.6	2.92	1.442	83.4	0.516	1.468	19.4	280.3	---	2.225
4-5510	4-6100	0.161	224.6	24.3	2.92	1.302	93.1	0.233	0.938	343.6	964.5	0.719	1.157
4-5510	4-6110	0.288	175.2	16.0	3.15	1.444	86.4	0.512	1.476	10.5	281.6	---	2.232
4-5510	4-6110	0.188	237.8	22.4	3.15	1.303	95.1	0.246	0.941	333.8	964.8	0.710	1.172
4-5510	4-6110	0.461	291.9	7.6	3.15	1.187	111.9	0.374	0.740	251.0	1242.1	0.463	1.016
4-5520	4-5560	0.464	216.9	11.4	3.23	1.625	92.1	0.917	8.702	355.6	426.1	0.725	---
4-5520	4-5570	0.324	217.3	15.3	3.30	1.484	91.6	0.598	1.804	355.7	435.9	0.725	---

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5500	4-6090	0.171	217.8	19.6	2.13	0.980	76.6	319.2	-7.1	0.245
4-5500	4-6090	0.509	277.0	5.4	2.13	0.826	105.3	76.7	28.5	0.306
4-5500	4-6090	0.742	281.6	3.4	2.13	0.857	122.5	91.6	26.3	0.541
4-5500	4-6100	0.278	169.0	15.3	2.14	1.162	65.7	310.5	-13.5	0.490
4-5500	4-6100	0.205	229.2	18.7	2.14	0.981	75.6	328.3	-4.6	0.263
4-5500	4-6100	0.447	276.1	7.2	2.14	0.815	96.9	64.6	29.2	0.226
4-5510	4-5550	0.573	214.7	8.4	-1.35	1.465	124.0	328.8	-14.7	0.859
4-5510	4-5560	0.407	217.6	11.6	-1.32	1.265	119.7	332.9	-13.6	0.648
4-5510	4-5570	0.302	218.6	15.8	-1.32	1.138	115.3	337.2	-12.5	0.501
4-5510	4-5580	0.233	217.5	21.1	-1.37	1.056	110.9	341.5	-11.5	0.392
4-5510	4-5590	0.189	214.6	27.5	-1.46	1.002	106.9	345.7	-11.0	0.309
4-5510	4-5600	0.163	210.2	34.5	-1.61	0.968	103.2	349.4	-11.3	0.245
4-5510	4-5610	0.150	204.9	41.7	-1.86	0.946	100.0	352.6	-12.9	0.195
4-5510	4-5620	0.148	200.0	48.7	-2.28	0.933	97.1	354.9	-17.0	0.157
4-5510	4-5630	0.158	196.5	56.0	-3.09	0.927	94.7	356.7	-25.5	0.133
4-5510	4-5640	0.192	194.7	65.8	-5.00	0.924	92.5	0.4	-41.6	0.132
4-5510	4-5650	0.379	198.2	85.3	-14.31	0.924	90.7	20.4	-64.9	0.257
4-5510	4-5660	0.265	200.9	-76.4	14.97	0.926	89.2	303.0	46.7	0.267
4-5510	4-5670	0.097	202.5	-23.3	5.05	0.928	87.7	310.6	24.5	0.125
4-5510	4-5680	0.094	208.3	4.6	3.08	0.932	86.5	313.1	10.0	0.112
4-5510	4-5690	0.102	215.3	16.0	2.27	0.935	85.3	315.6	2.2	0.118
4-5510	4-5700	0.114	222.9	20.9	1.84	0.938	84.3	319.4	-1.7	0.129
4-5510	4-5710	0.128	230.6	22.7	1.59	0.941	83.2	324.3	-3.2	0.143
4-5510	4-5720	0.145	238.0	22.8	1.44	0.943	82.1	330.0	-3.2	0.159
4-5510	4-5730	0.166	245.0	22.0	1.35	0.945	80.9	336.4	-2.2	0.178
4-5510	4-5740	0.191	251.4	20.6	1.32	0.947	79.6	343.2	-0.5	0.199
4-5510	4-5750	0.223	257.3	18.9	1.32	0.948	78.1	350.5	1.9	0.224
4-5510	4-5760	0.263	262.8	17.1	1.37	0.949	76.3	358.2	4.6	0.255
4-5510	4-5770	0.314	268.2	15.2	1.47	0.949	74.1	6.3	7.7	0.293
4-5510	4-5780	0.382	273.4	13.4	1.63	0.950	71.1	14.9	11.0	0.342
4-5510	4-5790	0.473	278.9	11.6	1.90	0.950	67.0	24.4	14.5	0.409
4-5510	4-5790	0.798	310.9	4.5	1.90	0.596	104.1	119.4	23.2	0.442
4-5510	4-5800	0.603	285.1	9.7	2.36	0.951	61.1	35.2	18.1	0.506
4-5510	4-5800	0.798	311.8	5.0	2.36	0.571	86.9	104.8	25.9	0.432
4-5510	4-5810	0.884	313.5	5.0	3.22	0.559	69.1	95.6	26.6	0.521
4-5510	4-5870	0.603	99.9	2.2	-2.37	0.947	120.2	245.4	-25.4	0.502
4-5510	4-5880	0.475	106.9	4.4	-1.92	0.950	114.8	258.6	-27.0	0.416
4-5510	4-5890	0.382	113.7	7.0	-1.65	0.954	111.1	271.3	-27.5	0.359
4-5510	4-5900	0.311	121.2	10.0	-1.48	0.958	108.7	283.6	-27.1	0.321
4-5510	4-5910	0.257	130.0	13.7	-1.38	0.963	107.0	295.5	-25.7	0.296
4-5510	4-5920	0.214	141.3	18.1	-1.33	0.968	105.9	307.1	-23.6	0.281
4-5510	4-5930	0.781	86.5	3.9	-1.31	0.844	54.6	176.4	-0.2	0.564
4-5510	4-5930	0.184	156.3	23.1	-1.31	0.974	105.4	318.3	-20.8	0.275
4-5510	4-5940	0.702	89.8	4.9	-1.34	0.860	58.4	183.5	-3.6	0.508
4-5510	4-5940	0.168	175.9	27.5	-1.34	0.981	105.3	329.0	-17.5	0.277
4-5510	4-5950	0.628	93.1	6.2	-1.40	0.876	61.8	190.9	-7.2	0.456
4-5510	4-5950	0.170	198.4	29.4	-1.40	0.988	105.6	339.3	-13.8	0.285
4-5510	4-5960	0.559	96.6	7.8	-1.52	0.891	64.9	198.4	-11.0	0.409
4-5510	4-5960	0.190	219.3	28.3	-1.52	0.997	106.4	349.2	-9.9	0.301
4-5510	4-5970	0.495	100.1	9.9	-1.71	0.905	67.6	206.2	-15.0	0.367
4-5510	4-5970	0.226	235.5	25.7	-1.71	1.005	107.5	358.7	-6.1	0.323
4-5510	4-5980	0.439	103.8	12.8	-2.03	0.917	69.9	214.2	-19.3	0.332
4-5510	4-5980	0.274	247.5	23.2	-2.03	1.015	109.1	8.1	-2.5	0.353
4-5510	4-5990	0.391	107.6	16.9	-2.60	0.928	71.8	222.5	-24.3	0.303
4-5510	4-5990	0.333	256.4	21.7	-2.60	1.024	111.0	17.3	0.4	0.389
4-5510	4-6000	0.355	111.4	23.7	-3.76	0.938	73.4	231.0	-31.1	0.282
4-5510	4-6000	0.402	263.6	22.0	-3.76	1.035	113.3	26.5	2.1	0.433
4-5510	4-6010	0.357	113.8	30.4	-7.22	0.947	74.6	239.3	-44.9	0.283
4-5510	4-6010	0.497	270.4	27.4	-7.22	1.045	115.8	36.4	-0.3	0.490
4-5510	4-6030	0.233	129.1	-25.4	7.74	0.961	76.4	266.1	5.1	0.264
4-5510	4-6030	0.605	277.1	-9.2	7.74	1.064	121.7	45.9	29.6	0.594
4-5510	4-6040	0.562	117.7	-1.2	3.86	1.148	57.8	257.3	-16.7	0.609
4-5510	4-6040	0.184	137.9	-3.5	3.86	0.966	77.0	273.2	-7.5	0.231
4-5510	4-6050	0.513	122.2	2.2	2.63	1.152	59.4	265.9	-18.9	0.583
4-5510	4-6050	0.161	147.5	6.9	2.63	0.971	77.4	282.3	-11.6	0.222
4-5510	4-6060	0.466	127.3	4.6	2.04	1.155	60.9	274.9	-19.7	0.561
4-5510	4-6060	0.144	159.6	14.2	2.04	0.974	77.6	291.7	-13.0	0.219
4-5510	4-6070	0.422	133.3	6.7	1.71	1.157	62.2	284.1	-19.6	0.541
4-5510	4-6070	0.135	174.4	19.9	1.71	0.977	77.7	301.2	-12.7	0.220
4-5510	4-6080	0.380	140.6	8.9	1.51	1.159	63.4	293.3	-18.7	0.524
4-5510	4-6080	0.135	191.4	23.7	1.51	0.979	77.6	310.7	-11.5	0.223
4-5510	4-6090	0.342	149.6	11.2	1.39	1.160	64.3	302.6	-17.2	0.510
4-5510	4-6090	0.143	208.8	25.0	1.39	0.980	77.3	319.9	-9.5	0.231
4-5510	4-6100	0.310	161.0	13.6	1.33	1.161	65.1	311.8	-15.0	0.500
4-5510	4-6100	0.161	224.6	24.3	1.33	0.981	76.8	329.1	-6.9	0.241
4-5510	4-6110	0.288	175.2	16.0	1.31	1.161	65.5	321.0	-12.3	0.495
4-5510	4-6110	0.188	237.8	22.4	1.31	0.981	76.0	338.2	-3.9	0.256
4-5510	4-6110	0.461	291.9	7.6	1.31	0.821	100.1	87.3	27.8	0.245
4-5520	4-5560	0.464	216.9	11.4	-0.43	1.364	121.4	336.0	-10.7	0.743
4-5520	4-5570	0.324	217.3	15.3	-0.41	1.193	116.9	339.5	-9.5	0.556

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5520	4-5580	0.240	215.0	20.1	3.37	1.398	90.8	0.419	1.248	357.4	447.3	0.725	----	-0.40	1.087	112.3	343.1	-8.2	0.427
4-5520	4-5590	0.188	209.9	25.4	3.44	1.344	89.9	0.372	1.054	0.5	100.0	---	---	-0.41	1.019	108.0	346.5	-7.1	0.331
4-5520	4-5600	0.138	202.8	30.5	3.51	1.310	89.1	0.246	0.962	4.5	113.8	---	---	-0.43	0.977	104.1	349.5	-6.2	0.258
4-5520	4-5610	0.142	195.2	34.7	3.60	1.289	88.5	0.207	0.913	8.8	127.9	---	---	-0.46	0.950	100.6	351.5	-6.0	0.202
4-5520	4-5620	0.134	188.6	37.8	3.70	1.275	88.1	0.183	0.885	12.5	141.5	---	---	-0.52	0.935	97.6	352.2	-6.7	0.159
4-5520	4-5630	0.131	184.2	40.2	3.83	1.267	87.8	0.169	0.869	15.2	154.1	---	---	-0.61	0.927	95.0	350.9	-8.8	0.127
4-5520	4-5640	0.131	182.1	42.7	4.04	1.262	87.7	0.161	0.860	16.4	165.3	---	---	-0.78	0.923	92.8	347.4	-12.9	0.105
4-5520	4-5650	0.134	182.2	46.2	4.42	1.260	87.8	0.157	0.856	16.3	175.2	---	---	-1.12	0.923	90.9	342.4	-19.6	0.093
4-5520	4-5660	0.149	184.2	53.3	5.45	1.260	88.0	0.155	0.855	14.8	183.8	---	0.988	-2.12	0.925	89.3	339.3	-31.7	0.094
4-5520	4-5670	0.594	55.3	83.6	27.94	1.260	88.5	0.155	0.856	12.5	191.6	---	0.990	-24.57	0.928	87.9	26.6	-66.6	0.422
4-5520	4-5680	0.094	196.1	12.2	0.90	1.262	88.8	0.157	0.859	8.9	198.2	---	0.994	2.51	0.931	86.7	315.8	6.7	0.107
4-5520	4-5690	0.103	203.9	28.3	2.23	1.264	89.4	0.159	0.863	4.7	204.1	---	1.000	1.21	0.935	85.6	349.6	-4.8	0.110
4-5520	4-5700	0.110	213.1	32.3	2.66	1.266	90.0	0.163	0.867	359.8	569.5	0.726	1.008	0.82	0.938	84.7	323.2	-7.9	0.120
4-5520	4-5710	0.117	223.1	33.1	2.89	1.268	90.8	0.168	0.871	354.4	574.2	0.725	1.018	0.63	0.941	83.7	327.7	-8.3	0.133
4-5520	4-5720	0.126	233.3	32.3	3.03	1.271	91.7	0.174	0.876	348.5	578.5	0.724	1.029	0.53	0.944	82.8	333.2	-7.5	0.146
4-5520	4-5730	0.138	243.1	30.3	3.18	1.273	92.7	0.183	0.881	342.1	582.3	0.720	1.042	0.47	0.946	81.9	339.2	-5.8	0.161
4-5520	4-5740	0.154	252.0	27.7	3.23	1.276	93.9	0.193	0.887	335.4	585.7	0.715	1.058	0.43	0.948	80.9	345.8	-3.6	0.178
4-5520	4-5750	0.175	260.0	24.7	3.30	1.279	95.3	0.207	0.892	328.3	588.7	0.707	1.076	0.41	0.950	79.8	352.8	-1.0	0.197
4-5520	4-5760	0.202	267.1	21.7	3.37	1.281	96.9	0.224	0.897	320.8	591.3	0.696	1.098	0.40	0.951	78.5	0.1	1.9	0.218
4-5520	4-5770	0.237	273.5	18.8	3.44	1.284	98.8	0.246	0.902	312.9	93.4	0.680	1.125	0.41	0.951	76.9	7.8	5.0	0.244
4-5520	4-5780	0.280	279.4	16.1	3.52	1.286	101.1	0.275	0.908	304.5	595.0	0.658	1.157	0.43	0.952	75.0	15.8	8.3	0.276
4-5520	4-5790	0.337	285.0	13.5	3.61	1.289	104.0	0.313	0.913	295.5	595.9	0.627	1.199	0.47	0.952	72.6	24.4	11.6	0.316
4-5520	4-5800	0.412	290.5	11.1	3.71	1.291	107.7	0.364	0.918	285.6	595.8	0.584	1.253	0.53	0.953	69.3	33.8	14.9	0.370
4-5520	4-5800	0.825	325.9	3.6	3.71	1.074	132.3	0.684	0.624	217.6	887.8	0.197	1.051	0.53	0.628	113.6	141.4	15.8	0.484
4-5520	4-5810	0.515	296.4	8.9	3.85	1.294	112.8	0.435	0.924	274.3	594.2	0.522	1.327	0.63	0.953	64.6	44.2	18.1	0.445
4-5520	4-5810	0.770	326.4	4.1	3.85	1.055	129.5	0.654	0.609	217.4	897.4	0.211	1.007	0.63	0.590	95.0	127.0	20.0	0.409
4-5520	4-5820	0.665	303.1	6.9	4.06	1.297	120.1	0.537	0.931	260.6	590.4	0.431	1.431	0.80	0.954	57.8	56.2	21.0	0.555
4-5520	4-5820	0.809	327.4	3.9	4.06	1.049	131.8	0.683	0.604	215.5	905.2	0.192	1.616	0.80	0.574	79.0	115.0	22.5	0.447
4-5520	4-5830	0.934	329.7	3.3	4.45	1.048	138.9	0.765	0.603	211.1	910.5	0.142	1.065	1.15	0.568	60.7	110.1	23.2	0.575
4-5520	4-5880	0.722	111.3	3.9	2.59	1.301	56.3	0.586	0.941	104.7	492.0	0.390	1.493	-0.88	0.951	125.6	254.7	-23.9	0.591
4-5520	4-5890	0.555	119.0	6.0	2.63	1.305	64.6	0.478	0.948	89.1	485.9	0.495	1.402	-0.67	0.955	118.3	268.9	-24.6	0.476
4-5520	4-5900	0.440	126.1	8.4	2.99	1.307	70.4	0.404	0.955	75.5	481.9	0.569	1.341	-0.56	0.960	113.6	281.9	-24.2	0.402
4-5520	4-5910	0.354	133.5	11.1	3.10	1.310	74.8	0.353	0.961	63.0	479.0	0.622	1.301	-0.49	0.964	110.4	294.1	-22.9	0.353
4-5520	4-5920	0.289	142.0	14.3	3.19	1.313	78.4	0.317	0.968	50.9	476.5	0.661	1.275	-0.44	0.969	108.3	305.8	-20.7	0.320
4-5520	4-5930	0.239	152.4	18.1	3.26	1.316	81.5	0.293	0.975	38.9	474.1	0.689	1.261	-0.42	0.975	106.9	316.9	-17.9	0.300
4-5520	4-5940	0.201	166.0	22.3	3.33	1.318	84.2	0.279	0.982	26.9	471.7	0.709	1.256	-0.41	0.981	106.1	327.6	-14.5	0.289
4-5520	4-5950	0.168	184.0	26.1	3.40	1.322	86.8	0.273	0.991	14.8	469.3	0.721	1.261	-0.41	0.988	105.8	337.8	-10.7	0.287
4-5520	4-5960	0.691	106.7	5.2	3.47	1.238	56.7	0.558	0.817	113.7	577.9	0.361	1.272	-0.42	0.875	58.6	201.1	-9.5	0.506
4-5520	4-5960	0.171	205.7	28.0	3.47	1.325	89.4	0.274	1.000	2.8	467.0	0.726	1.274	-0.42	0.995	105.9	347.8	-6.7	0.291
4-5520	4-5970	0.618	110.0	6.2	3.55	1.246	60.5	0.505	0.831	106.9	580.8	0.411	1.252	-0.44	0.890	61.9	208.8	-12.6	0.456
4-5520	4-5970	0.182	227.4	26.9	3.55	1.329	92.0	0.283	1.010	351.1	825.0	0.724	1.296	-0.44	1.003	106.5	357.5	-2.6	0.303
4-5520	4-5980	0.550	113.5	7.5	3.64	1.254	64.0	0.457	0.845	99.8	583.6	0.459	1.231	-0.49	0.905	64.8	216.9	-15.6	0.411
4-5520	4-5980	0.210	245.1	23.7	3.64	1.333	94.6	0.300	1.021	339.7	823.5	0.715	1.327	-0.48	1.011	107.4	6.9	1.4	0.321
4-5520	4-5990	0.887	117.1	9.0	3.76	1.261	67.2	0.412	0.858	92.5	586.2	0.504	1.212	-0.56	0.917	67.4	225.3	-18.5	0.371
4-5520	4-5990	0.251	258.3	20.3	3.76	1.338	97.4	0.323	1.034	328.9	822.6	0.700	1.368	-0.56	1.020	108.7	16.2	5.2	0.346
4-5520	4-6000	0.431	120.8	10.9	3.92	1.268	70.2	0.373	0.870	85.0	588.7	0.546	1.195	-0.68	0.929	69.6	234.1	-21.2	0.337
4-5520	4-6000	0.302	268.1	17.4	3.92	1.342	100.4	0.352	1.048	318.9	822.5	0.679	1.417	-0.68	1.029	110.4	25.4	8.7	0.377
4-5520	4-6010	0.380	124.9	13.5	4.19	1.273	72.9	0.339	0.881	77.3	591.0	0.582	1.179	-0.91	0.939	71.5	243.3	-23.9	0.308
4-5520	4-6010	0.362	275.6	15.3	4.19	1.348	103.5	0.387	1.064	309.5	823.1	0.652	1.476	-0.91	1.038	112.5	34.7	11.6	0.414
4-5520	4-6020	0.338	129.2	17.6	4.75	1.278	75.3	0.310	0.890	69.4	593.1	0.614	1.166	-1.44	0.948	73.1	252.9	-27.1	0.284
4-5520	4-6020	0.428	281.7	14.5	4.75	1.353	106.8	0.427	1.081	300.7	824.4	0.619	1.542	-1.44	1.048	114.8	44.0	13.6	0.457
4-5520	4-6030	0.318	133.1	29.0	7.08	1.282	77.6	0.286	0.899	61.3	595.1	0.642	1.156	-3.73	0.956	74.3	263.0	-36.0	0.272
4-5520	4-6030	0.510	287.3	18.0	7.08	1.359	110.2	0.470	1.099	292.6	826.3	0.583	1.615	-3.73	1.057	117.5	53.8	12.2	0.507
4-5520	4-6040	0.249	140.5	-12.8	-2.49	1.286	79.6	0.266	0.906	53.0	596.9	0.665	1.148	5.88	0.963	75.4	273.8	-2.6	0.269
4-5520	4-6040	0.564	290.7	-5.5	-2.49	1.365	113.7	0.515	1.118	284.9	828.8	0.542	1.694	5.88	1.066	120.3	58.9	30.2	0.563
4-5520	4-6050	0.596	131.1	3.9	1.76	1.430	65.7	0.603	1.405	67.2	261.3	---	2.251	1.66	1.149	56.8	268.6	-20.9	0.627
4-5520	4-6050	0.213	147.5	10.6	1.76	1.289	81.5	0.251	0.913	44.5	598.6	0.684	1.142	1.66	0.968	76.1	282.7	-16.4	0.241
4-5520	4-6060	0.547	35.3	6.0	2.47	1.432	68.4	0.585	1.418	60.7	265.0	---	2.247	0.98	1.153	58.5	277.6	-21.7	0.602
4-5520	4-6060	0.189	155.7	17.0	2.47	1.292	83.3	0.239	0.919	35.4	000.2	0.699	1.139	0.98	0.972	76.7	292.5	-17.8	0.232
4-5520	4-6070	0.499	140.0	7.6	2.78	1.434	71.0	0.568	1.430	54.0	268.4	---	2.243	0.71	1.155	60.0	286.8	-21.3	0.578
4-5520	4-6070	0.168	166.1	21.8	2.78	1.294	85.0	0.231	0.924	27.1	601.5	0.711	1.138	0.71	0.976	77.1	302.3	-17.1	0.228
4-5520	4-6080	0.453	145.5	9.0	2.96	1.436	73.6	0.554	1.442	47.0	271.7	---	2.240	0.57	1.157	61.4	295.9	-20.2	0.557
4-5520	4-6080	0.153	179.1	25.9	2.96	1.296	86.7	0.226	0.929	18.0	602.7	0.719	1.139	0.57	0.978	77.4	311.8	-15.4	0.226
4-5520	4-6090	0.409	152.1	10.6	3.09	1.438	76.3	0.541	1.453	39.8	274.6	---	2.238	0.49	1.159	62.7	304.9	-18.6	0.539
4-5520	4-6090	0.145	195.0	28.8	3.09	1.298	88.4	0.224	0.933	8.8	603.7	0.724	1.143	0.49	0.980	77.4	321.2	-13.0	0.228
4-5520	4-6100	0.368	160.1	12.3	3.18	1.440	79.0	0.530	1.463	32.2	277.2	---	2.238	0.45	1.160	63.7	313.9	-16.4	0.523
4-5520	4-6100	0.145	212.7	29.8	3.18	1.300	90.1	0.226	0.937	359.4	964.4	0.726	1.149	0.45	0.981	77.3	330.3	-10.2	0.232
4-5520	4-6110	0.332	170.0	14.2	3.26	1.441	81.8	0.522	1.472	24.2	279.3	---	2.240	0.42	1.160	64.6	322.8	-13.8	0.510
4-5520	4-6110	0.155	230.1	28.5	3.26	1.301	91.9	0.231	0.941	349.8	965.0	0.724	1.159	0.42	0.981	76.9	339.3	-6.9	0.240
4-5520	4-6120	0.303	182.6	16.0	3.34	1.442	84.7	0.516	1.480	15.7	280.9	---	2.244	0.41	1.160	65.2	331.6	-10.7	0.501
4-5520	4-6120	0.174	245.2	25.7	3.34	1.303	93.8	0.241	0.945	340.1	965.3	0.717	1.172	0.41	0.981	76.3	348.2	-3.4	0.252
4-5520	4-6120	0.493	307.9	7.4	3.34	1.192	113.5	0.399	0.749	250.6	1235.8	0.450	1.048	0.41	0.828	104.4	109.1	23.4	0.285
4-5520	4-6120	0.739	313.0	4.5	3.34	1.215	125.5	0.584	0.781	240.1	1225.3	0.325	1.236	0.41	0.860	122.6	124.7	20.2	0.533
4-5530	4-5560	0.585	213.6	11.1	3.73	1.741	86.3	1.203	-3.573	6.8	61.5	---	---	0.65	1.501	123.9	338.5	-8.1	0.886
4-5530	4-5570	0.380	212.8	14.7	3.61	1.535	87.1	0.714	2.533	7.1	71.4	---	---	0.59	1.258	118.9	341.2	-6.8	0.630
4-5530	4-5580	0.270	208.7	18.8	3.51	1.421	87.0	0.469	1.364	9.4	83.4	---	---	0.56	1.118	113.9	344.0	-5.5	0.467
4-5530	4-5590	0.209	201.6	22.6	3.41	1.353	86.6	0.335	1.086	13.6	97.3	---	---	0.54	1.033	109.2	346.7	-4.1	0.355
4-5530	4-5600	0.177	193.0	25.4	3.32	1.312	86.1	0.259	0.969	19.0	112.4	---	---	0.53	0.980	104.9	348.7	-2.8	0.272
4-5530	4-5610	0.160	185.1	26.9	3.23	1.286	85.7	0.215	0.911	24.3	127.8	---	---	0.55	0.949	101.1	349.7	-1.8	0.210

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5530	4-5620	0.151	179.2	27.2	3.12	1.271	85.5	0.190	0.880	29.1	142.2	---	---	0.58	0.931	97.8	349.1	-1.2	0.114
4-5530	4-5630	0.145	175.8	27.0	3.00	1.262	85.3	0.177	0.862	32.1	155.1	---	---	0.64	0.922	95.1	346.2	-1.1	0.130
4-5530	4-5640	0.141	174.5	26.3	2.85	1.257	85.3	0.169	0.854	33.3	166.3	---	---	0.73	0.919	92.7	340.7	-1.5	0.108
4-5530	4-5650	0.135	175.1	25.2	2.64	1.255	85.5	0.165	0.850	32.9	176.0	---	---	0.89	0.919	90.8	333.2	-1.9	0.096
4-5530	4-5660	0.129	177.2	23.0	2.30	1.255	85.8	0.162	0.850	31.2	184.3	---	0.988	1.18	0.921	89.2	325.5	-1.4	0.093
4-5530	4-5670	0.119	180.9	16.8	1.58	1.256	86.2	0.161	0.852	28.3	191.6	---	0.990	1.85	0.925	87.8	319.1	2.6	0.099
4-5530	4-5680	0.113	185.8	-14.1	-1.25	1.258	86.6	0.161	0.856	24.6	198.0	---	0.994	4.63	0.929	86.6	311.9	19.7	0.128
4-5530	4-5690	0.271	182.9	72.2	11.83	1.261	87.2	0.162	0.860	20.0	203.6	---	1.000	-8.49	0.933	85.6	354.8	-58.1	0.181
4-5530	4-5700	0.155	199.2	51.9	5.53	1.263	87.9	0.164	0.865	15.0	208.8	---	1.007	-2.24	0.937	84.7	332.6	-29.4	0.125
4-5530	4-5710	0.138	209.8	46.7	4.55	1.266	88.7	0.167	0.871	9.4	213.3	---	1.016	-1.31	0.941	83.9	333.7	-20.9	0.132
4-5530	4-5720	0.132	221.3	43.8	4.14	1.269	89.5	0.171	0.876	3.3	217.5	---	1.026	-0.95	0.944	83.2	337.7	-16.1	0.142
4-5530	4-5730	0.132	233.6	40.8	3.90	1.272	90.5	0.176	0.882	356.9	581.2	0.727	1.037	-0.76	0.947	82.4	343.0	-12.3	0.154
4-5530	4-5740	0.137	245.7	37.3	3.73	1.275	91.5	0.183	0.888	350.1	584.5	0.725	1.050	-0.66	0.949	81.6	349.0	-8.7	0.167
4-5530	4-5750	0.147	257.0	33.1	3.61	1.278	92.7	0.192	0.893	343.0	587.5	0.722	1.065	-0.59	0.951	80.7	355.5	-5.3	0.181
4-5530	4-5760	0.162	267.0	28.7	3.50	1.280	94.1	0.204	0.899	335.6	590.2	0.716	1.082	-0.55	0.952	79.8	2.5	-1.8	0.197
4-5530	4-5770	0.184	275.7	24.3	3.40	1.283	95.6	0.219	0.905	327.9	592.5	0.707	1.102	-0.54	0.953	78.7	9.8	1.7	0.215
4-5530	4-5780	0.212	283.3	20.3	3.31	1.286	97.4	0.237	0.910	319.9	594.5	0.694	1.126	-0.54	0.953	77.4	17.4	5.1	0.237
4-5530	4-5790	0.249	290.0	16.6	3.21	1.288	99.5	0.262	0.916	311.6	596.0	0.676	1.155	-0.55	0.954	75.7	25.5	8.5	0.263
4-5530	4-5800	0.297	296.1	13.3	3.11	1.291	102.0	0.293	0.921	302.7	597.0	0.651	1.191	-0.59	0.954	73.7	34.1	11.8	0.297
4-5530	4-5810	0.360	301.9	10.4	2.99	1.293	105.2	0.335	0.927	293.2	597.3	0.616	1.237	-0.64	0.955	71.0	43.3	14.8	0.340
4-5530	4-5820	0.444	307.7	7.8	2.84	1.296	109.4	0.392	0.933	282.6	596.5	0.567	1.298	-0.74	0.956	67.3	53.4	17.5	0.399
4-5530	4-5830	0.764	311.1	3.1	2.84	1.068	129.2	0.646	0.621	219.0	892.8	0.220	1.022	-0.74	0.612	102.7	147.9	11.8	0.413
4-5530	4-5830	0.561	313.9	5.5	2.63	1.299	115.2	0.472	0.939	270.4	594.0	0.495	1.382	-0.90	0.957	62.1	64.8	19.8	0.483
4-5530	4-5830	0.762	311.8	2.8	2.63	1.058	129.2	0.649	0.613	217.9	901.5	0.215	1.010	-0.90	0.591	87.3	135.1	15.7	0.403
4-5530	4-5840	0.834	313.2	2.1	2.30	1.055	133.3	0.700	0.610	215.3	908.4	0.183	1.037	-1.18	0.581	71.5	126.4	17.8	0.479
4-5530	4-5890	0.949	100.1	3.2	4.74	1.016	39.0	0.793	0.581	152.5	893.5	0.120	1.042	1.49	0.497	113.1	214.8	-12.6	0.562
4-5530	4-5900	0.659	130.4	7.3	4.26	1.306	59.8	0.544	0.957	97.8	488.3	0.436	1.477	1.05	0.961	122.8	277.8	-21.7	0.554
4-5530	4-5910	0.511	138.1	9.5	3.99	1.309	67.1	0.450	0.964	82.6	482.7	0.530	1.397	0.83	0.965	116.5	291.4	-20.4	0.455
4-5530	4-5920	0.406	145.7	11.8	3.81	1.312	72.5	0.385	0.970	69.1	478.7	0.597	1.343	0.70	0.970	112.5	303.7	-18.2	0.391
4-5530	4-5930	0.327	153.9	14.5	3.67	1.315	76.6	0.340	0.977	56.3	475.5	0.645	1.309	0.62	0.976	109.8	315.1	-15.3	0.348
4-5530	4-5940	0.267	163.7	17.6	3.56	1.317	80.0	0.310	0.983	43.9	472.7	0.679	1.288	0.57	0.981	108.0	325.9	-11.9	0.321
4-5530	4-5950	0.221	176.1	20.9	3.45	1.320	83.0	0.291	0.991	31.5	470.1	0.703	1.279	0.54	0.988	106.9	336.3	-8.1	0.305
4-5530	4-5960	0.190	192.5	24.1	3.37	1.323	85.8	0.281	0.999	19.3	467.6	0.718	1.279	0.53	0.994	106.3	346.3	-4.0	0.298
4-5530	4-5970	0.753	120.3	4.3	3.28	1.233	53.4	0.601	0.812	118.5	576.6	0.324	1.300	0.54	0.874	55.3	211.6	-12.1	0.557
4-5530	4-5970	0.174	213.0	25.8	3.28	1.326	88.4	0.280	1.007	7.2	465.3	0.726	1.289	0.54	1.001	106.2	356.1	0.2	0.299
4-5530	4-5980	0.677	123.6	4.9	3.18	1.242	57.4	0.548	0.827	111.8	579.8	0.374	1.280	0.56	0.890	58.8	219.5	-14.5	0.505
4-5530	4-5980	0.176	234.9	24.7	3.18	1.330	91.0	0.286	1.017	355.4	823.3	0.726	1.307	0.56	1.009	106.6	5.7	4.4	0.306
4-5530	4-5990	0.605	127.0	5.6	3.07	1.250	61.1	0.497	0.841	105.0	582.8	0.423	1.259	0.60	0.904	62.0	227.7	-16.7	0.457
4-5530	4-5990	0.196	254.1	21.3	3.07	1.334	93.7	0.299	1.027	344.0	821.8	0.720	1.334	0.60	1.017	107.3	15.3	8.5	0.321
4-5530	4-6000	0.538	130.5	6.2	2.94	1.258	64.6	0.450	0.854	97.9	585.7	0.470	1.239	0.68	0.918	64.9	236.3	-18.5	0.413
4-5530	4-6000	0.231	268.7	17.2	2.94	1.338	96.4	0.319	1.039	333.2	821.0	0.708	1.370	0.68	1.025	108.4	24.8	12.4	0.341
4-5530	4-6010	0.476	134.2	6.8	2.76	1.264	67.8	0.407	0.867	90.6	588.4	0.514	1.220	0.79	0.930	67.4	245.3	-19.7	0.375
4-5530	4-6010	0.276	279.6	13.4	2.76	1.342	99.2	0.345	1.052	323.1	820.8	0.689	1.415	0.79	1.033	109.9	34.2	15.9	0.368
4-5530	4-6020	0.419	138.1	7.2	2.50	1.270	70.7	0.369	0.878	83.1	590.9	0.554	1.202	1.00	0.940	69.5	254.7	-20.1	0.342
4-5530	4-6020	0.330	287.8	10.0	2.50	1.347	102.2	0.377	1.067	313.6	821.4	0.665	1.468	1.00	1.042	111.7	43.7	19.2	0.401
4-5530	4-6030	0.366	142.4	6.8	2.04	1.276	73.3	0.336	0.889	75.3	593.3	0.590	1.187	1.42	0.950	71.4	264.2	-19.3	0.315
4-5530	4-6030	0.390	294.3	6.8	2.04	1.352	105.4	0.413	1.083	304.7	822.6	0.635	1.530	1.42	1.050	113.9	53.2	22.3	0.440
4-5530	4-6040	0.318	147.1	3.2	0.83	1.280	75.7	0.308	0.898	67.3	595.4	0.622	1.175	2.58	0.957	72.9	273.8	-15.3	0.294
4-5530	4-6040	0.456	299.6	2.3	0.83	1.358	108.7	0.454	1.100	296.4	824.5	0.601	1.599	2.58	1.059	116.4	62.5	26.2	0.485
4-5530	4-6050	0.395	145.4	-47.4	-13.39	1.284	77.9	0.285	0.906	59.2	597.3	0.648	1.165	16.75	0.964	74.2	285.6	20.5	0.393
4-5530	4-6050	0.598	307.9	-29.3	-13.39	1.363	112.1	0.497	1.118	288.7	826.9	0.563	1.674	16.75	1.067	119.0	63.2	48.2	0.601
4-5530	4-6060	0.281	156.4	33.2	6.96	1.288	80.0	0.266	0.914	50.7	599.1	0.671	1.157	-3.64	0.969	75.2	296.5	-34.4	0.265
4-5530	4-6060	0.619	309.1	14.0	6.96	1.369	115.7	0.542	1.138	281.3	829.7	0.521	1.754	-3.64	1.075	122.0	82.9	17.6	0.584
4-5530	4-6070	0.587	148.4	11.1	4.94	1.431	66.8	0.597	1.419	64.5	263.1	---	2.266	-1.67	1.153	57.5	290.1	-24.8	0.623
4-5530	4-6070	0.231	164.7	28.4	4.94	1.291	81.9	0.251	0.920	42.1	600.7	0.689	1.151	-1.67	0.973	76.0	304.9	-26.1	0.249
4-5530	4-6080	0.535	152.9	10.9	4.32	1.433	69.4	0.580	1.432	57.9	266.7	---	2.262	-1.11	1.155	59.1	299.0	-22.6	0.598
4-5530	4-6080	0.200	173.9	28.9	4.32	1.293	83.7	0.240	0.926	33.2	602.0	0.704	1.149	-1.11	0.977	76.6	314.1	-21.9	0.241
4-5530	4-6090	0.486	158.0	11.3	4.01	1.435	72.1	0.564	1.444	51.0	270.0	---	2.259	-0.85	1.157	60.6	307.9	-20.4	0.575
4-5530	4-6090	0.177	185.3	30.7	4.01	1.296	85.5	0.233	0.931	24.2	603.2	0.715	1.148	-0.85	0.979	76.9	323.2	-18.2	0.236
4-5530	4-6100	0.439	164.0	12.1	3.81	1.437	74.7	0.550	1.455	43.9	273.1	---	2.256	-0.71	1.158	61.9	316.6	-18.0	0.555
4-5530	4-6100	0.161	199.5	32.5	3.81	1.298	87.2	0.229	0.936	15.0	604.1	0.722	1.150	-0.71	0.980	77.1	332.2	-14.5	0.235
4-5530	4-6110	0.396	171.1	13.1	3.67	1.439	77.4	0.538	1.466	36.5	275.8	---	2.255	-0.62	1.159	63.1	325.2	-15.2	0.537
4-5530	4-6110	0.152	216.4	33.1	3.67	1.300	89.0	0.228	0.941	5.5	604.8	0.726	1.155	-0.62	0.981	77.1	341.0	-10.7	0.237
4-5530	4-6120	0.359	179.9	14.3	3.55	1.440	80.1	0.528	1.475	28.8	278.1	---	2.255	-0.57	1.159	64.0	333.7	-12.1	0.522
4-5530	4-6120	0.153	234.4	31.7	3.55	1.301	90.8	0.231	0.945	356.0	965.3	0.726	1.163	-0.57	0.981	76.9	349.7	-6.9	0.242
4-5530	4-6130	0.321	190.9	15.6	3.45	1.442	83.0	0.521	1.484	20.6	279.9	---	2.258	-0.54	1.159	64.8	342.2	-8.8	0.510
4-5530	4-6130	0.164	251.3	28.5	3.45	1.303	92.6	0.238	0.948	346.2	965.6	0.723	1.174	-0.54	0.981	76.5	358.4	-3.0	0.250
4-5540	4-5570	0.505	207.4	13.8	4.34	1.609	80.3	0.886	6.200	20.6	69.1	---	---	1.91	1.348	122.2	341.8	-4.6	0.746
4-5540	4-5580	0.348	201.7	16.7	3.97	1.445	81.7	0.534	1.513	24.0	82.3	---	---	1.68	1.150	116.2	343.7	-3.4	0.525
4-5540	4-5590	0.265	195.8	18.9	3.66	1.357	82.2	0.364	1.103	29.9	97.7	---	---	1.54	1.040	110.8	345.4	-2.0	0.385
4-5540	4-5600	0.226	185.9	19.8	3.39	1.307	82.2	0.276	0.962	37.0	114.6	---	---	1.46	0.976	105.8	346.5	-0.6	0.290
4-5540	4-5610	0.206	179.6	19.7	3.14	1.278	82.2	0.231	0.897	43.7	131.1	---	---	1.43	0.940	101.6	346.3	0.6	0.221
4-5540	4-5620	0.195	175.6	18.9	2.90	1.261	82.2	0.207	0.864	48.7	146.0	---	---	1.44	0.920	98.0	344.3	1.6	0.172
4-5540	4-5630	0.187	173.6	17.7	2.64	1.252	82.3	0.194	0.847	51.4	158.6	---	---	1.50	0.911	94.9	340.1	2.3	0.138
4-5540	4-5640	0.180	173.2	16.3	2.35	1.248	82.5	0.186	0.840	52.0	169.2	---	---	1.61	0.908	92.4	333.6	2.6	0.117
4-5540	4-5650	0.172	174.1	14.5	1.99	1.247	82.8	0.181	0.838	51.0	178.2	---	---	1.79	0.909	90.4	326.2	2.9	0.107
4-5540	4-5660	0.164	176.1	11.7	1.53	1.248	83.2	0.178	0.840	48.6	185.9	---	0.989	2.11	0.913	88.7	319.8	3.8	0.106
4-5540	4-5670	0.154	179.0	6.8	0.84	1.250	83.7	0.175	0.843	45.3	192.7	---	0.991	2.65	0.918	87.3	315.4	6.4	0.112
4-5540	4-5680	0.145	182.8	-3.3	-0.38	1.253	84.2	0.173	0.848	41.1	198.6	---	0.995	3.74	0.923	86.2	313.0	12.2	0.126
4-5540	4-5690	0.154	186.6	-29.4	-3.47	1.256	84.9	0.172	0.854	36.3	204.0	---	1.001	6.70	0.929	85.2	310.7	25.2	0.163

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5540	4-5700	0.672	103.8	-78.2	-31.61	1.260	85.5	0.173	0.860	31.5	209.0	---	1.009	34.71	0.934	84.4	315.9	51.7	0.594
4-5540	4-5710	0.299	188.9	71.4	12.98	1.263	86.5	0.172	0.867	24.6	212.9	---	1.016	-10.00	0.938	83.8	2.0	-54.0	0.216
4-5540	4-5720	0.192	207.1	57.8	7.39	1.267	87.3	0.173	0.874	18.5	216.9	---	1.025	-4.54	0.942	83.1	348.3	-34.7	0.163
4-5540	4-5730	0.162	219.5	51.4	5.71	1.270	88.2	0.176	0.880	11.9	220.5	---	1.035	-2.99	0.946	82.5	349.3	-23.9	0.161
4-5540	4-5740	0.148	232.6	47.0	4.87	1.273	89.2	0.180	0.887	5.1	223.7	---	1.047	-2.29	0.949	81.9	353.6	-16.9	0.167
4-5540	4-5750	0.142	246.3	42.7	4.33	1.277	90.3	0.186	0.893	357.9	586.7	0.728	1.059	-1.90	0.951	81.2	359.1	-11.5	0.176
4-5540	4-5760	0.144	259.7	37.7	3.94	1.280	91.5	0.193	0.900	350.5	589.3	0.726	1.073	-1.67	0.952	80.5	5.4	-6.8	0.187
4-5540	4-5770	0.152	271.9	32.2	3.63	1.283	92.9	0.203	0.906	342.9	591.7	0.722	1.090	-1.53	0.954	79.7	12.2	-2.6	0.200
4-5540	4-5780	0.168	282.6	26.6	3.36	1.285	94.3	0.215	0.912	335.1	593.9	0.716	1.108	-1.46	0.955	78.7	19.4	1.4	0.215
4-5540	4-5790	0.191	291.7	21.4	3.11	1.288	96.0	0.231	0.918	327.0	595.7	0.706	1.130	-1.43	0.955	77.6	27.1	5.0	0.233
4-5540	4-5800	0.222	299.6	16.8	2.87	1.291	98.0	0.252	0.924	318.7	597.2	0.691	1.156	-1.44	0.956	76.2	35.2	8.4	0.255
4-5540	4-5810	0.262	306.5	12.8	2.61	1.293	100.3	0.278	0.929	309.9	598.2	0.671	1.188	-1.50	0.956	74.5	43.7	11.6	0.282
4-5540	4-5820	0.315	312.9	9.3	2.32	1.296	103.1	0.313	0.935	300.7	598.7	0.643	1.227	-1.62	0.957	72.3	52.9	14.3	0.317
4-5540	4-5830	0.385	318.9	6.4	1.97	1.298	106.6	0.359	0.941	290.6	598.4	0.603	1.278	-1.81	0.958	69.4	62.8	16.6	0.364
4-5540	4-5840	0.479	325.0	3.9	1.53	1.301	111.3	0.422	0.947	279.5	596.8	0.547	1.346	-2.11	0.959	65.3	73.6	18.3	0.429
4-5540	4-5850	0.613	331.7	1.7	0.88	1.304	117.8	0.511	0.953	266.4	593.3	0.466	1.440	-2.62	0.961	59.4	85.7	19.2	0.524
4-5540	4-5860	0.872	359.3	-0.2	-0.21	1.063	135.5	0.724	0.617	214.5	911.0	0.170	1.065	-3.58	0.592	64.4	138.9	12.1	0.524
4-5540	4-5910	0.892	117.8	4.9	6.25	1.027	42.7	0.751	0.590	149.4	893.7	0.147	1.034	3.47	0.525	108.1	233.2	-15.7	0.516
4-5540	4-5920	0.600	149.7	10.2	5.21	1.311	63.0	0.506	0.972	90.7	484.5	0.480	1.463	2.57	0.971	120.3	299.7	-16.4	0.522
4-5540	4-5930	0.468	157.6	12.2	4.59	1.314	69.6	0.423	0.979	75.7	479.2	0.565	1.392	2.08	0.977	115.0	312.2	-13.4	0.437
4-5540	4-5940	0.372	165.8	14.3	4.15	1.317	74.5	0.367	0.985	62.1	475.2	0.624	1.347	1.79	0.982	111.5	323.6	-9.9	0.382
4-5540	4-5950	0.300	175.1	16.7	3.82	1.319	78.4	0.329	0.992	49.1	471.8	0.666	1.318	1.61	0.988	109.2	334.3	-6.0	0.346
4-5540	4-5960	0.245	186.5	19.2	3.53	1.322	81.7	0.305	0.999	36.4	468.9	0.695	1.303	1.50	0.994	107.7	344.6	-1.8	0.323
4-5540	4-5970	0.204	201.4	21.6	3.27	1.325	84.7	0.291	1.006	23.9	466.2	0.714	1.299	1.44	1.001	106.9	354.6	2.5	0.311
4-5540	4-5980	0.180	220.4	22.9	3.03	1.328	87.4	0.286	1.014	11.7	463.8	0.724	1.305	1.43	1.008	106.6	4.4	6.8	0.308
4-5540	4-5990	0.737	137.3	3.8	2.78	1.238	54.4	0.590	0.822	116.5	578.4	0.337	1.307	1.46	0.889	55.7	230.3	-16.5	0.554
4-5540	4-5990	0.173	242.0	21.9	2.78	1.331	90.0	0.289	1.023	359.8	821.8	0.728	1.319	1.46	1.015	106.7	14.2	11.0	0.311
4-5540	4-6000	0.662	140.6	4.0	2.50	1.247	58.3	0.537	0.837	109.8	581.7	0.387	1.286	1.54	0.904	59.2	238.7	-17.9	0.504
4-5540	4-6000	0.185	262.3	18.3	2.50	1.335	92.7	0.299	1.033	348.3	820.3	0.724	1.342	1.54	1.022	107.3	24.0	15.0	0.322
4-5540	4-6010	0.591	144.0	4.1	2.19	1.254	61.9	0.488	0.851	102.9	584.8	0.436	1.265	1.68	0.918	62.3	247.4	-18.8	0.458
4-5540	4-6010	0.214	278.5	13.8	2.19	1.338	95.3	0.316	1.044	337.5	819.4	0.714	1.374	1.68	1.030	108.2	33.8	18.7	0.339
4-5540	4-6020	0.525	147.6	3.9	1.79	1.261	65.3	0.442	0.864	95.8	587.8	0.482	1.245	1.92	0.930	65.1	256.4	-18.9	0.416
4-5540	4-6020	0.254	290.7	9.4	1.79	1.342	98.1	0.339	1.056	327.3	819.4	0.698	1.414	1.92	1.037	109.5	43.8	22.1	0.362
4-5540	4-6030	0.463	151.4	3.2	1.25	1.268	69.4	0.400	0.876	88.4	590.5	0.525	1.227	2.32	0.941	67.5	265.6	-18.1	0.380
4-5540	4-6030	0.304	299.8	5.4	1.25	1.347	101.0	0.368	1.070	317.7	819.8	0.677	1.463	2.32	1.045	111.1	53.8	25.3	0.391
4-5540	4-6040	0.407	155.4	1.1	0.37	1.273	71.3	0.364	0.887	80.8	593.0	0.565	1.210	3.06	0.950	69.6	274.8	-15.5	0.350
4-5540	4-6040	0.361	307.0	1.3	0.47	1.352	104.0	0.401	1.085	308.7	820.9	0.650	1.520	3.06	1.053	113.1	63.8	28.3	0.427
4-5540	4-6050	0.358	159.7	-4.9	-1.41	1.278	73.9	0.332	0.897	73.0	595.3	0.599	1.195	4.71	0.958	71.4	283.7	-9.7	0.329
4-5540	4-6050	0.426	312.8	-4.3	-1.41	1.357	107.2	0.439	1.101	300.4	822.7	0.618	1.584	4.71	1.060	115.4	73.6	32.3	0.470
4-5540	4-6060	0.351	162.4	-28.6	-7.76	1.283	76.2	0.305	0.906	65.0	597.4	0.629	1.183	10.93	0.964	72.9	292.1	8.5	0.350
4-5540	4-6060	0.520	319.0	-19.3	-7.76	1.362	110.5	0.479	1.119	292.6	825.0	0.582	1.655	10.93	1.068	117.9	81.8	42.6	0.540
4-5540	4-6070	0.689	132.4	67.5	30.32	1.286	78.6	0.282	0.914	56.1	599.3	0.657	1.172	-27.28	0.970	74.2	354.5	-62.6	0.537
4-5540	4-6080	0.304	172.8	42.3	9.26	1.290	80.5	0.265	0.921	47.8	600.9	0.678	1.165	-6.34	0.974	75.1	321.7	-37.6	0.286
4-5540	4-6090	0.575	165.8	14.9	6.42	1.432	67.9	0.591	1.433	61.6	264.8	---	2.281	-3.63	1.155	58.1	311.8	-23.9	0.621
4-5540	4-6090	0.243	182.4	36.2	6.42	1.293	82.5	0.251	0.928	39.1	602.2	0.695	1.161	-3.63	0.977	75.9	327.5	-27.2	0.261
4-5540	4-6100	0.521	170.7	13.7	5.25	1.434	70.5	0.575	1.446	54.9	268.2	---	2.277	-2.60	1.156	59.7	320.0	-20.2	0.595
4-5540	4-6100	0.206	192.7	34.9	5.25	1.295	84.3	0.241	0.934	30.1	603.4	0.709	1.159	-2.60	0.979	76.4	335.3	-20.9	0.251
4-5540	4-6110	0.471	176.3	13.5	4.59	1.436	73.2	0.560	1.458	47.9	271.4	---	2.274	-2.08	1.157	61.1	328.2	-16.8	0.572
4-5540	4-6110	0.181	205.3	35.0	4.59	1.298	86.1	0.235	0.939	20.9	604.3	0.719	1.159	-2.08	0.980	76.8	343.5	-15.8	0.246
4-5540	4-6120	0.424	182.7	13.7	4.14	1.438	75.9	0.547	1.469	40.7	274.2	---	2.272	-1.78	1.158	62.3	336.4	-13.4	0.552
4-5540	4-6120	0.164	220.6	34.9	4.14	1.300	87.8	0.232	0.943	11.5	605.0	0.725	1.162	-1.78	0.980	76.9	351.8	-11.1	0.244
4-5540	4-6130	0.381	190.5	14.2	3.79	1.440	78.6	0.536	1.479	33.1	276.7	---	2.271	-1.60	1.158	63.4	344.5	-10.0	0.535
4-5540	4-6130	0.156	238.2	33.5	3.79	1.301	89.6	0.232	0.948	2.0	605.5	0.728	1.168	-1.60	0.980	76.8	0.2	-6.7	0.246
4-5540	4-6140	0.342	200.1	14.7	3.50	1.441	81.3	0.527	1.488	25.2	278.8	---	2.273	-1.49	1.157	64.2	352.6	-6.4	0.521
4-5540	4-6140	0.158	256.0	30.2	3.50	1.303	91.5	0.237	0.952	352.3	965.9	0.726	1.171	-1.49	0.980	76.5	8.6	-2.5	0.251
4-5550	4-5580	0.493	197.0	14.5	5.00	1.477	73.8	0.631	1.773	42.3	84.7	---	---	3.29	1.191	120.7	341.6	-2.0	0.625
4-5550	4-5590	0.370	189.7	15.4	4.30	1.356	76.0	0.408	1.100	50.5	102.6	---	---	2.81	1.038	113.6	342.3	-0.9	0.436
4-5550	4-5600	0.313	183.4	15.3	3.76	1.294	77.1	0.309	0.932	59.3	121.1	---	---	2.51	0.959	107.5	342.2	0.3	0.318
4-5550	4-5610	0.283	179.1	14.5	3.31	1.261	77.7	0.263	0.865	66.4	138.0	---	---	2.33	0.918	102.4	340.8	1.3	0.240
4-5550	4-5620	0.265	176.7	13.4	2.91	1.244	78.1	0.240	0.834	70.6	152.1	---	---	2.24	0.897	98.1	337.5	2.1	0.186
4-5550	4-5630	0.252	175.9	12.2	2.52	1.236	78.6	0.227	0.821	72.2	163.6	---	---	2.21	0.890	94.7	332.2	2.5	0.152
4-5550	4-5640	0.241	176.3	10.8	2.13	1.234	79.0	0.218	0.817	71.7	173.1	---	---	2.26	0.889	91.9	325.7	2.5	0.132
4-5550	4-5650	0.229	177.6	9.1	1.71	1.234	79.6	0.211	0.818	69.7	181.1	---	0.990	2.38	0.893	89.7	319.5	2.5	0.124
4-5550	4-5660	0.217	179.5	6.8	1.22	1.237	80.1	0.205	0.822	66.5	188.0	---	0.990	2.60	0.899	87.9	314.9	3.0	0.123
4-5550	4-5670	0.205	182.1	3.6	0.61	1.241	80.8	0.199	0.828	62.5	194.1	---	0.993	2.96	0.906	86.6	312.7	4.5	0.128
4-5550	4-5680	0.193	185.2	-1.5	-0.23	1.245	81.5	0.195	0.835	57.8	199.5	---	0.998	3.57	0.913	85.4	312.3	7.6	0.138
4-5550	4-5690	0.183	188.7	-10.7	-1.57	1.250	82.3	0.191	0.843	52.5	204.4	---	1.004	4.70	0.921	84.5	313.1	13.2	0.152
4-5550	4-5700	0.191	192.1	-29.0	-4.26	1.254	83.1	0.188	0.852	46.9	208.9	---	1.012	7.18	0.927	83.8	314.0	23.5	0.183
4-5550	4-5710	0.323	186.4	-64.1	-13.41	1.259	83.9	0.186	0.860	41.1	213.1	---	1.020	16.13	0.933	83.1	314.1	42.9	0.309
4-5550	4-5730	0.292	203.0	67.7	12.32	1.267	85.9	0.183	0.876	27.1	219.9	---	1.036	-9.99	0.943	82.2	8.8	-45.8	0.232
4-5550	4-5740	0.206	219.2	57.1	7.82	1.271	86.9	0.184	0.884	20.2	223.1	---	1.047	-5.69	0.946	81.7	2.6	-30.8	0.192
4-5550	4-5750	0.171	232.3	50.9	5.99	1.275	88.0	0.187	0.892	13.0	226.0	---	1.058	-4.07	0.949	81.2	4.6	-20.9	0.187
4-5550	4-5760	0.154	246.2	45.9	4.95	1.278	89.1	0.190	0.899	5.6	228.7	---	1.070	-3.25	0.952	80.7	9.3	-13.7	0.190
4-5550	4-5770	0.146	260.7	40.6	4.24	1.282	90.3	0.196	0.906	358.0	591.1	0.728	1.083	-2.77	0.954	80.1	15.2	-8.0	0.197
4-5550	4-5780	0.146	274.8	34.6	3.70	1.285	91.6	0.204	0.913	350.3	593.3	0.726	1.099	-2.49	0.955	79.4	21.8	-3.1	0.206
4-5550	4-5790	0.155	287.6	28.2	3.26	1.288	93.1	0.214	0.919	342.3	595.2	0.722	1.116	-2.32	0.956	78.7	28.9	1.2	0.218
4-5550	4-5800	0.171	298.7	22.0	2.86	1.291	94.7	0.228	0.925	334.2	596.9	0.715	1.136	-2.23	0.957	77.7	36.5	4.9	0.232

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5550	4-5810	0.197	308.1	16.4	2.48	1.294	96.5	0.245	0.931	325.8	598.3	0.703	1.159	-2.22	0.958	76.6	44.6	8.3	0.250
4-5550	4-5820	0.231	316.3	11.7	2.09	1.296	98.6	0.267	0.937	317.2	599.4	0.687	1.187	-2.27	0.958	75.1	53.2	11.2	0.272
4-5550	4-5830	0.276	323.2	7.8	1.68	1.299	101.1	0.295	0.943	308.2	600.1	0.665	1.222	-2.39	0.959	73.3	62.3	13.6	0.300
4-5550	4-5840	0.335	329.7	4.6	1.21	1.301	104.2	0.333	0.949	298.5	600.1	0.633	1.265	-2.60	0.961	70.9	72.0	15.4	0.338
4-5550	4-5850	0.412	336.0	1.9	0.64	1.304	108.0	0.383	0.955	288.0	599.2	0.589	1.321	-2.94	0.962	67.7	82.5	16.5	0.389
4-5550	4-5850	0.728	11.1	0.8	0.64	1.082	127.4	0.619	0.634	221.6	892.7	0.242	1.027	-2.94	0.629	107.5	174.0	-2.5	0.389
4-5550	4-5860	0.519	342.4	-0.3	-0.13	1.306	113.3	0.453	0.961	276.2	596.8	0.525	1.396	-3.49	0.964	63.2	93.8	16.9	0.462
4-5550	4-5860	0.725	11.7	-0.2	-0.13	1.073	127.3	0.620	0.627	220.7	901.4	0.238	1.016	-3.49	0.613	87.7	162.1	1.5	0.377
4-5550	4-5870	0.671	349.6	-2.2	-1.30	1.309	120.7	0.553	0.968	262.0	592.2	0.433	1.502	-4.46	0.967	56.6	106.4	16.2	0.570
4-5550	4-5870	0.785	13.0	-1.3	-1.30	1.070	130.6	0.663	0.624	218.4	908.6	0.210	1.039	-4.46	0.606	73.9	153.9	4.5	0.442
4-5550	4-5880	0.925	15.7	-2.6	-3.43	1.071	138.4	0.755	0.625	213.3	913.0	0.153	1.097	-4.39	0.606	57.2	152.2	5.5	0.583
4-5550	4-5930	0.839	135.4	6.1	6.80	1.038	46.1	0.710	0.599	146.5	894.2	0.174	1.025	4.77	0.554	103.8	251.5	-16.9	0.476
4-5550	4-5940	0.544	169.2	12.2	5.48	1.317	66.1	0.471	0.987	83.3	480.6	0.522	1.451	3.65	0.983	118.0	320.0	-8.8	0.494
4-5550	4-5950	0.425	177.6	13.8	4.64	1.319	72.0	0.399	0.993	68.4	475.4	0.597	1.390	3.03	0.989	113.5	331.7	-4.7	0.421
4-5550	4-5960	0.338	186.6	15.5	4.03	1.322	76.6	0.352	1.000	54.7	471.4	0.648	1.352	2.65	0.995	110.6	342.4	-0.3	0.374
4-5550	4-5970	0.272	197.3	17.2	3.54	1.324	80.3	0.321	1.007	41.5	467.9	0.684	1.330	2.41	1.001	108.7	352.8	4.1	0.344
4-5550	4-5980	0.222	210.8	18.8	3.11	1.327	83.5	0.302	1.014	28.7	465.0	0.707	1.321	2.28	1.007	107.6	2.9	8.6	0.326
4-5550	4-5990	0.189	228.1	19.5	2.72	1.330	86.3	0.294	1.022	16.2	462.4	0.722	1.322	2.22	1.014	107.0	12.9	12.9	0.318
4-5550	4-6000	0.173	248.9	18.3	2.34	1.333	89.0	0.294	1.030	4.2	460.4	0.728	1.333	2.23	1.021	107.0	23.0	17.0	0.317
4-5550	4-6010	0.719	154.4	2.8	1.93	1.243	55.4	0.577	0.833	114.2	580.4	0.352	1.313	2.30	0.904	56.3	249.9	-19.0	0.552
4-5550	4-6010	0.177	269.8	14.7	1.93	1.336	91.7	0.301	1.039	352.7	818.9	0.727	1.352	2.30	1.027	107.3	33.3	20.8	0.324
4-5550	4-6020	0.645	157.7	2.5	1.49	1.251	59.2	0.525	0.847	107.5	583.7	0.402	1.292	2.47	0.917	59.7	258.6	-19.1	0.503
4-5550	4-6020	0.199	287.8	10.0	1.49	1.339	94.3	0.315	1.050	341.8	818.0	0.719	1.380	2.47	1.034	108.0	43.6	24.2	0.337
4-5550	4-6030	0.576	161.1	1.8	0.95	1.259	62.8	0.477	0.860	100.5	586.8	0.450	1.271	2.75	0.930	62.7	267.5	-18.5	0.458
4-5550	4-6030	0.235	301.2	5.4	0.95	1.343	97.0	0.335	1.061	331.5	817.8	0.706	1.416	2.75	1.041	109.1	54.2	27.2	0.357
4-5550	4-6040	0.511	164.8	0.6	0.25	1.266	66.1	0.433	0.873	93.3	589.7	0.495	1.251	3.21	0.941	65.4	276.4	-16.7	0.419
4-5550	4-6040	0.282	311.5	1.2	0.25	1.347	99.8	0.360	1.074	321.9	818.3	0.687	1.460	3.21	1.048	110.6	64.8	29.8	0.382
4-5550	4-6050	0.452	168.5	-2.0	-0.78	1.272	69.1	0.393	0.885	85.9	592.4	0.537	1.233	4.02	0.950	67.7	285.2	-13.5	0.386
4-5550	4-6050	0.336	319.4	-3.0	-0.78	1.352	102.8	0.391	1.088	312.8	819.4	0.663	1.512	4.02	1.055	112.4	75.5	32.3	0.415
4-5550	4-6060	0.400	172.5	-7.8	-2.57	1.277	71.9	0.358	0.896	78.2	594.9	0.575	1.216	5.60	0.958	69.8	293.6	-7.4	0.361
4-5550	4-6060	0.400	325.9	-8.4	-2.57	1.357	105.8	0.425	1.103	304.4	821.1	0.634	1.572	5.60	1.062	114.5	85.0	35.3	0.455
4-5550	4-6070	0.377	175.6	-23.2	-6.90	1.282	74.5	0.328	0.906	70.3	597.1	0.609	1.202	9.72	0.964	71.5	301.6	5.5	0.362
4-5550	4-6070	0.483	332.1	-18.6	-6.90	1.361	109.0	0.464	1.119	296.5	823.3	0.600	1.638	9.72	1.068	116.8	96.2	41.6	0.513
4-5550	4-6090	0.483	172.5	59.9	19.29	1.289	79.2	0.279	0.922	53.1	600.8	0.665	1.180	-16.86	0.973	74.2	352.0	-50.9	0.402
4-5550	4-6100	0.304	190.9	44.3	9.56	1.293	81.1	0.263	0.929	44.6	602.2	0.684	1.174	-7.33	0.976	75.1	343.3	-33.1	0.297
4-5550	4-6110	0.559	183.5	16.5	6.80	1.434	69.0	0.586	1.448	58.6	266.3	---	2.296	-4.77	1.155	58.7	332.3	-19.6	0.617
4-5550	4-6110	0.243	201.1	38.8	6.80	1.295	83.1	0.251	0.936	35.7	603.4	0.701	1.170	-4.77	0.978	75.8	348.1	-23.5	0.272
4-5550	4-6120	0.504	188.8	14.8	5.44	1.436	71.7	0.570	1.460	51.8	269.5	---	2.293	-3.62	1.156	60.2	339.8	-15.2	0.591
4-5550	4-6120	0.205	212.3	36.7	5.44	1.298	84.9	0.242	0.941	26.6	604.4	0.713	1.169	-3.62	0.979	76.3	355.0	-16.7	0.260
4-5550	4-6130	0.454	194.7	14.1	4.58	1.438	74.3	0.556	1.471	44.7	272.5	---	2.290	-2.99	1.156	61.5	347.4	-11.2	0.569
4-5550	4-6130	0.178	225.9	35.5	4.58	1.300	86.7	0.237	0.946	17.3	605.1	0.722	1.171	-2.99	0.979	76.6	2.6	-11.2	0.254
4-5550	4-6140	0.408	201.7	13.8	3.97	1.440	77.0	0.544	1.482	37.4	275.1	---	2.289	-2.62	1.156	62.7	355.1	-7.4	0.549
4-5550	4-6140	0.162	242.1	33.9	3.97	1.302	88.5	0.236	0.951	7.9	605.6	0.727	1.175	-2.62	0.979	76.6	10.5	-6.3	0.252
4-5550	4-6150	0.365	210.2	13.6	3.48	1.441	79.7	0.534	1.492	29.7	277.4	---	2.289	-2.39	1.155	63.6	3.0	-3.8	0.533
4-5550	4-6150	0.155	259.9	30.7	3.48	1.304	90.3	0.238	0.955	358.3	966.0	0.728	1.182	-2.39	0.979	76.5	18.7	-1.8	0.254
4-5560	4-5590	0.553	188.9	12.9	5.73	1.351	66.7	0.498	1.086	75.9	112.3	---	---	4.78	1.033	119.6	337.1	-1.0	0.540
4-5560	4-5600	0.449	184.3	12.3	4.61	1.269	69.8	0.381	0.879	85.1	131.2	---	---	3.93	0.925	110.9	336.0	-0.3	0.377
4-5560	4-5610	0.396	181.6	11.3	3.80	1.232	71.7	0.330	0.813	90.8	146.7	---	---	3.42	0.877	104.1	333.5	0.3	0.279
4-5560	4-5620	0.363	180.6	10.1	3.15	1.216	72.9	0.303	0.788	93.2	158.9	---	---	3.11	0.858	98.6	329.3	0.5	0.218
4-5560	4-5630	0.340	180.8	8.-	2.60	1.210	73.9	0.285	0.781	93.0	168.6	---	---	2.92	0.854	94.4	324.0	0.4	0.181
4-5560	4-5640	0.321	181.8	7.0	2.09	1.211	74.8	0.271	0.782	91.1	176.7	---	---	2.84	0.858	91.2	318.3	0.0	0.160
4-5560	4-5650	0.303	183.5	6.2	1.60	1.215	75.6	0.258	0.787	88.0	183.6	---	0.991	2.84	0.866	88.7	313.8	-0.2	0.152
4-5560	4-5660	0.286	185.6	4.5	1.08	1.220	76.5	0.247	0.796	84.0	189.7	---	0.992	2.94	0.876	86.8	311.2	-0.0	0.150
4-5560	4-5670	0.270	188.1	2.2	0.51	1.227	77.4	0.237	0.805	79.4	195.1	---	0.997	3.14	0.887	85.4	310.7	1.0	0.153
4-5560	4-5680	0.253	190.9	-0.8	-0.18	1.233	78.3	0.228	0.816	74.2	200.1	---	1.002	3.50	0.898	84.3	311.8	3.0	0.158
4-5560	4-5690	0.238	194.0	-5.5	-1.07	1.240	79.3	0.220	0.827	68.6	204.6	---	1.009	4.08	0.908	83.5	314.1	6.3	0.167
4-5560	4-5700	0.226	197.3	-13.0	-2.36	1.246	80.2	0.213	0.838	62.6	208.9	---	1.016	5.10	0.917	82.8	316.9	11.7	0.179
4-5560	4-5710	0.226	200.6	-26.1	-4.61	1.252	81.2	0.207	0.848	56.4	212.8	---	1.024	7.07	0.925	82.3	319.6	20.4	0.201
4-5560	4-5720	0.281	200.9	-49.8	-9.92	1.258	82.2	0.203	0.859	50.0	216.4	---	1.033	12.13	0.932	81.8	321.1	35.3	0.264
4-5560	4-5740	0.523	175.7	76.5	23.78	1.268	84.5	0.195	0.878	34.8	222.4	---	1.049	-22.08	0.942	81.3	35.8	-50.1	0.411
4-5560	4-5750	0.273	219.7	62.5	10.99	1.272	85.5	0.195	0.867	28.0	225.4	---	1.060	-9.54	0.946	80.9	17.5	-36.4	0.242
4-5560	4-5760	0.204	233.9	53.3	7.37	1.277	86.7	0.195	0.896	20.7	228.0	---	1.070	-6.78	0.950	80.5	16.0	-24.0	0.213
4-5560	4-5770	0.171	247.1	47.0	5.60	1.281	87.8	0.198	0.904	13.2	230.4	---	1.082	-4.68	0.952	80.1	19.4	-15.2	0.207
4-5560	4-5780	0.152	261.3	41.4	4.50	1.284	89.1	0.201	0.911	5.5	232.7	---	1.095	-3.86	0.954	79.7	24.8	-8.6	0.209
4-5560	4-5790	0.144	276.2	35.3	3.71	1.288	90.4	0.207	0.919	357.6	594.7	0.728	1.109	-3.37	0.956	79.1	31.1	-3.3	0.215
4-5560	4-5800	0.145	290.7	28.6	3.08	1.291	91.8	0.216	0.926	349.6	596.5	0.726	1.125	-3.08	0.957	78.5	38.2	1.2	0.223
4-5560	4-5810	0.155	303.7	21.7	2.54	1.294	93.4	0.226	0.932	341.5	598.2	0.721	1.144	-2.91	0.958	77.7	45.8	5.0	0.234
4-5560	4-5820	0.175	315.0	15.3	2.05	1.297	95.1	0.241	0.939	333.1	599.6	0.713	1.165	-2.84	0.959	76.7	53.9	8.2	0.247
4-5560	4-5830	0.203	324.6	10.0	1.57	1.299	97.1	0.259	0.945	324.6	600.7	0.701	1.190	-2.85	0.960	75.5	62.4	10.8	0.265
4-5560	4-5840	0.242	332.8	5.7	1.08	1.302	99.3	0.282	0.951	315.7	601.4	0.683	1.219	-2.94	0.962	74.0	71.5	12.8	0.288
4-5560	4-5850	0.292	340.0	2.3	0.53	1.304	102.0	0.313	0.957	306.4	601.7	0.658	1.256	-3.13	0.963	72.1	81.1	14.1	0.318
4-5560	4-5860	0.357	346.7	-0.4	-0.10	1.307	105.3	0.353	0.963	296.4	601.3	0.623	1.303	-3.45	0.965	69.5	91.2	14.7	0.358
4-5560	4-5860	0.741	26.0	-0.1	-0.10	1.097	120.0	0.624	0.648	223.0	887.9	0.244	1.053	-3.45	0.654	108.6	193.2	-11.2	0.419
4-5560	4-5870	0.444	353.3	-2.5	-0.90	1.309	109.6	0.409	0.969	285.4	599.8	0.573	1.365	-3.96	0.968	66.9	101.9	14.5	0.415
4-5560	4-5870	0.700	26.3	-1.1	-0.90	1.088	126.0	0.599	0.637	222.8	897.2	0.255	1.018	-3.96	0.630	144.2	180.9	-7.9	0.362
4-5560	4-5880	0.564	0.1	-4.2	-2.02	1.312	115.4	0.486	0.975	272.7	596.6	0.501	1.449	-4.81	0.970	61.6	113.5	13.3	0.496
4-5560	4-5880	0.726	27.2	-2.4	-2.02	1.079	127.4	0.619	0.632	221.4	905.3	0.241	1.024	-4.81	0.621	81.5	170.3	-4.2	0.386
4-5560	4-5890	0.815	28.9	-3.7	-3.80	1.078	132.2	0.681	0.631	218.2	911.6	0.201	1.061	-6.33	0.619	67.6	165.0	-1.8	0.480
4-5560	4-5940	0.907	150.8	7.1	9.04	1.051	42.8	0.746	0.609	147.5	889.1	0.155	1.064	7.70	0.582	117.8	275.1	-16.3	0.562
4-5560	4-5950	0.641	180.5	11.9	6.55	1.319	61.6	0.530	0.994	92.0	483.2	0.467	1.522	5.46	0.990	122.0	327.1	-4.7	0.567

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5560	4-5950	0.789	152.9	6.6	6.55	1.050	49.2	0.670	0.608	143.7	894.9	0.200	1.016	5.46	0.583	100.1	269.5	-16.3	0.440
4-5560	4-5960	0.490	189.2	13.0	5.14	1.322	69.0	0.439	1.001	75.6	476.5	0.561	1.441	4.32	0.996	116.1	339.2	0.2	0.470
4-5560	4-5970	0.383	198.1	14.1	4.19	1.325	74.4	0.379	1.008	60.8	471.5	0.626	1.390	3.66	1.002	112.3	350.3	4.9	0.407
4-5560	4-5980	0.304	208.2	15.0	3.48	1.327	78.6	0.340	1.015	47.0	467.5	0.670	1.360	3.25	1.008	109.9	1.0	9.6	0.367
4-5560	4-5990	0.244	220.6	15.7	2.88	1.330	82.1	0.316	1.022	33.7	464.1	0.699	1.345	3.01	1.014	108.4	11.4	14.1	0.342
4-5560	4-6000	0.202	236.3	15.7	2.36	1.332	85.2	0.303	1.029	21.0	461.4	0.717	1.341	2.87	1.020	107.5	21.9	18.3	0.329
4-5560	4-6010	0.178	255.7	14.1	1.86	1.335	88.0	0.300	1.037	8.8	459.2	0.726	1.348	2.83	1.026	107.3	32.5	22.2	0.324
4-5560	4-6020	0.177	168.2	1.7	1.36	1.241	52.6	0.616	0.829	116.5	578.8	0.319	1.339	2.88	0.903	53.4	261.3	-19.7	0.599
4-5560	4-6020	0.173	276.8	10.5	1.36	1.338	90.6	0.304	1.046	357.2	817.6	0.728	1.363	2.88	1.033	107.4	43.3	25.7	0.327
4-5560	4-6030	0.701	171.4	1.2	0.82	1.249	56.5	0.563	0.843	111.8	582.3	0.368	1.318	3.02	0.917	57.0	270.0	-19.2	0.548
4-5560	4-6030	0.188	295.9	5.8	0.82	1.341	93.3	0.315	1.055	346.2	816.7	0.723	1.387	3.02	1.039	108.0	54.3	28.6	0.336
4-5560	4-6040	0.628	174.8	0.3	0.20	1.257	60.3	0.513	0.857	105.0	585.6	0.417	1.297	3.29	0.929	60.2	278.6	-17.9	0.501
4-5560	4-6040	0.219	311.1	1.2	0.20	1.345	95.9	0.332	1.066	335.9	816.4	0.712	1.419	3.29	1.045	108.9	65.5	30.9	0.352
4-5560	4-6050	0.561	178.3	-1.1	-0.57	1.264	63.7	0.466	0.870	98.0	588.7	0.465	1.276	3.74	0.940	63.2	287.3	-15.6	0.459
4-5560	4-6050	0.262	322.7	-2.9	-0.57	1.348	98.7	0.354	1.078	324.2	816.9	0.696	1.459	3.74	1.051	110.2	76.7	32.8	0.374
4-5560	4-6060	0.498	181.9	-3.8	-1.61	1.270	67.0	0.423	0.883	90.7	591.5	0.509	1.256	4.49	0.949	65.8	295.7	-12.0	0.422
4-5560	4-6060	0.314	331.5	-6.8	-1.61	1.353	101.5	0.382	1.091	317.1	817.9	0.674	1.507	4.49	1.057	111.8	87.9	34.4	0.403
4-5560	4-6070	0.444	185.5	-8.8	-3.25	1.276	69.9	0.385	0.894	83.1	594.2	0.550	1.238	5.85	0.957	68.1	303.6	-6.2	0.393
4-5560	4-6070	0.375	338.7	-11.5	-3.25	1.357	104.4	0.414	1.105	308.5	819.5	0.648	1.562	5.85	1.063	113.7	99.0	36.2	0.440
4-5560	4-6080	0.409	188.8	-19.6	-6.45	1.281	72.6	0.352	0.905	75.4	596.5	0.587	1.223	8.79	0.963	70.0	310.7	3.9	0.380
4-5560	4-6080	0.451	345.1	-18.9	-6.45	1.362	107.5	0.449	1.120	300.5	821.7	0.617	1.624	8.79	1.068	115.8	110.0	39.8	0.489
4-5560	4-6090	0.484	185.9	-46.7	-16.45	1.286	75.1	0.324	0.914	67.5	598.6	0.618	1.210	18.54	0.968	71.6	316.7	26.0	0.451
4-5560	4-6090	0.605	354.8	-36.8	-16.45	1.366	110.6	0.487	1.137	295.1	824.1	0.583	1.691	18.54	1.073	118.2	119.9	51.6	0.596
4-5560	4-6110	0.409	196.5	54.6	15.18	1.293	79.8	0.278	0.930	49.8	602.0	0.672	1.189	-13.60	0.975	74.3	3.3	-39.5	0.367
4-5560	4-6120	0.289	210.0	43.3	8.88	1.296	81.8	0.263	0.937	41.2	603.2	0.691	1.183	-7.56	0.977	75.1	1.6	-25.9	0.302
4-5560	4-6130	0.539	201.9	16.2	6.41	1.436	70.2	0.581	1.462	55.5	267.6	---	2.312	-5.34	1.154	59.2	351.2	-13.2	0.613
4-5560	4-6130	0.233	220.5	38.1	6.41	1.299	83.7	0.252	0.943	32.2	604.2	0.706	1.181	-5.34	0.978	75.7	6.6	-17.3	0.278
4-5560	4-6140	0.485	207.1	14.3	5.02	1.438	72.8	0.566	1.474	48.6	270.6	---	2.309	-4.23	1.154	60.6	358.3	-8.7	0.587
4-5560	4-6140	0.197	232.5	35.3	5.02	1.301	85.5	0.244	0.949	23.0	605.0	0.717	1.181	-4.23	0.978	76.1	13.2	-10.9	0.267
4-5560	4-6150	0.436	213.4	13.2	4.10	1.440	75.5	0.553	1.485	41.5	273.4	---	2.307	-3.60	1.154	61.9	5.6	-4.6	0.565
4-5560	4-6150	0.171	246.9	32.9	4.10	1.303	87.3	0.241	0.954	13.7	605.6	0.724	1.183	-3.60	0.978	76.3	20.7	-5.6	0.261
4-5560	4-6160	0.390	220.9	12.4	3.40	1.441	78.2	0.542	1.495	34.1	275.8	---	2.307	-3.21	1.154	62.9	13.2	-0.9	0.546
4-5560	4-6160	0.156	263.6	29.6	3.40	1.305	89.2	0.240	0.958	4.3	606.1	0.728	1.189	-3.21	0.978	76.3	28.6	-1.0	0.259
4-5570	4-5600	0.666	186.8	10.4	6.58	1.232	58.6	0.528	0.813	111.6	141.9	---	---	6.42	0.874	119.1	329.2	-2.3	0.509
4-5570	4-5610	0.558	185.5	9.3	4.88	1.185	63.1	0.453	0.745	114.4	154.5	---	---	5.03	0.810	108.3	326.4	-2.2	0.363
4-5570	4-5620	0.496	185.7	8.1	3.76	1.171	65.9	0.409	0.727	114.3	164.2	---	---	4.23	0.793	100.4	322.3	-2.4	0.281
4-5570	4-5630	0.455	186.8	7.0	2.91	1.171	67.9	0.377	0.727	112.4	172.2	---	---	3.74	0.796	94.7	317.7	-2.9	0.234
4-5570	4-5640	0.423	188.5	5.8	2.22	1.177	69.4	0.351	0.735	109.2	179.0	---	---	3.45	0.809	90.6	313.4	-3.4	0.207
4-5570	4-5650	0.396	190.6	4.6	1.61	1.186	70.8	0.329	0.746	105.2	185.0	---	0.992	3.29	0.825	87.6	310.5	-3.7	0.194
4-5570	4-5660	0.372	193.0	3.2	1.04	1.196	72.1	0.310	0.760	100.5	190.3	---	0.995	3.23	0.842	85.4	309.4	-3.5	0.189
4-5570	4-5670	0.348	195.6	1.5	0.46	1.207	73.4	0.292	0.774	95.3	195.3	---	1.000	3.28	0.858	83.9	310.0	-2.8	0.188
4-5570	4-5680	0.326	198.4	-0.6	-0.15	1.216	74.6	0.276	0.789	89.8	199.9	---	1.007	3.44	0.874	82.8	312.1	-1.3	0.190
4-5570	4-5690	0.305	201.3	-3.3	-0.86	1.226	75.7	0.262	0.804	83.9	204.2	---	1.014	3.74	0.888	81.9	315.2	1.1	0.193
4-5570	4-5700	0.286	204.5	-7.3	-1.73	1.235	76.9	0.250	0.818	77.8	208.2	---	1.022	4.25	0.901	81.4	319.0	4.6	0.197
4-5570	4-5710	0.270	207.7	-13.2	-2.91	1.243	78.1	0.240	0.831	71.4	212.0	---	1.030	5.10	0.912	80.9	323.1	9.7	0.205
4-5570	4-5720	0.263	210.9	-22.8	-4.75	1.250	79.2	0.231	0.844	64.8	215.5	---	1.039	6.62	0.921	80.6	326.9	17.2	0.219
4-5570	4-5730	0.284	212.9	-39.1	-8.29	1.257	80.4	0.223	0.857	58.1	218.9	---	1.048	9.86	0.929	80.4	329.7	29.0	0.253
4-5570	4-5740	0.448	201.6	-64.1	-18.94	1.263	81.5	0.218	0.868	51.4	222.0	---	1.057	20.22	0.936	80.1	331.3	48.7	0.391
4-5570	4-5760	0.391	216.5	69.1	16.74	1.274	84.1	0.207	0.889	35.3	227.1	---	1.074	-16.03	0.946	80.0	34.9	-40.7	0.333
4-5570	4-5770	0.248	237.5	55.7	9.24	1.279	85.3	0.206	0.899	28.1	229.7	---	1.085	-8.82	0.949	79.7	27.6	-26.6	0.249
4-5570	4-5780	0.193	250.1	47.0	6.33	1.283	86.5	0.207	0.908	20.5	232.0	---	1.096	-6.21	0.952	79.4	29.3	-16.2	0.228
4-5570	4-5790	0.163	263.1	40.3	4.72	1.287	87.8	0.209	0.917	12.8	234.1	---	1.108	-4.90	0.954	79.1	34.0	-8.7	0.225
4-5570	4-5800	0.147	277.3	34.0	3.64	1.291	89.1	0.213	0.925	4.9	236.0	---	1.121	-4.16	0.956	78.7	40.1	-2.9	0.225
4-5570	4-5810	0.140	292.3	27.2	2.83	1.294	90.6	0.219	0.932	356.9	597.8	0.728	1.136	-3.70	0.958	78.1	47.1	1.7	0.229
4-5570	4-5820	0.143	306.9	20.0	2.17	1.297	92.1	0.228	0.939	348.8	599.4	0.726	1.153	-3.43	0.960	77.5	54.7	5.4	0.237
4-5570	4-5830	0.157	320.1	13.2	1.58	1.300	93.7	0.239	0.946	340.5	600.8	0.720	1.172	-3.28	0.961	76.7	62.8	8.4	0.247
4-5570	4-5840	0.180	331.5	7.5	1.04	1.303	95.6	0.254	0.953	332.0	602.0	0.711	1.194	-3.23	0.963	75.7	71.5	10.6	0.261
4-5570	4-5850	0.212	341.2	3.0	0.49	1.306	97.6	0.273	0.959	323.3	602.8	0.697	1.220	-3.28	0.964	74.5	80.5	12.1	0.279
4-5570	4-5860	0.255	349.6	-0.4	-0.09	1.308	100.0	0.298	0.965	314.2	603.3	0.678	1.252	-3.42	0.966	72.9	89.9	12.9	0.303
4-5570	4-5870	0.310	357.0	-3.0	-0.73	1.310	102.9	0.331	0.971	304.6	603.2	0.650	1.292	-3.68	0.969	70.9	99.8	13.0	0.335
4-5570	4-5870	0.796	41.3	-0.8	-0.73	1.120	130.8	0.656	0.670	223.5	882.1	0.230	1.110	-3.68	0.690	118.2	213.9	-18.4	0.498
4-5570	4-5880	0.383	3.9	-5.0	-1.51	1.313	106.5	0.374	0.977	294.2	602.3	0.611	1.342	-4.11	0.971	68.1	110.1	12.2	0.379
4-5570	4-5880	0.691	41.1	-2.0	-1.51	1.096	125.4	0.589	0.647	224.6	892.7	0.266	1.028	-4.11	0.650	100.2	200.4	-16.3	0.366
4-5570	4-5890	0.479	10.7	-6.5	-2.52	1.315	111.2	0.435	0.983	282.6	600.2	0.555	1.410	-4.80	0.975	64.3	122.9	10.6	0.441
4-5570	4-5890	0.687	41.7	-3.3	-2.52	1.089	125.2	0.588	0.641	223.8	901.4	0.264	1.017	-4.80	0.637	87.9	188.3	-13.0	0.354
4-5570	4-5900	0.616	18.0	-7.6	-3.98	1.318	117.7	0.520	0.989	269.0	596.1	0.474	1.504	-5.96	0.978	58.7	132.5	8.0	0.534
4-5570	4-5900	0.738	42.8	-4.6	-3.98	1.086	127.9	0.625	0.638	221.8	908.9	0.240	1.037	-5.96	0.633	75.8	179.9	-9.8	0.408
4-5570	4-5910	0.858	45.2	-5.9	-6.47	1.087	134.3	0.706	0.638	217.5	914.1	0.188	1.089	-8.17	0.635	61.4	177.5	-8.3	0.531
4-5570	4-5960	0.835	168.9	7.4	7.92	1.063	47.0	0.694	0.618	143.8	889.0	0.189	1.047	7.61	0.610	112.6	293.9	-13.1	0.508
4-5570	4-5970	0.571	200.6	12.0	5.67	1.325	65.2	0.490	1.009	83.7	478.6	0.515	1.503	5.65	1.002	119.3	346.5	4.4	0.530
4-5570	4-5970	0.742	170.4	6.4	5.67	1.061	52.0	0.633	0.617	141.1	896.0	0.227	1.006	5.65	0.611	96.8	286.5	-14.1	0.408
4-5570	4-5980	0.438	209.6	12.5	4.30	1.328	71.7	0.413	1.016	67.6	472.3	0.596	1.435	4.60	1.008	114.4	358.2	9.6	0.447
4-5570	4-5990	0.342	219.3	12.7	3.33	1.330	76.6	0.363	1.023	52.9	467.5	0.651	1.394	3.97	1.014	111.3	9.3	14.4	0.394
4-5570	4-6000	0.271	230.8	12.6	2.57	1.333	80.5	0.332	1.029	39.2	463.7	0.687	1.371	3.58	1.020	109.3	20.3	18.9	0.361
4-5570	4-6010	0.220	245.0	11.7	1.93	1.335	83.8	0.315	1.036	26.1	460.6	0.710	1.362	3.36	1.026	108.2	31.3	23.0	0.341
4-5570	4-6020	0.187	262.8	9.6	1.34	1.338	86.8	0.307	1.044	13.7	458.2	0.723	1.365	3.25	1.032	107.6	42.6	26.3	0.331
4-5570	4-6030	0.173	283.3	5.9	0.77	1.340	89.6	0.308	1.052	1.9	456.6	0.728	1.376	3.24	1.037	107.6	54.0	29.4	0.330
4-5570	4-6040	0.757	185.3	0.2	0.18	1.247	53.8	0.600	0.839	115.9	580.7	0.335	1.343	3.34	0.916	54.3	281.4	-18.8	0.594
4-5570	4-6040	0.181	303.4	1.3	0.18	1.343	92.2	0.316	1.061	350.8	815.6	0.726	1.396	3.34	1.043	108.0	65.7	31.6	0.336
4-5570	4-6050	0.682	188.5	-0.7	-0.47	1.255	57.7	0.549	0.854	109.2	584.1	0.385	1.322	3.57	0.928	57.8	289.8	-17.0	0.544

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5570	4-6050	0.206	320.2	-3.1	-0.47	1.347	94.8	0.330	1.071	340.4	815.3	0.718	1.424	3.57	1.048	100.7	17.5	33.2	0.348
4-5570	4-6060	0.612	191.9	-2.3	-1.24	1.263	61.3	0.500	0.867	102.3	587.4	0.434	1.301	3.95	0.938	60.9	298.2	-14.3	0.499
4-5570	4-6060	0.245	353.2	-6.8	-1.24	1.350	97.5	0.350	1.082	330.6	815.6	0.704	1.460	3.95	1.053	109.8	89.2	34.2	0.367
4-5570	4-6070	0.547	195.4	-4.7	-2.24	1.269	64.7	0.455	0.880	95.2	590.4	0.480	1.281	4.59	0.948	63.7	300.2	-10.5	0.458
4-5570	4-6070	0.293	343.2	-10.2	-2.24	1.354	100.2	0.374	1.094	321.4	816.6	0.685	1.503	4.59	1.058	111.2	100.7	34.7	0.392
4-5570	4-6080	0.489	198.9	-8.9	-3.66	1.275	67.9	0.414	0.892	87.8	593.2	0.523	1.261	5.70	0.955	66.2	313.8	-5.1	0.424
4-5570	4-6080	0.351	351.1	-13.9	-3.66	1.358	103.1	0.403	1.107	312.8	818.2	0.661	1.554	5.70	1.063	112.9	112.0	35.3	0.424
4-5570	4-6090	0.445	202.2	-16.8	-6.09	1.281	70.8	0.377	0.904	80.2	595.6	0.563	1.244	7.82	0.962	68.4	320.7	3.2	0.402
4-5570	4-6090	0.421	357.9	-19.3	-6.09	1.362	106.0	0.436	1.122	304.7	820.2	0.633	1.411	7.82	1.068	114.9	123.1	36.8	0.467
4-5570	4-6100	0.447	203.6	-33.6	-11.58	1.286	73.4	0.346	0.914	72.4	597.8	0.598	1.230	13.01	0.967	70.3	326.2	18.1	0.413
4-5570	4-6100	0.524	5.3	-29.7	-11.58	1.367	109.1	0.472	1.138	297.1	822.6	0.601	1.675	13.03	1.072	117.2	134.3	42.0	0.533
4-5570	4-6120	0.671	184.7	66.5	29.03	1.294	78.5	0.293	0.931	54.6	601.5	0.659	1.204	-28.17	0.973	73.4	32.2	-43.5	0.561
4-5570	4-6130	0.355	218.3	49.0	12.09	1.297	80.5	0.276	0.939	46.4	602.8	0.679	1.198	-11.52	0.975	74.3	16.3	-28.8	0.548
4-5570	4-6140	0.577	214.3	17.9	7.61	1.437	68.6	0.593	1.464	59.3	265.5	---	2.332	-7.32	1.152	58.2	2.6	-11.2	0.636
4-5570	4-6140	0.267	229.6	39.7	7.61	1.300	82.4	0.263	0.945	37.7	603.9	0.696	1.194	-7.32	0.976	75.0	18.1	-17.8	0.302
4-5570	4-6150	0.518	219.7	14.5	5.47	1.439	71.3	0.577	1.476	52.5	268.6	---	2.328	-5.49	1.152	59.7	9.0	-6.0	0.606
4-5570	4-6150	0.218	240.4	34.6	5.47	1.302	84.3	0.253	0.957	28.7	604.8	0.710	1.192	-5.49	0.976	75.6	23.6	-10.3	0.282
4-5570	4-6160	0.465	225.5	12.5	4.16	1.441	73.9	0.563	1.488	45.5	271.5	---	2.326	-4.50	1.152	61.0	10.0	-7.7	0.581
4-5570	4-6160	0.104	252.9	30.9	4.16	1.304	86.2	0.247	0.956	19.5	605.5	0.720	1.195	-4.50	0.977	75.9	30.6	-4.6	0.271
4-5570	4-6170	0.417	232.2	10.9	3.23	1.442	76.6	0.551	1.499	38.3	274.1	---	2.325	-3.91	1.152	62.1	23.4	2.1	0.560
4-5570	4-6170	0.162	267.9	27.1	3.23	1.307	88.0	0.245	0.961	10.3	606.1	0.726	1.197	-3.91	0.976	76.0	38.2	0.1	0.265
4-5580	4-5610	0.809	189.8	8.1	7.64	1.124	49.6	0.652	0.673	135.9	160.2	---	---	8.25	0.716	119.7	321.9	-5.0	0.541
4-5580	4-5620	0.683	191.1	6.9	5.12	1.107	55.8	0.570	0.656	133.3	167.5	---	---	6.05	0.692	105.5	318.6	-5.4	0.401
4-5580	4-5630	0.607	193.1	5.8	3.63	1.113	59.7	0.511	0.662	129.8	173.8	---	---	4.89	0.707	96.4	315.0	-6.0	0.324
4-5580	4-5640	0.553	195.6	4.7	2.58	1.128	62.5	0.466	0.677	126.6	179.6	---	---	4.20	0.734	90.4	311.9	-6.5	0.282
4-5580	4-5650	0.511	198.2	3.6	1.77	1.145	64.8	0.428	0.695	120.9	184.8	---	0.993	3.78	0.763	86.4	310.0	-6.8	0.258
4-5580	4-5660	0.475	201.0	2.4	1.08	1.162	66.7	0.396	0.714	115.7	189.7	---	0.997	3.53	0.791	83.7	309.7	-6.7	0.245
4-5580	4-5670	0.443	203.9	1.1	0.46	1.178	68.4	0.367	0.734	110.2	194.4	---	1.004	3.41	0.816	81.9	311.0	-6.0	0.237
4-5580	4-5680	0.414	206.8	-0.4	-0.14	1.193	70.1	0.343	0.754	104.5	198.7	---	1.012	3.40	0.839	80.8	313.5	-4.8	0.233
4-5580	4-5690	0.386	209.8	-2.3	-0.76	1.206	71.6	0.320	0.773	98.4	202.9	---	1.020	3.50	0.859	80.0	317.1	-2.9	0.231
4-5580	4-5700	0.361	212.8	-4.7	-1.45	1.219	73.1	0.301	0.791	92.2	206.8	---	1.029	3.73	0.877	79.5	321.3	-0.3	0.230
4-5580	4-5710	0.337	216.0	-7.9	-2.25	1.230	74.5	0.284	0.808	85.8	210.5	---	1.037	4.13	0.892	79.2	326.0	3.2	0.230
4-5580	4-5720	0.316	219.1	-12.6	-3.28	1.239	75.9	0.269	0.824	79.1	214.1	---	1.046	4.79	0.905	79.0	330.8	8.0	0.233
4-5580	4-5730	0.302	222.3	-19.5	-4.75	1.248	77.2	0.257	0.839	72.4	217.4	---	1.055	5.93	0.916	78.9	335.5	14.4	0.256
4-5580	4-5740	0.303	225.0	-30.8	-7.23	1.256	78.5	0.246	0.854	65.4	220.5	---	1.064	8.08	0.925	78.9	339.4	23.9	0.255
4-5580	4-5750	0.359	224.3	-49.6	-12.71	1.263	79.8	0.238	0.867	58.4	223.5	---	1.073	13.26	0.933	78.8	341.5	39.1	0.310
4-5580	4-5770	0.691	184.2	74.1	31.69	1.276	82.8	0.221	0.891	41.9	228.4	---	1.088	-31.75	0.944	79.0	57.4	-41.3	0.369
4-5580	4-5780	0.313	241.7	59.3	12.19	1.281	83.9	0.220	0.902	35.1	230.9	---	1.100	-12.54	0.948	78.8	40.0	-29.3	0.300
4-5580	4-5790	0.222	255.4	46.7	7.23	1.286	85.1	0.218	0.912	27.6	233.2	---	1.111	-7.88	0.951	78.6	39.0	-16.8	0.253
4-5580	4-5800	0.179	266.9	37.9	4.90	1.290	86.5	0.219	0.921	19.9	235.3	---	1.123	-5.87	0.954	78.4	43.0	-8.2	0.239
4-5580	4-5810	0.154	279.6	30.7	3.50	1.294	87.8	0.221	0.930	12.1	237.2	---	1.135	-4.79	0.957	78.1	48.8	-2.0	0.236
4-5580	4-5820	0.141	293.7	23.8	2.51	1.297	89.2	0.225	0.938	4.2	239.0	---	1.149	-4.15	0.959	77.7	55.8	2.6	0.237
4-5580	4-5830	0.137	308.8	16.6	1.73	1.301	90.7	0.231	0.946	356.1	600.6	0.727	1.164	-3.76	0.961	77.2	63.5	6.2	0.241
4-5580	4-5840	0.144	323.4	9.8	1.08	1.304	92.3	0.240	0.953	347.9	602.0	0.724	1.181	-3.53	0.963	76.6	71.7	8.8	0.248
4-5580	4-5850	0.161	336.8	4.9	0.48	1.307	94.1	0.252	0.960	339.6	603.3	0.718	1.201	-3.41	0.965	75.8	80.3	10.7	0.258
4-5580	4-5860	0.188	348.3	-0.6	-0.08	1.309	96.0	0.267	0.966	331.0	604.2	0.708	1.224	-3.40	0.967	74.8	89.3	13.7	0.272
4-5580	4-5870	0.224	358.1	-3.8	-0.66	1.312	98.2	0.287	0.972	322.1	604.9	0.693	1.252	-3.48	0.970	73.9	98.7	12.0	0.291
4-5580	4-5880	0.271	6.6	-6.1	-1.28	1.314	100.7	0.313	0.979	312.8	605.1	0.672	1.285	-3.67	0.972	71.9	108.3	11.5	0.318
4-5580	4-5890	0.332	14.2	-7.7	-2.00	1.317	103.8	0.349	0.985	302.8	604.6	0.641	1.328	-3.99	0.975	69.7	118.2	10.3	0.351
4-5580	4-5890	0.697	56.0	-2.6	-2.00	1.111	125.7	0.589	0.660	226.2	888.0	0.271	1.048	-3.99	0.672	106.1	220.7	-22.7	0.390
4-5580	4-5900	0.412	21.3	-8.8	-2.88	1.319	107.7	0.396	0.990	291.9	603.3	0.598	1.383	-4.52	0.979	66.7	128.5	8.2	0.399
4-5580	4-5900	0.603	56.3	-4.0	-2.88	1.100	123.9	0.567	0.650	226.0	897.3	0.281	1.018	-4.52	0.655	93.5	208.1	-20.9	0.339
4-5580	4-5910	0.520	28.5	-9.5	-4.06	1.321	113.0	0.463	0.997	279.6	600.4	0.536	1.458	-5.38	0.983	62.5	139.3	5.3	0.470
4-5580	4-5910	0.685	57.1	-5.3	-4.06	1.096	125.0	0.583	0.646	224.7	905.6	0.269	1.022	-5.38	0.649	82.3	196.0	-17.7	0.359
4-5580	4-5920	0.675	36.2	-10.0	-5.87	1.324	120.3	0.558	1.003	264.8	595.2	0.443	1.563	-6.87	0.988	56.1	151.1	1.4	0.577
4-5580	4-5920	0.761	58.7	-6.6	-5.87	1.094	129.0	0.637	0.644	222.0	912.3	0.254	1.055	-6.87	0.649	70.2	191.0	-15.1	0.441
4-5580	4-5930	0.918	61.9	-7.4	-9.19	1.096	137.2	0.739	0.640	216.1	916.0	0.169	1.123	-9.89	0.653	55.0	191.5	-14.6	0.594
4-5580	4-5980	0.770	183.9	6.8	6.25	1.074	50.8	0.644	0.627	140.3	889.3	0.223	1.031	7.02	0.637	108.0	311.4	-8.4	0.459
4-5580	4-5990	0.506	221.0	10.7	4.33	1.331	68.5	0.455	1.023	75.3	474.1	0.558	1.489	5.42	1.015	117.0	6.1	13.4	0.496
4-5580	4-5990	0.700	187.9	5.4	4.33	1.072	54.3	0.598	0.625	138.6	897.4	0.251	0.998	5.42	0.637	93.9	302.5	-10.8	0.380
4-5580	4-6000	0.389	230.6	10.2	3.09	1.334	74.3	0.392	1.030	59.5	468.2	0.627	1.434	4.52	1.021	113.0	18.0	18.4	0.426
4-5580	4-6010	0.304	241.2	9.4	2.17	1.336	76.7	0.352	1.037	45.0	463.7	0.672	1.402	3.97	1.026	110.5	29.7	22.8	0.382
4-5580	4-6020	0.243	254.1	7.8	1.43	1.338	82.4	0.328	1.044	31.5	460.3	0.701	1.386	3.64	1.032	108.9	41.4	26.6	0.355
4-5580	4-6030	0.201	270.3	5.2	0.78	1.341	85.5	0.317	1.051	18.8	457.6	0.718	1.383	3.46	1.037	108.1	53.4	29.6	0.340
4-5580	4-6040	0.179	289.6	1.3	0.17	1.343	88.4	0.314	1.058	6.8	455.8	0.726	1.391	3.39	1.042	107.9	65.5	31.8	0.334
4-5580	4-6050	0.176	310.1	-3.3	-0.43	1.346	91.1	0.319	1.067	355.6	814.7	0.727	1.407	3.44	1.046	108.1	77.8	33.2	0.336
4-5580	4-6060	0.737	02.4	-1.5	-1.08	1.254	55.1	0.585	0.850	113.3	582.5	0.353	1.347	3.59	0.926	55.2	301.0	-15.6	0.587
4-5580	4-6060	0.197	328.4	-7.4	-1.08	1.349	93.7	0.330	1.076	345.1	814.3	0.721	1.431	3.59	1.051	108.6	89.9	33.9	0.345
4-5580	4-6070	0.664	205.7	-2.9	-1.81	1.262	58.9	0.534	0.864	106.4	585.9	0.402	1.326	3.90	0.936	58.6	309.1	-12.6	0.539
4-5580	4-6070	0.230	343.1	-10.6	-1.81	1.352	96.3	0.346	1.086	335.2	814.6	0.710	1.463	3.90	1.055	109.5	101.8	33.9	0.360
4-5580	4-6080	0.596	209.0	-5.1	-2.70	1.269	62.4	0.487	0.878	99.4	589.0	0.450	1.305	4.40	0.945	61.6	316.8	-8.8	0.494
4-5580	4-6080	0.275	354.3	-13.3	-2.70	1.356	99.0	0.368	1.098	325.9	815.5	0.694	1.502	4.40	1.059	110.8	113.3	33.4	0.381
4-5580	4-6090	0.535	212.4	-8.5	-3.90	1.275	65.7	0.444	0.890	92.2	591.9	0.495	1.285	5.25	0.953	64.3	324.2	-3.7	0.456
4-5580	4-6090	0.328	3.1	-16.0	-3.90	1.360	101.7	0.394	1.110	317.2	816.9	0.673	1.548	5.25	1.063	113.3	124.4	32.7	0.409
4-5580	4-6100	0.483	215.8	-14.3	-5.74	1.281	68.8	0.404	0.902	84.7	594.5	0.537	1.267	6.76	0.959	67.7	331.0	3.2	0.425
4-5580	4-6100	0.391	10.4	-19.7	-5.74	1.364	104.6	0.424	1.124	309.0	818.8	0.647	1.601	6.76	1.067	114.2	135.2	32.6	0.445
4-5580	4-6110	0.456	218.4	-25.3	-9.18	1.286	71.6	0.370	0.913	77.0	596.9	0.575	1.251	9.89	0.964	68.8	336.7	14.0	0.412
4-5580	4-6110	0.473	17.2	-26.1	-9.18	1.368	107.5	0.458	1.139	301.3	821.1	0.618	1.660	9.89	1.071	116.2	145.9	34.3	0.495
4-5580	4-6120	0.507	214.4	-48.2	-18.81	1.291	74.1	0.343	0.923	69.3	598.9	0.608	1.238	19.21	0.968	70.5	340.8	34.9	0.475
4-5580	4-6140	0.473	222.8	57.6	18.27	1.298	79.1	0.292	0.940	53.3	602.2	0.666	1.214	-18.46	0.973	73.4	33.7	-32.6	0.434

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5580	4-6150	0.309	239.2	42.1	9.26	1.301	81.1	0.276	0.947	43.0	603.5	0.685	1.208	-9.76	0.974	74.2	29.7	-78.9	0.332
4-5580	4-6160	0.551	232.5	14.7	5.95	1.440	69.7	0.589	1.478	56.3	266.5	---	2.349	-6.75	1.150	58.6	19.5	-3.2	0.627
4-5580	4-6160	0.282	249.4	33.7	5.95	1.304	83.0	0.264	0.953	34.3	604.5	0.701	1.205	-6.75	0.975	74.9	33.7	-9.5	0.299
4-5580	4-6170	0.496	237.9	11.6	4.16	1.442	72.3	0.574	1.490	49.6	269.5	---	2.346	-5.28	1.150	60.0	26.2	1.4	0.598
4-5580	4-6170	0.200	260.4	28.2	4.16	1.306	84.9	0.256	0.959	25.3	605.3	0.713	1.204	-5.28	0.975	75.4	40.1	-3.2	0.282
4-5580	4-6180	0.446	243.9	9.4	2.99	1.443	75.0	0.561	1.501	42.6	272.3	---	2.344	-4.45	1.150	61.2	33.5	5.1	0.574
4-5580	4-6180	0.171	273.3	23.5	2.99	1.309	86.7	0.251	0.964	16.3	606.0	0.722	1.206	-4.45	0.975	75.6	47.6	1.5	0.273
4-5590	4-5630	0.815	199.2	5.0	5.34	1.036	47.7	0.692	0.595	145.9	174.1	---	---	6.98	0.574	102.8	316.1	-8.2	0.477
4-5590	4-5640	0.721	202.5	4.0	5.38	1.060	53.1	0.618	0.613	140.7	178.8	---	---	5.34	0.621	91.9	313.7	-8.7	0.396
4-5590	4-5650	0.655	205.8	3.0	2.13	1.087	56.9	0.559	0.637	135.3	183.4	---	0.992	4.42	0.670	85.7	312.3	-9.0	0.349
4-5590	4-5660	0.602	209.1	2.0	1.22	1.114	59.9	0.509	0.661	129.8	187.9	---	0.998	3.88	0.716	81.9	312.3	-8.9	0.321
4-5590	4-5670	0.557	212.4	0.9	0.49	1.138	62.4	0.466	0.686	124.0	192.3	---	1.006	3.55	0.755	79.6	313.7	-8.4	0.304
4-5590	4-5680	0.518	215.6	-0.3	-0.15	1.160	64.6	0.429	0.710	118.1	196.5	---	1.015	3.36	0.790	78.3	316.3	-7.3	0.292
4-5590	4-5690	0.482	218.7	-1.7	-0.74	1.179	66.6	0.397	0.734	112.0	200.6	---	1.025	3.29	0.819	77.5	319.9	-5.8	0.283
4-5590	4-5700	0.449	221.9	-3.3	-1.33	1.196	68.5	0.368	0.756	105.8	204.5	---	1.035	3.33	0.844	77.1	324.3	-3.7	0.276
4-5590	4-5710	0.418	225.0	-5.3	-1.95	1.211	70.2	0.343	0.778	99.3	208.2	---	1.045	3.48	0.865	76.9	329.1	-0.9	0.270
4-5590	4-5720	0.390	228.1	-8.0	-2.66	1.224	71.9	0.321	0.798	92.7	211.8	---	1.054	3.77	0.883	76.9	334.3	2.5	0.266
4-5590	4-5730	0.364	231.3	-11.5	-3.51	1.236	73.5	0.302	0.816	86.0	215.2	---	1.063	4.25	0.897	77.0	339.7	6.9	0.262
4-5590	4-5740	0.343	234.5	-16.6	-4.66	1.246	75.1	0.286	0.834	79.1	218.5	---	1.072	5.06	0.910	77.1	345.0	12.4	0.262
4-5590	4-5750	0.330	237.5	-26.3	-6.40	1.256	76.6	0.272	0.850	72.1	221.5	---	1.081	6.47	0.920	77.2	349.8	20.0	0.267
4-5590	4-5760	0.343	239.4	-77.0	-9.60	1.264	78.0	0.261	0.865	65.1	224.4	---	1.091	9.37	0.929	77.4	353.5	31.3	0.287
4-5590	4-5770	0.459	233.0	-58.2	-18.22	1.271	79.3	0.252	0.879	58.0	227.2	---	1.100	17.70	0.936	77.4	354.7	50.6	0.379
4-5590	4-5790	0.436	241.4	65.6	18.17	1.283	82.4	0.235	0.904	41.8	231.8	---	1.116	-19.27	0.946	77.8	54.7	-33.0	0.396
4-5590	4-5800	0.258	262.3	47.0	8.48	1.288	83.7	0.232	0.915	34.5	234.1	---	1.127	-9.87	0.950	77.7	48.7	-17.1	0.283
4-5590	4-5810	0.199	273.0	34.9	5.07	1.293	85.0	0.231	0.925	26.9	236.2	---	1.138	-6.75	0.954	77.6	51.6	-7.4	0.256
4-5590	4-5820	0.157	283.9	26.2	3.26	1.297	86.4	0.231	0.935	19.2	238.2	---	1.150	-5.24	0.957	77.4	57.3	-0.6	0.247
4-5590	4-5830	0.148	296.3	18.7	2.08	1.301	87.9	0.233	0.943	11.4	240.0	---	1.163	-4.39	0.959	77.2	64.3	4.1	0.245
4-5590	4-5840	0.138	310.4	11.6	1.22	1.305	89.3	0.237	0.952	3.4	241.7	---	1.177	-3.87	0.962	76.8	72.1	7.4	0.246
4-5590	4-5850	0.138	325.4	4.9	0.62	1.308	90.9	0.243	0.959	355.4	603.2	0.726	1.192	-3.56	0.965	76.3	80.4	9.7	0.250
4-5590	4-5860	0.149	340.1	-0.8	-0.09	1.311	92.6	0.252	0.966	347.1	604.5	0.723	1.210	-3.37	0.967	75.7	89.1	11.0	0.257
4-5590	4-5870	0.169	353.6	-5.0	-0.65	1.314	94.4	0.264	0.973	338.7	605.6	0.716	1.230	-3.30	0.970	74.9	98.1	11.6	0.267
4-5590	4-5880	0.199	5.2	-7.9	-1.20	1.316	96.4	0.280	0.980	330.0	606.5	0.705	1.254	-3.31	0.973	73.9	107.4	11.4	0.282
4-5590	4-5890	0.238	15.1	-9.7	-1.77	1.319	98.7	0.301	0.986	321.0	606.9	0.689	1.283	-3.42	0.976	72.6	116.8	10.4	0.302
4-5590	4-5900	0.290	23.7	-10.8	-2.39	1.321	101.5	0.329	0.992	311.4	606.8	0.665	1.319	-3.65	0.980	70.8	126.4	8.6	0.329
4-5590	4-5900	0.728	71.2	-3.0	-2.39	1.139	107.1	0.606	0.676	227.3	882.8	0.267	1.086	-2.65	0.700	113.0	242.1	-26.4	0.442
4-5590	4-5910	0.356	31.5	-11.3	-3.13	1.323	104.8	0.367	0.998	301.0	606.0	0.632	1.364	-4.02	0.984	68.5	136.3	6.1	0.367
4-5590	4-5910	0.691	71.1	-4.5	-3.13	1.112	123.2	0.554	0.659	228.0	893.0	0.294	1.025	-4.02	0.673	98.6	229.4	-26.4	0.341
4-5590	4-5920	0.444	38.9	-11.5	-4.07	1.325	109.1	0.419	1.004	289.5	604.0	0.584	1.424	-4.62	0.988	65.2	146.6	2.9	0.421
4-5590	4-5920	0.648	71.7	-5.8	-4.07	1.106	125.0	0.553	0.653	227.2	901.8	0.292	1.015	-4.62	0.665	87.8	216.6	-24.4	0.329
4-5590	4-5930	0.566	46.4	-11.5	-5.38	1.328	114.9	0.493	1.010	276.2	600.3	0.513	1.508	-5.62	0.993	60.5	157.5	-1.0	0.502
4-5590	4-5930	0.693	72.7	-7.0	-5.38	1.103	125.3	0.585	0.651	225.4	909.6	0.270	1.332	-5.62	0.663	77.1	207.2	-21.6	0.376
4-5590	4-5940	0.798	74.9	-7.9	-7.50	1.103	130.7	0.658	0.651	221.7	915.3	0.223	1.079	-7.44	0.666	84.6	204.0	-19.9	0.485
4-5590	4-5990	0.846	202.1	6.5	6.96	1.085	46.9	0.691	0.635	141.9	884.9	0.196	1.073	8.44	0.657	118.4	329.4	-3.0	0.550
4-5590	4-6000	0.592	232.2	6.7	4.28	1.335	64.3	0.508	1.031	84.1	477.0	0.507	1.555	6.07	1.021	120.5	14.1	16.4	0.557
4-5590	4-6000	0.712	204.7	5.3	4.28	1.086	54.0	0.599	0.635	137.2	890.1	0.254	1.016	6.07	0.662	104.1	327.7	-3.0	0.414
4-5590	4-6010	0.447	241.8	7.8	2.73	1.338	71.4	0.427	1.038	66.9	469.7	0.595	1.480	4.84	1.027	115.2	27.0	21.5	0.465
4-5590	4-6010	0.919	158.0	2.1	2.73	1.043	41.7	0.760	0.601	148.9	911.7	0.144	1.057	4.84	0.594	58.9	283.6	-18.6	0.583
4-5590	4-6010	0.665	205.2	3.7	2.73	1.082	56.3	0.568	0.632	136.3	899.2	0.273	0.991	4.84	0.660	91.1	317.2	-7.0	0.357
4-5590	4-6020	0.345	251.9	6.3	1.47	1.340	76.6	0.376	1.044	51.5	464.4	0.652	1.437	4.13	1.032	111.9	39.5	25.7	0.407
4-5590	4-6030	0.272	263.7	4.2	0.86	1.342	78.7	0.345	1.051	37.4	460.4	0.688	1.413	3.70	1.037	109.9	52.1	29.0	0.371
4-5590	4-6040	0.221	278.2	1.1	0.18	1.344	84.1	0.328	1.058	24.3	457.4	0.711	1.405	3.44	1.041	108.8	64.6	31.3	0.349
4-5590	4-6050	0.190	296.0	-3.1	-0.43	1.347	87.1	0.321	1.065	12.1	455.3	0.723	1.407	3.32	1.046	108.3	77.5	32.7	0.339
4-5590	4-6060	0.180	314.9	-7.6	-1.02	1.349	89.8	0.323	1.073	0.7	454.0	0.727	1.419	3.30	1.050	108.2	90.1	33.3	0.337
4-5590	4-6070	0.191	335.6	-11.5	-1.62	1.352	92.5	0.331	1.082	350.0	813.5	0.724	1.439	3.39	1.053	108.6	102.3	32.9	0.342
4-5590	4-6080	0.717	219.5	-3.3	-2.27	1.262	56.3	0.569	0.861	110.4	584.2	0.371	1.351	3.60	0.934	56.2	319.9	-10.5	0.579
4-5590	4-6080	0.218	352.0	-3.2	-2.27	1.355	95.1	0.344	1.091	340.0	813.7	0.715	1.467	3.60	1.057	109.4	114.1	31.9	0.353
4-5590	4-6090	0.646	222.8	-5.2	-3.04	1.269	60.0	0.520	0.875	103.5	587.4	0.420	1.330	3.97	0.943	59.4	327.4	-6.7	0.531
4-5590	4-6090	0.257	4.7	-16.1	-3.04	1.358	97.7	0.363	1.102	330.6	814.5	0.702	1.502	3.97	1.060	110.4	125.3	30.5	0.371
4-5590	4-6100	0.581	226.1	-7.9	-4.01	1.275	63.5	0.475	0.888	96.4	590.5	0.466	1.310	4.58	0.950	62.3	334.7	-2.0	0.488
4-5590	4-6100	0.306	14.6	-17.8	-4.01	1.362	100.4	0.386	1.113	321.8	815.8	0.683	1.544	4.58	1.063	111.8	136.0	28.8	0.395
4-5590	4-6110	0.524	229.4	-12.2	-5.38	1.281	66.7	0.433	0.900	89.1	593.2	0.510	1.290	5.62	0.956	64.9	341.5	3.9	0.451
4-5590	4-6110	0.363	22.6	-20.1	-5.38	1.366	103.1	0.414	1.126	313.5	817.6	0.660	1.592	5.62	1.067	113.5	146.2	27.4	0.426
4-5590	4-6120	0.481	232.5	-19.5	-7.63	1.287	69.7	0.396	0.912	81.6	595.7	0.551	1.273	7.56	0.961	67.2	347.7	12.1	0.425
4-5590	4-6120	0.432	29.4	-23.9	-7.63	1.370	106.0	0.445	1.140	305.7	819.8	0.633	1.647	7.56	1.070	115.4	156.3	27.0	0.466
4-5590	4-6130	0.478	233.9	-33.6	-12.41	1.292	72.4	0.364	0.922	73.8	597.9	0.587	1.258	12.04	0.965	69.1	352.5	25.6	0.425
4-5590	4-6130	0.531	36.7	-31.8	-12.41	1.374	109.0	0.478	1.156	298.3	822.3	0.603	1.708	12.04	1.073	117.5	166.6	29.9	0.526
4-5590	4-6160	0.368	248.4	46.4	12.01	1.305	79.7	0.292	0.948	48.3	602.9	0.672	1.224	-13.24	0.972	73.3	41.9	-20.3	0.376
4-5590	4-6170	0.586	245.5	15.1	6.54	1.441	68.1	0.602	1.480	60.2	264.4	---	2.370	-8.06	1.148	57.5	30.1	-0.6	0.648
4-5590	4-6170	0.270	259.4	33.1	6.54	1.306	81.7	0.277	0.955	39.8	606.0	0.690	1.220	-8.06	0.973	74.1	43.6	-8.8	0.319
4-5590	4-6180	0.527	250.6	10.6	4.09	1.443	70.7	0.586	1.492	53.5	267.4	---	2.367	-5.92	1.148	59.0	36.4	4.4	0.616
4-5590	4-6180	0.219	269.0	25.1	4.09	1.309	83.6	0.267	0.961	31.1	605.0	0.705	1.217	-5.92	0.973	74.7	49.5	-1.6	0.294
4-5590	4-6190	0.475	256.1	7.7	2.65	1.445	73.3	0.572	1.504	46.7	270.3	---	2.365	-4.78	1.148	60.3	43.6	0.2	0.589
4-5590	4-6190	0.184	280.1	19.1	2.65	1.311	85.5	0.260	0.967	22.3	605.8	0.715	1.218	-4.78	0.974	75.1	56.8	3.3	0.281
4-5600	4-5640	0.952	208.8	3.5	5.51	0.974	33.9	0.803	0.553	155.2	177.5	---	---	7.78	0.454	100.0	318.4	-9.7	0.576
4-5600	4-5650	0.839	213.0	1.8	2.98	1.011	46.0	0.719	0.576	149.0	181.2	---	0.991	5.52	0.533	86.8	317.1	-10.1	0.483
4-5600	4-5660	0.758	217.0	1.1	1.34	1.049	50.9	0.649	0.604	143.0	185.3	---	0.996	4.37	0.607	80.4	316.9	-10.1	0.428
4-5600	4-5670	0.695	220.8	0.7	0.57	1.084	54.8	0.589	0.632	137.0	189.4	---	1.005	3.71	0.668	77.1	318.1	-9.7	0.392
4-5600	4-5680	0.642	224.4	-0.1	-0.16	1.115	57.9	0.536	0.661	131.0	193.5	---	1.016	3.32	0.720	75.3	320.4	-8.8	0.368
4-5600	4-5690	0.595	227.9	-1.1	-0.78	1.142	60.6	0.493	0.689	124.8	197.5	---	1.028	3.08	0.762	74.4	323.8	-7.5	0.350
4-5600	4-5700	0.552	231.2	-2.5	-1.33	1.166	63.1	0.453	0.715	118.5	201.9	---	1.039	2.96	0.797	74.1	328.0	-5.7	0.335

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5600	4-5710	0.513	234.5	-3.9	-1.85	1.186	65.3	0.416	0.741	112.1	205.7	---	1.050	2.95	0.827	74.0	332.8	-3.4	0.323
4-5600	4-5720	0.477	237.7	-5.6	-2.38	1.204	67.3	0.388	0.765	105.6	208.8	---	1.061	3.02	0.851	74.2	338.0	-0.7	0.312
4-5600	4-5730	0.444	240.8	-7.4	-2.97	1.219	69.3	0.361	0.787	99.0	212.3	---	1.071	3.20	0.872	74.5	343.5	2.7	0.303
4-5600	4-5740	0.413	244.0	-10.3	-3.64	1.235	71.1	0.338	0.808	92.2	215.7	---	1.081	3.53	0.889	74.8	349.2	6.6	0.295
4-5600	4-5750	0.386	247.2	-14.0	-4.49	1.245	72.8	0.318	0.828	85.4	218.9	---	1.091	4.06	0.903	75.1	355.0	11.3	0.283
4-5600	4-5760	0.365	250.3	-19.2	-5.69	1.255	74.5	0.301	0.846	78.4	221.9	---	1.100	4.96	0.914	75.5	0.6	17.3	0.285
4-5600	4-5770	0.354	253.1	-27.3	-7.62	1.264	76.1	0.286	0.862	71.3	224.8	---	1.109	6.61	0.924	75.8	5.7	25.4	0.288
4-5600	4-5780	0.379	254.2	-41.3	-11.61	1.272	77.6	0.274	0.878	64.2	227.6	---	1.118	10.34	0.932	76.1	9.4	38.5	0.312
4-5600	4-5790	0.609	235.1	-65.1	-26.09	1.279	79.0	0.265	0.892	57.3	230.2	---	1.129	24.56	0.939	76.2	11.5	63.9	0.480
4-5600	4-5810	0.311	269.9	49.5	10.66	1.291	82.2	0.248	0.917	41.2	234.7	---	1.145	-12.70	0.949	76.7	59.0	-19.4	0.324
4-5600	4-5820	0.222	281.0	31.9	5.22	1.296	83.5	0.245	0.928	33.8	236.9	---	1.155	-7.52	0.953	76.7	60.2	-6.3	0.274
4-5600	4-5830	0.184	290.3	20.8	2.89	1.301	85.0	0.243	0.939	26.2	238.9	---	1.166	-5.45	0.957	76.6	65.7	1.3	0.259
4-5600	4-5840	0.161	300.7	12.6	1.54	1.305	86.4	0.243	0.948	18.5	240.8	---	1.178	-4.37	0.960	76.5	72.9	6.1	0.253
4-5600	4-5850	0.147	313.0	5.5	0.61	1.309	87.9	0.245	0.957	10.7	242.6	---	1.191	-3.74	0.963	76.3	80.8	9.1	0.252
4-5600	4-5860	0.141	327.1	-0.9	-0.09	1.312	89.4	0.249	0.965	2.8	244.2	---	1.205	-3.35	0.966	75.9	89.2	11.0	0.253
4-5600	4-5870	0.144	342.2	-6.2	-0.68	1.315	91.1	0.255	0.973	354.7	605.7	0.725	1.221	-3.11	0.970	75.4	98.0	11.8	0.257
4-5600	4-5880	0.157	357.1	-10.7	-1.20	1.318	92.8	0.264	0.980	346.4	607.0	0.721	1.239	-2.98	0.973	74.8	107.0	11.8	0.265
4-5600	4-5890	0.180	10.6	-12.5	-1.70	1.321	94.7	0.276	0.987	337.9	608.0	0.714	1.260	-2.98	0.977	74.0	116.2	11.0	0.276
4-5600	4-5900	0.212	22.3	-13.7	-2.19	1.323	96.9	0.293	0.993	329.1	608.7	0.702	1.284	-2.98	0.980	73.0	125.4	9.5	0.291
4-5600	4-5910	0.255	32.3	-14.1	-2.72	1.325	99.3	0.315	0.999	319.8	608.9	0.684	1.314	-3.11	0.984	71.6	134.8	7.3	0.312
4-5600	4-5920	0.310	41.1	-14.0	-3.31	1.328	102.2	0.345	1.005	309.8	608.5	0.658	1.352	-3.35	0.989	69.8	144.4	4.5	0.342
4-5600	4-5920	0.632	86.1	-4.8	-3.31	1.125	123.1	0.550	0.670	229.7	888.4	0.302	1.039	-3.35	0.693	103.5	251.4	-28.7	0.359
4-5600	4-5930	0.382	49.0	-13.6	-4.02	1.330	105.9	0.386	1.011	298.9	607.2	0.621	1.401	-3.75	0.994	67.3	154.3	1.0	0.384
4-5600	4-5930	0.624	86.4	-6.1	-4.02	1.116	121.6	0.531	0.662	229.5	897.7	0.310	1.013	-3.75	0.682	92.6	238.4	-28.6	0.314
4-5600	4-5940	0.480	56.7	-13.0	-4.95	1.332	110.6	0.443	1.017	286.6	604.5	0.566	1.468	-4.39	0.998	63.7	164.7	-3.0	0.446
4-5600	4-5940	0.644	87.2	-7.2	-4.95	1.113	122.6	0.546	0.658	228.3	906.2	0.299	1.017	-4.39	0.679	82.7	226.3	-26.7	0.331
4-5600	4-5950	0.619	64.6	-12.2	-6.32	1.334	117.3	0.527	1.024	272.2	599.7	0.485	1.563	-5.48	1.004	58.2	176.0	-7.8	0.539
4-5600	4-5950	0.711	88.5	-8.0	-6.32	1.111	126.0	0.594	0.657	225.8	913.3	0.267	1.048	-5.48	0.689	72.0	239.3	-24.6	0.404
4-5600	4-5960	0.849	91.4	-8.3	-8.71	1.112	133.2	0.689	0.658	220.6	917.8	0.205	1.111	-7.60	0.686	56.6	259.1	-23.9	0.543
4-5600	4-6010	0.767	220.4	4.6	4.10	1.096	51.2	0.635	0.643	137.8	884.8	0.235	1.051	6.49	0.680	113.2	346.8	3.5	0.485
4-5600	4-6020	0.520	252.9	5.3	2.22	1.342	67.9	0.471	1.045	75.2	472.2	0.552	1.537	4.89	1.032	118.0	36.1	23.5	0.513
4-5600	4-6020	0.663	222.3	3.1	2.22	1.096	56.6	0.560	0.643	134.4	891.4	0.283	1.003	4.89	0.684	100.7	343.1	2.4	0.374
4-5600	4-6030	0.396	262.8	1.4	1.05	1.344	74.0	0.406	1.051	58.7	465.7	0.625	1.478	4.02	1.037	113.7	40.8	27.4	0.437
4-5600	4-6030	0.873	215.7	0.9	1.05	1.058	44.6	0.724	0.611	145.9	912.9	0.169	1.052	4.02	0.624	61.2	302.9	-15.9	0.552
4-5600	4-6030	0.640	222.3	1.5	1.05	1.092	57.8	0.545	0.639	134.3	901.4	0.291	0.987	4.02	0.679	89.3	330.9	-3.3	0.339
4-5600	4-6040	0.309	273.7	0.9	0.20	1.346	78.7	0.363	1.058	43.8	461.0	0.671	1.444	3.50	1.041	111.1	63.3	30.1	0.390
4-5600	4-6050	0.248	286.7	-2.5	-0.46	1.348	82.4	0.342	1.064	30.2	457.6	0.700	1.429	3.19	1.045	109.6	76.5	31.6	0.361
4-5600	4-6060	0.207	302.8	-6.8	-1.04	1.351	85.6	0.331	1.071	17.7	455.2	0.717	1.426	3.01	1.049	108.8	89.5	32.2	0.345
4-5600	4-6070	0.188	321.9	-11.4	-1.58	1.353	88.5	0.329	1.079	6.0	453.7	0.724	1.433	2.94	1.052	108.5	102.2	31.7	0.338
4-5600	4-6080	0.190	341.8	-15.2	-2.10	1.356	91.2	0.333	1.087	355.2	813.0	0.725	1.449	2.97	1.055	108.7	114.3	30.5	0.340
4-5600	4-6090	0.209	359.8	-17.5	-2.65	1.358	93.8	0.344	1.096	345.1	813.1	0.719	1.473	3.09	1.058	109.3	125.7	28.6	0.348
4-5600	4-6100	0.697	236.7	-5.0	-3.27	1.269	57.6	0.554	0.872	107.5	585.7	0.389	1.355	3.34	0.939	57.1	338.0	-4.2	0.569
4-5600	4-6100	0.242	14.2	-18.6	-3.27	1.361	96.4	0.360	1.106	335.6	813.7	0.708	1.504	3.34	1.061	110.2	136.5	24.2	0.362
4-5600	4-6110	0.629	240.0	-7.1	-4.02	1.276	61.2	0.507	0.886	100.6	588.8	0.437	1.335	3.75	0.947	60.2	345.2	0.1	0.522
4-5600	4-6110	0.285	25.4	-19.4	-4.02	1.365	99.0	0.380	1.117	326.6	814.9	0.692	1.541	3.75	1.063	111.4	146.6	23.7	0.382
4-5600	4-6120	0.567	243.3	-10.2	-5.00	1.282	64.6	0.463	0.898	93.4	591.7	0.482	1.315	4.42	0.953	63.0	352.2	5.2	0.480
4-5600	4-6120	0.336	34.3	-20.3	-5.00	1.368	101.7	0.405	1.129	318.2	816.5	0.672	1.586	4.42	1.065	112.8	156.3	21.4	0.409
4-5600	4-6130	0.514	246.5	-15.1	-6.47	1.288	67.7	0.424	0.910	86.0	594.3	0.525	1.296	5.60	0.958	65.4	358.8	11.5	0.445
4-5600	4-6130	0.396	41.5	-22.2	-6.47	1.372	104.5	0.433	1.142	310.2	818.6	0.648	1.637	5.60	1.068	114.6	165.7	19.6	0.442
4-5600	4-6140	0.480	249.3	-23.7	-9.09	1.293	70.5	0.389	0.921	78.4	596.6	0.563	1.280	7.95	0.962	67.5	4.8	20.6	0.421
4-5600	4-6140	0.470	48.1	-26.2	-9.09	1.376	107.4	0.464	1.157	302.7	820.9	0.620	1.694	7.95	1.071	116.6	175.2	19.4	0.485
4-5600	4-6150	0.510	248.7	-41.1	-15.67	1.298	73.1	0.359	0.931	70.7	598.7	0.597	1.266	14.27	0.965	69.3	8.9	37.3	0.440
4-5600	4-6150	0.592	56.3	-36.2	-15.67	1.380	110.3	0.498	1.172	295.5	823.5	0.588	1.757	14.27	1.073	118.7	185.3	24.6	0.558
4-5600	4-6170	0.487	253.6	55.2	18.26	1.305	70.1	0.309	0.949	53.6	602.1	0.656	1.242	-20.16	0.969	72.3	56.9	-24.7	0.464
4-5600	4-6180	0.303	269.9	33.2	7.38	1.308	80.2	0.293	0.956	45.4	603.4	0.677	1.236	-9.54	0.971	73.2	53.5	-8.4	0.342
4-5600	4-6190	0.559	263.6	9.5	3.93	1.445	69.1	0.599	1.494	57.6	285.2	---	2.388	-6.34	1.146	57.9	46.6	7.4	0.634
4-5600	4-6190	0.240	278.8	21.8	3.93	1.311	82.2	0.280	0.963	36.9	604.6	0.694	1.232	-6.34	0.972	74.0	58.6	0.2	0.307
4-5600	4-6200	0.506	268.6	5.9	2.17	1.447	71.7	0.584	1.506	50.9	268.2	---	2.386	-4.86	1.147	59.3	53.8	11.1	0.604
4-5600	4-6200	0.201	288.2	14.3	2.17	1.313	84.1	0.270	0.969	28.3	605.6	0.707	1.231	-4.86	0.973	74.5	65.8	5.4	0.289
4-5610	4-5660	0.958	224.3	1.5	2.24	0.968	38.4	0.809	0.548	155.9	182.2	---	0.991	5.33	0.446	80.7	323.5	-10.2	0.578
4-5610	4-5670	0.864	228.8	0.6	0.77	1.014	44.6	0.734	0.577	149.5	185.9	---	1.000	3.98	0.543	74.4	324.1	-10.0	0.512
4-5610	4-5680	0.789	233.0	-0.2	-0.20	1.057	49.4	0.667	0.608	143.2	189.7	---	1.013	3.25	0.621	71.8	325.9	-9.3	0.467
4-5610	4-5690	0.727	236.9	-1.1	-0.89	1.094	53.2	0.608	0.638	137.0	193.7	---	1.027	2.83	0.683	70.6	328.8	-8.2	0.435
4-5610	4-5700	0.673	240.6	-2.0	-1.48	1.125	56.5	0.557	0.669	130.7	197.5	---	1.041	2.57	0.734	70.3	332.6	-6.7	0.410
4-5610	4-5710	0.624	244.0	-3.0	-1.90	1.153	59.3	0.511	0.698	124.3	201.4	---	1.054	2.42	0.775	70.4	337.1	-4.7	0.390
4-5610	4-5720	0.580	247.4	-4.2	-2.32	1.176	61.9	0.471	0.725	117.9	205.1	---	1.067	2.36	0.809	70.8	342.1	-2.3	0.372
4-5610	4-5730	0.538	250.7	-5.5	-2.75	1.197	64.3	0.435	0.752	111.3	208.7	---	1.078	2.38	0.837	71.3	347.5	0.4	0.356
4-5610	4-5740	0.500	253.9	-7.1	-3.18	1.214	66.5	0.404	0.776	104.7	212.2	---	1.090	2.48	0.860	71.9	353.3	3.5	0.342
4-5610	4-5750	0.465	257.1	-9.1	-3.68	1.229	68.5	0.376	0.799	98.0	215.6	---	1.100	2.67	0.879	72.5	359.2	7.1	0.329
4-5610	4-5760	0.432	260.2	-11.6	-4.26	1.243	70.5	0.352	0.821	91.1	218.8	---	1.110	2.98	0.894	73.1	5.4	11.1	0.318
4-5610	4-5770	0.403	263.4	-15.1	-5.03	1.254	72.3	0.331	0.841	84.2	221.9	---	1.119	3.51	0.908	73.6	11.6	15.8	0.309
4-5610	4-5780	0.380	266.6	-20.1	-6.16	1.264	74.0	0.314	0.859	77.2	224.8	---	1.129	4.41	0.918	74.1	17.7	21.6	0.302
4-5610	4-5790	0.370	269.4	-28.2	-8.14	1.273	75.7	0.299	0.876	70.1	227.6	---	1.138	6.17	0.928	74.6	23.5	29.8	0.302
4-5610	4-5800	0.405	269.6	-43.6	-12.91	1.281	77.3	0.287	0.891	63.0	230.2	---	1.147	10.73	0.935	74.9	27.8	44.5	0.329
4-5610	4-5820	0.423	274.1	57.6	16.23	1.294	80.5	0.266	0.919	47.7	235.0	---	1.163	-18.81	0.947	75.6	71.8	-24.6	0.407
4-5610	4-5830	0.249	290.4	29.2	5.41	1.299	82.0	0.261	0.931	40.5	237.3	---	1.174	-8.20	0.952	75.7	68.7	-5.1	0.292
4-5610	4-5840	0.205	298.5	14.9	2.33	1.304	83.4	0.257	0.942	33.1	239.5	---	1.184	-5.32	0.956	75.7	74.2	4.0	0.270
4-5610	4-5850	0.180	307.2	8.0	0.82	1.308	84.9	0.255	0.952	25.5	241.5	---	1.195	-4.02	0.961	75.7	81.5	8.7	0.262
4-5610	4-5860	0.163	317.4	-0.9	-0.12	1.312	86.4	0.254	0.962	17.9	243.4	---	1.206	-3.31	0.965	75.6	89.7	11.4	0.258
4-5610	4-5870	0.152	329.7	-6.8	-0.79	1.316	87.9	0.256	0.970	10.1	245.2	---	1.219	-2.88	0.968	75.4	98.3	12.7	0.258

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5610	4-5880	0.149	343.9	-11.8	-1.32	1.319	89.5	0.260	0.979	2.2	246.8	---	1.233	-2.61	0.972	75.1	107.2	12.9	0.260
4-5610	4-5890	0.154	359.2	-15.4	-1.77	1.322	91.2	0.267	0.986	354.1	608.2	0.723	1.249	-2.46	0.976	74.6	116.2	12.3	0.264
4-5610	4-5900	0.166	14.2	-17.4	-2.17	1.325	93.1	0.276	0.993	345.8	609.4	0.719	1.267	-2.38	0.980	74.3	125.2	11.0	0.272
4-5610	4-5910	0.192	27.9	-18.0	-2.57	1.327	95.1	0.289	1.000	337.2	610.3	0.711	1.289	-2.37	0.985	73.2	134.3	9.0	0.283
4-5610	4-5920	0.226	39.7	-17.6	-2.97	1.330	97.3	0.306	1.006	328.1	610.8	0.698	1.314	-2.42	0.989	72.2	143.5	6.4	0.300
4-5610	4-5930	0.271	49.8	-16.7	-3.41	1.332	99.9	0.329	1.012	318.5	610.8	0.679	1.346	-2.55	0.994	70.8	152.9	3.2	0.323
4-5610	4-5930	0.667	101.2	-4.9	-3.41	1.140	123.7	0.557	0.664	231.3	883.6	0.303	1.064	-2.55	0.716	108.7	272.7	-27.8	0.393
4-5610	4-5940	0.331	58.7	-15.5	-3.91	1.334	103.1	0.361	1.018	308.1	610.0	0.650	1.386	-2.78	0.999	68.8	162.4	-0.4	0.354
4-5610	4-5940	0.610	101.3	-6.2	-3.91	1.127	120.8	0.517	0.671	231.6	893.5	0.324	1.017	-2.78	0.699	96.8	262.1	-29.4	0.314
4-5610	4-5950	0.410	66.8	-14.3	-4.54	1.336	107.1	0.406	1.024	296.5	608.2	0.608	1.440	-3.16	1.004	66.1	172.4	-4.6	0.403
4-5610	4-5950	0.608	101.8	-7.2	-4.54	1.122	120.7	0.516	0.665	230.9	902.5	0.322	1.009	-3.16	0.694	87.4	247.9	-29.2	0.303
4-5610	4-5960	0.520	74.7	-12.9	-5.39	1.339	112.5	0.470	1.030	283.3	604.6	0.546	1.515	-3.78	1.010	62.0	183.2	-9.2	0.474
4-5610	4-5960	0.648	102.7	-7.9	-5.39	1.120	122.7	0.586	0.663	229.2	910.5	0.301	1.025	-3.78	0.695	77.9	237.5	-27.7	0.346
4-5610	4-5970	0.660	83.2	-11.5	-6.72	1.341	120.2	0.566	1.037	267.2	598.3	0.450	1.624	-4.89	1.015	55.6	195.5	-14.2	0.586
4-5610	4-5970	0.742	104.6	-8.1	-6.72	1.120	127.5	0.613	0.663	225.7	916.8	0.257	1.070	-4.89	0.698	66.8	273.6	-26.5	0.445
4-5610	4-6020	0.866	235.0	3.4	-5.71	1.106	46.0	0.699	0.650	140.8	681.8	0.195	1.104	6.59	0.695	123.1	2.3	8.1	0.567
4-5610	4-6030	0.614	263.7	2.9	-1.48	1.346	63.3	0.529	1.052	85.0	476.0	0.496	1.608	4.58	1.037	121.7	45.2	24.4	0.576
4-5610	4-6030	0.702	238.5	1.9	-1.48	1.107	54.7	0.585	0.651	134.3	885.4	0.270	1.032	4.58	0.701	108.8	3.7	9.4	0.427
4-5610	4-6040	0.460	273.6	0.7	0.26	1.348	70.9	0.443	1.058	66.8	468.0	0.590	1.527	3.59	1.042	116.0	60.1	27.8	0.476
4-5610	4-6040	0.625	239.7	0.4	0.26	1.107	58.8	0.527	0.650	131.8	893.0	0.307	0.993	3.59	0.702	97.7	358.0	7.2	0.339
4-5610	4-6050	0.355	283.9	-2.0	-0.55	1.350	76.3	0.391	1.065	50.9	462.3	0.649	1.481	3.02	1.046	112.6	74.3	20.8	0.414
4-5610	4-6050	0.820	233.7	-0.5	-0.55	1.074	47.9	0.682	0.621	142.5	913.8	0.198	1.045	3.02	0.651	64.3	322.1	-11.3	0.513
4-5610	4-6050	0.626	239.1	-0.8	-0.55	1.101	58.7	0.531	0.645	132.8	904.1	0.303	0.987	3.02	0.694	85.4	343.5	-0.2	0.331
4-5610	4-6060	0.281	295.8	-5.5	-1.16	1.352	80.5	0.360	1.071	36.7	458.2	0.686	1.456	2.69	1.049	110.6	88.0	30.5	0.375
4-5610	4-6070	0.231	310.2	-9.7	-1.66	1.354	84.0	0.344	1.078	23.7	455.4	0.708	1.447	2.49	1.052	109.4	101.2	30.1	0.353
4-5610	4-6080	0.202	327.7	-14.3	-2.10	1.357	87.0	0.336	1.085	11.8	453.7	0.720	1.450	2.39	1.054	108.9	113.7	28.7	0.342
4-5610	4-6090	0.193	347.4	-18.1	-2.52	1.359	89.8	0.337	1.093	0.7	452.8	0.724	1.462	2.36	1.057	108.9	125.4	26.6	0.339
4-5610	4-6100	0.203	6.5	-20.1	-2.95	1.362	92.5	0.345	1.101	350.4	812.6	0.722	1.481	2.42	1.059	109.3	136.4	24.0	0.344
4-5610	4-6110	0.229	22.7	-20.7	-3.41	1.365	95.0	0.358	1.111	340.8	813.1	0.713	1.508	2.55	1.061	110.0	146.7	21.0	0.355
4-5610	4-6120	0.679	253.9	-6.3	-3.94	1.277	58.8	0.540	0.883	104.6	587.0	0.406	1.360	2.80	0.943	58.0	355.8	2.6	0.557
4-5610	4-6120	0.265	35.4	-20.6	-3.94	1.368	97.6	0.375	1.121	331.7	814.1	0.700	1.541	2.80	1.062	111.0	156.4	17.9	0.372
4-5610	4-6130	0.613	257.2	-8.6	-4.60	1.283	62.3	0.495	0.896	97.6	590.0	0.453	1.340	3.20	0.949	60.9	2.9	6.9	0.511
4-5610	4-6130	0.310	45.4	-20.4	-4.60	1.371	100.2	0.397	1.132	323.1	815.6	0.683	1.581	3.20	1.064	112.3	169.7	14.8	0.394
4-5610	4-6140	0.553	260.5	-11.7	-5.51	1.289	65.6	0.453	0.909	90.4	592.8	0.497	1.320	3.87	0.954	63.6	10.0	12.0	0.470
4-5610	4-6140	0.363	53.3	-20.7	-5.51	1.374	102.9	0.422	1.145	315.0	817.4	0.661	1.628	3.87	1.066	113.9	174.6	12.1	0.422
4-5610	4-6150	0.503	263.7	-16.8	-6.94	1.294	68.6	0.416	0.920	83.0	595.2	0.537	1.303	5.08	0.958	65.9	16.8	18.2	0.436
4-5610	4-6150	0.424	59.9	-22.2	-6.94	1.378	105.7	0.451	1.158	307.3	819.6	0.635	1.681	5.08	1.069	115.7	183.5	10.2	0.457
4-5610	4-6160	0.474	286.3	-26.2	-9.78	1.299	71.3	0.383	0.931	75.3	597.5	0.574	1.287	7.71	0.962	67.9	23.0	27.7	0.414
4-5610	4-6160	0.501	66.2	-26.4	-9.78	1.382	108.6	0.483	1.173	300.0	822.1	0.606	1.740	7.71	1.071	117.7	192.6	10.5	0.502
4-5610	4-6170	0.550	262.7	-47.6	-18.93	1.303	73.8	0.355	0.941	67.7	599.4	0.604	1.275	16.66	0.965	69.5	27.6	48.6	0.458
4-5610	4-6170	0.655	76.1	-39.7	-18.93	1.386	111.6	0.517	1.189	293.1	824.8	0.574	1.804	16.66	1.074	120.0	202.5	19.4	0.594
4-5610	4-6190	0.346	280.7	35.3	8.96	1.311	78.6	0.310	0.957	50.9	602.7	0.661	1.254	-11.64	0.969	72.2	63.7	-9.3	0.372
4-5610	4-6200	0.593	276.8	8.2	3.62	1.447	67.4	0.612	1.495	61.6	262.9	---	2.411	-6.50	1.144	56.7	56.9	10.2	0.651
4-5610	4-6200	0.264	289.5	18.1	3.62	1.314	80.7	0.294	0.964	42.7	604.1	0.680	1.248	-6.50	0.970	73.1	67.6	2.4	0.320
4-5610	4-6210	0.539	281.4	3.8	1.51	1.449	70.0	0.597	1.508	55.1	266.0	---	2.408	-4.60	1.145	58.2	54.1	14.0	0.620
4-5610	4-6210	0.222	297.5	8.9	1.51	1.316	82.6	0.283	0.971	34.4	605.3	0.696	1.245	-4.60	0.972	73.8	74.9	8.1	0.298
4-5620	4-5680	0.969	241.1	-0.2	-0.28	0.984	38.0	0.809	0.556	155.2	185.7	---	1.007	3.15	0.481	67.5	332.7	-8.8	0.599
4-5620	4-5690	0.885	245.6	-0.9	-1.14	1.032	43.7	0.740	0.587	148.7	189.4	---	1.02	2.45	0.574	65.8	334.9	-7.9	0.545
4-5620	4-5700	0.814	249.7	-1.7	-1.70	1.073	48.3	0.677	0.619	142.4	193.2	---	1.033	2.06	0.647	65.6	338.1	-6.6	0.505
4-5620	4-5710	0.753	253.5	-2.5	-2.11	1.109	52.1	0.620	0.651	136.0	197.0	---	1.054	1.83	0.705	65.9	342.1	-4.9	0.473
4-5620	4-5720	0.698	257.1	-3.2	-2.45	1.140	55.5	0.569	0.681	129.6	200.8	---	1.069	1.69	0.751	66.6	346.7	-2.9	0.446
4-5620	4-5730	0.647	260.6	-4.2	-2.75	1.166	58.4	0.524	0.711	123.1	204.5	---	1.083	1.62	0.789	67.4	351.9	-0.5	0.423
4-5620	4-5740	0.601	263.9	-5.3	-3.04	1.189	61.1	0.484	0.739	116.6	208.2	---	1.096	1.60	0.821	68.3	357.4	2.2	0.402
4-5620	4-5750	0.558	267.2	-6.5	-3.32	1.209	63.6	0.448	0.765	110.0	211.7	---	1.108	1.63	0.846	69.2	3.3	5.1	0.384
4-5620	4-5760	0.518	270.4	-7.9	-3.63	1.226	65.9	0.416	0.790	103.4	215.1	---	1.119	1.72	0.868	70.1	9.5	8.3	0.367
4-5620	4-5770	0.480	273.6	-9.6	-3.98	1.240	68.0	0.389	0.813	96.6	218.3	---	1.130	1.88	0.885	70.9	16.0	11.6	0.351
4-5620	4-5780	0.446	276.8	-11.7	-4.42	1.253	70.0	0.365	0.835	89.8	221.4	---	1.139	2.14	0.900	71.8	22.6	15.3	0.337
4-5620	4-5790	0.415	280.0	-14.6	-5.01	1.264	71.9	0.344	0.855	82.9	224.4	---	1.149	2.57	0.912	72.3	29.4	19.4	0.325
4-5620	4-5800	0.389	283.2	-18.9	-5.92	1.274	73.7	0.326	0.873	75.9	227.3	---	1.158	3.34	0.922	72.9	36.4	24.3	0.315
4-5620	4-5810	0.374	286.2	-26.3	-7.68	1.282	75.4	0.311	0.890	68.9	230.0	---	1.167	4.95	0.931	73.4	43.2	31.5	0.311
4-5620	4-5820	0.412	286.3	-43.0	-12.91	1.290	77.0	0.299	0.905	61.8	232.6	---	1.176	10.04	0.939	73.8	49.4	47.3	0.335
4-5620	4-5840	0.280	300.8	27.3	5.75	1.302	80.3	0.279	0.933	47.1	237.5	---	1.193	-8.89	0.951	74.5	77.4	-4.2	0.312
4-5620	4-5850	0.229	308.1	8.0	1.41	1.307	81.8	0.273	0.945	39.8	239.7	---	1.203	-4.69	0.956	74.7	82.8	7.7	0.280
4-5620	4-5860	0.205	315.3	-1.1	-0.17	1.312	83.3	0.269	0.956	32.4	241.9	---	1.213	-3.25	0.961	74.8	90.6	12.2	0.270
4-5620	4-5870	0.186	323.8	-7.3	-1.02	1.316	84.8	0.266	0.966	24.9	244.0	---	1.223	-2.54	0.966	74.8	99.0	14.2	0.266
4-5620	4-5880	0.171	334.1	-12.3	-1.58	1.320	86.4	0.266	0.975	17.3	245.9	---	1.235	-2.12	0.970	74.8	107.8	14.8	0.263
4-5620	4-5890	0.162	346.5	-16.6	-2.00	1.323	88.0	0.268	0.984	9.6	247.7	---	1.247	-1.88	0.975	74.8	116.7	14.3	0.263
4-5620	4-5900	0.159	0.9	-19.9	-2.34	1.326	89.6	0.271	0.992	1.7	249.3	---	1.261	-1.73	0.980	74.3	125.7	13.1	0.266
4-5620	4-5910	0.164	16.4	-21.8	-2.63	1.329	91.4	0.278	0.999	353.6	610.7	0.722	1.277	-1.64	0.984	73.9	134.6	11.2	0.271
4-5620	4-5920	0.179	31.7	-22.1	-2.90	1.332	93.3	0.287	1.006	345.1	611.9	0.717	1.295	-1.60	0.989	73.3	143.6	8.7	0.279
4-5620	4-5930	0.204	45.4	-21.1	-3.17	1.334	95.4	0.300	1.013	336.3	612.7	0.709	1.317	-1.61	0.994	72.5	152.6	5.7	0.291
4-5620	4-5940	0.240	57.3	-19.4	-3.45	1.337	97.8	0.319	1.019	327.0	613.0	0.695	1.344	-1.66	0.999	71.4	161.7	2.3	0.309
4-5620	4-5940	0.715	116.7	-4.5	-3.45	1.160	125.8	0.566	0.705	231.9	877.9	0.291	1.115	-1.66	0.747	115.7	293.1	-24.2	0.464
4-5620	4-5950	0.288	67.5	-17.4	-3.76	1.339	100.6	0.344	1.025	317.0	612.6	0.673	1.378	-1.77	1.005	69.9	171.0	-1.6	0.335
4-5620	4-5950	0.605	116.2	-6.1	-3.76	1.139	120.4	0.509	0.680	233.5	889.2	0.334	1.026	-1.77	0.717	100.8	282.7	-26.8	0.325
4-5620	4-5960	0.353	76.4	-15.4	-4.13	1.341	104.1	0.479	1.031	306.0	611.4	0.641	1.422	-1.96	1.010	67.8	180.8	-5.7	0.372
4-5620	4-5960	0.584	116.6	-7.0	-4.13	1.132	119.3	0.494	0.673	233.2	898.6	0.341	1.005	-1.96	0.710	91.4	270.3	-28.3	0.288
4-5620	4-5970	0.441	84.7	-13.4	-4.60	1.343	108.5	0.428	1.037	293.6	608.8	0.593	1.481	-2.26	1.016	64.7	191.3	-10.1	0.427
4-5620	4-5970	0.602	117.2	-7.5	-4.60	1.129	120.2	0.508	0.670	232.1	907.2	0.329	1.010	-2.26	0.709	82.7	258.0	-28.2	0.305
4-5620	4-5980	0.566	93.0	-11.5	-5.28	1.345	114.7	0.502	1.043	279.1	604.1	0.519	1.567	-2.26	1.023	59.9	202.9	-14.8	0.510

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5620	4-5980	0.663	118.5	-7.5	-5.28	1.128	123.4	0.554	0.669	229.7	914.7	0.298	1.040	-2.78	0.712	73.2	250.5	-27.4	0.373
4-5620	4-5990	0.788	121.0	-7.0	-6.40	1.129	129.8	0.644	0.670	224.8	919.6	0.239	1.101	-3.76	0.717	61.3	249.9	-26.9	0.501
4-5620	4-6040	0.779	253.6	0.4	0.40	1.117	50.8	0.637	0.658	136.1	881.3	0.239	1.077	3.75	0.714	117.2	21.1	13.9	0.509
4-5620	4-6050	0.542	284.3	-1.7	-0.74	1.352	67.0	0.491	1.065	76.0	471.3	0.543	1.588	2.76	1.046	119.1	70.0	27.0	0.526
4-5620	4-6050	0.652	256.1	-1.1	-0.74	1.118	57.5	0.543	0.659	131.2	886.5	0.301	1.016	2.76	0.717	105.0	20.4	14.1	0.378
4-5620	4-6060	0.412	294.3	-4.5	-1.43	1.354	73.5	0.422	1.072	58.8	464.3	0.819	1.524	2.24	1.049	114.6	85.0	28.2	0.444
4-5620	4-6060	0.597	256.9	-2.3	-1.43	1.116	60.4	0.502	0.657	129.6	895.1	0.327	0.987	2.24	0.716	94.9	12.4	10.9	0.312
4-5620	4-6070	0.323	305.2	-7.8	-1.91	1.356	78.3	0.381	1.078	43.8	459.5	0.667	1.489	1.93	1.052	111.9	99.0	28.0	0.395
4-5620	4-6070	0.755	252.1	-2.2	-1.91	1.091	51.8	0.628	0.634	138.3	914.0	0.236	1.033	1.93	0.676	68.7	342.0	-4.8	0.459
4-5620	4-6070	0.631	255.5	-2.9	-1.91	1.108	58.6	0.530	0.649	132.0	907.7	0.305	0.993	1.93	0.702	81.5	354.9	2.1	0.340
4-5620	4-6080	0.262	318.1	-11.8	-2.28	1.358	82.2	0.358	1.085	30.3	456.2	0.697	1.472	1.75	1.054	110.3	112.1	24.7	0.354
4-5620	4-6090	0.222	333.9	-16.1	-2.60	1.361	85.4	0.346	1.091	18.0	454.0	0.714	1.469	1.65	1.056	109.5	124.3	24.5	0.348
4-5620	4-6100	0.202	352.5	-19.9	-2.89	1.363	88.3	0.343	1.099	6.6	452.8	0.722	1.476	1.60	1.058	109.2	135.7	21.8	0.341
4-5620	4-6110	0.202	12.2	-22.0	-3.17	1.365	91.0	0.347	1.107	356.1	812.4	0.722	1.491	1.61	1.059	109.4	146.2	18.5	0.342
4-5620	4-6120	0.218	30.0	-22.3	-3.47	1.368	93.6	0.357	1.115	346.2	812.7	0.717	1.514	1.67	1.060	109.9	156.2	15.0	0.350
4-5620	4-6130	0.729	268.0	-5.5	-3.79	1.277	56.3	0.574	0.880	108.7	585.1	0.375	1.386	1.78	0.938	55.6	6.4	5.3	0.593
4-5620	4-6130	0.247	44.5	-21.4	-3.79	1.371	96.2	0.371	1.125	337.0	813.5	0.707	1.543	1.78	1.062	110.8	165.6	11.5	0.343
4-5620	4-6140	0.660	271.2	-7.0	-4.17	1.284	59.9	0.528	0.894	101.8	588.2	0.422	1.365	1.99	0.944	58.7	13.7	9.1	0.544
4-5620	4-6140	0.286	55.8	-20.2	-4.17	1.374	98.8	0.390	1.136	328.3	814.7	0.692	1.579	1.99	1.063	111.9	174.5	8.0	0.383
4-5620	4-6150	0.596	274.5	-9.1	-4.67	1.290	63.3	0.484	0.907	94.7	591.1	0.467	1.346	2.31	0.950	61.6	21.1	13.0	0.499
4-5620	4-6150	0.332	64.6	-19.3	-4.67	1.377	101.4	0.413	1.148	320.1	814.4	0.673	1.622	2.31	1.065	113.3	183.2	4.7	0.407
4-5620	4-6160	0.537	277.8	-12.0	-5.38	1.296	66.4	0.445	0.919	87.5	593.7	0.510	1.327	2.87	0.954	64.0	28.6	17.5	0.459
4-5620	4-6160	0.385	71.8	-19.0	-5.38	1.380	104.1	0.440	1.160	312.2	818.4	0.650	1.671	2.87	1.067	114.9	191.8	1.9	0.437
4-5620	4-6170	0.488	281.1	-16.6	-6.59	1.301	69.4	0.410	0.930	80.0	596.1	0.549	1.311	3.93	0.958	66.2	36.0	22.9	0.425
4-5620	4-6170	0.446	77.9	-19.9	-6.59	1.384	106.9	0.469	1.174	304.7	820.7	0.623	1.726	3.83	1.069	116.8	200.4	-0.0	0.472
4-5620	4-6180	0.459	283.9	-25.9	-9.30	1.305	72.0	0.379	0.940	72.5	598.2	0.584	1.296	6.50	0.961	68.1	43.2	31.7	0.402
4-5620	4-6180	0.521	83.6	-23.9	-9.30	1.388	109.9	0.502	1.190	297.5	823.3	0.593	1.787	6.50	1.071	118.9	209.4	0.6	0.517
4-5620	4-6190	0.604	275.1	-53.6	-22.67	1.309	74.5	0.353	0.949	64.8	600.1	0.614	1.285	19.74	0.964	69.6	51.3	59.2	0.485
4-5620	4-6200	0.439	289.0	44.8	14.01	1.313	74.9	0.329	0.958	56.4	601.9	0.643	1.273	-17.08	0.967	71.0	76.1	-15.2	0.438
4-5620	4-6210	0.290	300.9	13.6	3.01	1.316	79.0	0.312	0.966	48.5	603.4	0.665	1.266	-6.22	0.969	72.1	76.6	5.3	0.332
4-5620	4-6220	0.573	294.5	1.2	0.52	1.451	68.2	0.610	1.510	59.3	263.8	---	2.431	-3.86	1.144	37.0	74.7	16.8	0.635
4-5620	4-6220	0.247	307.8	2.7	0.52	1.319	81.1	0.297	0.972	40.4	604.9	0.683	1.261	-3.86	0.971	72.9	84.2	11.6	0.307
4-5630	4-5710	0.902	262.7	-2.1	-2.61	1.054	43.2	0.741	0.602	147.3	192.3	---	1.048	1.00	0.611	60.1	347.9	-4.2	0.576
4-5630	4-5720	0.833	264.7	-2.7	-2.83	1.094	47.6	0.682	0.634	140.9	196.1	---	1.067	0.86	0.675	61.3	352.0	-2.4	0.537
4-5630	4-5730	0.772	270.4	-3.4	-3.00	1.127	51.4	0.627	0.666	134.5	199.9	---	1.084	0.78	0.727	62.6	356.7	-0.3	0.504
4-5630	4-5740	0.716	274.0	-3.1	-3.14	1.156	54.8	0.578	0.697	128.1	203.6	---	1.099	0.73	0.769	63.8	1.9	2.0	0.476
4-5630	4-5750	0.665	277.4	-4.9	-3.27	1.181	57.8	0.533	0.726	121.6	207.2	---	1.114	0.71	0.804	65.1	7.6	4.5	0.450
4-5630	4-5760	0.617	280.7	-5.8	-3.39	1.203	60.5	0.494	0.754	115.1	210.7	---	1.127	0.71	0.832	66.3	13.6	7.2	0.427
4-5630	4-5770	0.573	283.9	-6.7	-3.52	1.221	63.0	0.459	0.781	108.5	214.2	---	1.139	0.73	0.856	67.5	20.0	10.0	0.406
4-5630	4-5780	0.531	287.1	-7.8	-3.66	1.237	65.3	0.428	0.805	101.9	217.5	---	1.150	0.78	0.875	68.5	26.6	12.8	0.387
4-5630	4-5790	0.492	290.3	-9.0	-3.82	1.251	67.5	0.400	0.828	95.1	220.6	---	1.160	0.87	0.891	69.5	33.6	15.6	0.369
4-5630	4-5800	0.456	293.5	-10.5	-4.03	1.263	69.6	0.377	0.850	88.3	223.7	---	1.170	1.00	0.905	70.3	40.9	18.4	0.353
4-5630	4-5810	0.422	296.8	-12.5	-4.33	1.274	71.5	0.356	0.869	81.5	226.6	---	1.179	1.23	0.917	71.1	48.5	21.3	0.339
4-5630	4-5820	0.392	300.2	-15.3	-4.84	1.283	73.3	0.338	0.888	74.6	229.5	---	1.188	1.66	0.927	71.8	56.3	24.4	0.326
4-5630	4-5830	0.368	303.6	-20.3	-5.88	1.291	75.1	0.323	0.906	67.6	232.2	---	1.196	2.65	0.935	72.4	64.3	29.0	0.316
4-5630	4-5840	0.384	305.3	-35.9	-10.25	1.298	76.8	0.310	0.920	60.6	234.8	---	1.205	6.97	0.943	72.8	72.7	42.4	0.324
4-5630	4-5850	0.324	311.6	29.3	7.13	1.304	78.5	0.299	0.934	53.5	237.3	---	1.213	-10.48	0.950	73.3	80.7	-5.7	0.340
4-5630	4-5860	0.259	318.7	-1.8	-0.36	1.310	80.1	0.291	0.947	46.3	239.8	---	1.222	-3.04	0.956	73.6	91.8	13.8	0.290
4-5630	4-5870	0.236	324.7	-9.2	-1.65	1.315	81.6	0.285	0.958	39.1	242.1	---	1.231	-1.81	0.962	73.8	100.3	17.1	0.281
4-5630	4-5880	0.215	331.7	-13.6	-2.21	1.319	83.2	0.280	0.969	31.8	244.3	---	1.241	-1.31	0.967	74.0	109.1	17.8	0.275
4-5630	4-5890	0.197	340.3	-17.2	-2.54	1.323	84.8	0.278	0.979	24.4	246.4	---	1.251	-1.05	0.973	74.0	118.0	17.3	0.271
4-5630	4-5900	0.182	350.8	-20.5	-2.76	1.327	86.4	0.277	0.989	16.9	248.4	---	1.262	-0.90	0.978	74.0	126.9	15.9	0.270
4-5630	4-5910	0.172	3.5	-23.3	-2.93	1.330	88.0	0.278	0.997	9.1	250.2	---	1.275	-0.81	0.983	73.9	135.7	13.9	0.270
4-5630	4-5920	0.169	18.2	-25.0	-3.07	1.333	89.7	0.282	1.005	1.2	251.9	---	1.289	-0.75	0.989	73.6	144.5	11.4	0.273
4-5630	4-5930	0.174	34.0	-25.4	-3.20	1.336	91.6	0.289	1.012	353.0	613.2	0.720	1.304	-0.72	0.994	73.2	153.2	8.4	0.278
4-5630	4-5940	0.189	49.4	-24.2	-3.32	1.338	93.6	0.298	1.019	344.4	614.3	0.715	1.323	-0.71	0.999	72.7	162.0	5.1	0.287
4-5630	4-5950	0.215	63.3	-21.9	-3.44	1.341	95.8	0.312	1.026	335.3	614.9	0.706	1.346	-0.72	1.005	71.8	170.9	1.4	0.301
4-5630	4-5960	0.253	75.2	-19.1	-3.57	1.343	98.4	0.331	1.032	325.6	615.0	0.690	1.374	-0.75	1.010	70.7	180.1	-2.5	0.321
4-5630	4-5960	0.610	131.4	-5.8	-3.57	1.151	120.5	0.508	0.691	235.3	884.6	0.340	1.042	-0.75	0.737	104.8	302.1	-21.7	0.349
4-5630	4-5970	0.305	85.4	-16.3	-3.71	1.345	101.4	0.358	1.038	315.1	614.1	0.666	1.410	-0.81	1.016	69.1	189.7	-0.6	0.350
4-5630	4-5970	0.567	131.5	-6.6	-3.71	1.142	118.4	0.478	0.681	235.4	894.5	0.356	1.007	-0.81	0.726	95.0	291.6	-24.0	0.286
4-5630	4-5980	0.376	94.4	-13.6	-3.89	1.347	105.2	0.397	1.044	303.4	612.4	0.629	1.459	-0.91	1.021	66.7	199.9	-10.8	0.392
4-5630	4-5980	0.568	131.9	-6.9	-3.89	1.138	118.4	0.479	0.677	234.6	903.6	0.352	1.041	-0.91	0.724	86.7	279.1	-25.5	0.279
4-5630	4-5990	0.476	103.0	-11.0	-4.13	1.349	110.3	0.454	1.050	290.0	608.9	0.573	1.526	-1.07	1.027	63.2	211.2	-15.0	0.456
4-5630	4-5990	0.605	132.8	-6.7	-4.13	1.136	120.3	0.509	0.675	233.0	911.8	0.332	1.018	-1.07	0.725	78.3	269.1	-25.8	0.322
4-5630	4-6000	0.622	111.7	-8.7	-4.48	1.351	117.4	0.540	1.056	274.0	602.8	0.486	1.626	-1.36	1.032	57.5	224.2	-19.0	0.556
4-5630	4-6000	0.691	134.4	-6.1	-4.48	1.136	124.8	0.573	0.675	229.6	918.4	0.288	1.062	-1.36	0.729	68.4	265.1	-25.6	0.415
4-5630	4-6010	0.855	137.9	-5.0	-5.14	1.138	133.4	0.688	0.677	222.6	921.4	0.211	1.142	-1.95	0.735	55.0	268.0	-25.5	0.576
4-5630	4-6060	0.648	294.7	-3.8	-2.07	1.356	61.9	0.552	1.072	86.6	476.0	0.480	1.664	1.44	1.045	123.2	79.2	25.2	0.594
4-5630	4-6060	0.711	271.7	-2.7	-2.07	1.127	54.6	0.584	0.666	132.1	881.6	0.277	1.054	1.44	0.729	112.4	39.9	17.8	0.444
4-5630	4-6070	0.485	304.8	-6.5	-2.47	1.358	70.0	0.462	1.078	67.7	467.3	0.580	1.577	1.11	1.052	117.1	94.9	25.5	0.486
4-5630	4-6070	0.614	273.5	-3.9	-2.47	1.127	59.7	0.510	0.666	128.4	888.1	0.326	1.005	1.11	0.729	101.9	37.1	17.1	0.338
4-5630	4-6080	0.375	315.1	-9.6	-2.72	1.360	75.7	0.408	1.085	57.6	461.4	0.642	1.527	0.92	1.054	113.5	109.1	24.4	0.420
4-5630	4-6080	0.579	273.9	-4.7	-2.72	1.125	61.5	0.484	0.664	127.6	897.4	0.343	0.985	0.92	0.726	92.4	26.5	13.4	0.293
4-5630	4-6090	0.300	326.8	-13.2	-2.91	1.362	80.0	0.376	1.091	37.4	457.4	0.681	1.501	0.81	1.056	111.4	122.1	22.3	0.381
4-5630	4-6100	0.248	340.8	-17.0	-3.07	1.364	83.6	0.359	1.098	24.6	454.7	0.704	1.491	0.75	1.057	110.2	134.0	19.5	0.357
4-5630	4-6110	0.217	357.9	-20.6	-3.20	1.367	86.7	0.351	1.105	12.9	453.2	0.717	1.493	0.72	1.058	109.7	145.0	16.1	0.346
4-5630	4-6120	0.205	17.1	-22.8	-3.32	1.369	89.5	0.352	1.112	2.1	452.4	0.721	1.503	0.71	1.059	109.6	155.3	12.5	0.343
4-5630	4-6130	0.210	36.1	-23.1	-3.45	1.371	92.1	0.358	1.121	352.0	812.4	0.720	1.522	0.72	1.060	110.0	165.0	8.6	0.347
4-5630	4-6140	0.231	58.4	-21.7	-3.58	1.374	94.7	0.369	1.130	342.6	813.0	0.713	1.547	0.75	1.061	110.6	174.2	4.8	0.358

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5630	4-6150	0.709	285.2	-5.7	-3.73	1.285	57.4	C.561	0.791	105.9	586.2	C.391	1.191	C.82	C.940	56.5	24.6	11.4	0.579
4-5630	4-6150	0.26	65.3	-19.8	-3.73	1.377	97.2	C.385	1.140	333.7	814.0	C.701	1.579	C.82	1.062	111.6	183.1	1.0	0.374
4-5630	4-6160	0.641	288.5	-6.9	-3.92	1.291	60.9	C.517	C.904	99.0	589.2	C.437	1.372	C.92	C.945	59.4	32.2	14.5	0.531
4-5630	4-6160	0.305	75.4	-17.8	-3.92	1.380	99.8	C.405	1.151	325.3	815.5	C.684	1.617	C.92	1.063	112.8	191.7	-2.5	0.396
4-5630	4-6170	C.578	291.8	-8.4	-4.16	1.297	64.2	C.476	0.917	92.0	592.C	C.481	1.353	1.1C	C.95C	62.1	40.1	17.6	0.488
4-5630	4-6170	0.350	83.3	-16.2	-4.16	1.383	102.5	C.429	1.163	317.3	817.3	C.664	1.662	1.1C	1.C65	114.2	200.2	-5.8	0.422
4-5630	4-6180	0.520	295.3	-10.5	-4.53	1.302	67.2	C.438	0.929	84.8	594.5	C.522	1.335	1.4C	C.955	64.4	48.2	20.7	0.468
4-5630	4-6180	0.403	89.8	-15.2	-4.53	1.387	105.2	C.45o	1.176	309.6	819.4	C.639	1.713	1.4C	1.C67	115.9	208.7	-8.6	0.453
4-5630	4-6190	0.469	298.8	-13.7	-5.21	1.307	70.C	C.405	0.939	77.4	596.8	C.559	1.32C	2.01	C.958	66.5	56.6	24.3	0.414
4-5630	4-6190	0.462	95.4	-15.C	-5.21	1.390	108.1	C.487	1.191	302.3	821.7	C.611	1.77C	2.01	1.C69	117.9	217.2	-10.6	0.489
4-5630	4-6200	0.431	302.3	-20.7	-7.00	1.311	72.6	C.376	0.949	69.8	599.C	C.592	1.3C6	2.74	C.962	68.2	65.0	30.3	0.387
4-5630	4-6200	0.530	100.4	-17.4	-7.00	1.394	111.C	C.519	1.206	295.2	824.3	C.580	1.833	3.74	1.072	120.0	226.1	-10.5	C.531
4-5030	4-6220	0.317	313.0	6.C	1.47	1.318	77.3	C.331	0.966	54.3	602.7	0.647	1.286	-4.24	C.968	7C.9	85.7	10.3	0.342
4-5630	4-6230	0.278	318.8	-5.3	-1.14	1.321	79.4	C.314	0.974	46.4	604.3	C.668	1.279	-2.29	C.971	71.9	94.0	16.7	0.316
4-5640	4-5740	0.848	283.9	-3.4	-3.53	1.115	47.2	C.684	0.652	139.2	198.6	---	1.C98	-C.2E	C.703	9E.2	6.9	2.7	0.564
4-5640	4-5750	0.787	287.5	-3.9	-3.48	1.146	5C.9	C.631	C.684	132.8	202.3	---	1.115	-C.26	C.749	6C.C	12.2	4.9	C.53C
4-5640	4-5760	0.731	291.0	-4.5	-3.43	1.173	54.3	0.584	0.714	126.4	205.9	---	1.133	-C.25	C.786	61.7	18.0	7.2	0.500
4-5640	4-5770	0.679	294.3	-5.0	-3.39	1.194	57.3	C.541	0.743	120.0	209.5	---	1.145	-C.24	C.817	63.3	24.1	9.6	0.475
4-5640	4-5780	0.630	297.5	-5.6	-3.34	1.216	6C.C	C.503	0.771	113.5	213.0	---	1.158	-C.25	C.843	64.7	30.6	12.C	0.448
4-5640	4-5790	0.584	300.7	-6.2	-3.30	1.234	62.6	C.468	0.797	106.9	216.3	---	1.17C	-C.2E	C.864	6C.C	37.5	14.3	0.425
4-5640	4-5800	0.541	303.9	-6.8	-3.25	1.249	64.9	C.438	0.821	100.3	219.6	---	1.181	-C.2E	C.882	67.2	44.6	16.4	0.404
4-5640	4-5810	0.501	307.1	-7.4	-3.19	1.262	67.1	C.411	0.844	93.7	222.7	---	1.191	-C.31	C.898	68.2	52.2	18.2	0.385
4-5640	4-5820	0.462	310.4	-8.C	-3.11	1.273	69.2	C.388	0.865	87.0	225.8	---	1.200	-C.37	C.911	69.2	60.0	19.7	0.367
4-5640	4-5830	0.426	313.7	-8.5	-2.99	1.283	71.2	C.367	0.884	80.2	228.7	---	1.209	-C.47	C.922	7C.C	68.1	20.8	0.352
4-5640	4-5840	0.391	317.3	-8.8	-2.78	1.292	73.1	C.350	0.902	73.4	231.5	---	1.218	-C.65	C.932	7C.7	76.4	21.1	0.337
4-5640	4-5850	0.357	321.2	-8.C	-2.26	1.299	74.8	C.334	0.919	68.6	234.3	---	1.226	-1.15	C.940	71.3	85.0	20.2	0.325
4-5640	4-5860	0.325	325.4	6.9	1.75	1.306	76.6	C.322	0.934	59.7	237.C	---	1.234	-5.15	C.948	71.9	93.8	9.C	0.324
4-5640	4-5870	0.315	329.1	-22.7	-5.42	1.312	78.2	C.311	0.948	52.7	239.5	---	1.242	2.05	0.956	72.3	103.0	29.1	0.305
4-5640	4-5880	0.280	334.7	-19.9	-4.22	1.318	79.9	C.302	0.960	45.7	242.0	---	1.251	C.87	0.962	72.7	111.6	24.7	0.295
4-5640	4-5890	0.253	340.9	-20.5	-3.89	1.322	81.5	C.296	0.972	38.5	244.4	---	1.260	C.56	C.969	73.0	120.3	22.4	0.289
4-5640	4-5900	0.229	348.2	-21.9	-3.73	1.326	83.1	C.291	0.983	31.3	246.7	---	1.269	C.42	C.975	73.2	129.0	20.1	0.283
4-5640	4-5910	0.209	357.0	-23.7	-3.63	1.330	84.7	C.288	0.993	23.9	248.9	---	1.279	C.35	0.981	73.3	137.6	17.5	0.279
4-5640	4-5920	0.192	7.8	-25.5	-3.56	1.334	86.4	C.287	1.002	16.4	251.0	---	1.29C	C.30	0.987	73.3	146.1	14.7	0.278
4-5640	4-5930	0.181	20.8	-26.9	-3.50	1.337	88.1	C.289	1.010	8.6	252.8	---	1.300	C.27	C.993	73.2	154.6	11.5	0.278
4-5640	4-5940	0.176	35.9	-27.3	-3.46	1.340	89.9	C.292	1.018	0.6	254.4	---	1.316	C.25	0.999	73.0	163.1	8.1	0.281
4-5640	4-5950	0.181	52.0	-26.2	-3.41	1.342	91.8	0.299	1.025	352.3	615.7	0.719	1.332	C.25	1.005	72.6	171.7	4.5	0.287
4-5640	4-5960	0.196	67.6	-23.7	-3.37	1.345	93.9	0.309	1.032	343.5	616.7	0.713	1.351	C.24	1.010	72.1	180.5	0.7	0.297
4-5640	4-5970	0.224	81.5	-20.3	-3.33	1.347	96.3	C.323	1.038	334.1	617.1	0.703	1.374	C.25	1.016	71.2	189.5	-3.2	0.313
4-5640	4-5970	0.629	146.7	-5.3	-3.33	1.165	121.2	C.519	0.704	236.7	879.7	0.339	1.07C	C.25	0.759	1C9.3	319.3	-15.3	0.389
4-5640	4-5980	0.265	93.3	-16.7	-3.28	1.349	99.0	C.344	1.045	323.9	616.8	0.685	1.404	C.28	1.022	7C.0	199.0	-7.2	0.335
4-5640	4-5980	0.558	146.5	-6.C	-3.28	1.152	117.8	0.468	0.690	237.4	890.3	0.367	1.C12	C.26	C.742	98.4	310.6	-17.5	0.294
4-5640	4-5990	0.323	103.6	-13.3	-3.23	1.351	102.4	C.374	1.051	312.8	615.5	0.457	1.444	C.29	1.027	68.2	109.1	-11.1	0.368
4-5640	4-5990	0.543	146.8	-6.1	-3.23	1.147	117.1	C.457	0.684	237.0	899.7	0.373	0.997	C.29	0.738	9C.2	299.2	-19.9	0.266
4-5640	4-6000	0.404	112.8	-10.2	-3.16	1.353	106.6	C.418	1.056	300.2	612.9	0.615	1.498	C.33	1.032	65.5	220.1	-14.8	0.418
4-5640	4-6000	0.562	147.4	-5.7	-3.16	1.144	118.1	C.473	0.681	235.8	908.5	C.359	1.004	C.33	0.738	82.5	288.0	-21.6	0.286
4-5640	4-6010	0.519	121.6	-7.4	-3.07	1.355	112.4	C.434	1.052	285.6	608.3	0.549	1.576	C.4C	1.038	61.3	232.5	-18.2	0.494
4-5640	4-6010	0.620	148.5	-4.9	-3.07	1.144	121.0	C.518	0.681	233.5	916.2	0.328	1.033	C.4C	0.741	74.0	281.4	-22.2	0.352
4-5640	4-6020	0.735	150.8	-3.6	-2.91	1.144	127.C	0.604	0.682	228.7	921.4	0.270	1.C93	C.53	0.745	66.3	261.0	-22.3	0.473
4-5640	4-6070	0.808	286.2	-4.2	-3.95	1.135	49.7	0.649	0.671	135.2	878.7	0.236	1.107	-C.61	C.738	120.8	56.5	19.1	C.538
4-5640	4-6080	0.577	315.2	-8.1	-3.75	1.362	65.6	C.518	1.085	77.8	471.5	0.528	1.642	-C.44	1.054	120.5	103.7	22.1	0.543
4-5640	4-6080	0.660	289.4	-5.4	-3.75	1.136	57.5	0.541	0.673	128.8	882.5	0.309	1.037	-C.44	0.740	108.6	58.5	19.5	0.391
4-5640	4-6090	0.440	325.2	-10.8	-3.64	1.364	72.5	0.442	1.091	60.3	464.1	0.609	1.574	-C.35	1.056	115.7	118.2	20.2	0.456
4-5640	4-6090	0.586	290.7	-6.2	-3.64	1.136	61.3	C.485	0.673	126.1	890.0	0.347	0.999	-C.35	C.738	99.2	53.4	18.3	0.308
4-5640	4-6100	0.346	336.0	-13.8	-3.56	1.366	77.5	C.399	1.098	45.2	459.2	0.660	1.536	-C.3C	1.057	112.8	131.1	17.3	0.403
4-5640	4-6100	0.864	282.1	-3.2	-3.56	1.094	46.0	C.702	0.633	142.1	916.2	0.189	1.C77	-C.30	0.670	59.1	5.3	2.C	0.564
4-5640	4-6100	0.569	290.7	-6.3	-3.56	1.133	62.1	0.472	0.669	126.0	900.1	0.353	0.986	-C.30	0.732	89.9	40.3	14.9	C.283
4-5640	4-6110	0.281	348.5	-17.1	-3.50	1.368	81.5	C.374	1.104	31.7	455.9	0.691	1.517	-C.27	1.058	111.2	142.8	13.9	0.372
4-5640	4-6120	0.237	3.8	-20.3	-3.45	1.370	84.8	C.362	1.111	19.6	453.8	C.709	1.515	-C.25	1.059	11C.3	153.6	10.1	0.354
4-5640	4-6130	0.213	21.8	-22.5	-3.41	1.372	87.8	0.358	1.118	8.5	452.7	0.718	1.518	-C.25	1.059	11C.0	163.8	6.2	0.347
4-5640	4-6140	0.208	41.1	-22.9	-3.37	1.374	90.5	0.360	1.126	358.1	812.4	0.720	1.532	-C.24	1.060	11C.1	173.4	2.1	0.348
4-5640	4-6150	0.219	59.0	-21.4	-3.32	1.377	93.1	0.369	1.135	348.5	812.7	0.716	1.553	-C.25	1.060	11C.5	182.8	-1.9	0.356
4-5640	4-6160	0.243	73.8	-18.8	-3.28	1.380	95.7	C.382	1.144	339.4	813.4	0.707	1.581	-C.27	1.061	111.3	191.5	-5.7	0.369
4-5640	4-6170	0.690	302.5	-5.1	-3.22	1.292	58.5	C.551	0.902	103.4	587.3	0.405	1.398	-C.29	0.941	57.2	43.4	16.2	0.566
4-5640	4-6170	0.277	85.4	-16.1	-3.22	1.382	98.2	0.399	1.155	330.7	814.6	0.694	1.615	-C.29	1.062	112.3	200.3	-9.3	0.387
4-5640	4-6180	0.623	305.8	-5.8	-3.15	1.298	61.8	C.508	0.915	96.5	590.2	0.450	1.379	-C.34	0.946	60.0	51.6	18.2	0.519
4-5640	4-6180	0.319	94.5	-13.6	-3.15	1.385	100.8	C.420	1.166	322.5	816.2	0.676	1.656	-C.34	1.063	113.6	208.9	-12.7	0.411
4-5640	4-6190	0.561	309.2	-6.4	-3.06	1.303	65.0	0.469	0.927	89.5	592.9	0.492	1.361	-C.41	0.951	62.5	60.0	19.8	0.477
4-5640	4-6190	0.367	101.7	-11.3	-3.06	1.389	103.5	0.445	1.179	314.7	818.1	0.654	1.703	-C.41	1.065	115.2	217.6	-15.8	0.440
4-5640	4-6200	0.503	312.8	-7.0	-2.91	1.308	67.9	C.433	0.938	82.3	595.4	0.532	1.345	-C.54	0.955	64.7	68.6	20.9	0.440
4-5640	4-6200	0.420	107.7	-9.3	-2.91	1.392	106.3	0.473	1.192	307.2	820.2	0.629	1.756	-C.54	1.068	116.9	226.2	-18.5	0.472
4-5640	4-6210	0.449	316.6	-7.2	-2.60	1.333	70.6	C.402	0.948	75.0	597.7	0.567	1.330	-C.82	0.959	66.6	77.5	21.2	0.406
4-5640	4-6210	0.477	112.7	-7.2	-2.60	1.396	109.2	0.503	1.207	300.0	822.6	0.600	1.815	-C.82	1.071	118.9	234.9	-21.1	0.510
4-5640	4-6220	0.398	320.8	-5.0	-1.59	1.317	73.1	C.375	0.958	67.6	599.8	0.599	1.317	-1.81	0.963	68.2	86.6	19.1	0.378
4-5640	4-6220	0.536	117.0	-3.8	-1.59	1.400	112.2	0.536	1.223	293.0	825.3	0.567	1.879	-1.81	1.074	121.1	243.4	-24.3	0.551
4-5640	4-6230	0.423	321.7	-35.3	-11.02	1.320	75.5	0.352	0.967	60.0	601.8	0.627	1.306	7.64	0.967	69.6	98.2	42.1	0.373
4-5640	4-6240	0.325	329.8	-18.6	-4.66	1.323	77.7	0.332	0.974	52.3	603.7	0.650	1.298	1.24	0.970	7C.7	105.3	26.2	0.331
4-5650	4-5760	0.858	301.2	-3.7	-3.77	1.136	47.0	0.684	0.671	137.4	200.8	---	1.131	-1.32	0.727	56.0	22.1	8.0	0.585
4-5650	4-5770	0.798	304.7	-4.0	-3.53	1.165	50.6	0.635	0.702	131.1	204.4	---	1.148	-1.23	0.766	58.1	28.5	10.2	0.551
4-5650	4-5780	0.742	308.0	-4.3	-3.32	1.190	53.9	0.589	0.732	124.7	208.0	---	1.164	-1.19	0.801	60.0	34.8	12.2	0.519
4-5650	4-5790	0.689	311.3	-4.6	-3.12	1.211	56.9	0.548	0.761	118.3	211.5	---	1.178	-1.18	0.829	61.7	41.4	14.2	0.491

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5650	4-5800	0.640	314.5	-4.8	-2.91	1.229	59.7	0.511	0.788	111.9	218.9	---	1.190	-1.21	0.853	63.3	48.4	15.9	0.465
4-5650	4-5810	0.593	317.6	-5.0	-2.69	1.246	62.2	0.477	0.814	105.4	218.3	---	1.202	-1.28	0.873	64.7	55.7	17.4	0.441
4-5650	4-5820	0.549	320.8	-5.0	-2.43	1.260	64.6	0.448	0.837	98.9	221.5	---	1.212	-1.40	0.890	65.9	63.4	18.4	0.419
4-5650	4-5830	0.508	324.0	-4.9	-2.11	1.272	66.8	0.422	0.860	92.3	224.6	---	1.222	-1.59	0.904	67.1	71.2	19.[illegible]	0.399
4-5650	4-5840	0.468	327.2	-4.3	-1.68	1.282	68.9	0.399	0.880	85.8	227.7	---	1.231	-1.91	0.917	68.1	79.3	18.8	0.381
4-5650	4-5850	0.430	330.6	-2.9	-1.01	1.292	70.9	0.378	0.899	79.1	230.7	---	1.240	-2.47	0.928	68.9	87.5	17.6	0.365
4-5650	4-5860	0.394	334.2	0.8	0.26	1.300	72.8	0.361	0.917	72.5	233.5	---	1.248	-3.64	0.938	69.7	95.7	16.2	0.353
4-5650	4-5870	0.371	337.5	13.6	3.96	1.307	74.6	0.346	0.933	65.7	236.4	---	1.256	-7.24	0.947	70.4	103.7	14.3	0.355
4-5650	4-5890	0.368	343.3	-37.6	-10.00	1.319	78.1	0.322	0.962	51.9	241.8	---	1.271	6.92	0.963	71.5	128.0	38.8	0.333
4-5650	4-5900	0.304	350.5	-29.2	-6.54	1.324	79.7	0.313	0.974	45.0	244.4	---	1.279	3.56	0.970	71.9	133.5	28.6	0.309
4-5650	4-5910	0.269	357.2	-26.9	-5.32	1.329	81.4	0.306	0.986	38.0	246.8	---	1.287	2.44	0.977	72.2	141.0	23.3	0.299
4-5650	4-5920	0.241	4.8	-26.6	-4.67	1.333	83.0	0.301	0.996	30.8	249.2	---	1.296	1.89	0.984	72.5	149.0	19.1	0.293
4-5650	4-5930	0.217	14.0	-27.0	-4.24	1.337	84.7	0.298	1.006	23.4	251.5	---	1.306	1.58	0.991	72.6	157.0	15.2	0.289
4-5650	4-5940	0.198	25.1	-27.5	-3.93	1.340	86.4	0.297	1.015	15.9	253.5	---	1.316	1.39	0.997	72.7	165.1	11.4	0.287
4-5650	4-5950	0.185	38.6	-27.7	-3.68	1.343	88.2	0.298	1.023	8.0	255.4	---	1.328	1.28	1.004	72.7	173.3	7.5	0.287
4-5650	4-5960	0.180	54.2	-26.8	-3.45	1.346	90.0	0.302	1.031	359.9	617.0	0.719	1.342	1.21	1.010	72.5	181.6	3.7	0.291
4-5650	4-5970	0.185	70.6	-24.4	-3.25	1.348	92.0	0.309	1.038	351.3	618.2	0.717	1.358	1.18	1.016	72.1	190.2	-0.2	0.298
4-5650	4-5980	0.202	86.2	-20.8	-3.05	1.350	94.3	0.319	1.045	342.2	618.9	0.711	1.378	1.19	1.022	71.5	199.1	-4.1	0.309
4-5650	4-5980	0.691	162.6	-4.3	-3.05	1.185	124.1	0.560	0.727	236.8	873.5	0.320	1.133	1.19	0.790	116.6	336.1	-8.1	0.474
4-5650	4-5980	0.795	163.9	-3.6	-3.05	1.202	129.0	0.631	0.749	233.8	870.5	0.277	1.221	1.19	0.816	124.6	340.0	-7.0	0.582
4-5650	4-5990	0.632	100.1	-16.6	-2.83	1.352	96.8	0.335	1.051	332.4	619.0	0.699	1.403	1.23	1.027	70.6	208.5	-7.8	0.327
4-5650	4-5990	0.557	161.6	-5.2	-2.83	1.162	117.9	0.463	0.699	239.3	885.8	0.375	1.023	1.23	0.759	101.6	327.5	-10.0	0.311
4-5650	4-6000	0.279	111.9	-12.5	-2.60	1.354	99.8	0.358	1.057	321.8	618.3	0.679	1.436	1.32	1.033	69.3	218.5	-11.3	0.353
4-5650	4-6000	0.526	161.9	-5.1	-2.60	1.155	116.1	0.441	0.691	239.2	895.7	0.387	0.996	1.32	0.752	93.4	317.6	-12.4	0.263
4-5650	4-6010	0.345	122.1	-8.9	-2.31	1.356	103.5	0.392	1.063	309.9	616.4	0.647	1.479	1.47	1.043	67.2	229.3	-14.5	0.391
4-5650	4-6010	0.530	162.2	-4.5	-2.31	1.152	116.3	0.445	0.688	238.4	904.9	0.382	0.994	1.47	0.75[illegible]	86.1	306.3	-15.0	0.263
4-5650	4-6020	0.438	131.5	-5.7	-1.94	1.358	108.3	0.442	1.069	296.3	612.9	0.596	1.541	1.71	1.043	64.1	241.3	-17.3	0.450
4-5650	4-6020	0.567	163.0	-3.9	-1.94	1.151	118.2	0.475	0.687	236.7	913.3	0.360	1.013	1.71	0.752	78.5	297.9	-16.8	0.307
4-5650	4-6030	0.575	140.7	-3.0	-1.39	1.360	115.1	0.519	1.075	280.2	606.8	0.517	1.634	2.14	1.047	59.0	[illegible]8	-19.1	0.542
4-5650	4-6030	0.648	168.6	-2.1	-1.39	1.151	122.4	0.538	0.687	233.3	920.0	0.318	1.056	2.14	0.755	69.6	294.9	-17.6	0.397
4-5650	4-6040	0.802	167.9	-0.5	-0.44	1.152	130.4	0.649	0.688	226.6	923.4	0.242	1.135	2.99	0.760	57.5	297.9	-17.4	0.549
4-5650	4-6040	0.976	183.8	-0.3	-0.44	0.964	143.1	0.825	0.540	202.9	1259.7	0.095	0.985	2.99	0.422	91.5	365.0	-3.8	0.594
4-5650	4-6090	0.738	304.3	-6.8	-5.42	1.144	53.6	0.595	0.679	131.0	878.7	0.275	1.083	-2.53	0.748	115.9	76.5	19.2	0.470
4-5650	4-6100	0.521	335.4	-11.6	-4.70	1.367	68.6	0.486	1.098	69.9	567.8	0.565	1.631	-1.92	1.057	138.5	126.2	15.7	0.504
4-5650	4-6100	0.622	306.8	-7.5	-4.70	1.145	59.6	0.508	0.680	126.0	883.9	0.334	1.026	-1.92	0.787	105.4	76.5	18.9	0.351
4-5650	4-6110	0.404	345.6	-14.0	-4.24	1.369	74.6	0.428	1.104	53.7	461.7	0.631	1.577	-1.58	1.058	114.7	139.2	12.1	0.434
4-5650	4-6110	0.566	307.8	-7.6	-4.24	1.144	62.4	0.466	0.679	124.0	892.1	0.363	0.996	-1.58	0.744	96.8	69.3	17.9	0.286
4-5650	4-6120	0.322	357.0	-16.6	-3.92	1.371	79.1	0.394	1.111	39.5	457.6	0.673	1.568	-1.39	1.059	112.4	150.9	8.2	0.392
4-5650	4-6120	0.811	300.2	-4.0	-3.92	1.109	49.1	0.661	0.645	138.6	916.6	0.218	1.071	-1.39	0.685	62.7	24.2	8.3	0.519
4-5650	4-6120	0.566	307.4	-7.0	-3.92	1.140	62.3	0.466	0.675	124.8	902.9	0.359	0.991	-1.39	0.734	87.4	53.8	15.6	0.281
4-5650	4-6130	0.265	10.6	-19.1	-3.66	1.373	82.8	0.375	1.117	26.8	454.9	0.698	1.536	-1.27	1.059	111.1	161.7	4.1	0.368
4-5650	4-6140	0.228	26.9	-21.1	-3.43	1.375	85.9	0.366	1.124	15.2	453.3	0.713	1.536	-1.20	1.059	110.5	171.8	-0.1	0.356
4-5650	4-6150	0.210	45.6	-21.6	-3.22	1.377	88.8	0.365	1.132	4.6	452.6	0.719	1.545	-1.18	1.059	110.3	181.5	-4.3	0.352
4-5650	4-6160	0.210	64.5	-20.2	-3.02	1.380	91.5	0.370	1.140	354.6	812.5	0.718	1.561	-1.19	1.059	110.6	190.9	-8.3	0.356
4-5650	4-6170	0.226	81.1	-17.4	-2.81	1.382	94.0	0.380	1.149	345.3	813.0	0.713	1.585	-1.24	1.060	111.1	200.1	-12.1	0.367
4-5650	4-6180	0.254	94.5	-14.1	-2.57	1.385	96.6	0.394	1.159	336.4	813.9	0.702	1.615	-1.33	1.061	112.0	209.1	-15.6	0.383
4-5650	4-6190	0.671	319.8	-3.8	-2.29	1.298	59.3	0.542	0.912	101.0	588.2	0.418	1.406	-1.48	0.942	57.7	63.0	19.0	0.553
4-5650	4-6190	0.291	105.0	-10.8	-2.29	1.388	99.2	0.412	1.170	328.0	815.2	0.687	1.652	-1.48	1.062	113.1	218.1	-18.8	0.404
4-5650	4-6200	0.606	323.1	-3.7	-1.93	1.304	62.6	0.501	0.925	94.2	591.1	0.462	1.388	-1.72	0.947	60.4	71.5	19.5	0.509
4-5650	4-6200	0.336	113.2	-7.8	-1.93	1.391	101.8	0.434	1.182	320.0	816.8	0.668	1.695	-1.72	1.064	114.5	227.1	-21.7	0.450
4-5650	4-6210	0.545	326.6	-3.1	-1.40	1.309	65.6	0.464	0.936	87.3	593.7	0.502	1.371	-2.13	0.952	62.7	80.1	19.3	0.469
4-5650	4-6210	0.386	119.9	-4.9	-1.40	1.394	104.6	0.460	1.195	312.3	818.8	0.645	1.744	-2.13	1.067	116.1	236.2	-24.4	0.460
4-5650	4-6220	0.489	330.2	-1.3	-0.53	1.313	68.5	0.430	0.947	80.2	596.2	0.540	1.355	-2.90	0.957	64.8	88.9	17.6	0.435
4-5650	4-6220	0.440	125.5	-1.6	-0.53	1.398	107.4	0.489	1.209	304.9	821.0	0.618	1.799	-2.90	1.070	117.9	245.2	-27.1	0.496
4-5650	4-6230	0.438	333.9	4.0	1.41	1.318	71.1	0.401	0.957	73.0	598.6	0.574	1.341	-4.75	0.962	66.6	97.5	12.9	0.408
4-5650	4-6230	0.501	130.3	3.7	1.41	1.401	110.3	0.520	1.224	297.8	823.4	0.588	1.860	-4.75	1.073	119.9	254.0	-30.9	0.538
4-5650	4-6240	0.450	335.0	31.2	10.59	1.321	73.5	0.375	0.966	65.7	600.8	0.604	1.329	-13.82	0.966	68.1	106.7	-7.1	0.436
4-5650	4-6250	0.502	333.4	+48.7	-17.09	1.325	75.9	0.353	0.975	58.0	602.9	0.631	1.318	13.96	0.970	69.5	129.7	51.4	0.417
4-5660	4-5790	0.806	321.9	-3.6	-3.19	1.182	56.4	0.648	0.722	129.3	206.4	---	1.182	-2.07	0.785	56.6	45.7	14.8	0.568
4-5660	4-5800	0.750	325.1	-3.7	-2.84	1.205	53.6	0.594	0.751	123.0	209.9	---	1.197	-2.02	0.815	58.6	52.4	16.3	0.536
4-5660	4-5810	0.697	328.3	-3.7	-2.49	1.224	56.6	0.554	0.779	116.7	213.4	---	1.211	-2.03	0.841	60.4	59.5	17.5	0.506
4-5660	4-5820	0.648	331.4	-3.5	-2.13	1.242	59.3	0.518	0.806	110.4	216.8	---	1.223	-2.11	0.863	62.0	66.9	18.4	0.480
4-5660	4-5830	0.601	334.5	-3.2	-1.74	1.257	61.9	0.486	0.830	104.0	220.1	---	1.234	-2.25	0.881	63.5	74.6	18.8	0.455
4-5660	4-5840	0.556	337.6	-2.6	-1.28	1.270	64.2	0.457	0.854	97.6	223.3	---	1.244	-2.49	0.897	64.8	82.4	18.6	0.433
4-5660	4-5850	0.514	340.8	-1.6	-0.69	1.281	66.5	0.432	0.876	91.2	226.5	---	1.253	-2.87	0.911	66.0	90.3	17.6	0.413
4-5660	4-5860	0.474	344.0	0.4	0.14	1.291	68.6	0.409	0.896	84.7	229.6	---	1.262	-3.51	0.924	67.0	98.3	15.6	0.395
4-5660	4-5870	0.438	347.3	4.2	1.49	1.300	70.6	0.389	0.914	78.2	232.6	---	1.270	-4.68	0.935	68.0	106.0	11.9	0.382
4-5660	4-5880	0.412	350.4	13.1	4.29	1.308	72.5	0.372	0.932	71.6	235.5	---	1.278	-7.30	0.945	68.8	113.4	4.2	0.378
4-5660	4-5890	0.482	348.3	41.4	14.59	1.314	74.3	0.357	0.947	65.2	238.4	---	1.286	-17.43	0.955	69.5	120.9	-17.3	0.447
4-5660	4-5910	0.393	358.9	-41.8	-11.56	1.326	77.9	0.332	0.975	51.3	244.0	---	1.299	9.15	0.972	70.8	151.4	37.8	0.355
4-5660	4-5920	0.320	6.8	-33.0	-7.66	1.331	79.6	0.323	0.988	44.4	246.7	---	1.307	5.33	0.980	71.2	154.6	27.1	0.325
4-5660	4-5930	0.278	13.9	-29.6	-5.98	1.335	81.3	0.316	0.999	37.4	249.3	---	1.315	3.83	0.987	71.6	161.0	20.5	0.312
4-5660	4-5940	0.247	21.9	-28.1	-5.01	1.339	83.0	0.311	1.009	30.2	251.7	---	1.323	3.05	0.995	71.9	168.2	15.4	0.304
4-5660	4-5950	0.221	31.4	-27.4	-4.36	1.342	84.7	0.308	1.019	22.9	254.0	---	1.332	2.59	1.002	72.1	175.7	10.9	0.299
4-5660	4-5960	0.200	43.0	-26.8	-3.85	1.345	86.4	0.306	1.028	15.2	256.1	---	1.342	2.31	1.008	72.2	183.5	6.6	0.297
4-5660	4-5970	0.186	57.0	-25.8	-3.44	1.348	88.3	0.307	1.036	7.3	257.9	---	1.354	2.14	1.015	72.2	191.6	2.6	0.298
4-5660	4-5980	0.181	73.0	-23.6	-3.07	1.351	90.3	0.311	1.043	358.9	619.4	0.719	1.368	2.05	1.021	72.0	200.0	-1.3	0.302
4-5660	4-5990	0.187	89.7	-20.0	-2.72	1.353	92.4	0.318	1.050	350.1	620.5	0.716	1.385	2.02	1.027	71.7	208.8	-5.0	0.310
4-5660	4-6000	0.207	105.4	-15.6	-2.36	1.355	94.8	0.330	1.057	340.6	620.9	0.709	1.405	2.05	1.033	71.0	218.1	-8.4	0.323
4-5660	4-6000	0.564	176.9	-4.3	-2.36	1.172	117.7	0.466	0.710	240.9	881.2	0.379	1.040	2.05	0.777	105.0	342.9	-2.3	0.337

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5660	4-6010	0.243	119.1	-11.0	-1.98	1.357	97.5	0.347	1.063	330.3	620.7	0.694	1.432	2.15	1.036	70.1	228.1	-11.5	0.343
4-5660	4-6010	0.515	176.8	-4.0	-1.98	1.163	115.4	0.429	0.699	241.2	891.6	0.399	0.999	2.15	0.766	96.3	334.3	-4.1	0.268
4-5660	4-6020	0.296	130.8	-7.0	-1.54	1.359	100.6	0.373	1.070	319.0	619.4	0.671	1.468	2.34	1.043	68.5	238.8	-14.1	0.374
4-5660	4-6020	0.506	177.1	-3.2	-1.54	1.159	115.0	0.424	0.695	240.7	901.1	0.400	0.989	2.34	0.763	89.2	323.6	-6.9	0.250
4-5660	4-6030	0.373	142.1	-3.5	-1.01	1.361	104.9	0.411	1.075	306.2	616.7	0.633	1.518	2.65	1.047	66.1	250.4	-16.1	0.419
4-5660	4-6030	0.528	177.7	-2.0	-1.01	1.157	116.1	0.442	0.693	239.5	910.0	0.387	0.999	2.65	0.764	82.3	314.0	-9.7	0.275
4-5660	4-6040	0.484	160.6	-0.7	-0.27	1.363	110.5	0.470	1.082	291.5	612.0	0.573	1.590	3.18	1.051	62.4	263.2	-17.2	0.490
4-5660	4-6040	0.385	178.9	-0.5	-0.27	1.157	119.0	0.486	0.692	237.1	917.6	0.356	1.029	3.18	0.765	94.6	309.0	-11.5	0.342
4-5660	4-6050	0.695	181.2	1.2	0.88	1.158	124.6	0.569	0.693	232.3	923.1	0.299	1.088	4.13	0.768	84.9	309.5	-12.0	0.457
4-5660	4-6100	0.854	318.1	-7.8	-7.79	1.150	47.8	0.673	0.684	135.4	877.1	0.224	1.145	-5.45	0.754	124.5	91.1	17.8	0.579
4-5660	4-6110	0.623	345.4	-11.9	-5.98	1.370	63.7	0.542	1.104	81.0	472.8	0.506	1.703	-3.83	1.058	122.3	133.1	11.3	0.571
4-5660	4-6110	0.684	322.1	-8.4	-5.98	1.152	56.6	0.553	0.686	127.5	879.4	0.307	1.066	-3.83	0.754	111.9	95.5	16.9	0.418
4-5660	4-6120	0.475	355.5	-13.7	-4.98	1.372	71.1	0.466	1.111	63.1	465.0	0.594	1.628	-3.82	1.059	117.1	146.5	7.1	0.477
4-5660	4-6120	0.592	324.1	-8.5	-4.98	1.152	61.2	0.483	0.687	123.6	885.5	0.355	1.019	-3.82	0.752	102.8	93.6	16.5	0.320
4-5660	4-6130	0.373	6.1	-15.6	-4.31	1.374	76.3	0.419	1.117	47.9	459.9	0.649	1.586	-2.56	1.059	114.0	158.4	2.7	0.420
4-5660	4-6130	0.551	324.8	-8.1	-4.31	1.151	63.2	0.453	0.686	122.3	894.2	0.375	0.996	-2.56	0.747	94.7	84.6	16.3	0.271
4-5660	4-6140	0.300	18.3	-17.4	-3.81	1.376	80.5	0.392	1.124	34.5	456.4	0.683	1.564	-2.29	1.059	112.2	169.4	-1.7	0.387
4-5660	4-6140	0.734	318.4	-4.5	-3.81	1.123	52.2	0.617	0.657	134.7	916.6	0.252	1.062	-2.29	0.698	66.6	44.4	13.6	0.468
4-5660	4-6140	0.570	323.9	-6.8	-3.83	1.145	62.1	0.471	0.679	124.1	906.1	0.359	1.000	-2.29	0.734	84.6	66.8	15.9	0.289
4-5660	4-6150	0.250	32.9	-18.9	-3.39	1.378	83.9	0.377	1.131	22.4	454.3	0.704	1.557	-2.13	1.059	111.2	179.7	-6.1	0.368
4-5660	4-6160	0.219	50.2	-19.3	-3.02	1.380	86.9	0.372	1.138	11.3	453.1	0.715	1.561	-2.04	1.058	110.7	189.6	-10.3	0.360
4-5660	4-6170	0.208	69.1	-18.1	-2.67	1.382	89.7	0.373	1.146	1.0	452.6	0.719	1.572	-2.02	1.059	110.7	199.3	-14.2	0.360
4-5660	4-6180	0.214	87.2	-15.2	-2.32	1.384	92.4	0.379	1.154	351.4	812.7	0.716	1.592	-2.06	1.059	111.1	208.9	-17.8	0.367
4-5660	4-6190	0.234	102.5	-11.6	-1.95	1.387	95.0	0.390	1.163	342.3	813.3	0.709	1.618	-2.16	1.060	111.7	218.4	-21.0	0.380
4-5660	4-6200	0.722	333.9	-2.3	-1.53	1.298	56.7	0.576	0.910	105.5	586.2	0.386	1.434	-2.35	0.938	55.3	74.4	19.6	0.589
4-5660	4-6200	0.267	114.6	-7.9	-1.53	1.390	97.5	0.406	1.174	333.6	814.3	0.697	1.650	-2.35	1.061	112.7	227.9	-27.8	0.399
4-5660	4-6210	0.655	337.1	-1.8	-1.02	1.303	60.1	0.534	0.922	98.9	589.2	0.430	1.415	-2.65	0.944	58.1	82.9	19.4	0.543
4-5660	4-6210	0.308	124.2	-4.5	-1.02	1.393	100.2	0.426	1.185	325.4	815.7	0.681	1.689	-2.65	1.063	113.8	237.5	-26.3	0.422
4-5660	4-6220	0.592	340.4	-0.7	-0.33	1.309	63.2	0.495	0.935	92.2	592.0	0.472	1.397	-3.13	0.949	60.7	91.4	18.3	0.501
4-5660	4-6220	0.355	131.8	-1.3	-0.33	1.390	102.8	0.449	1.197	317.5	817.3	0.660	1.735	-3.13	1.066	115.3	247.0	-28.6	0.450
4-5660	4-6230	0.536	343.7	1.6	0.69	1.314	66.2	0.460	0.946	85.3	594.7	0.511	1.381	-3.97	0.955	62.9	99.8	15.8	0.465
4-5660	4-6230	0.408	138.1	2.3	0.69	1.399	105.6	0.475	1.211	309.9	819.3	0.636	1.786	-3.97	1.069	116.9	256.5	-30.7	0.484
4-5660	4-6240	0.482	347.2	6.4	2.52	1.318	68.9	0.428	0.956	78.3	597.2	0.547	1.366	-5.62	0.960	64.9	107.9	11.1	0.436
4-5660	4-6240	0.469	143.5	7.2	2.52	1.402	108.5	0.504	1.225	302.6	821.5	0.608	1.843	-5.62	1.073	118.8	265.9	-33.5	0.524
4-5660	4-6250	0.455	349.9	20.0	7.13	1.322	71.4	0.400	0.966	71.3	599.6	0.579	1.353	-10.07	0.965	66.6	115.5	-0.1	0.429
4-5660	4-6250	0.548	349.0	17.2	7.13	1.406	111.4	0.536	1.241	295.6	824.0	0.576	1.906	-10.07	1.078	120.8	274.9	-39.6	0.580
4-5670	4-5810	0.812	339.0	-2.8	-2.51	1.198	50.2	0.640	0.741	127.7	208.1	---	1.216	-2.74	0.801	55.3	63.7	18.1	0.582
4-5670	4-5820	0.756	342.2	-2.6	-2.05	1.219	53.4	0.599	0.770	121.5	211.6	---	1.231	-2.70	0.829	57.4	70.8	18.8	0.549
4-5670	4-5830	0.704	345.3	-2.3	-1.59	1.237	56.3	0.560	0.797	115.2	215.1	---	1.244	-2.74	0.852	59.2	78.2	19.1	0.520
4-5670	4-5840	0.654	348.4	-1.8	-1.10	1.253	59.0	0.526	0.823	109.0	218.5	---	1.256	-2.87	0.873	60.9	85.8	18.9	0.492
4-5670	4-5850	0.607	351.4	-1.0	-0.55	1.266	61.6	0.494	0.847	102.7	221.8	---	1.266	-3.09	0.890	62.4	93.5	18.2	0.468
4-5670	4-5860	0.563	354.4	0.2	0.11	1.279	63.9	0.466	0.870	96.4	225.1	---	1.278	-3.46	0.906	63.8	101.2	16.7	0.445
4-5670	4-5870	0.522	357.5	2.2	0.97	1.289	66.2	0.441	0.891	90.1	228.3	---	1.285	-4.05	0.920	65.0	108.9	14.3	0.426
4-5670	4-5880	0.484	0.6	5.6	2.22	1.299	68.3	0.419	0.911	83.8	231.4	---	1.293	-5.06	0.933	66.1	116.3	10.5	0.410
4-5670	4-5890	0.453	3.6	12.0	4.38	1.307	70.3	0.399	0.929	77.4	234.5	---	1.300	-6.98	0.944	67.1	123.3	4.2	0.400
4-5670	4-5960	0.454	5.2	26.6	9.35	1.314	72.2	0.382	0.946	71.0	237.6	---	1.308	-11.72	0.955	67.9	129.5	-8.1	0.415
4-5670	4-5920	0.654	352.7	-60.7	-26.30	1.326	76.1	0.351	0.976	57.0	243.6	---	1.318	24.35	0.974	69.6	186.0	48.8	0.525
4-5670	4-5930	0.396	15.8	-41.6	-11.65	1.331	77.8	0.341	0.989	50.6	246.4	---	1.326	9.97	0.982	70.1	170.9	32.1	0.369
4-5670	4-5940	0.324	23.8	-33.3	-7.77	1.336	79.5	0.332	1.001	43.8	249.1	---	1.333	6.32	0.990	70.6	173.7	22.1	0.338
4-5670	4-5950	0.280	31.2	-29.2	-5.92	1.340	81.2	0.325	1.012	36.8	251.8	---	1.341	4.72	0.998	71.0	179.5	15.4	0.323
4-5670	4-5960	0.246	39.4	-26.9	-4.79	1.344	83.0	0.319	1.022	29.6	254.3	---	1.349	3.84	1.006	71.4	186.4	10.0	0.315
4-5670	4-5970	0.219	49.3	-25.2	-3.99	1.347	84.7	0.316	1.032	22.1	256.6	---	1.358	3.32	1.013	71.7	193.8	5.4	0.310
4-5670	4-5980	0.197	61.5	-23.6	-3.36	1.350	86.6	0.315	1.040	14.3	258.6	---	1.368	3.00	1.020	71.8	201.6	1.1	0.308
4-5670	4-5990	0.183	76.1	-21.3	-2.82	1.353	88.5	0.316	1.048	6.2	260.4	---	1.379	2.81	1.026	71.8	209.9	-2.7	0.309
4-5670	4-6000	0.180	92.5	-17.9	-2.33	1.355	90.6	0.320	1.055	357.6	621.7	0.718	1.393	2.72	1.032	71.6	218.6	-6.2	0.314
4-5670	4-6010	0.189	109.4	-13.5	-1.86	1.358	92.8	0.327	1.063	348.4	622.5	0.715	1.411	2.71	1.038	71.3	227.9	-9.3	0.323
4-5670	4-6010	0.586	192.4	-3.3	-1.86	1.183	118.6	0.479	0.723	242.0	876.1	0.376	1.063	2.71	0.797	109.1	357.9	5.0	0.378
4-5670	4-6020	0.215	125.1	-8.7	-1.37	1.360	95.4	0.340	1.069	338.5	622.6	0.706	1.433	2.79	1.043	70.6	237.7	-11.8	0.339
4-5670	4-6020	0.510	192.0	-2.9	-1.37	1.171	115.0	0.423	0.708	243.1	887.2	0.408	1.007	2.79	0.780	99.0	350.1	4.1	0.279
4-5670	4-6030	0.258	138.6	-4.4	-0.84	1.362	98.4	0.360	1.076	327.7	621.9	0.689	1.463	2.96	1.047	69.4	248.3	-13.8	0.362
4-5670	4-6030	0.489	192.1	-1.8	-0.84	1.166	114.0	0.408	0.702	242.9	897.1	0.415	0.988	2.96	0.775	92.0	340.0	1.7	0.245
4-5670	4-6040	0.321	150.2	-0.9	-0.21	1.364	102.0	0.389	1.082	315.6	619.9	0.661	1.501	3.27	1.052	67.6	259.6	-15.1	0.398
4-5670	4-6040	0.498	192.6	-0.4	-0.21	1.163	114.5	0.416	0.699	242.0	906.3	0.408	0.990	3.27	0.774	85.5	329.8	-1.6	0.254
4-5670	4-6050	0.412	160.5	1.9	0.60	1.366	106.7	0.434	1.088	301.8	616.3	0.616	1.560	3.79	1.055	64.8	271.8	-15.4	0.453
4-5670	4-6050	0.538	193.5	1.2	0.60	1.163	116.5	0.447	0.698	240.2	914.7	0.386	1.010	3.79	0.775	78.7	323.2	-4.4	0.301
4-5670	4-6060	0.544	170.3	4.1	1.76	1.368	113.1	0.504	1.094	285.6	610.3	0.543	1.646	4.67	1.058	60.2	285.1	-14.7	0.538
4-5670	4-6060	0.618	195.2	2.9	1.76	1.163	120.5	0.508	0.699	236.8	921.4	0.344	1.054	4.67	0.776	70.6	321.6	-5.8	0.388
4-5670	4-6070	0.764	198.5	4.4	3.70	1.165	127.8	0.614	0.700	230.3	925.1	0.271	1.130	6.35	0.779	59.7	325.1	-3.4	0.531
4-5670	4-6070	0.938	214.6	2.5	3.70	0.980	140.2	0.794	0.548	205.3	1260.1	0.113	0.983	6.35	0.458	89.8	10.6	10.2	0.564
4-5670	4-6120	0.779	336.5	-9.0	-7.66	1.157	51.8	0.619	0.692	130.9	876.7	0.264	1.120	-6.22	0.759	119.5	110.7	13.9	0.510
4-5670	4-6130	0.564	5.6	-13.1	-5.81	1.378	66.7	0.514	1.117	73.7	469.5	0.543	1.692	-4.62	1.059	120.3	153.2	2.6	0.534
4-5670	4-6130	0.641	339.8	-9.0	-5.81	1.158	50.7	0.520	0.694	124.6	880.4	0.333	1.054	-4.62	0.758	108.9	113.2	12.8	0.377
4-5670	4-6140	0.435	15.7	-14.3	-4.69	1.376	73.0	0.452	1.124	57.1	462.9	0.616	1.632	-3.77	1.059	116.1	165.5	-2.3	0.458
4-5670	4-6140	0.567	341.4	-8.5	-4.69	1.159	62.4	0.465	0.694	121.5	887.2	0.371	1.016	-3.77	0.754	100.6	109.9	12.6	0.296
4-5670	4-6150	0.345	26.8	-15.4	-3.90	1.378	77.8	0.414	1.130	42.8	458.5	0.662	1.598	-3.27	1.058	113.6	176.8	-7.1	0.412
4-5670	4-6150	0.890	331.0	-3.4	-3.90	1.113	44.7	0.715	0.647	141.6	917.2	0.184	1.110	-3.27	0.678	56.2	51.3	15.5	0.591
4-5670	4-6150	0.538	341.8	-7.5	-3.90	1.157	63.7	0.444	0.692	120.7	896.4	0.385	0.999	-3.27	0.748	92.9	99.5	13.7	0.261
4-5670	4-6160	0.280	39.8	-16.2	-3.29	1.380	81.7	0.392	1.137	30.1	455.6	0.691	1.583	-2.97	1.058	112.1	187.6	11.5	0.385
4-5670	4-6160	0.686	337.1	-4.5	-3.29	1.137	55.8	0.565	0.670	130.2	915.7	0.292	1.049	-2.97	0.712	71.5	66.8	16.7	0.407
4-5670	4-6160	0.587	340.1	-5.6	-3.29	1.149	61.1	0.485	0.683	124.3	909.8	0.351	1.014	-2.97	0.731	81.0	78.9	14.1	0.310

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5670	4-6170	0.236	55.4	-16.3	-2.76	1.382	84.9	0.381	1.144	18.5	453.8	0.708	1.580	-2.79	1.058	111.5	197.9	-15.6	0.371
4-5670	4-6180	0.212	73.4	-15.1	-2.29	1.384	87.9	0.378	1.151	7.8	452.8	0.717	1.586	-2.71	1.058	111.4	208.1	-19.4	0.367
4-5670	4-6190	0.207	92.2	-12.3	-1.83	1.386	90.6	0.381	1.160	357.7	812.5	0.718	1.601	-2.71	1.059	111.3	218.2	-22.6	0.371
4-5670	4-6200	0.219	109.3	-8.6	-1.36	1.389	93.3	0.389	1.168	348.3	812.8	0.714	1.623	-2.79	1.060	111.6	228.3	-25.5	0.380
4-5670	4-6210	0.246	123.4	-4.8	-0.85	1.391	95.9	0.401	1.178	339.4	813.5	0.705	1.651	-2.96	1.061	112.3	238.4	-27.8	0.396
4-5670	4-6220	0.706	351.1	-0.4	-0.26	1.303	57.5	0.569	0.920	103.6	587.2	0.397	1.443	-3.25	0.940	55.8	94.2	19.0	0.578
4-5670	4-6220	0.283	134.5	-1.3	-0.26	1.394	98.5	0.418	1.189	330.9	814.5	0.692	1.686	-3.25	1.063	113.3	248.4	-29.7	0.417
4-5670	4-6230	0.641	354.2	0.9	0.48	1.308	60.7	0.528	0.932	97.0	590.2	0.440	1.425	-3.71	0.947	58.5	102.5	17.3	0.534
4-5670	4-6230	0.328	343.3	2.0	0.48	1.397	101.1	0.439	1.201	322.8	816.0	0.674	1.727	-3.71	1.066	114.4	258.5	-31.2	0.442
4-5670	4-6240	0.582	357.4	3.0	1.49	1.313	63.8	0.491	0.944	90.3	593.0	0.480	1.408	-4.46	0.953	60.9	110.5	14.5	0.496
4-5670	4-6240	0.379	150.4	5.4	1.49	1.400	103.9	0.463	1.213	315.0	817.7	0.652	1.775	-4.46	1.069	116.1	268.4	-32.5	0.473
4-5670	4-6250	0.528	0.7	7.1	3.08	1.318	66.6	0.457	0.955	83.6	595.8	0.518	1.392	-5.80	0.959	63.0	118.3	10.0	0.463
4-5670	4-6250	0.438	156.5	9.5	3.08	1.403	106.7	0.496	1.227	307.5	819.7	0.626	1.828	-5.80	1.073	117.8	278.3	-34.1	0.510
4-5670	4-6260	0.489	3.6	15.6	6.12	1.322	69.3	0.427	0.965	76.7	598.4	0.553	1.377	-8.61	0.965	64.9	125.4	1.9	0.444
4-5670	4-6260	0.509	162.1	16.1	6.12	1.407	109.6	0.520	1.242	300.3	822.0	0.597	1.888	-8.61	1.078	119.7	288.0	-37.1	0.557
4-5670	4-6270	0.533	2.2	38.3	15.22	1.326	71.7	0.401	0.974	69.9	600.9	0.583	1.365	-17.48	0.971	66.5	131.9	-16.9	0.486
4-5680	4-5830	0.817	356.1	-1.8	-1.57	1.212	50.1	0.643	0.761	126.1	209.8	---	1.250	-3.19	0.816	54.1	82.3	19.7	0.593
4-5680	4-5840	0.762	359.2	-1.3	-1.04	1.231	53.2	0.603	0.789	120.0	213.3	---	1.264	-3.17	0.842	56.3	89.7	19.5	0.561
4-5680	4-5850	0.710	2.2	-0.7	-0.49	1.248	56.1	0.566	0.815	113.9	216.7	---	1.277	-3.25	0.864	58.2	97.1	18.8	0.531
4-5680	4-5860	0.660	5.2	0.1	0.09	1.262	58.8	0.533	0.840	107.8	220.2	---	1.288	-3.43	0.883	59.9	104.7	17.5	0.504
4-5680	4-5870	0.614	8.2	1.4	0.76	1.275	61.3	0.502	0.864	101.6	223.5	---	1.298	-3.63	0.901	61.4	112.1	15.6	0.479
4-5680	4-5880	0.570	11.2	3.2	1.59	1.287	63.7	0.475	0.886	95.4	226.8	---	1.307	-4.23	0.916	62.8	119.5	13.0	0.457
4-5680	4-5890	0.530	14.1	6.0	2.70	1.296	65.9	0.450	0.907	89.2	230.1	---	1.315	-5.03	0.930	64.1	126.7	9.2	0.438
4-5680	4-5900	0.496	17.0	10.8	4.39	1.305	68.0	0.428	0.926	82.9	233.3	---	1.323	-6.43	0.943	65.2	133.4	3.9	0.424
4-5680	4-5910	0.476	19.4	19.8	7.49	1.313	70.0	0.408	0.944	76.6	236.5	---	1.330	-9.26	0.954	66.3	139.5	-4.7	0.421
4-5680	4-5920	0.531	17.7	39.8	15.73	1.320	71.9	0.392	0.961	70.4	239.8	---	1.337	-17.24	0.965	67.1	144.5	-22.1	0.471
4-5680	4-5940	0.556	18.9	-54.6	-20.54	1.332	76.0	0.360	0.990	56.4	245.9	---	1.346	19.57	0.985	68.9	193.9	38.6	0.475
4-5680	4-5950	0.383	33.8	-38.5	-10.52	1.336	77.7	0.349	1.003	49.9	248.8	---	1.353	9.83	0.994	69.6	187.5	24.1	0.376
4-5680	4-5960	0.318	41.4	-30.7	-7.06	1.341	79.5	0.340	1.014	43.1	251.6	---	1.359	6.65	1.002	70.1	191.0	15.2	0.348
4-5680	4-5970	0.275	48.9	-26.2	-5.24	1.345	81.2	0.333	1.025	36.0	254.3	---	1.366	5.12	1.010	70.6	196.9	8.8	0.333
4-5680	4-5980	0.241	57.4	-23.2	-4.07	1.348	83.0	0.327	1.035	28.7	256.8	---	1.374	4.26	1.018	71.0	203.9	3.7	0.325
4-5680	4-5990	0.213	67.8	-20.7	-3.20	1.351	84.9	0.323	1.045	21.1	259.0	---	1.382	3.74	1.025	71.3	211.5	-0.6	0.320
4-5680	4-6000	0.192	80.5	-17.9	-2.51	1.354	86.8	0.322	1.053	13.2	261.0	---	1.392	3.42	1.031	71.5	219.7	-4.4	0.319
4-5680	4-6010	0.180	95.8	-14.5	-1.90	1.357	88.8	0.323	1.061	4.8	262.6	---	1.404	3.24	1.037	71.5	228.4	-7.6	0.321
4-5680	4-6020	0.180	112.8	-10.1	-1.33	1.359	91.0	0.328	1.068	355.9	623.7	0.718	1.419	3.17	1.042	71.3	237.6	-10.3	0.327
4-5680	4-6020	0.667	208.8	-2.0	-1.33	1.203	122.3	0.536	0.749	241.3	869.2	0.348	1.150	3.17	0.829	116.9	14.7	11.6	0.477
4-5680	4-6020	0.719	209.5	-1.8	-1.33	1.211	124.8	0.572	0.760	239.7	867.6	0.325	1.195	3.17	0.841	120.7	16.8	11.8	0.529
4-5680	4-6030	0.195	129.8	-5.4	-0.77	1.361	93.4	0.337	1.075	346.3	624.2	0.713	1.437	3.20	1.047	70.9	247.4	-12.3	0.338
4-5680	4-6030	0.513	207.3	-1.6	-0.77	1.178	115.0	0.422	0.717	244.7	882.7	0.414	1.019	3.20	0.795	101.9	5.5	11.5	0.297
4-5680	4-6040	0.228	145.3	-1.1	-0.18	1.364	96.2	0.351	1.082	335.8	623.9	0.702	1.462	3.33	1.052	70.1	257.8	-13.6	0.356
4-5680	4-6040	0.479	207.3	-0.4	-0.18	1.172	113.3	0.396	0.709	244.9	893.0	0.428	0.998	3.33	0.787	94.6	356.1	10.0	0.246
4-5680	4-6050	0.280	158.6	2.3	0.49	1.365	95.5	0.373	1.088	324.3	622.6	0.682	1.495	3.60	1.055	68.7	268.8	-14.2	0.384
4-5680	4-6050	0.477	207.6	1.1	0.49	1.169	113.3	0.396	0.706	244.3	902.5	0.426	0.985	3.60	0.784	88.4	345.6	6.7	0.239
4-5680	4-6060	0.355	170.0	4.9	1.30	1.367	103.6	0.408	1.095	311.4	619.8	0.648	1.541	4.04	1.058	66.6	280.5	-13.8	0.426
4-5680	4-6060	0.503	208.3	2.7	1.30	1.168	114.5	0.416	0.704	242.9	911.3	0.411	0.997	4.04	0.783	82.2	337.6	3.2	0.270
4-5680	4-6070	0.462	180.3	6.7	2.38	1.369	108.9	0.461	1.101	296.5	615.1	0.593	1.608	4.79	1.061	63.2	292.9	-12.4	0.491
4-5680	4-6070	0.561	209.6	4.4	2.38	1.168	117.4	0.461	0.704	240.4	918.9	0.380	1.029	4.79	0.784	75.2	334.2	1.0	0.336
4-5680	4-6080	0.620	190.4	8.0	4.01	1.371	116.4	0.545	1.107	278.8	607.5	0.504	1.711	6.11	1.063	57.5	306.5	-9.7	0.595
4-5680	4-6080	0.668	212.0	5.9	4.01	1.169	122.7	0.540	0.705	235.7	924.4	0.324	1.087	6.11	0.785	66.3	335.6	0.5	0.446
4-5680	4-6080	0.934	229.7	2.8	4.01	0.995	139.6	0.784	0.558	206.6	1255.3	0.120	0.995	6.11	0.491	106.3	33.8	18.9	0.566
4-5680	4-6090	0.964	231.0	4.4	6.99	0.983	141.4	0.804	0.550	204.9	1263.7	0.108	0.993	8.80	0.463	75.3	17.9	14.8	0.590
4-5680	4-6140	0.719	354.6	-9.0	-6.81	1.164	54.8	0.576	0.700	127.4	876.9	0.296	1.103	-6.43	0.762	115.7	128.9	8.6	0.457
4-5680	4-6150	0.513	25.6	-12.8	-5.07	1.378	69.1	0.493	1.130	67.3	466.8	0.573	1.688	-4.99	1.059	113.9	172.3	-6.6	0.507
4-5680	4-6150	0.660	357.3	-8.5	-5.07	1.165	60.4	0.494	0.701	122.2	881.6	0.354	1.047	-4.99	0.760	106.4	129.9	7.4	0.345
4-5680	4-6160	0.400	36.0	-13.2	-3.95	1.380	74.7	0.442	1.137	51.9	461.2	0.634	1.639	-4.18	1.058	115.4	184.2	-11.7	0.445
4-5680	4-6160	0.546	358.7	-7.5	-3.95	1.165	63.3	0.450	0.701	119.6	888.9	0.386	1.016	-4.18	0.756	98.8	125.4	7.8	0.278
4-5680	4-6170	0.319	47.7	-13.4	-3.12	1.382	79.1	0.411	1.144	38.3	457.4	0.674	1.613	-3.69	1.058	113.3	195.5	-16.2	0.407
4-5680	4-6170	0.847	348.9	-3.8	-3.12	1.123	47.0	0.685	0.657	138.7	917.8	0.207	1.108	-3.69	0.687	58.9	71.2	18.4	0.554
4-5680	4-6170	0.527	358.9	-6.2	-3.12	1.163	66.1	0.437	0.698	119.3	898.4	0.393	1.004	-3.69	0.749	91.3	114.3	10.4	0.254
4-5680	4-6180	0.262	61.6	-12.9	-2.44	1.384	82.7	0.393	1.150	26.0	454.9	0.698	1.603	-3.40	1.058	112.1	206.5	-20.2	0.386
4-5680	4-6190	0.225	78.1	-11.5	-1.86	1.385	85.9	0.385	1.158	14.8	453.3	0.712	1.603	-3.23	1.058	111.5	217.3	-23.7	0.377
4-5680	4-6200	0.208	96.6	-8.8	-1.32	1.388	88.8	0.384	1.165	4.3	452.5	0.718	1.613	-3.17	1.059	111.3	228.1	-26.5	0.376
4-5680	4-6210	0.210	115.0	-5.2	-0.78	1.390	91.5	0.389	1.174	354.6	812.4	0.718	1.630	-3.20	1.060	111.5	238.8	-28.8	0.382
4-5680	4-6220	0.229	131.0	-1.4	-0.22	1.392	94.2	0.398	1.183	345.3	812.7	0.712	1.654	-3.32	1.061	112.1	249.4	-30.5	0.395
4-5680	4-6230	0.262	143.9	2.1	0.39	1.395	96.8	0.412	1.193	336.5	813.5	0.701	1.685	-3.55	1.064	112.9	260.0	-31.6	0.412
4-5680	4-6240	0.692	8.1	1.8	1.13	1.307	56.1	0.562	0.930	101.8	588.2	0.407	1.453	-3.94	0.945	56.2	113.5	16.2	0.569
4-5680	4-6240	0.304	154.2	5.1	1.13	1.398	99.4	0.430	1.204	328.2	814.6	0.686	1.723	-3.94	1.066	114.0	270.4	-32.3	0.435
4-5680	4-6250	0.631	11.2	3.8	2.06	1.312	61.3	0.523	0.942	95.3	591.3	0.449	1.435	-4.56	0.952	58.7	121.3	13.1	0.527
4-5680	4-6250	0.353	162.3	8.0	2.06	1.400	102.1	0.452	1.217	320.1	816.1	0.667	1.766	-4.56	1.070	115.3	280.6	-32.7	0.463
4-5680	4-6260	0.575	14.3	7.0	3.40	1.317	64.2	0.488	0.953	88.7	594.2	0.488	1.418	-5.59	0.958	61.0	128.7	8.8	0.492
4-5680	4-6260	0.409	169.1	11.3	3.40	1.404	104.9	0.477	1.230	312.4	817.9	0.643	1.816	-5.59	1.074	116.8	290.6	-33.0	0.497
4-5680	4-6270	0.528	17.3	12.9	5.58	1.321	67.0	0.455	0.964	82.0	597.0	0.525	1.403	-7.50	0.965	63.1	135.6	2.3	0.465
4-5680	4-6270	0.475	175.1	15.9	5.58	1.407	107.8	0.505	1.244	305.1	820.0	0.616	1.872	-7.50	1.079	118.6	300.4	-34.1	0.538
4-5680	4-6280	0.512	19.1	25.4	10.20	1.325	69.6	0.427	0.973	75.3	599.7	0.558	1.389	-11.84	0.971	64.9	141.5	-9.2	0.460
4-5680	4-6290	0.564	181.3	24.5	10.20	1.410	110.7	0.535	1.259	298.0	822.3	0.586	1.933	-11.84	1.085	120.5	310.4	-37.7	0.595
4-5690	4-5860	0.767	16.1	0.1	0.08	1.242	53.0	0.608	0.807	118.7	214.9	---	1.298	-3.40	0.855	55.3	108.5	18.1	0.571
4-5690	4-5870	0.715	19.1	1.0	0.67	1.257	55.9	0.572	0.883	112.7	218.4	---	1.310	-3.51	0.876	57.2	115.8	16.5	0.541
4-5690	4-5880	0.666	22.0	2.1	1.31	1.271	58.6	0.539	0.958	106.6	221.8	---	1.320	-3.74	0.895	59.0	123.0	14.3	0.514
4-5690	4-5890	0.620	24.9	3.7	2.07	1.283	61.1	0.509	0.881	100.5	225.3	---	1.329	-4.13	0.912	60.6	130.2	11.4	0.489
4-5690	4-5900	0.578	27.8	6.1	3.02	1.294	63.5	0.482	0.902	94.4	228.7	---	1.338	-4.72	0.927	2.0	137.1	7.8	0.468

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5690	4-5910	0.539	30.6	9.6	4.34	1.303	65.7	0.458	0.923	88.2	232.0	---	1.345	-5.73	0.941	63.3	143.7	3.0	0.449
4-5690	4-5920	0.510	33.3	15.5	6.46	1.311	67.8	0.436	0.941	82.0	235.3	---	1.352	-7.54	0.954	64.5	149.8	-3.7	0.438
4-5690	4-5930	0.506	34.8	27.0	10.69	1.318	69.9	0.417	0.959	75.8	238.6	---	1.358	-11.48	0.966	65.6	155.0	-14.6	0.444
4-5690	4-5940	0.665	25.3	51.6	24.48	1.325	71.7	0.400	0.975	69.8	241.7	---	1.365	-24.98	0.977	66.5	159.8	-37.9	0.563
4-5690	4-5960	0.479	41.9	-46.8	-15.64	1.336	75.9	0.367	1.004	55.6	248.2	---	1.372	15.72	0.997	68.4	203.7	27.6	0.443
4-5690	4-5970	0.361	52.2	-32.9	-8.63	1.341	77.7	0.356	1.016	49.0	251.2	---	1.378	9.00	1.006	69.1	202.7	15.2	0.378
4-5690	4-5980	0.305	59.4	-25.6	-5.73	1.345	79.5	0.347	1.028	42.1	254.0	---	1.384	6.41	1.014	69.8	207.4	-7.4	0.355
4-5690	4-5990	0.265	67.0	-21.0	-4.08	1.348	81.3	0.339	1.039	35.0	256.7	---	1.391	5.08	1.022	70.3	213.9	1.7	0.342
4-5690	4-6000	0.232	75.9	-17.4	-2.96	1.352	83.2	0.333	1.048	27.5	259.2	---	1.398	4.31	1.029	70.7	221.3	-2.7	0.334
4-5690	4-6010	0.206	86.8	-14.0	-2.11	1.355	85.1	0.330	1.058	19.8	261.4	---	1.406	3.84	1.035	71.1	229.4	-6.3	0.330
4-5690	4-6020	0.187	100.3	-10.2	-1.40	1.358	87.1	0.329	1.066	11.6	263.3	---	1.416	3.56	1.041	71.2	238.2	-9.2	0.329
4-5690	4-6030	0.179	116.3	-5.9	-0.77	1.360	89.3	0.330	1.074	2.9	264.7	---	1.429	3.42	1.047	71.2	247.4	-11.4	0.332
4-5690	4-6040	0.184	133.8	-1.3	-0.17	1.362	91.6	0.336	1.081	353.6	625.5	0.718	1.444	3.38	1.051	71.0	257.2	-12.9	0.340
4-5690	4-6040	0.524	222.7	-0.4	-0.17	1.186	115.4	0.428	0.728	248.1	877.9	0.416	1.039	3.38	0.810	104.9	21.2	17.8	0.322
4-5690	4-6050	0.207	150.8	2.9	0.44	1.365	94.2	0.346	1.088	343.5	625.6	0.712	1.464	3.46	1.055	70.5	267.4	-13.6	0.353
4-5690	4-6050	0.473	222.5	1.0	0.44	1.177	112.9	0.390	0.717	246.7	888.7	0.437	0.996	3.46	0.798	97.1	12.6	17.2	0.252
4-5690	4-6060	0.248	166.0	6.0	1.10	1.367	97.2	0.363	1.095	332.5	624.7	0.698	1.492	3.65	1.058	69.5	278.1	-13.5	0.374
4-5690	4-6060	0.462	222.7	2.6	1.10	1.174	112.4	0.381	0.712	246.3	898.5	0.441	0.984	3.65	0.794	90.9	1.9	14.6	0.231
4-5690	4-6070	0.310	178.9	8.1	1.86	1.369	100.8	0.389	1.101	320.3	622.6	0.673	1.529	4.01	1.061	67.9	289.3	-12.5	0.407
4-5690	4-6070	0.476	223.2	4.2	1.86	1.172	113.1	0.392	0.710	245.3	907.7	0.432	0.989	4.01	0.792	85.1	352.5	10.9	0.246
4-5690	4-6080	0.398	190.1	9.4	2.82	1.370	105.4	0.430	1.107	306.4	619.0	0.631	1.583	4.59	1.063	65.3	301.1	-10.4	0.457
4-5690	4-6080	0.518	224.3	5.8	2.82	1.172	115.1	0.424	0.710	243.4	915.9	0.409	1.011	4.59	0.791	78.9	347.4	7.8	0.295
4-5690	4-6090	0.524	200.4	10.2	4.16	1.372	111.5	0.493	1.114	290.4	613.0	0.564	1.663	5.58	1.065	61.1	313.6	-7.3	0.535
4-5690	4-6090	0.598	226.1	7.2	4.16	1.172	118.9	0.484	0.711	239.9	922.5	0.367	1.055	5.58	0.790	71.5	347.1	6.5	0.380
4-5690	4-6100	0.736	229.4	8.2	6.31	1.174	125.7	0.584	0.713	233.5	926.3	0.296	1.129	7.40	0.791	61.5	351.0	7.1	0.513
4-5690	4-6100	0.912	245.6	4.6	6.31	0.993	138.1	0.769	0.557	207.3	1260.0	0.129	0.986	7.40	0.484	89.9	38.8	22.2	0.538
4-5690	4-6150	0.831	8.3	-8.7	-8.16	1.167	49.1	0.655	0.705	132.3	875.6	0.243	1.167	-8.56	0.766	123.9	141.6	4.9	0.563
4-5690	4-6160	0.612	35.5	-11.1	-5.48	1.379	64.1	0.548	1.137	78.8	471.9	0.514	1.760	-6.20	1.058	122.6	178.9	-10.1	0.573
4-5690	4-6160	0.669	12.5	-8.1	-5.48	1.169	57.1	0.543	0.707	124.4	877.5	0.323	1.091	-6.20	0.765	112.6	146.1	2.3	0.414
4-5690	4-6170	0.469	45.6	-11.0	-3.93	1.381	71.0	0.478	1.144	61.7	464.6	0.597	1.691	-4.97	1.058	117.8	191.4	-15.4	0.487
4-5690	4-6170	0.516	14.8	-7.0	-3.93	1.170	61.7	0.474	0.708	119.9	882.1	0.373	1.043	-4.97	0.762	104.3	146.0	1.3	0.319
4-5690	4-6180	0.368	56.4	-10.5	-2.87	1.383	76.2	0.435	1.150	47.0	459.7	0.650	1.651	-4.26	1.058	114.8	203.6	-20.0	0.436
4-5690	4-6180	0.526	15.9	-5.7	-2.87	1.170	64.1	0.437	0.708	117.8	890.4	0.399	1.017	-4.26	0.758	97.3	140.8	2.4	0.263
4-5690	4-6190	0.296	68.8	-9.5	-2.06	1.385	80.3	0.409	1.157	34.0	456.3	0.683	1.630	-3.82	1.058	113.1	215.4	-23.8	0.406
4-5690	4-6190	0.807	6.6	-2.2	-2.06	1.133	49.1	0.657	0.668	136.0	918.3	0.229	1.106	-3.82	0.697	61.2	91.5	18.9	0.519
4-5690	4-6190	0.516	15.9	-4.2	-2.06	1.167	64.5	0.430	0.705	117.9	900.2	0.402	1.009	-3.82	0.751	83.8	129.3	6.5	0.247
4-5690	4-6200	0.246	83.7	-7.8	-1.38	1.386	83.8	0.395	1.164	22.1	454.1	0.704	1.624	-3.56	1.058	112.1	226.9	-26.9	0.390
4-5690	4-6210	0.217	101.1	-5.0	-0.78	1.388	86.9	0.389	1.171	11.2	452.8	0.715	1.628	-3.42	1.059	111.6	238.4	-29.3	0.384
4-5690	4-6220	0.208	119.8	-1.4	-0.21	1.391	89.7	0.390	1.180	1.0	452.1	0.719	1.640	-3.38	1.060	111.6	249.7	-30.9	0.386
4-5690	4-6230	0.218	137.5	2.3	0.36	1.393	92.5	0.397	1.188	351.4	812.1	0.717	1.660	-3.44	1.062	111.9	260.8	-31.8	0.395
4-5690	4-6240	0.245	152.4	5.5	0.97	1.395	95.1	0.408	1.198	342.2	812.5	0.709	1.687	-3.61	1.064	112.5	271.7	-32.1	0.410
4-5690	4-6250	0.282	134.3	8.1	1.65	1.398	97.8	0.423	1.209	333.6	813.3	0.697	1.720	-3.90	1.068	113.4	282.3	-31.9	0.430
4-5690	4-6260	0.681	25.1	4.1	2.49	1.310	58.7	0.557	0.939	100.2	589.4	0.417	1.462	-4.37	0.950	56.5	132.0	11.5	0.560
4-5690	4-6260	0.328	173.7	10.5	2.49	1.401	100.5	0.443	1.220	325.3	814.5	0.680	1.760	-4.37	1.071	114.6	292.5	-31.3	0.455
4-5690	4-6270	0.622	28.1	8.7	3.58	1.315	61.8	0.519	0.951	93.7	592.5	0.457	1.445	-5.14	0.958	58.9	139.2	7.3	0.522
4-5690	4-6270	0.382	181.4	12.9	3.58	1.404	103.2	0.466	1.233	317.4	816.1	0.659	1.807	-5.14	1.076	116.0	302.4	-30.6	0.485
4-5690	4-6280	0.571	31.1	10.9	5.20	1.320	64.7	0.485	0.962	87.2	595.5	0.496	1.428	-6.44	0.969	61.2	146.0	1.8	0.489
4-5690	4-6280	0.443	187.9	16.1	5.20	1.407	106.0	0.491	1.246	309.8	818.0	0.634	1.859	-6.44	1.081	117.6	312.0	-30.2	0.521
4-5690	4-6290	0.534	33.6	18.7	8.03	1.324	67.4	0.453	0.972	80.6	598.4	0.531	1.413	-8.97	0.972	63.1	152.0	-6.5	0.468
4-5690	4-6290	0.517	193.9	21.1	8.03	1.410	108.9	0.520	1.261	302.4	820.2	0.605	1.916	-8.97	1.087	119.4	321.6	-31.0	0.566
4-5700	4-6000	0.291	77.6	-18.6	-4.00	1.348	79.7	0.353	1.041	41.0	256.5	---	1.409	5.74	1.026	69.5	223.7	-0.5	0.360
4-5700	4-6010	0.254	85.4	-13.8	-2.61	1.352	81.6	0.345	1.052	33.6	259.1	---	1.414	4.67	1.033	70.1	231.1	-5.1	0.349
4-5700	4-6020	0.224	94.7	-9.8	-1.62	1.355	83.5	0.339	1.062	26.0	261.5	---	1.422	4.04	1.039	70.5	239.2	-8.6	0.342
4-5700	4-6030	0.201	106.4	-5.7	-0.84	1.358	85.5	0.336	1.070	18.0	263.6	---	1.430	3.65	1.045	70.9	248.0	-11.1	0.339
4-5700	4-6040	0.185	120.7	-1.3	-0.18	1.361	87.6	0.335	1.079	9.5	265.2	---	1.440	3.43	1.050	71.0	257.3	-12.8	0.339
4-5700	4-6050	0.182	137.6	3.2	0.43	1.363	89.9	0.337	1.087	0.5	266.3	---	1.453	3.34	1.055	71.0	267.0	-13.7	0.343
4-5700	4-6060	0.194	155.4	7.2	1.02	1.365	92.4	0.344	1.094	350.8	626.8	0.718	1.470	3.35	1.058	70.7	277.2	-13.8	0.353
4-5700	4-6060	0.474	237.8	2.4	1.02	1.183	112.8	0.388	0.726	248.2	884.2	0.444	1.007	3.35	0.810	99.6	29.7	23.0	0.263
4-5700	4-6070	0.225	172.3	10.0	1.64	1.367	95.2	0.356	1.101	340.2	626.4	0.709	1.493	3.46	1.061	70.0	287.6	-13.0	0.369
4-5700	4-6070	0.452	237.8	4.0	1.64	1.178	111.7	0.370	0.720	248.2	894.4	0.453	0.986	3.46	0.803	93.3	19.2	21.4	0.227
4-5700	4-6080	0.275	186.9	11.5	2.32	1.369	98.4	0.376	1.107	328.6	624.9	0.697	1.523	3.71	1.063	68.8	298.4	-11.3	0.394
4-5700	4-6080	0.457	238.3	5.6	2.32	1.176	111.9	0.374	0.717	247.5	903.8	0.489	0.985	3.71	0.799	87.7	8.6	18.0	0.228
4-5700	4-6090	0.486	239.1	7.0	3.14	1.175	113.3	0.396	0.716	246.0	912.5	0.453	1.000	4.14	0.797	82.1	1.7	14.4	0.262
4-5700	4-6190	0.549	32.2	-4.8	-2.53	1.175	62.9	0.456	0.716	117.8	883.9	0.390	1.041	-4.62	0.765	102.6	162.2	-5.1	0.297
4-5700	4-6200	0.508	33.2	-3.3	-1.59	1.175	64.9	0.424	0.715	115.9	891.7	0.412	1.019	-4.02	0.762	98.0	156.5	-3.4	0.249
4-5700	4-6210	0.277	90.2	-4.2	-0.85	1.387	81.5	0.409	1.171	29.8	455.2	0.692	1.649	-3.66	1.058	112.9	236.9	-29.0	0.407
4-5700	4-6210	0.505	33.0	-1.8	-0.85	1.172	65.0	0.423	0.712	116.4	901.8	0.411	1.015	-3.66	0.755	88.7	144.7	1.9	0.240
4-5700	4-6220	0.235	106.1	-1.3	-0.22	1.389	84.8	0.397	1.178	18.3	453.2	0.710	1.696	-3.45	1.059	112.1	249.0	-30.7	0.395
4-5700	4-6230	0.214	124.3	2.3	0.35	1.391	87.9	0.394	1.186	7.5	452.1	0.718	1.653	-3.34	1.061	111.8	260.9	-31.6	0.392
4-5700	4-6240	0.214	142.9	5.9	0.91	1.393	90.7	0.397	1.194	357.5	811.6	0.720	1.668	-3.34	1.063	111.9	272.3	-31.7	0.397
4-5700	4-6250	0.232	159.7	8.9	1.48	1.395	93.5	0.405	1.203	348.0	811.6	0.715	1.691	-3.42	1.066	112.3	283.3	-31.2	0.408
4-5700	4-6260	0.264	173.5	11.1	2.09	1.398	96.1	0.418	1.213	339.0	811.1	0.706	1.721	-3.62	1.069	113.0	293.9	-30.1	0.425
4-5750	4-6090	0.293	152.6	16.1	3.48	1.358	80.0	0.376	1.100	37.3	265.7	---	1.514	-0.13	1.059	68.7	311.1	-18.4	0.393
4-5750	4-6100	0.288	171.5	18.0	3.45	1.361	82.2	0.368	1.110	29.3	265.9	---	1.519	-0.11	1.062	69.3	320.1	-15.8	0.384
4-5750	4-6110	0.237	182.8	20.1	3.43	1.364	84.5	0.363	1.120	20.9	267.6	---	1.526	-0.10	1.064	69.8	329.0	-12.9	0.379
4-5750	4-6120	0.219	196.9	21.8	3.42	1.367	86.8	0.360	1.129	12.0	268.8	---	1.535	-0.10	1.065	70.1	337.9	-9.5	0.377
4-5750	4-6120	0.484	314.4	7.9	3.42	1.205	112.9	0.392	0.768	254.4	871.2	0.467	1.069	-0.10	0.848	106.1	115.0	21.2	0.296
4-5750	4-6130	0.212	213.9	22.5	3.40	1.369	89.3	0.361	1.137	2.6	269.4	---	1.548	-0.09	1.066	70.1	346.8	-5.9	0.378
4-5750	4-6130	0.426	313.7	9.0	3.40	1.196	110.1	0.346	0.755	255.8	882.6	0.494	1.016	-0.09	0.832	98.8	107.0	22.2	0.217
4-5750	4-6140	0.220	232.2	21.6	3.38	1.371	92.0	0.367	1.145	352.5	629.4	0.725	1.565	-0.09	1.066	69.8	355.9	-2.0	0.385

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5750	4-6140	0.408	313.7	9.3	3.38	1.192	109.3	0.332	0.750	255.9	892.7	0.501	0.999	-C.09	0.823	93.6	96.2	22.9	0.187
4-5750	4-6150	0.245	249.8	19.1	3.36	1.373	95.0	0.378	1.152	341.7	628.4	0.716	1.588	-C.1C	1.066	69.1	5.2	2.0	0.397
4-5750	4-6150	0.411	314.0	9.2	3.36	1.190	109.5	0.334	0.748	255.2	902.0	0.498	0.998	-C.1C	C.817	89.0	84.9	22.9	0.188
4-5750	4-6160	0.291	265.0	15.8	3.35	1.375	98.4	0.398	1.159	329.9	626.5	0.698	1.620	-C.11	1.066	67.9	15.0	6.1	0.419
4-5750	4-6160	0.431	314.7	8.7	3.35	1.190	110.5	0.351	0.747	253.8	910.4	0.485	7.009	-C.11	0.813	84.5	76.9	22.5	0.213
4-5750	4-6170	0.470	315.8	7.8	3.32	1.190	112.4	0.382	0.748	251.5	918.0	0.462	1.034	-C.12	C.810	79.5	73.8	22.2	0.259
4-5750	4-6280	0.476	117.7	8.0	3.47	1.195	66.7	C.396	0.754	108.3	880.4	0.455	1.053	C.12	C.803	102.0	260.4	-22.8	0.265
4-5750	4-6290	0.432	119.1	8.9	3.44	1.196	68.9	C.361	0.755	105.4	887.1	0.482	1.028	C.11	C.806	97.1	259.2	-22.7	0.217
4-5750	4-6300	C.261	187.0	18.5	3.42	1.394	84.7	C.419	1.233	18.1	449.4	0.716	1.749	C.1C	1.080	112.7	332.2	-11.2	0.428
4-5750	4-6300	0.409	119.9	9.4	3.42	1.195	70.1	0.342	0.755	103.9	895.2	0.496	1.013	C.1C	C.808	92.5	252.4	-22.0	0.188
4-5750	4-6310	0.240	206.2	20.2	3.41	1.396	88.0	C.416	1.240	6.7	447.7	0.725	1.756	C.1C	1.084	112.2	342.0	-7.4	0.424
4-5750	4-6310	0.413	119.5	9.3	3.41	1.193	69.9	0.345	0.752	104.7	905.7	0.492	1.012	C.1C	C.808	87.0	238.1	-19.8	0.186
4-5750	4-6320	0.241	225.4	20.1	3.39	1.398	91.1	C.419	1.249	356.2	806.8	0.726	1.772	C.09	1.089	112.2	351.2	-3.5	0.428
4-5750	4-6330	0.260	242.3	18.4	3.38	1.400	94.1	C.427	1.258	346.4	806.8	0.720	1.796	C.1C	1.094	112.6	0.0	0.3	0.437
4-5750	4-6340	0.292	255.7	16.2	3.36	1.402	96.9	C.441	1.268	337.2	807.4	0.709	1.827	C.1C	1.100	113.3	8.6	4.0	0.453
4-5800	4-6180	0.281	249.8	13.2	2.71	1.374	81.9	C.396	1.161	29.0	266.2	---	1.621	-3.99	1.062	67.9	36.6	-4.6	0.420
4-5800	4-6190	0.250	260.4	10.9	1.98	1.376	84.2	0.390	1.171	20.9	267.7	---	1.628	-3.64	1.063	68.4	44.7	7.8	0.410
4-5800	4-6190	0.427	29.2	5.3	1.98	1.223	110.5	0.360	0.799	262.9	869.7	0.511	1.086	-3.64	0.855	104.8	179.6	-12.2	0.268
4-5800	4-6200	0.227	273.3	8.2	1.35	1.379	86.5	C.388	1.181	12.4	268.9	---	1.638	-3.45	1.064	68.7	53.3	10.4	0.404
4-5800	4-6200	0.372	28.0	4.2	1.35	1.215	108.0	C.316	0.786	265.0	881.5	0.538	1.035	-3.45	0.841	98.2	171.8	-12.5	0.198
4-5800	4-6210	0.215	208.8	5.0	0.78	1.381	89.0	0.388	1.189	3.5	269.6	---	1.651	-3.36	1.065	68.7	62.2	12.5	0.401
4-5800	4-6210	0.354	27.7	2.5	0.78	1.212	107.2	C.302	0.782	265.4	891.5	0.545	1.018	-3.36	0.834	93.6	162.7	-10.8	0.169
4-5800	4-6220	0.217	305.9	1.4	0.22	1.383	91.7	C.393	1.197	354.0	629.7	0.727	1.668	-3.37	1.066	68.5	71.7	14.0	0.403
4-5800	4-6220	0.354	27.9	0.7	0.22	1.210	107.1	C.302	0.779	265.0	900.6	0.544	1.014	-3.37	0.830	89.7	153.5	-7.5	0.165
4-5800	4-6230	0.238	322.9	-2.1	-0.36	1.385	94.6	0.403	1.205	343.9	629.1	0.720	1.690	-3.47	1.067	67.9	81.7	14.8	0.411
4-5800	4-6230	0.366	28.5	-1.1	-0.36	1.210	107.8	C.311	0.779	263.8	909.0	0.536	1.021	-3.47	0.828	86.0	147.0	-3.9	0.180
4-5800	4-6240	0.278	338.4	-4.9	-1.00	1.387	97.9	C.419	1.212	333.0	627.7	0.704	1.719	-3.69	1.069	66.9	92.2	14.9	0.426
4-5800	4-6240	0.392	29.6	-2.9	-1.00	1.210	109.0	C.331	0.779	261.8	916.6	0.521	1.037	-3.69	0.827	82.1	144.1	-1.1	0.210
4-5800	4-6250	0.433	31.1	-4.5	-1.74	1.211	111.0	C.363	0.780	258.9	923.2	0.497	1.064	-4.05	0.828	77.9	144.5	0.4	0.254
4-5800	4-6360	0.434	202.1	8.6	3.27	1.218	69.6	C.357	0.791	98.4	869.3	0.509	1.072	4.32	0.863	104.7	347.5	7.9	0.298
4-5800	4-6370	0.298	254.7	11.3	2.42	1.402	82.2	C.447	1.278	25.3	446.2	0.706	1.849	3.83	1.110	113.4	33.7	22.5	0.462
4-5800	4-6370	0.373	204.9	7.5	2.42	1.219	72.5	C.310	0.792	93.0	873.9	0.546	1.038	3.83	0.868	100.7	351.2	11.0	0.243
4-5800	4-6380	0.254	273.1	9.4	1.71	1.404	86.1	C.438	1.285	12.7	443.6	0.722	1.847	3.55	1.114	112.5	45.3	25.7	0.445
4-5800	4-6380	0.330	207.2	6.1	1.71	1.220	74.6	C.278	0.794	88.6	879.5	0.573	1.014	3.55	C.872	97.5	352.6	13.6	0.202
4-5800	4-6390	0.238	292.7	6.4	1.08	1.405	89.6	C.437	1.292	1.4	442.3	0.728	1.857	3.39	1.118	112.2	56.7	28.1	0.440
4-5800	4-6390	0.300	209.0	4.3	1.08	1.221	76.0	C.255	0.795	85.3	886.3	0.592	0.997	3.39	0.875	94.6	351.1	15.3	0.171
4-5800	4-6400	0.245	311.0	2.8	0.49	1.407	92.7	C.442	1.300	351.1	802.1	0.725	1.876	3.35	1.122	112.5	68.0	29.9	0.443
4-5800	4-6400	0.283	210.0	2.0	0.49	1.221	76.8	C.242	0.795	83.4	894.4	0.602	0.988	3.35	0.878	91.8	345.6	15.3	0.152
4-5850	4-6260	0.340	102.3	-8.4	-2.38	1.247	106.0	C.300	0.823	277.3	871.4	0.577	1.070	-1.40	0.868	101.0	250.5	-27.8	0.215
4-5850	4-6270	0.283	334.1	-13.0	-2.64	1.397	82.8	C.425	1.222	24.4	268.1	---	1.740	-1.27	1.072	66.7	121.9	17.2	0.420
4-5850	4-6270	0.301	300.9	-10.6	-2.64	1.241	104.1	C.267	0.814	280.0	883.6	0.596	1.031	-1.27	0.860	95.8	242.7	-28.0	0.159
4-5850	4-6280	0.259	345.1	-15.6	-2.86	1.399	85.1	C.421	1.231	16.6	269.8	---	1.748	-1.19	1.076	67.2	130.8	15.2	0.411
4-5850	4-6280	0.289	100.6	-12.0	-2.86	1.239	103.5	C.256	0.810	280.8	894.0	0.602	1.017	-1.19	0.858	92.1	232.5	-26.8	0.135
4-5850	4-6290	0.242	358.6	-18.0	-3.05	1.411	87.5	C.419	1.239	8.3	271.1	---	1.759	-1.15	1.080	67.4	139.6	12.7	0.405
4-5850	4-6290	0.289	100.8	-12.8	-3.05	1.218	103.5	C.255	0.808	280.4	903.2	0.602	1.014	-1.15	0.858	88.9	222.0	-24.1	0.131
4-5850	4-6300	0.237	14.5	-19.6	-3.25	1.403	90.1	C.421	1.247	359.6	632.0	0.722	1.772	-1.14	1.084	67.5	148.6	9.7	0.404
4-5850	4-6300	0.299	101.5	-13.2	-3.25	1.218	103.9	C.262	0.807	279.2	911.6	0.596	1.018	-1.14	C.860	66.0	214.3	-21.1	0.141
4-5850	4-6310	0.246	31.8	-20.0	-3.44	1.405	92.9	C.427	1.255	350.2	632.2	0.719	1.790	-1.16	1.089	67.2	157.7	6.3	0.408
4-5850	4-6310	0.317	102.6	-13.1	-3.44	1.233	104.8	C.275	0.808	277.0	919.1	0.585	1.030	-1.16	0.863	83.1	210.6	-19.0	0.163
4-5850	4-6320	0.274	48.8	-18.9	-3.65	1.405	96.1	C.438	1.262	339.9	631.6	0.709	1.815	-1.22	1.093	66.6	167.1	2.3	0.419
4-5850	4-6320	0.346	104.2	-12.6	-3.65	1.238	106.2	C.297	0.808	274.0	925.8	0.568	1.049	-1.22	0.866	80.0	210.5	-18.1	0.196
4-5850	4-6330	0.388	106.3	-11.9	-3.90	1.239	108.2	C.329	0.810	270.0	931.5	0.543	1.076	-1.33	0.870	76.5	213.2	-18.3	0.240
4-5850	4-6340	0.449	108.9	-10.9	-4.20	1.240	111.2	C.375	0.811	264.7	936.0	0.507	1.116	-1.51	C.875	72.4	218.0	-19.4	0.299
4-5850	4-6440	0.403	284.3	-6.8	-2.31	1.247	71.6	C.336	0.823	88.1	860.1	0.547	1.099	1.44	0.905	106.2	76.7	27.2	0.291
4-5850	4-6450	0.296	338.7	-12.5	-2.60	1.420	93.3	C.467	1.326	21.2	443.4	0.706	1.946	1.28	1.131	113.8	124.2	22.7	0.452
4-5850	4-6450	0.343	289.8	-9.1	-2.60	1.248	74.6	C.291	0.825	80.9	863.1	0.585	1.064	1.28	0.904	102.8	84.1	28.1	0.238
4-5900	4-6030	0.527	201.6	-1.6	-0.79	1.165	115.9	C.437	0.701	241.2	526.8	0.395	---	3.09	C.775	99.9	359.5	8.6	0.292
4-5900	4-6040	0.516	202.4	-0.4	-0.19	1.156	115.4	C.430	0.690	239.7	535.4	0.393	---	3.31	0.763	93.4	351.9	6.9	0.264
4-5900	4-6050	0.526	203.1	1.0	0.53	1.150	116.0	C.440	0.685	238.3	544.1	0.383	0.986	3.68	0.756	86.8	342.6	3.8	0.270
4-5900	4-6320	0.295	175.4	-28.9	-6.59	1.267	101.5	C.250	0.849	295.7	866.8	0.637	1.061	5.79	0.900	99.8	310.7	6.6	0.221
4-5900	4-6330	0.239	171.4	-27.6	-5.09	1.261	99.3	C.214	0.837	301.8	882.5	0.659	1.016	4.57	0.894	94.6	303.1	7.7	0.157
4-5900	4-6340	0.217	169.8	-24.1	-4.08	1.159	98.6	C.203	0.833	303.7	894.2	0.665	1.002	3.86	0.893	91.5	295.0	6.6	0.130
4-5900	4-6350	0.209	169.5	-20.1	-3.32	1.158	98.5	C.201	0.832	303.6	904.0	0.665	0.999	3.43	0.895	89.0	286.6	3.9	0.121
4-5900	4-6360	0.285	58.7	-13.4	-2.70	1.415	83.0	C.451	1.277	22.6	272.8	---	1.853	3.16	1.108	66.2	207.6	-3.5	0.434
4-5900	4-6360	0.211	170.2	-16.1	-2.70	1.257	98.9	C.204	0.831	302.3	912.5	0.662	1.001	3.16	0.898	86.8	279.9	0.4	0.124
4-5900	4-6370	0.258	70.9	-11.8	-2.14	1.416	85.5	C.447	1.286	14.5	274.7	---	1.860	3.02	1.112	66.8	216.2	-6.7	0.427
4-5900	4-6370	0.220	171.6	-12.1	-2.14	1.258	99.5	C.212	0.832	299.8	920.0	0.655	1.009	3.02	0.902	84.8	276.5	-3.2	0.138
4-5900	4-6380	0.240	86.0	-9.6	-1.62	1.418	88.2	0.446	1.294	5.9	276.1	---	1.870	2.98	1.117	67.1	225.2	-9.6	0.425
4-5900	4-6380	0.237	173.5	-8.5	-1.62	1.258	100.4	C.225	0.833	296.4	926.6	0.645	1.021	2.98	0.905	82.8	276.2	-6.1	0.158
4-5900	4-6390	0.239	103.5	-6.5	-1.09	1.420	91.1	C.448	1.301	356.4	636.7	0.718	1.884	3.03	1.121	67.1	234.9	-12.0	0.429
4-5900	4-6390	0.262	175.8	-5.1	-1.09	1.259	101.7	0.244	0.834	292.1	932.4	0.631	1.038	3.03	0.909	80.6	278.4	-8.4	0.185
4-5900	4-6400	0.258	121.7	-2.9	-0.52	1.421	94.4	C.456	1.308	346.0	636.4	0.712	1.905	3.18	1.124	66.7	245.3	-13.9	0.440
4-5900	4-6400	0.297	178.6	-2.1	-0.52	1.260	103.4	C.269	0.836	287.0	937.4	0.611	1.061	3.18	0.912	78.2	282.7	-9.9	0.221
4-5900	4-6410	0.345	181.7	0.5	0.13	1.261	105.8	0.305	0.838	280.9	941.5	0.582	1.093	3.46	0.915	75.4	288.6	-10.7	0.266
4-5950	4-6080	0.438	273.4	5.6	2.15	1.209	110.6	0.356	0.767	258.1	513.7	0.494	---	2.15	0.854	103.0	67.0	28.6	0.266
4-5950	4-6090	0.417	274.1	6.9	2.53	1.199	109.6	0.338	0.753	256.7	522.5	0.498	---	2.09	0.839	98.5	63.4	29.1	0.223
4-5950	4-6100	0.409	274.7	8.0	2.90	1.193	109.3	0.331	0.745	255.5	531.4	0.498	---	2.09	0.828	94.2	55.5	28.7	0.198
4-5950	4-6110	0.413	275.4	8.9	3.28	1.190	109.5	0.334	0.740	254.3	540.4	0.493	0.987	2.17	0.821	89.8	45.3	26.7	0.195
4-5950	4-6120	0.433	276.1	9.6	3.70	1.188	110.4	0.349	0.739	252.9	549.0	0.481	0.996	2.32	0.817	85.2	37.0	23.9	0.216
4-5950	4-6130	0.471	277.2	9.9	4.20	1.189	112.2	0.378	0.739	250.8	557.0	0.459	1.018	2.58	0.814	80.2	33.0	21.8	0.260

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLA T= VENUS
ARRIVAL Y= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5950	4-6240	0.476	77.9	2.6	1.13	1.197	66.5	0.400	0.749	108.0	522.1	0.450	1.049	-2.60	0.796	101.2	213.3	-21.8	0.356
4-5950	4-6250	0.438	79.1	4.1	1.61	1.197	68.4	0.369	0.750	106.3	529.2	0.473	1.027	-2.34	0.796	96.2	210.0	-21.5	0.213
4-5950	4-6260	0.428	79.1	5.3	2.02	1.195	68.9	0.360	0.747	106.2	538.6	0.478	1.017	-2.18	0.793	90.8	199.7	-18.0	0.194
4-5950	4-6380	0.241	230.7	-62.4	-9.74	1.264	93.7	0.167	0.655	333.6	883.2	0.712	0.998	12.60	0.923	93.3	321.0	46.8	0.239
4-5950	4-6390	0.132	220.7	-32.0	-3.19	1.262	93.1	0.160	0.852	336.9	896.5	0.715	0.988	6.23	0.922	90.7	323.5	34.5	0.140
4-5950	4-6400	0.116	220.9	-10.7	-0.98	1.261	93.2	0.160	0.851	336.3	905.9	0.715	0.987	4.21	0.924	88.9	321.5	23.1	0.116
4-5950	4-6410	0.120	223.9	1.9	0.18	1.261	93.6	0.163	0.851	333.7	913.5	0.713	0.990	3.26	0.925	87.4	320.2	14.6	0.112
4-5950	4-6420	0.131	228.1	8.9	0.93	1.262	94.2	0.168	0.852	330.0	919.9	0.709	0.996	2.72	0.927	86.1	320.8	7.7	0.118
4-5950	4-6430	0.147	232.7	12.8	1.48	1.263	95.0	0.175	0.854	325.4	925.5	0.704	1.004	2.40	0.929	84.9	323.4	3.9	0.130
4-5950	4-6440	0.166	237.4	14.8	1.94	1.264	95.9	0.185	0.856	320.2	930.5	0.697	1.014	2.21	0.930	83.6	327.4	2.0	0.145
4-5950	4-6450	0.274	149.3	12.1	2.33	1.420	84.6	0.465	1.332	17.1	277.6	---	1.951	2.11	1.132	66.5	297.3	-16.2	0.458
4-5950	4-6450	0.189	242.0	15.7	2.33	1.265	97.1	0.199	0.858	314.5	934.9	0.687	1.028	2.11	0.931	82.3	332.5	1.4	0.164
4-5950	4-6460	0.257	164.5	15.1	2.70	1.421	87.4	0.462	1.340	8.7	278.7	---	1.959	2.08	1.133	66.9	307.0	-14.2	0.455
4-5950	4-6460	0.217	246.5	15.8	2.70	1.266	98.5	0.216	0.860	308.2	938.9	0.674	1.045	2.08	0.931	80.8	338.4	2.0	0.187
4-5950	4-6470	0.257	182.5	17.3	3.08	1.423	90.6	0.464	1.348	358.3	639.0	0.723	1.972	2.12	1.134	66.9	316.7	-11.5	0.458
4-5950	4-6470	0.252	250.9	15.4	3.08	1.267	100.2	0.238	0.862	301.6	942.3	0.657	1.067	2.12	0.931	79.0	344.9	3.3	0.215
4-5950	4-6480	0.278	201.5	18.0	3.47	1.424	94.0	0.470	1.353	347.4	638.2	0.718	1.992	2.23	1.134	66.4	326.7	-8.2	0.468
4-5950	4-6480	0.296	255.2	14.7	3.47	1.268	102.4	0.267	0.864	294.3	945.2	0.634	1.094	2.23	0.931	76.9	352.0	5.4	0.250
4-5950	4-6490	0.352	259.6	13.8	3.93	1.270	105.1	0.305	0.866	286.4	947.3	0.602	1.131	2.43	0.930	74.2	359.6	7.9	0.294
4-5950	4-6490	0.572	285.7	6.9	3.93	1.133	117.9	0.473	0.675	234.4	1255.3	0.356	0.994	2.43	0.733	94.2	75.9	29.1	0.284
4-5950	4-6500	0.583	286.1	7.7	4.49	1.131	118.5	0.481	0.672	233.6	1264.5	0.349	0.996	2.75	0.726	85.8	62.7	28.0	0.294
4-6000	4-6120	0.389	343.0	17.4	5.55	1.254	107.1	0.325	0.852	278.2	495.0	0.575	---	-3.77	0.921	106.6	126.7	7.2	0.288
4-6000	4-6130	0.355	343.4	15.8	4.65	1.240	105.8	0.296	0.827	277.0	503.9	0.582	---	-3.09	0.898	102.9	128.5	6.7	0.234
4-6000	4-6140	0.331	343.7	14.6	4.01	1.231	105.0	0.277	0.812	276.1	512.9	0.587	---	-2.70	0.882	99.5	127.7	6.3	0.192
4-6000	4-6150	0.317	344.0	13.2	3.51	1.225	104.5	0.265	0.802	275.2	522.0	0.589	---	-2.46	0.871	96.3	123.6	6.3	0.163
4-6000	4-6160	0.311	344.3	11.8	3.07	1.221	104.3	0.261	0.797	274.4	531.0	0.589	---	-2.32	0.863	93.2	116.5	7.2	0.146
4-6000	4-6170	0.313	344.8	10.2	2.68	1.220	104.5	0.263	0.794	273.3	539.7	0.585	---	-2.26	0.857	90.1	108.1	8.8	0.145
4-6000	4-6180	0.323	345.5	8.4	2.29	1.219	105.1	0.272	0.794	271.9	548.0	0.577	1.010	-2.27	0.853	87.0	101.3	10.7	0.158
4-6000	4-6190	0.343	346.4	6.5	1.90	1.220	106.1	0.289	0.794	269.9	555.8	0.565	1.024	-2.35	0.851	83.8	97.8	12.4	0.184
4-6000	4-6200	0.375	347.7	4.5	1.46	1.221	107.7	0.315	0.796	267.3	562.8	0.545	1.047	-2.50	0.850	80.2	97.8	13.7	0.221
4-6000	4-6210	0.422	349.6	2.6	0.95	1.223	110.0	0.353	0.799	263.7	568.8	0.517	1.081	-2.76	0.850	76.2	100.6	14.6	0.271
4-6000	4-6330	0.362	170.3	12.7	3.82	1.243	73.4	0.309	0.832	83.9	504.2	0.575	1.088	2.60	0.889	103.5	326.9	-4.3	0.264
4-6000	4-6340	0.308	174.4	13.3	3.35	1.246	76.1	0.271	0.836	76.2	506.4	0.610	1.063	2.40	0.896	101.0	333.8	-0.8	0.225
4-6000	4-6350	0.264	178.8	13.7	2.93	1.248	78.3	0.241	0.841	68.6	508.6	0.638	1.044	2.29	0.903	99.0	340.3	3.0	0.196
4-6000	4-6360	0.226	183.8	14.0	2.54	1.251	80.2	0.218	0.846	60.6	510.6	0.662	1.031	2.26	0.910	97.5	346.7	7.1	0.174
4-6000	4-6370	0.193	189.9	13.9	2.14	1.254	82.0	0.200	0.852	51.9	511.9	0.682	1.022	2.29	0.917	96.5	353.5	11.7	0.158
4-6000	4-6380	0.438	162.0	6.4	1.72	1.213	68.9	0.366	0.783	100.8	570.7	0.496	1.070	2.40	0.862	74.7	267.8	-16.3	0.281
4-6000	4-6380	0.161	198.2	13.4	1.72	1.257	83.8	0.185	0.858	41.9	511.8	0.699	1.017	2.40	0.924	96.0	1.3	17.0	0.148
4-6000	4-6390	0.352	167.7	4.1	1.23	1.225	73.3	0.301	0.802	89.7	569.7	0.561	1.044	2.61	0.882	78.6	280.5	-13.0	0.224
4-6000	4-6390	0.131	211.1	11.9	1.23	1.262	85.7	0.175	0.865	29.5	509.5	0.714	1.017	2.61	0.932	96.0	11.3	23.3	0.145
4-6000	4-6400	0.277	174.4	2.8	0.64	1.235	77.1	0.248	0.819	77.1	567.2	0.616	1.022	2.95	0.898	81.7	293.8	-6.7	0.180
4-6000	4-6400	0.107	233.9	7.5	0.64	1.267	88.0	0.172	0.876	13.5	503.6	0.725	1.026	2.95	0.941	96.7	24.9	30.2	0.152
4-6000	4-6410	0.219	182.0	-1.0	-0.18	1.243	80.1	0.211	0.832	64.1	564.4	0.657	1.008	3.53	0.911	83.8	306.0	2.5	0.154
4-6000	4-6410	0.108	269.0	-2.1	-0.18	1.274	90.9	0.182	0.889	353.9	854.2	0.728	1.051	3.53	0.952	98.5	42.5	36.5	0.176
4-6000	4-6420	0.180	190.1	-10.0	-1.44	1.249	82.4	0.188	0.842	52.0	562.4	0.684	1.001	4.57	0.920	85.0	315.0	14.1	0.147
4-6000	4-6420	0.153	299.6	-12.1	-1.44	1.282	94.5	0.211	0.907	334.0	844.4	0.715	1.098	4.57	0.965	101.2	61.4	41.4	0.218
4-6000	4-6430	0.169	197.9	-29.8	-3.86	1.253	84.2	0.175	0.850	41.4	562.0	0.701	0.998	6.78	0.926	85.5	319.4	28.4	0.164
4-6000	4-6430	0.235	317.6	-21.5	-3.86	1.292	98.4	0.258	0.927	317.1	837.6	0.688	1.166	6.78	0.978	104.5	78.3	46.5	0.282
4-6000	4-6440	0.268	199.1	-65.0	-11.20	1.256	85.5	0.167	0.855	32.1	562.7	0.712	0.999	12.91	0.930	85.6	318.8	47.1	0.262
4-6000	4-6460	0.308	220.8	77.0	13.78	1.261	88.1	0.161	0.864	14.0	565.5	0.725	1.003	-11.46	0.935	85.4	29.3	-48.4	0.227
4-6000	4-6470	0.200	244.9	65.4	8.29	1.263	89.1	0.162	0.868	6.2	567.7	0.728	1.008	-6.18	0.935	85.0	19.8	-33.7	0.161
4-6000	4-6480	0.164	261.0	56.9	6.22	1.265	90.2	0.164	0.871	358.5	930.1	0.728	1.015	-4.32	0.936	84.5	19.4	-22.4	0.149
4-6000	4-6490	0.149	275.2	48.9	5.08	1.266	91.3	0.169	0.875	351.0	932.5	0.727	1.022	-3.40	0.936	84.0	22.3	-14.1	0.149
4-6000	4-6500	0.146	287.4	40.9	4.33	1.268	92.4	0.175	0.878	343.5	935.1	0.724	1.032	-2.88	0.935	83.3	26.8	-7.7	0.155
4-6000	4-6510	0.152	297.7	33.3	3.76	1.269	93.7	0.184	0.881	336.1	937.6	0.718	1.043	-2.57	0.934	82.5	32.2	-2.5	0.164
4-6000	4-6520	0.164	306.4	26.3	3.30	1.271	95.0	0.195	0.883	328.7	940.1	0.711	1.056	-2.38	0.933	81.6	38.4	1.9	0.177
4-6000	4-6530	0.286	229.7	14.4	2.88	1.422	84.8	0.479	1.380	16.1	77.4	---	2.040	-2.28	1.128	65.9	16.2	1.6	0.480
4-6000	4-6530	0.184	313.7	20.3	2.88	1.272	96.4	0.209	0.886	321.3	942.6	0.701	1.072	-2.28	0.932	80.5	45.1	5.6	0.192
4-6000	4-6540	0.266	244.6	13.5	2.50	1.424	87.7	0.477	1.388	7.1	278.2	---	2.050	-2.26	1.127	66.2	24.7	5.0	0.475
4-6000	4-6540	0.210	320.0	15.2	2.50	1.273	98.1	0.227	0.889	313.9	944.9	0.687	1.091	-2.26	0.931	79.2	52.4	8.8	0.211
4-6000	4-6550	0.262	261.9	11.5	2.11	1.425	90.8	0.479	1.396	357.5	638.2	0.728	2.064	-2.30	1.127	66.1	33.7	8.3	0.475
4-6000	4-6550	0.243	325.6	11.0	2.11	1.275	99.9	0.250	0.891	306.3	947.1	0.669	1.114	-2.30	0.929	77.6	60.2	11.5	0.234
4-6000	4-6560	0.279	280.0	8.7	1.69	1.426	94.3	0.486	1.403	346.9	637.4	0.722	2.085	-2.41	1.126	65.6	43.4	11.2	0.482
4-6000	4-6560	0.285	330.8	7.4	1.69	1.276	102.2	0.279	0.894	298.4	948.9	0.645	1.143	-2.41	0.929	75.6	68.5	13.7	0.264
4-6000	4-6560	0.557	2.7	3.1	1.69	1.149	112.7	0.466	0.701	238.1	1248.5	0.375	1.027	-2.41	0.744	99.7	160.9	1.3	0.282
4-6000	4-6570	0.539	2.7	2.3	1.23	1.145	116.8	0.452	0.697	238.1	1258.2	0.382	1.012	-2.61	0.746	91.5	149.2	4.5	0.255
4-6000	4-6580	0.556	3.2	1.2	0.66	1.144	117.7	0.467	0.695	237.2	1266.9	0.371	1.020	-2.93	0.744	84.1	139.9	7.6	0.276
4-6050	4-6180	0.273	48.3	38.2	7.78	1.268	99.6	0.233	0.869	304.7	501.8	0.666	---	-9.95	0.911	100.0	158.9	-36.1	0.237
4-6050	4-6190	0.221	46.2	23.4	4.06	1.261	99.0	0.218	0.856	304.8	511.5	0.670	---	-6.49	0.903	97.3	163.1	-31.4	0.176
4-6050	4-6200	0.202	45.7	13.8	2.22	1.256	98.7	0.209	0.848	304.6	521.0	0.671	---	-4.92	0.894	94.8	161.7	-27.9	0.142
4-6050	4-6210	0.195	45.8	6.9	1.08	1.254	98.6	0.205	0.844	304.2	530.1	0.671	---	-4.06	0.889	92.5	157.2	-23.0	0.123
4-6050	4-6220	0.195	46.4	1.7	0.26	1.253	98.8	0.205	0.842	303.2	538.7	0.670	---	-3.53	0.885	90.3	151.5	-18.6	0.116
4-6050	4-6230	0.201	47.5	-2.4	-0.39	1.253	99.1	0.209	0.842	301.8	546.8	0.666	1.018	-3.21	0.884	88.2	147.1	-13.1	0.119
4-6050	4-6240	0.213	48.9	-5.5	-0.94	1.253	99.6	0.216	0.843	299.8	554.4	0.660	1.025	-3.02	0.884	86.1	145.2	-8.4	0.129
4-6050	4-6250	0.230	50.6	-7.8	-1.44	1.254	100.4	0.228	0.845	297.2	561.3	0.652	1.037	-2.93	0.885	84.0	145.7	-5.2	0.147
4-6050	4-6260	0.252	52.8	-9.4	-1.93	1.256	101.5	0.244	0.847	293.9	567.6	0.641	1.054	-2.92	0.887	81.8	148.2	-3.4	0.169
4-6050	4-6270	0.282	55.2	-10.6	-2.42	1.258	102.8	0.264	0.850	290.0	573.2	0.626	1.075	-2.99	0.890	79.5	152.3	-2.9	0.197
4-6050	4-6280	0.321	58.0	-11.3	-2.96	1.260	104.7	0.292	0.854	285.3	578.0	0.605	1.103	-3.16	0.894	76.9	157.6	-3.5	0.232
4-6050	4-6290	0.372	61.3	-11.7	-3.58	1.262	107.1	0.329	0.858	279.6	581.9	0.576	1.140	-3.44	0.899	73.8	163.8	-4.8	0.276
4-6050	4-6410	0.308	260.5	-0.5	-0.13	1.282	76.9	0.294	0.898	63.5	484.5	0.634	1.162	3.33	0.958	106.2	53.9	30.0	0.296

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6050	4-6420	0.251	267.8	-3.8	-0.75	1.285	79.9	0.262	0.904	52.2	483.4	0.657	1.141	3.08	0.963	104.3	65.4	32.7	0.262
4-6050	4-6430	0.207	276.5	-8.0	-1.30	1.288	82.4	0.240	0.910	40.9	482.2	0.691	1.129	2.95	0.967	103.1	77.5	34.7	0.239
4-6050	4-6440	0.174	287.7	-13.6	-1.82	1.291	84.7	0.227	0.916	29.3	480.8	0.708	1.124	2.91	0.971	102.4	90.2	35.9	0.224
4-6050	4-6450	0.151	302.9	-20.5	-2.35	1.294	86.9	0.221	0.923	17.4	479.1	0.719	1.127	2.97	0.974	102.2	103.4	36.1	0.217
4-6050	4-6460	0.143	323.1	-27.5	-2.91	1.298	89.1	0.222	0.931	5.2	477.1	0.725	1.138	3.14	0.978	102.4	116.9	35.3	0.218
4-6050	4-6470	0.152	346.4	-32.2	-3.56	1.302	91.3	0.230	0.941	352.9	834.9	0.724	1.157	3.43	0.982	103.0	130.2	33.5	0.226
4-6050	4-6480	0.180	7.9	-33.6	-4.38	1.306	93.8	0.246	0.952	340.8	832.8	0.717	1.186	3.92	0.986	104.1	143.1	31.0	0.244
4-6050	4-6490	0.363	251.0	-18.6	-5.49	1.253	74.5	0.299	0.843	78.9	581.0	0.590	1.095	4.75	0.912	75.7	0.9	16.9	0.281
4-6050	4-6490	0.225	24.4	-33.6	-5.49	1.312	96.4	0.271	0.965	329.1	831.2	0.703	1.226	4.75	0.991	105.6	155.2	28.5	0.272
4-6050	4-6500	0.328	255.4	-28.3	-7.25	1.260	77.3	0.265	0.855	68.9	581.0	0.628	1.081	6.23	0.918	77.7	7.3	27.4	0.259
4-6050	4-6500	0.289	36.7	-34.5	-7.25	1.318	99.4	0.304	0.980	318.1	830.2	0.682	1.277	6.23	0.996	107.7	166.7	26.7	0.311
4-6050	4-6510	0.333	258.4	-44.1	-10.73	1.265	79.7	0.239	0.865	59.7	580.7	0.658	1.072	9.44	0.923	79.2	11.8	42.7	0.264
4-6050	4-6540	0.295	279.9	63.8	12.01	1.277	85.5	0.198	0.887	28.1	580.2	0.711	1.063	-14.05	0.929	81.4	70.6	-28.5	0.291
4-6050	4-6550	0.177	298.5	45.0	5.62	1.280	86.9	0.195	0.893	19.1	580.8	0.719	1.066	-7.91	0.930	81.5	70.9	-14.3	0.214
4-6050	4-6560	0.135	313.2	30.5	3.06	1.282	88.3	0.194	0.897	10.5	581.8	0.723	1.071	-5.62	0.931	81.4	76.2	-5.3	0.192
4-6050	4-6570	0.118	328.4	18.0	1.62	1.284	89.7	0.191	0.902	2.1	583.0	0.725	1.078	-4.45	0.931	81.1	83.2	0.5	0.185
4-6050	4-6580	0.115	343.7	7.4	0.66	1.286	91.0	0.200	0.905	354.1	944.5	0.725	1.086	-3.78	0.932	80.7	90.9	4.2	0.184
4-6050	4-6590	0.122	357.9	-0.7	-0.06	1.287	92.3	0.206	0.909	346.2	946.2	0.722	1.096	-3.36	0.933	80.2	99.0	6.5	0.188
4-6050	4-6600	0.138	10.4	-6.1	-0.66	1.289	93.8	0.215	0.912	338.5	948.0	0.716	1.108	-3.11	0.934	79.4	107.3	7.6	0.195
4-6050	4-6610	0.296	305.7	-5.7	-1.18	1.434	84.3	0.499	1.428	17.1	276.2	---	2.141	-2.97	1.126	64.8	92.5	17.2	0.485
4-6050	4-6610	0.160	20.9	-9.5	-1.18	1.290	95.3	0.226	0.915	330.8	949.9	0.708	1.122	-2.97	0.935	78.6	115.8	7.7	0.205
4-6050	4-6620	0.276	319.1	-8.7	-1.67	1.436	87.1	0.497	1.436	8.8	277.4	---	2.149	-2.91	1.127	65.1	101.7	16.7	0.477
4-6050	4-6620	0.188	29.8	-11.5	-1.67	1.292	96.9	0.241	0.918	323.1	951.7	0.697	1.139	-2.91	0.937	77.5	124.3	7.1	0.219
4-6050	4-6630	0.269	334.9	-11.6	-2.16	1.437	90.1	0.498	1.484	359.8	638.0	0.725	2.162	-2.94	1.129	65.2	111.2	15.6	0.474
4-6050	4-6630	0.222	37.3	-12.5	-2.16	1.293	98.8	0.259	0.921	315.3	953.4	0.682	1.160	-2.94	0.939	76.2	132.9	5.8	0.237
4-6050	4-6640	0.281	352.3	-13.8	-2.67	1.436	93.3	0.503	1.451	350.1	637.8	0.722	2.181	-3.06	1.132	65.0	120.9	12.7	0.477
4-6050	4-6640	0.264	44.0	-13.0	-2.67	1.294	100.9	0.284	0.924	307.2	954.8	0.662	1.186	-3.06	0.942	74.5	141.6	---	0.262
4-6050	4-6640	0.496	79.0	-5.7	-2.67	1.171	114.7	0.417	0.721	244.6	1252.3	0.420	1.022	-3.06	0.763	95.5	229.3	-28.1	0.243
4-6050	4-6650	0.316	50.1	-13.1	-3.24	1.295	103.5	0.315	0.927	295.6	955.8	0.635	1.218	-3.28	0.945	72.4	150.3	1.4	0.294
4-6050	4-6650	0.490	79.2	-7.1	-3.24	1.169	114.3	0.412	0.718	244.4	1261.7	0.422	1.014	-3.26	0.762	88.8	216.8	-26.1	0.230
4-6060	4-6120	0.588	51.0	-9.8	-3.90	1.561	108.8	0.792	3.074	317.2	438.6	0.639	---	2.72	1.302	123.9	163.4	11.5	0.718
4-6060	4-6130	0.473	53.4	-13.5	-4.53	1.459	106.4	0.591	1.579	315.1	446.6	0.646	---	3.10	1.176	119.7	169.3	10.6	0.570
4-6060	4-6140	0.395	55.3	-18.7	-5.39	1.392	104.2	0.461	1.211	313.6	455.1	0.653	---	3.72	1.089	115.6	175.4	10.7	0.459
4-6060	4-6150	0.345	56.9	-26.5	-6.73	1.347	102.3	0.372	1.053	312.8	464.1	0.661	---	4.84	1.027	111.7	182.0	12.7	0.375
4-6060	4-6160	0.332	59.1	-39.6	-9.30	1.316	100.8	0.311	0.970	312.4	473.6	0.668	---	7.20	0.984	108.0	189.5	19.5	0.319
4-6060	4-6170	0.429	69.3	-60.6	-17.01	1.295	99.5	0.268	0.921	312.6	483.4	0.675	---	14.71	0.953	104.7	200.0	39.2	0.342
4-6060	4-6190	0.280	60.7	49.4	9.73	1.272	98.0	0.219	0.873	312.5	503.3	0.682	---	-12.43	0.915	99.0	158.4	-45.2	0.258
4-6060	4-6200	0.195	56.1	25.1	3.78	1.266	97.6	0.206	0.862	312.8	515.2	0.684	---	-6.67	0.904	96.5	167.9	-37.2	0.168
4-6060	4-6210	0.174	55.4	11.2	1.55	1.262	97.3	0.198	0.855	312.8	522.7	0.686	---	-4.65	0.897	94.1	167.7	-31.5	0.132
4-6060	4-6220	0.169	55.7	2.5	0.34	1.260	97.3	0.195	0.851	312.3	531.8	0.685	---	-3.65	0.893	92.0	163.5	-25.8	0.113
4-6060	4-6230	0.172	56.6	-3.4	-0.46	1.259	97.4	0.195	0.850	311.3	540.3	0.684	1.016	-3.07	0.890	89.9	158.4	-19.6	0.107
4-6060	4-6240	0.179	57.9	-7.4	-1.06	1.259	97.7	0.199	0.850	309.7	548.3	0.681	1.019	-2.72	0.889	88.0	154.7	-13.7	0.110
4-6060	4-6250	0.191	59.7	-10.2	-1.55	1.260	98.3	0.206	0.851	307.5	555.6	0.676	1.026	-2.50	0.890	86.0	153.3	-9.0	0.121
4-6060	4-6260	0.206	61.8	-12.0	-1.97	1.261	99.0	0.216	0.853	304.7	562.4	0.669	1.038	-2.38	0.892	84.1	154.3	-6.1	0.137
4-6060	4-6270	0.227	64.3	-13.1	-2.36	1.263	100.0	0.230	0.856	301.3	568.5	0.659	1.053	-2.32	0.895	82.2	157.2	-4.7	0.157
4-6060	4-6280	0.253	67.0	-13.6	-2.75	1.264	101.2	0.248	0.859	297.3	574.0	0.646	1.072	-2.34	0.898	80.1	161.4	-4.5	0.182
4-6060	4-6290	0.287	70.1	-13.7	-3.16	1.266	102.8	0.271	0.863	292.5	578.8	0.629	1.096	-2.42	0.903	77.8	166.7	-5.3	0.212
4-6060	4-6300	0.330	73.4	-13.5	-3.61	1.268	104.9	0.302	0.867	286.9	582.9	0.605	1.128	-2.58	0.908	75.2	172.9	-6.9	0.249
4-6060	4-6310	0.388	77.1	-13.0	-4.14	1.271	107.6	0.343	0.871	280.4	585.9	0.572	1.169	-2.85	0.913	72.1	180.0	-9.1	0.297
4-6060	4-6320	0.468	81.3	-12.3	-4.82	1.273	111.4	0.399	0.875	272.4	587.7	0.526	1.225	-3.30	0.919	68.0	187.9	-11.9	0.361
4-6060	4-6330	0.582	86.4	-11.4	-5.80	1.276	116.9	0.479	0.881	262.4	587.4	0.458	1.303	-4.05	0.926	62.4	197.1	-15.2	0.453
4-6060	4-6330	0.849	114.4	-5.0	-5.80	1.025	136.8	0.725	0.584	211.7	896.7	0.161	1.008	-4.05	0.531	98.7	281.1	-27.5	0.484
4-6060	4-6340	0.758	93.0	-10.2	-7.41	1.279	125.4	0.598	0.887	249.1	583.9	0.357	1.417	-5.45	0.933	53.9	208.4	-19.1	0.592
4-6060	4-6340	0.885	115.8	-5.8	-7.41	1.014	136.9	0.751	0.577	209.7	904.4	0.144	1.010	-5.45	0.514	77.0	266.5	-28.7	0.512
4-6060	4-6400	0.557	260.6	1.8	0.85	1.283	64.7	0.461	0.895	93.2	488.2	0.483	1.308	4.05	0.955	116.9	42.9	24.1	0.475
4-6060	4-6410	0.432	267.4	-0.5	-0.16	1.286	70.8	0.377	0.901	79.7	484.7	0.561	1.241	3.28	0.960	111.6	55.2	27.4	0.384
4-6060	4-6420	0.345	274.0	-3.7	-0.87	1.298	75.2	0.321	0.907	67.4	482.6	0.616	1.198	2.83	0.965	108.1	67.1	29.9	0.323
4-6060	4-6430	0.280	281.1	-6.4	-1.41	1.291	78.6	0.283	0.913	55.7	481.1	0.654	1.171	2.55	0.969	105.9	79.2	31.5	0.282
4-6060	4-6440	0.231	289.3	-10.5	-1.88	1.294	81.4	0.257	0.919	44.2	479.8	0.682	1.155	2.40	0.972	104.4	91.4	32.3	0.254
4-6060	4-6450	0.803	244.5	-2.7	-2.31	1.201	51.0	0.631	0.757	125.9	571.7	0.280	1.235	2.33	0.844	54.4	333.7	-8.0	0.596
4-6060	4-6450	0.193	299.6	-15.6	-2.31	1.297	83.8	0.241	0.925	32.7	478.4	0.702	1.149	2.33	0.975	103.5	103.9	32.3	0.236
4-6060	4-6460	0.713	248.1	-3.8	-2.72	1.213	55.8	0.565	0.775	118.7	574.7	0.337	1.212	2.33	0.860	59.0	341.1	-4.5	0.530
4-6060	4-6460	0.166	313.3	-21.7	-2.72	1.300	86.1	0.232	0.931	21.1	477.0	0.715	1.148	2.33	0.978	103.0	116.4	31.3	0.226
4-6060	4-6470	0.628	251.7	-5.3	-3.15	1.225	60.3	0.501	0.793	111.2	577.2	0.395	1.188	2.41	0.874	63.2	348.6	-0.5	0.468
4-6060	4-6470	0.152	331.4	-28.0	-3.15	1.303	88.3	0.231	0.939	9.3	475.4	0.722	1.156	2.41	0.981	103.0	128.9	29.4	0.223
4-6060	4-6480	0.548	255.6	-7.4	-3.62	1.235	64.5	0.441	0.808	103.1	579.3	0.452	1.164	2.59	0.887	67.1	356.2	4.0	0.410
4-6060	4-6480	0.153	353.4	-32.5	-3.62	1.307	90.5	0.236	0.948	357.5	833.6	0.726	1.171	2.59	0.984	103.4	141.1	26.7	0.228
4-6060	4-6490	0.475	259.6	-10.2	-4.18	1.245	68.4	0.386	0.824	94.6	580.8	0.506	1.142	2.88	0.897	70.4	3.8	9.1	0.358
4-6060	4-6490	0.172	15.4	-33.7	-4.18	1.311	92.8	0.249	0.958	345.8	832.0	0.720	1.196	2.88	0.987	104.3	152.8	23.6	0.240
4-6060	4-6500	0.411	263.8	-14.3	-4.90	1.253	71.8	0.338	0.839	85.5	581.7	0.555	1.122	3.35	0.906	73.3	11.4	15.0	0.314
4-6060	4-6500	0.207	33.4	-32.8	-4.90	1.316	95.3	0.269	0.969	334.4	830.6	0.709	1.230	3.35	0.991	105.5	164.0	20.2	0.261
4-6060	4-6510	0.361	268.2	-20.4	-5.94	1.260	74.9	0.298	0.852	76.0	582.2	0.598	1.105	4.17	0.913	75.6	18.9	22.4	0.260
4-6060	4-6510	0.257	46.8	-31.8	-5.94	1.321	98.1	0.296	0.983	323.5	829.7	0.692	1.274	4.17	0.995	107.2	174.6	17.2	0.292
4-6060	4-6520	0.330	272.4	-30.2	-7.70	1.266	77.6	0.266	0.863	66.2	582.2	0.633	1.093	5.72	0.918	77.4	26.0	32.5	0.258
4-6060	4-6520	0.324	57.0	-32.6	-7.70	1.327	101.1	0.331	0.998	313.4	829.4	0.668	1.329	5.72	1.000	109.3	185.1	15.6	0.334
4-6060	4-6530	0.347	274.6	-47.0	-11.68	1.272	79.9	0.243	0.873	56.3	582.1	0.661	1.085	9.49	0.922	78.8	31.3	48.9	0.268
4-6060	4-6530	0.424	66.4	-38.1	-11.68	1.333	104.3	0.372	1.016	304.1	829.9	0.638	1.394	9.49	1.006	111.8	195.7	18.1	0.397
4-6060	4-6540	0.686	235.9	-72.1	-31.11	1.276	81.8	0.227	0.881	47.0	582.2	0.681	1.081	28.72	0.925	79.6	45.6	79.7	0.513
4-6060	4-6550	0.465	269.3	71.9	20.34	1.279	83.9	0.212	0.888	36.0	581.9	0.700	1.077	-22.93	0.927	80.4	83.8	-34.3	0.422
4-6060	4-6560	0.589	275.5	13.5	6.01	1.424	67.3	0.579	1.363	64.4	259.7	---	2.152	-8.79	1.117	57.6	54.8	6.0	0.632

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6060	4-6560	0.198	303.6	42.5	6.01	1.282	85.5	0.206	0.894	27.1	582.5	0.710	1.078	-8.79	0.929	80.7	78.3	-14.4	0.231
4-6060	4-6560	0.583	77.6	12.7	6.01	1.354	115.1	0.518	1.076	279.8	835.1	0.519	1.633	-8.79	1.025	121.0	207.6	-26.6	0.546
4-6060	4-6570	0.529	280.3	6.4	2.52	1.427	69.9	0.563	1.376	57.9	262.8	---	2.151	-5.51	1.118	59.0	61.1	11.7	0.595
4-6060	4-6570	0.143	316.6	23.2	2.52	1.285	86.9	0.202	0.900	18.3	583.3	0.718	1.081	-5.51	0.930	80.8	83.6	-3.2	0.198
4-6060	4-6570	0.651	80.7	4.6	2.52	1.361	118.9	0.567	1.098	272.8	837.8	0.475	1.721	-5.51	1.032	124.3	219.3	-23.7	0.593
4-6060	4-6580	0.480	285.1	2.6	0.90	1.429	72.4	0.548	1.389	51.2	265.7	---	2.150	-4.10	1.119	60.3	68.7	14.9	0.568
4-6060	4-6580	0.122	330.2	9.5	0.90	1.287	88.4	0.201	0.904	9.8	584.3	0.722	1.086	-4.10	0.931	80.7	91.1	2.9	0.187
4-6060	4-6590	0.434	290.6	-0.2	-0.08	1.431	74.9	0.535	1.401	44.4	268.5	---	2.150	-3.34	1.121	61.5	76.9	16.8	0.544
4-6060	4-6590	0.115	345.1	-0.9	-0.08	1.289	89.7	0.203	0.909	1.6	585.7	0.724	1.093	-3.34	0.933	80.4	99.3	6.2	0.184
4-6060	4-6600	0.392	296.9	-2.7	-0.77	1.433	77.4	0.523	1.412	37.4	271.0	---	2.151	-2.88	1.123	62.6	85.4	17.9	0.524
4-6060	4-6600	0.118	0.3	-8.4	-0.77	1.291	92.1	0.207	0.912	353.7	947.3	0.723	1.101	-2.88	0.934	80.0	107.8	7.9	0.186
4-6060	4-6610	0.354	304.5	-5.2	-1.30	1.435	79.9	0.515	1.422	30.1	273.2	---	2.153	-2.60	1.124	63.5	94.1	18.2	0.506
4-6060	4-6610	0.129	14.6	-13.1	-1.30	1.293	92.5	0.214	0.916	345.8	949.0	0.720	1.111	-2.60	0.936	79.4	116.4	8.4	0.190
4-6060	4-6620	0.320	313.8	-7.8	-1.75	1.437	82.5	0.507	1.432	22.5	275.2	---	2.158	-2.43	1.126	64.2	103.0	17.9	0.492
4-6060	4-6620	0.147	27.1	-15.6	-1.75	1.294	93.9	0.223	0.919	338.1	950.8	0.715	1.124	-2.43	0.938	78.7	125.0	7.9	0.198
4-6060	4-6630	0.293	325.4	-10.6	-2.16	1.438	85.1	0.503	1.440	14.6	276.7	---	2.164	-2.34	1.129	64.8	112.0	16.9	0.481
4-6060	4-6630	0.170	37.7	-16.6	-2.16	1.295	95.5	0.234	0.922	330.4	952.6	0.706	1.138	-2.34	0.940	77.8	133.6	6.7	0.210
4-6060	4-6640	0.277	339.4	-13.4	-2.55	1.440	88.0	0.501	1.448	6.1	277.8	---	2.174	-2.32	1.131	65.1	121.2	15.2	0.474
4-6060	4-6640	0.199	46.6	-16.7	-2.55	1.297	97.2	0.250	0.925	322.6	954.3	0.694	1.156	-2.32	0.943	76.7	142.1	4.9	0.225
4-6060	4-6650	0.275	355.9	-15.6	-2.94	1.441	91.0	0.503	1.456	357.0	638.3	0.724	2.188	-2.37	1.134	65.1	130.5	12.9	0.472
4-6060	4-6650	0.234	54.3	-16.3	-2.94	1.298	99.2	0.269	0.928	314.5	955.8	0.678	1.178	-2.37	0.946	75.3	150.7	2.5	0.245
4-6060	4-6650	0.508	94.5	-6.3	-2.94	1.178	114.8	0.419	0.728	245.8	1247.1	0.423	1.032	-2.37	0.773	99.0	252.5	-29.5	0.260
4-6060	4-6660	0.292	13.5	-16.8	-3.36	1.442	94.4	0.509	1.463	347.0	637.9	0.718	2.209	-2.48	1.137	64.8	140.1	9.9	0.477
4-6060	4-6660	0.279	61.1	-15.6	-3.36	1.299	101.5	0.295	0.931	306.1	957.0	0.656	1.205	-2.48	0.949	73.6	159.3	-0.3	0.271
4-6060	4-6660	0.477	94.3	-7.6	-3.36	1.175	113.6	0.400	0.723	246.3	1257.2	0.434	1.013	-2.48	0.770	91.9	239.8	-29.3	0.224
4-6070	4-6130	0.514	61.9	-10.9	-3.76	1.535	105.7	0.729	2.438	322.6	438.1	0.660	---	1.71	1.267	121.8	172.6	6.3	0.657
4-6070	4-6140	0.410	64.1	-14.2	-4.12	1.443	103.5	0.544	1.460	321.0	446.5	0.666	---	1.90	1.151	117.7	178.0	4.9	0.521
4-6070	4-6150	0.338	65.5	-18.7	-4.59	1.382	101.6	0.424	1.167	320.1	455.5	0.673	---	2.20	1.071	113.7	183.5	4.1	0.417
4-6070	4-6160	0.290	66.4	-24.7	-5.25	1.342	100.0	0.343	1.033	319.7	465.0	0.679	---	2.71	1.015	110.0	189.1	4.5	0.336
4-6070	4-6170	0.263	67.0	-33.1	-6.35	1.314	98.6	0.287	0.961	320.0	475.0	0.685	---	3.67	0.976	106.5	194.9	7.3	0.275
4-6070	4-6180	0.270	68.5	-46.2	-8.72	1.296	97.6	0.249	0.918	320.5	485.3	0.690	---	5.91	0.948	103.3	201.8	16.4	0.237
4-6070	4-6190	0.438	86.8	-70.6	-18.91	1.283	96.7	0.222	0.892	321.4	495.8	0.694	---	15.96	0.928	100.4	212.9	44.3	0.316
4-6070	4-6200	0.394	83.2	69.6	16.95	1.275	96.3	0.206	0.876	321.3	505.9	0.696	---	-20.03	0.915	97.9	147.2	-53.6	0.358
4-6070	4-6210	0.165	63.8	25.4	3.22	1.270	95.9	0.194	0.866	322.0	515.9	0.698	---	-6.43	0.905	95.5	172.3	-41.3	0.156
4-6070	4-6220	0.146	63.2	4.6	0.54	1.267	95.8	0.188	0.860	322.0	525.5	0.698	---	-3.88	0.899	93.3	173.9	-31.9	0.117
4-6070	4-6230	0.146	63.8	-5.6	-0.64	1.265	95.8	0.186	0.857	321.4	534.4	0.698	---	-2.84	0.896	91.3	170.1	-24.2	0.101
4-6070	4-6240	0.151	65.1	-11.2	-1.34	1.265	96.0	0.187	0.856	320.2	542.8	0.696	1.017	-2.29	0.894	89.4	165.5	-17.1	0.098
4-6070	4-6250	0.159	66.9	-14.5	-1.82	1.265	96.3	0.191	0.857	318.3	550.5	0.693	1.021	-1.96	0.895	87.6	162.4	-11.3	0.103
4-6070	4-6260	0.171	69.2	-16.3	-2.19	1.266	96.9	0.197	0.859	315.9	557.6	0.689	1.028	-1.76	0.896	85.8	161.7	-7.4	0.114
4-6070	4-6270	0.185	71.9	-17.2	-2.49	1.267	97.6	0.207	0.861	312.9	564.1	0.683	1.039	-1.63	0.898	84.1	163.2	-5.2	0.129
4-6070	4-6280	0.204	74.9	-17.3	-2.77	1.269	98.5	0.219	0.864	309.2	570.0	0.675	1.053	-1.57	0.902	82.3	166.3	-4.5	0.147
4-6070	4-6290	0.227	78.1	-17.0	-3.03	1.271	99.6	0.234	0.867	305.0	575.3	0.664	1.070	-1.55	0.906	80.5	170.8	-4.9	0.170
4-6070	4-6300	0.256	81.6	-16.3	-3.29	1.273	101.0	0.254	0.871	300.1	580.1	0.650	1.092	-1.57	0.911	78.5	176.2	-6.1	0.196
4-6070	4-6310	0.293	85.2	-15.3	-3.57	1.275	102.8	0.280	0.875	294.5	584.1	0.630	1.119	-1.64	0.916	76.3	182.4	-8.0	0.228
4-6070	4-6320	0.341	89.0	-14.2	-3.89	1.277	105.2	0.313	0.879	288.0	587.3	0.604	1.154	-1.77	0.922	73.7	189.4	-10.4	0.268
4-6070	4-6330	0.406	93.2	-12.9	-4.28	1.279	108.3	0.359	0.884	280.5	589.5	0.566	1.201	-1.99	0.928	70.4	197.2	-13.2	0.321
4-6070	4-6340	0.497	98.0	-11.5	-4.79	1.282	112.7	0.423	0.888	271.3	590.1	0.513	1.264	-2.35	0.934	66.0	206.1	-16.3	0.393
4-6070	4-6340	0.841	129.0	-4.3	-4.79	1.045	154.2	0.713	0.597	213.6	892.5	0.171	1.022	-2.35	0.568	107.7	303.4	-22.5	0.496
4-6070	4-6350	0.632	103.8	-9.9	-5.57	1.284	119.2	0.516	0.894	259.7	588.4	0.432	1.355	-2.98	0.941	59.6	216.6	-19.6	0.500
4-6070	4-6350	0.824	129.9	-5.1	-5.57	1.029	133.3	0.707	0.585	212.7	901.4	0.171	0.999	-2.98	0.543	86.7	288.0	-25.9	0.462
4-6070	4-6360	0.914	131.7	-5.2	-6.97	1.024	138.5	0.766	0.581	209.4	908.0	0.136	1.027	-4.24	0.538	66.2	277.3	-27.1	0.553
4-6070	4-6410	0.655	272.8	-0.4	-0.23	1.289	60.0	0.529	0.903	100.8	489.9	0.426	1.381	3.19	0.961	121.6	53.6	24.1	0.549
4-6070	4-6420	0.497	280.3	-2.7	-1.12	1.292	67.8	0.423	0.910	85.5	484.7	0.525	1.295	2.45	0.966	114.6	67.1	26.8	0.432
4-6070	4-6430	0.391	287.1	-5.4	-1.69	1.294	73.1	0.354	0.916	72.2	481.6	0.591	1.240	2.04	0.970	110.3	79.8	28.3	0.356
4-6070	4-6440	0.316	294.1	-8.5	-2.11	1.297	77.0	0.308	0.921	60.0	479.6	0.638	1.205	1.79	0.974	107.5	92.1	28.9	0.306
4-6070	4-6450	0.259	301.9	-12.2	-2.45	1.300	80.1	0.277	0.927	48.3	478.0	0.670	1.184	1.65	0.977	105.7	104.3	28.5	0.272
4-6070	4-6460	0.216	311.4	-16.7	-2.75	1.302	82.7	0.257	0.933	36.8	476.7	0.693	1.173	1.57	0.979	104.5	116.3	27.3	0.249
4-6070	4-6470	0.780	261.8	-3.7	-3.02	1.212	52.4	0.612	0.769	123.1	573.2	0.298	1.240	1.55	0.853	55.5	351.5	-1.6	0.583
4-6070	4-6470	0.184	323.6	-21.9	-3.02	1.305	85.1	0.245	0.939	25.3	475.4	0.709	1.170	1.55	0.981	103.9	128.1	25.3	0.235
4-6070	4-6480	0.693	265.4	-4.9	-3.30	1.223	57.0	0.548	0.786	115.8	576.0	0.355	1.218	1.57	0.867	59.9	358.9	2.0	0.518
4-6070	4-6480	0.163	339.8	-27.4	-3.30	1.308	87.3	0.241	0.947	13.8	474.0	0.719	1.175	1.57	0.983	103.7	139.6	22.6	0.229
4-6070	4-6490	0.611	269.0	-6.4	-3.59	1.234	61.4	0.487	0.803	108.2	578.4	0.412	1.194	1.65	0.880	63.9	6.4	5.9	0.458
4-6070	4-6490	0.157	0.2	-31.6	-3.59	1.312	89.5	0.243	0.955	2.4	472.6	0.723	1.187	1.65	0.986	103.9	150.8	19.3	0.231
4-6070	4-6500	0.534	272.9	-8.3	-3.92	1.244	65.4	0.430	0.819	100.1	580.4	0.467	1.172	1.79	0.891	67.5	14.1	10.0	0.402
4-6070	4-6500	0.166	22.2	-32.9	-3.92	1.315	91.8	0.252	0.964	351.0	831.2	0.721	1.207	1.79	0.988	104.5	161.7	15.5	0.239
4-6070	4-6510	0.464	276.9	-11.0	-4.33	1.253	69.1	0.378	0.834	91.6	581.8	0.519	1.150	2.02	0.900	70.6	22.0	14.5	0.352
4-6070	4-6510	0.190	41.5	-31.5	-4.33	1.320	94.2	0.268	0.975	339.8	830.0	0.713	1.236	2.02	0.991	105.5	172.1	11.6	0.256
4-6070	4-6520	0.403	281.1	-14.6	-4.87	1.261	72.4	0.334	0.848	82.6	582.7	0.565	1.182	2.41	0.907	73.3	30.2	19.5	0.310
4-6070	4-6520	0.230	56.4	-29.1	-4.87	1.325	96.8	0.291	0.987	329.1	829.2	0.700	1.275	2.41	0.995	106.9	182.3	8.0	0.280
4-6070	4-6530	0.354	285.5	-20.1	-5.69	1.267	75.3	0.298	0.861	73.3	583.2	0.605	1.117	3.09	0.914	75.4	38.5	25.6	0.276
4-6070	4-6530	0.282	67.4	-27.5	-5.69	1.330	99.7	0.322	1.001	318.9	828.8	0.679	1.323	3.09	0.999	108.8	192.2	4.9	0.313
4-6070	4-6540	0.322	289.9	-29.0	-7.21	1.273	77.8	0.269	0.871	63.8	583.4	0.637	1.106	4.46	0.918	77.1	46.8	34.1	0.254
4-6070	4-6540	0.349	76.0	-27.9	-7.21	1.336	102.7	0.358	1.017	309.4	829.1	0.653	1.382	4.46	1.004	111.0	202.0	3.5	0.356
4-6070	4-6550	0.341	292.2	-46.3	-11.30	1.278	80.1	0.247	0.881	54.2	583.6	0.663	1.098	8.42	0.922	78.3	54.7	50.8	0.261
4-6070	4-6550	0.450	84.3	-34.2	-11.30	1.342	106.0	0.400	1.035	300.6	830.0	0.621	1.449	8.42	1.010	113.5	212.3	7.1	0.418
4-6070	4-6570	0.229	310.4	41.6	6.85	1.285	83.9	0.220	0.896	35.2	584.2	0.699	1.092	-9.99	0.927	79.7	85.8	-15.2	0.254
4-6070	4-6570	0.547	91.4	15.8	6.85	1.355	113.0	0.494	1.075	284.6	833.5	0.544	1.605	-9.99	1.023	119.8	217.0	-32.7	0.526
4-6070	4-6580	0.562	293.5	-3.8	1.61	1.429	68.1	0.579	1.378	62.1	260.6	---	2.174	-4.88	1.117	57.8	91.4	14.7	0.611
4-6070	4-6580	0.157	322.2	13.3	1.61	1.288	85.5	0.213	0.901	26.4	584.9	0.709	1.094	-4.88	0.929	80.0	71.1	0.8	0.203
4-6070	4-6580	0.606	94.4	3.2	1.61	1.382	116.7	0.542	1.096	277.4	835.9	0.501	1.690	-4.88	1.030	122.6	230.7	-26.3	0.564

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6070	4-6590	0.513	297.9	-0.3	-0.12	1.431	76.6	0.562	1.391	55.6	283.6	---	2.172	-2.29	1.119	59.2	79.3	17.6	0.582
4-6070	4-6590	0.135	333.6	-1.1	-0.12	1.290	84.9	0.210	0.907	17.8	585.8	0.717	1.097	-2.29	0.931	80.0	99.3	7.0	0.190
4-6070	4-6600	0.468	302.8	-3.0	-1.01	1.434	72.1	0.548	1.403	48.9	266.5	---	2.172	-2.54	1.121	60.5	87.7	19.0	0.558
4-6070	4-6600	0.125	346.8	-10.5	-1.01	1.292	88.4	0.209	0.911	9.5	587.1	0.721	1.102	-2.54	0.933	79.9	108.1	9.6	0.185
4-6070	4-6610	0.425	308.4	-5.2	-1.58	1.436	75.6	0.535	1.415	43.1	269.2	---	2.172	-2.11	1.122	61.7	95.2	19.4	0.536
4-6070	4-6610	0.123	1.6	-16.9	-1.58	1.294	89.8	0.211	0.915	1.4	588.5	0.723	1.108	-2.11	0.935	79.6	116.9	10.4	0.185
4-6070	4-6620	0.384	315.0	-7.4	-2.00	1.437	70.1	0.525	1.425	35.1	271.7	---	2.173	-1.85	1.125	62.7	105.0	19.1	0.516
4-6070	4-6620	0.128	10.9	-20.8	-2.00	1.296	91.2	0.215	0.919	353.5	950.1	0.722	1.116	-1.85	0.938	79.2	125.8	10.0	0.188
4-6070	4-6630	0.347	323.0	-9.6	-2.34	1.439	80.6	0.515	1.435	27.8	274.0	---	2.176	-1.69	1.127	63.6	113.7	18.2	0.500
4-6070	4-6630	0.139	31.3	-22.4	-2.34	1.298	92.6	0.221	0.923	345.7	951.9	0.719	1.127	-1.69	0.940	78.6	134.5	8.8	0.194
4-6070	4-6640	0.316	332.9	-12.0	-2.63	1.441	83.2	0.510	1.444	20.2	275.9	---	2.181	-1.60	1.130	64.3	122.5	16.7	0.486
4-6070	4-6640	0.157	43.9	-22.3	-2.63	1.299	94.1	0.230	0.926	337.9	953.6	0.713	1.139	-1.60	0.943	77.9	143.1	6.9	0.203
4-6070	4-6650	0.291	345.1	-14.4	-2.89	1.442	85.9	0.506	1.453	12.1	277.4	---	2.188	-1.55	1.133	64.8	131.4	14.6	0.477
4-6070	4-6650	0.180	54.6	-21.3	-2.89	1.300	95.7	0.242	0.929	330.0	955.3	0.704	1.154	-1.55	0.946	77.0	151.6	4.5	0.215
4-6070	4-6660	0.278	360.0	-16.6	-3.15	1.443	88.8	0.506	1.461	3.5	278.4	---	2.199	-1.55	1.136	65.0	140.4	11.9	0.471
4-6070	4-6660	0.210	63.7	-19.8	-3.15	1.302	97.5	0.258	0.932	322.0	956.9	0.689	1.172	-1.55	0.950	75.9	160.1	1.7	0.232
4-6070	4-6660	0.517	110.2	-6.5	-3.15	1.167	115.3	0.430	0.735	246.6	1241.5	0.419	1.052	-1.55	0.785	103.0	274.7	-27.4	0.292
4-6070	4-6670	0.281	17.0	-17.9	-3.42	1.445	91.9	0.509	1.468	354.2	638.7	0.721	2.215	-1.60	1.140	65.0	149.5	8.7	0.472
4-6070	4-6670	0.247	71.4	-18.1	-3.42	1.303	99.6	0.279	0.934	313.7	958.2	0.674	1.195	-1.60	0.954	74.5	168.7	-1.4	0.254
4-6070	4-6670	0.471	109.6	-7.9	-3.42	1.181	113.2	0.394	0.729	248.0	1252.5	0.442	1.016	-1.60	0.780	94.6	263.2	-28.7	0.228
4-6080	4-6150	0.570	68.4	-9.6	-3.44	1.634	104.1	0.931	9.785	330.7	830.1	0.677	---	0.66	1.383	123.6	176.4	2.7	0.765
4-6080	4-6140	0.437	71.4	-12.1	-3.56	1.507	102.3	0.658	1.990	328.9	438.3	0.680	---	0.69	1.228	119.6	181.2	0.8	0.594
4-6080	4-6150	0.345	73.1	-15.2	-3.70	1.425	100.4	0.491	1.346	327.9	447.2	0.685	---	0.75	1.123	115.6	186	-0.9	0.469
4-6080	4-6160	0.281	73.8	-18.9	-3.86	1.371	98.8	0.383	1.119	327.6	456.9	0.690	---	0.84	1.051	111.7	191.0	-2.3	0.373
4-6080	4-6170	0.237	73.6	-23.5	-4.08	1.335	97.4	0.311	1.009	328.1	467.1	0.695	---	0.99	1.001	108.1	195.6	-3.3	0.293
4-6080	4-6180	0.207	72.9	-28.9	-4.40	1.311	96.3	0.262	0.948	329.0	477.8	0.700	---	1.15	0.966	104.8	199.9	-3.1	0.240
4-6080	4-6190	0.192	71.9	-35.7	-4.96	1.295	95.4	0.229	0.912	330.2	488.7	0.704	---	1.27	0.942	101.8	203.8	-0.8	0.195
4-6080	4-6200	0.198	71.5	-46.4	-6.44	1.284	94.8	0.207	0.890	331.3	499.5	0.706	---	3.17	0.925	99.1	208.3	7.9	0.162
4-6080	4-6210	0.442	102.4	-78.0	-19.06	1.278	94.4	0.192	0.877	332.3	510.0	0.708	---	16.55	0.913	96.6	221.6	48.7	0.299
4-6080	4-6220	0.130	67.7	16.4	1.66	1.273	94.2	0.184	0.869	332.5	519.9	0.709	---	5.03	0.906	94.4	179.0	-40.5	0.132
4-6080	4-6230	0.125	67.8	-12.3	-1.20	1.271	94.1	0.180	0.864	332.3	529.3	0.709	---	-2.23	0.901	92.3	182.3	-24.2	0.097
4-6080	4-6240	0.130	69.0	-20.1	-2.03	1.270	94.2	0.179	0.862	331.5	538.0	0.708	---	-1.46	0.899	90.4	177.9	-15.5	0.088
4-6080	4-6250	0.137	71.1	-23.2	-2.44	1.270	94.5	0.181	0.862	330.0	546.0	0.707	1.018	-1.10	0.899	88.7	173.5	-9.2	0.090
4-6080	4-6260	0.145	73.8	-24.3	-2.69	1.271	94.9	0.185	0.863	327.8	553.4	0.704	1.023	-0.91	0.900	87.0	170.7	-5.2	0.097
4-6080	4-6270	0.155	77.0	-24.2	-2.88	1.272	95.4	0.191	0.865	325.0	560.1	0.700	1.030	-0.79	0.902	85.4	170.5	-3.0	0.109
4-6080	4-6280	0.168	80.6	-23.5	-3.02	1.273	96.1	0.199	0.868	321.7	566.3	0.696	1.041	-0.72	0.905	83.9	172.3	-2.4	0.124
4-6080	4-6290	0.183	84.4	-22.3	-3.15	1.275	97.0	0.209	0.871	317.7	572.0	0.689	1.054	-0.68	0.909	82.3	175.8	-2.9	0.141
4-6080	4-6300	0.203	88.3	-20.7	-3.26	1.277	98.0	0.223	0.875	313.2	577.1	0.680	1.070	-0.65	0.914	80.7	180.4	-4.1	0.161
4-6080	4-6310	0.228	92.3	-19.0	-3.37	1.279	99.3	0.240	0.879	308.1	581.7	0.668	1.090	-0.65	0.919	79.0	185.9	-6.0	0.185
4-6080	4-6320	0.260	96.4	-17.1	-3.48	1.281	101.0	0.262	0.883	302.4	585.6	0.652	1.114	-0.67	0.924	77.1	192.1	-8.3	0.212
4-6080	4-6330	0.300	100.6	-15.2	-3.61	1.283	103.0	0.290	0.887	295.9	588.9	0.630	1.144	-0.71	0.930	74.9	199.2	-10.9	0.247
4-6080	4-6340	0.354	105.0	-13.2	-3.75	1.285	105.7	0.327	0.892	288.5	591.3	0.600	1.183	-0.77	0.936	72.2	206.9	-13.7	0.290
4-6080	4-6350	0.428	109.7	-11.2	-3.93	1.287	109.3	0.379	0.896	279.8	592.5	0.557	1.236	-0.88	0.942	68.7	215.7	-16.5	0.349
4-6080	4-6350	0.872	143.9	-3.4	-3.93	1.071	135.5	0.724	0.615	214.8	887.5	0.170	1.060	-0.88	0.615	118.1	324.3	-15.1	0.552
4-6080	4-6360	0.534	115.1	-9.2	-4.18	1.290	114.5	0.452	0.901	269.2	591.8	0.494	1.309	-1.07	0.949	63.7	225.7	-19.4	0.423
4-6080	4-6360	0.789	144.4	-4.2	-4.18	1.044	131.2	0.678	0.594	215.1	897.7	0.191	0.997	-1.07	0.571	94.9	309.1	-20.0	0.440
4-6080	4-6370	0.695	121.7	-7.2	-4.58	1.293	122.3	0.562	0.907	255.6	588.2	0.397	1.417	-1.41	0.955	56.2	237.7	-22.2	0.560
4-6080	4-6370	0.828	145.6	-4.2	-4.58	1.036	133.5	0.707	0.588	213.1	905.7	0.172	1.004	-1.41	0.561	76.7	296.2	-22.9	0.475
4-6080	4-6420	0.929	258.5	-1.2	-1.81	0.982	40.5	0.786	0.553	154.1	897.2	0.118	0.988	1.65	0.475	100.2	6.3	4.3	0.556
4-6080	4-6430	0.582	292.6	-4.7	-2.34	1.297	63.8	0.482	0.918	92.7	486.0	0.476	1.360	1.18	0.972	118.5	78.2	25.1	0.493
4-6080	4-6440	0.450	299.9	-7.2	-2.65	1.300	70.3	0.395	0.924	78.3	481.6	0.559	1.288	0.94	0.975	113.0	91.5	25.6	0.397
4-6080	4-6450	0.359	306.9	-10.0	-2.85	1.303	75.0	0.338	0.929	65.2	478.9	0.616	1.243	0.81	0.978	109.5	104.0	25.1	0.339
4-6080	4-6460	0.293	314.4	-13.3	-3.01	1.305	78.5	0.300	0.935	53.1	477.0	0.655	1.215	0.72	0.980	107.2	115.9	23.7	0.293
4-6080	4-6470	0.242	323.2	-17.0	-3.15	1.308	81.4	0.275	0.941	41.5	475.5	0.682	1.200	0.68	0.982	105.7	127.4	21.5	0.265
4-6080	4-6480	0.204	334.1	-21.3	-3.26	1.310	83.9	0.260	0.947	30.1	474.1	0.701	1.193	0.65	0.984	104.9	138.5	18.7	0.248
4-6080	4-6490	0.759	279.2	-4.4	-3.38	1.222	53.7	0.595	0.781	120.3	594.5	0.316	1.247	0.65	0.860	56.5	9.2	4.9	0.569
4-6080	4-6490	0.177	348.5	-25.9	-3.38	1.313	86.3	0.252	0.954	10.7	472.9	0.714	1.195	0.65	0.985	104.4	149.2	15.3	0.238
4-6080	4-6500	0.674	282.7	-5.4	-3.50	1.233	58.2	0.535	0.798	113.0	577.2	0.372	1.224	0.67	0.872	60.7	16.7	8.2	0.506
4-6080	4-6500	0.162	6.9	-29.7	-3.50	1.316	88.5	0.251	0.962	7.5	471.7	0.720	1.204	0.67	0.987	104.4	159.8	11.5	0.236
4-6080	4-6510	0.594	286.4	-6.7	-3.62	1.243	62.3	0.475	0.815	105.3	579.5	0.428	1.202	0.71	0.883	64.5	24.5	11.6	0.447
4-6080	4-6510	0.162	28.3	-31.1	-3.62	1.320	90.7	0.257	0.970	356.4	830.5	0.721	1.220	0.71	0.989	104.8	170.0	7.4	0.242
4-6080	4-6520	0.520	290.2	-8.3	-3.77	1.252	66.2	0.421	0.836	97.3	581.3	0.480	1.180	0.78	0.893	67.9	32.7	14.9	0.394
4-6080	4-6520	0.177	48.7	-29.5	-3.77	1.324	93.1	0.269	0.980	345.4	829.5	0.716	1.244	0.78	0.991	105.6	180.1	3.2	0.254
4-6080	4-6530	0.453	294.2	-10.4	-3.96	1.261	69.7	0.373	0.845	88.8	582.7	0.529	1.160	0.90	0.903	70.8	41.2	18.3	0.347
4-6080	4-6530	0.207	65.2	-26.2	-3.96	1.328	95.6	0.288	0.992	334.8	828.7	0.706	1.278	0.90	0.994	106.7	189.9	-0.9	0.274
4-6080	4-6540	0.393	298.5	-13.1	-4.22	1.268	72.8	0.332	0.858	80.0	583.7	0.573	1.143	1.10	0.900	73.2	50.1	21.6	0.306
4-6080	4-6540	0.249	77.6	-22.9	-4.22	1.333	98.2	0.314	1.005	324.6	828.2	0.689	1.320	1.10	0.998	108.3	199.6	-4.6	0.302
4-6080	4-6550	0.343	303.1	-16.9	-4.63	1.274	75.6	0.299	0.869	70.9	584.3	0.610	1.129	1.45	0.914	75.1	59.3	25.2	0.273
4-6080	4-6550	0.302	86.9	-20.5	-4.63	1.339	101.1	0.346	1.020	314.9	828.3	0.667	1.373	1.45	1.003	110.2	209.1	-7.6	0.337
4-6080	4-6560	0.305	307.9	-23.0	-5.47	1.279	78.0	0.272	0.880	61.7	584.8	0.640	1.119	2.24	0.919	76.6	68.9	30.2	0.248
4-6080	4-6560	0.366	94.2	-19.8	-5.47	1.345	104.2	0.384	1.036	305.8	829.0	0.639	1.434	2.24	1.008	112.5	218.7	-0.4	0.379
4-6080	4-6570	0.301	311.8	-38.0	-8.43	1.284	80.2	0.252	0.889	52.5	585.2	0.665	1.113	5.14	0.923	77.7	79.1	42.7	0.241
4-6080	4-6570	0.452	100.9	-24.7	-8.43	1.351	107.5	0.426	1.054	297.5	830.2	0.605	1.504	5.14	1.014	115.1	228.7	-6.7	0.433
4-6080	4-6580	0.330	314.5	53.6	12.02	1.287	82.1	0.237	0.896	43.2	585.7	0.684	1.109	-15.37	0.926	78.5	95.6	-23.8	0.328
4-6080	4-6580	0.551	107.1	28.6	12.02	1.357	111.0	0.472	1.074	289.5	832.0	0.567	1.581	-15.37	1.021	118.0	222.5	-43.9	0.540
4-6080	4-6590	0.597	306.9	-0.6	-0.26	1.431	66.3	0.593	1.379	66.3	258.3	---	2.197	-3.14	1.116	56.6	81.9	18.6	0.627
4-6080	4-6590	0.179	329.6	-1.9	-0.26	1.290	83.0	0.227	0.903	34.5	586.4	0.698	1.108	-3.14	0.929	79.0	99.1	9.1	0.205
4-6080	4-6590	0.563	108.0	-0.6	-0.26	1.265	114.6	0.519	1.094	282.2	834.1	0.527	1.662	-3.14	1.028	121.0	243.0	-26.4	0.535
4-6080	4-6600	0.550	310.9	-4.1	-1.68	1.433	68.8	0.577	1.392	60.0	261.5	---	2.195	-1.77	1.118	58.1	90.3	20.6	0.598
4-6080	4-6600	0.160	338.9	-13.7	-1.68	1.293	85.4	0.220	0.909	25.9	587.4	0.708	1.109	-1.77	0.931	79.2	108.4	13.9	0.194

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6080	4-6600	0.642	111.8	-3.2	-1.60	1.370	118.2	0.566	1.116	275.2	836.7	0.484	1.747	-1.77	1.035	124.2	252.7	-25.1	0.591
4-6080	4-6610	0.504	315.3	-6.1	-2.25	1.436	71.3	0.561	1.105	53.5	264.5	---	2.194	-1.26	1.121	59.4	98.8	21.1	0.572
4-6080	4-6610	0.146	250.0	-20.3	-2.25	1.295	86.9	0.217	0.914	17.5	588.5	0.715	1.112	-1.26	0.934	79.3	117.7	14.8	0.189
4-6080	4-6620	0.458	320.3	-7.8	-2.57	1.438	73.8	0.548	1.417	46.8	267.4	---	2.193	-1.00	1.123	60.7	107.5	20.7	0.549
4-6080	4-6620	0.138	3.2	-25.0	-2.57	1.298	88.3	0.216	0.918	9.3	589.9	0.720	1.116	-1.00	0.937	79.1	126.9	16.1	0.188
4-6080	4-6630	0.417	328.2	-9.4	-2.79	1.440	76.3	0.536	1.428	40.0	270.1	---	2.194	-0.85	1.126	61.8	116.1	19.7	0.528
4-6080	4-6630	0.135	18.1	-27.9	-2.79	1.299	89.8	0.218	0.922	1.3	591.5	0.721	1.123	-0.85	0.940	78.8	135.8	12.5	0.189
4-6080	4-6640	0.378	333.2	-11.1	-2.95	1.441	78.8	0.526	1.438	33.0	272.6	---	2.196	-0.75	1.129	62.8	124.7	18.1	0.510
4-6080	4-6640	0.139	33.5	-28.9	-2.95	1.301	91.2	0.222	0.926	353.5	953.1	0.721	1.131	-0.75	0.943	78.4	144.5	10.3	0.193
4-6080	4-6650	0.342	341.7	-13.0	-3.09	1.443	81.3	0.519	1.448	25.6	274.9	---	2.199	-0.69	1.132	63.7	133.3	16.0	0.494
4-6080	4-6650	0.149	48.1	-28.1	-3.09	1.303	92.7	0.228	0.929	345.6	954.8	0.717	1.141	-0.69	0.947	77.9	153.0	7.7	0.206
4-6080	4-6660	0.311	352.2	-14.5	-3.20	1.444	83.9	0.513	1.457	17.9	276.7	---	2.204	-0.66	1.135	64.3	141.8	13.5	0.482
4-6080	4-6660	0.165	60.9	-26.0	-3.20	1.304	94.2	0.237	0.932	337.7	956.5	0.711	1.154	-0.66	0.950	77.2	161.5	4.7	0.209
4-6080	4-6670	0.289	5.2	-16.8	-3.31	1.446	86.7	0.510	1.465	9.8	278.2	---	2.212	-0.65	1.139	64.8	150.5	10.6	0.474
4-6080	4-6670	0.189	71.7	-23.4	-3.31	1.305	95.9	0.250	0.935	329.7	958.1	0.702	1.169	-0.65	0.954	76.3	169.9	1.4	0.223
4-6080	4-6670	0.570	126.7	-6.2	-3.31	1.198	117.9	0.469	0.748	245.9	1238.4	0.397	1.098	-0.65	0.801	109.4	295.9	-22.7	0.364
4-6080	4-6670	0.694	129.1	-4.8	-3.31	1.210	124.0	0.560	0.764	240.8	1229.2	0.336	1.192	-0.65	0.819	119.0	302.4	-21.1	0.492
4-6080	4-6680	0.279	20.9	-18.0	-3.42	1.447	89.7	0.510	1.473	1.0	279.1	---	2.224	-0.66	1.143	65.0	159.3	7.2	0.470
4-6080	4-6680	0.219	80.8	-20.7	-3.42	1.307	97.8	0.267	0.938	321.4	959.5	0.688	1.188	-0.66	0.958	75.1	178.4	-2.1	0.241
4-6080	4-6680	0.472	125.1	-8.0	-3.42	1.188	113.1	0.392	0.735	249.4	1247.5	0.446	1.023	-0.66	0.790	97.8	285.1	-24.8	0.243
4-6090	4-6140	0.476	76.3	-11.1	-3.36	1.537	100.2	0.819	3.848	337.3	430.7	0.695	---	-0.30	1.323	171.3	184.7	-2.6	0.683
4-6090	4-6150	0.360	78.5	-13.5	-3.31	1.475	98.7	0.580	1.662	336.3	439.5	0.698	---	-0.31	1.185	117.3	189.1	-4.6	0.529
4-6090	4-6160	0.280	79.2	-16.4	-3.25	1.404	97.1	0.433	1.238	336.2	449.3	0.702	---	-0.33	1.092	113.3	193.5	-6.6	0.416
4-6090	4-6170	0.225	78.5	-19.5	-3.19	1.357	95.8	0.339	1.068	336.9	459.8	0.706	---	-0.36	1.028	109.6	197.6	-8.6	0.329
4-6090	4-6180	0.186	76.6	-22.6	-3.10	1.326	94.7	0.278	0.982	338.3	471.0	0.709	---	-0.41	0.985	106.1	201.3	-10.5	0.261
4-6090	4-6190	0.160	74.0	-25.2	-2.99	1.305	93.8	0.237	0.933	340.0	482.5	0.712	---	-0.49	0.954	102.9	204.0	-12.4	0.208
4-6090	4-6200	0.141	71.2	-26.7	-2.81	1.293	93.1	0.210	0.904	341.8	493.9	0.714	---	-0.64	0.934	100.0	205.3	-14.3	0.166
4-6090	4-6210	0.127	68.6	-25.9	-2.47	1.284	92.7	0.193	0.886	343.3	505.0	0.715	---	-0.96	0.920	97.5	204.0	-17.1	0.134
4-6090	4-6220	0.112	66.8	-16.4	-1.41	1.279	92.4	0.182	0.875	344.2	515.5	0.716	---	-1.99	0.911	95.2	197.4	-24.9	0.113
4-6090	4-6230	0.496	137.9	-84.6	-22.79	1.276	90.3	0.176	0.869	344.3	525.2	0.716	---	19.42	0.905	93.1	226.2	53.4	0.331
4-6090	4-6240	0.149	68.4	-48.4	-5.02	1.274	92.4	0.174	0.867	343.9	534.3	0.716	---	1.67	0.902	91.2	198.5	11.0	0.088
4-6090	4-6250	0.138	70.3	-42.6	-4.21	1.274	92.6	0.174	0.866	342.6	542.6	0.715	1.017	0.88	0.901	89.5	188.7	6.7	0.084
4-6090	4-6260	0.137	73.4	-39.4	-3.91	1.274	92.9	0.176	0.867	340.6	550.1	0.714	1.020	0.61	0.902	87.9	182.6	5.7	0.088
4-6090	4-6270	0.140	77.5	-36.6	-3.75	1.275	93.3	0.180	0.869	338.0	557.0	0.712	1.026	0.48	0.904	86.4	179.8	4.9	0.097
4-6090	4-6280	0.145	82.1	-33.8	-3.65	1.277	93.9	0.188	0.872	334.8	563.3	0.709	1.034	0.40	0.907	84.9	179.8	3.7	0.109
4-6090	4-6290	0.154	87.0	-30.9	-3.57	1.278	94.6	0.193	0.875	331.0	569.1	0.706	1.044	0.35	0.911	83.5	181.8	2.1	0.123
4-6090	4-6300	0.166	92.1	-28.9	-3.50	1.280	95.4	0.203	0.878	326.7	574.5	0.700	1.056	0.33	0.916	82.2	185.4	-0.0	0.139
4-6090	4-6310	0.182	97.1	-27.5	-3.45	1.282	96.5	0.214	0.882	321.9	579.3	0.693	1.071	0.31	0.921	80.8	188.1	-2.4	0.157
4-6090	4-6320	0.203	102.0	-26.8	-3.40	1.284	97.7	0.229	0.886	316.5	583.7	0.683	1.089	0.30	0.927	79.3	195.7	-5.0	0.178
4-6090	4-6330	0.230	108.9	-26.8	-3.34	1.286	99.2	0.247	0.890	310.6	587.5	0.670	1.111	0.30	0.932	77.7	202.0	-7.8	0.202
4-6090	4-6340	0.264	117.7	-25.9	-3.29	1.288	101.0	0.271	0.895	304.0	590.7	0.653	1.137	0.31	0.938	75.8	209.1	-10.6	0.231
4-6090	4-6350	0.309	128.4	-23.2	-3.23	1.290	103.4	0.302	0.899	296.6	593.2	0.628	1.171	0.34	0.944	73.6	216.9	-13.4	0.268
4-6090	4-6360	0.371	141.8	-19.6	-3.16	1.293	106.4	0.348	0.904	288.2	594.6	0.593	1.215	0.37	0.950	70.7	225.6	-16.1	0.317
4-6090	4-6370	0.456	126.6	-15.2	-3.08	1.295	110.6	0.402	0.909	278.3	594.7	0.543	1.275	0.44	0.957	66.8	235.4	-18.6	0.383
4-6090	4-6370	0.775	159.[illegible]	-15.2	-3.06	1.060	30.2	0.662	0.605	217.1	893.5	0.205	1.005	0.44	0.601	102.3	328.7	-12.1	0.444
4-6090	4-6380	0.582	137.[illegible]	-15.2	-2.93	1.298	116.8	0.488	0.914	266.1	592.6	0.468	1.361	0.55	0.963	61.1	246.6	-20.7	0.481
4-6090	4-6380	0.772	165.[illegible]	-15.2	-2.93	1.049	130.2	0.664	0.596	216.0	902.5	0.200	0.992	0.55	0.585	85.2	315.4	-16.2	0.429
4-6090	4-6390	0.859	169.[illegible]	-15.3	-2.69	1.045	135.1	0.724	0.593	212.9	909.4	0.164	1.023	0.76	0.582	67.4	306.1	-18.5	0.520
4-6090	4-6440	0.695	304.[illegible]	-15.3	-3.96	1.303	56.5	0.555	0.925	101.5	489.0	0.411	1.439	-0.66	0.976	123.6	87.9	22.5	0.575
4-6090	4-6440	0.896	275.[illegible]	-15.0	-3.96	0.994	42.7	0.740	0.559	152.2	899.6	0.134	0.983	-0.66	0.494	91.2	18.5	7.2	0.523
4-6090	4-6450	0.525	312.[illegible]	-15.6	-3.77	1.305	66.9	0.445	0.932	85.2	482.7	0.517	1.346	-0.49	0.979	116.2	102.1	22.0	0.450
4-6090	4-6460	0.413	319.[illegible]	-15.6	-3.65	1.308	72.5	0.374	0.938	71.2	479.0	0.587	1.288	-0.41	0.982	111.8	114.6	20.5	0.371
4-6090	4-6470	0.338	326.[illegible]	-15.8	-3.57	1.310	76.[illegible]	0.327	0.943	58.6	476.5	0.635	1.251	-0.36	0.983	108.9	126.3	18.2	0.319
4-6090	4-6480	0.273	335.0	-15.8	-3.50	1.315	79.8	0.296	0.949	46.8	474.8	0.668	1.230	-0.32	0.985	107.0	137.3	15.3	0.285
4-6090	4-6490	0.227	344.9	-15.2	-3.44	1.315	82.6	0.276	0.995	35.3	473.3	0.692	1.219	-0.31	0.986	105.9	147.9	11.8	0.263
4-6090	4-6500	0.193	357.6	-23.7	-3.39	1.318	85.0	0.265	0.962	24.0	472.1	0.707	1.216	-0.30	0.987	105.2	158.2	7.9	0.250
4-6090	4-6510	0.738	296.6	-[illegible]	-3.34	1.232	54.9	0.580	0.793	117.3	575.6	0.333	1.254	-0.30	0.865	57.4	27.3	10.8	0.555
4-6090	4-6510	0.171	14.1	-26.8	-3.34	1.321	87.3	0.261	0.969	12.9	470.9	0.716	1.222	-0.30	0.988	105.0	168.3	3.8	0.245
4-6090	4-6520	0.656	300.1	-5.3	-3.28	1.242	59.2	0.521	0.810	110.3	578.2	0.388	1.232	-0.32	0.876	61.4	35.2	13.5	0.494
4-6090	4-6520	0.161	34.1	-28.1	-3.28	1.324	89.6	0.263	0.977	1.9	469.9	0.720	1.234	-0.32	0.989	105.2	178.2	-0.6	0.247
4-6090	4-6530	0.578	303.8	-6.3	-3.22	1.251	63.2	0.465	0.826	102.6	580.4	0.441	1.210	-0.34	0.886	64.9	43.4	15.9	0.438
4-6090	4-6530	0.167	55.1	-26.6	-3.22	1.328	91.4	0.272	0.986	351.1	828.9	0.718	1.255	-0.34	0.991	105.8	188.1	-4.9	0.256
4-6090	4-6540	0.506	307.6	-7.2	-3.15	1.260	66.8	0.415	0.841	94.6	582.2	0.492	1.189	-0.38	0.895	68.1	52.0	18.0	0.387
4-6090	4-6540	0.188	73.2	-22.9	-3.15	1.332	94.3	0.287	0.997	340.5	828.1	0.711	1.283	-0.38	0.994	106.7	197.9	-9.0	0.273
4-6090	4-6550	0.441	311.6	-8.3	-3.05	1.268	70.1	0.370	0.854	86.3	583.6	0.538	1.171	-0.44	0.903	70.7	61.1	19.7	0.343
4-6090	4-6550	0.222	87.2	-18.5	-3.05	1.337	96.9	0.308	1.009	330.3	827.6	0.698	1.320	-0.44	0.997	108.0	207.6	-12.9	0.296
4-6090	4-6560	0.383	316.0	-9.3	-2.92	1.274	73.1	0.332	0.867	77.7	584.7	0.579	1.155	-0.55	0.910	73.0	70.4	20.6	0.305
4-6090	4-6560	0.268	97.7	-14.6	-2.92	1.343	99.6	0.336	1.023	320.6	827.6	0.679	1.367	-0.55	1.002	109.6	217.2	-16.4	0.327
4-6090	4-6570	0.331	320.7	-10.1	-2.68	1.280	75.8	0.301	0.878	68.9	585.5	0.613	1.143	-0.76	0.915	74.7	80.1	20.7	0.274
4-6090	4-6570	0.322	102.7	-11.0	-2.68	1.347	102.6	0.370	1.038	311.4	828.0	0.654	1.423	-0.76	1.007	111.7	226.7	-19.6	0.364
4-6090	4-6580	0.285	325.9	-9.5	-2.15	1.285	78.1	0.277	0.888	60.0	586.3	0.642	1.133	-1.27	0.920	76.1	89.7	18.9	0.249
4-6090	4-6580	0.383	111.9	-7.3	-2.15	1.353	105.7	0.409	1.055	302.7	829.0	0.624	1.487	-1.27	1.013	114.0	236.1	-22.7	0.408
4-6090	4-6590	0.243	331.9	3.9	0.75	1.289	80.2	0.259	0.896	51.2	587.0	0.665	1.127	-4.14	0.924	77.1	99.0	7.4	0.239
4-6090	4-6590	0.450	117.1	2.1	0.75	1.389	109.1	0.451	1.074	294.6	830.4	0.589	1.558	-4.14	1.019	116.6	244.3	-29.7	0.461
4-6090	4-6600	0.253	336.5	-35.5	-6.57	1.292	82.1	0.244	0.903	42.4	587.8	0.683	1.124	3.21	0.928	77.8	111.8	35.4	0.221
4-6090	4-6600	0.541	122.5	-15.5	-6.57	1.365	112.5	0.496	1.094	287.0	832.4	0.551	1.636	3.21	1.027	119.5	255.8	-17.2	0.512
4-6090	4-6610	0.593	325.8	-10.1	-4.51	1.435	67.0	0.592	1.393	64.4	259.3	---	2.218	1.17	1.118	56.8	101.9	24.8	0.616
4-6090	4-6610	0.206	345.4	-29.5	-4.51	1.295	83.8	0.234	0.910	33.9	588.8	0.697	1.123	1.17	0.932	78.2	119.9	25.9	0.205
4-6090	4-6610	0.606	125.9	-9.2	-4.51	1.377	116.1	0.542	1.114	279.8	834.7	0.518	1.719	1.17	1.034	122.5	264.6	-21.5	0.565
4-6090	4-6620	0.543	328.0	-10.1	-4.04	1.437	69.5	0.576	1.407	58.0	262.5	---	2.217	0.73	1.121	58.3	110.5	23.3	0.589

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6090	4-6620	0.181	354.9	-30.3	-4.04	1.298	85.3	0.227	0.915	25.5	590.0	0.707	1.124	0.73	0.935	78.5	129.0	22.1	0.198
4-6090	4-6630	0.497	332.6	-10.6	-3.83	1.440	72.0	0.561	1.419	51.5	265.5	---	2.216	0.54	1.124	59.7	119.1	21.7	0.564
4-6090	4-6630	0.163	6.2	-32.1	-3.83	1.300	86.8	0.224	0.920	17.4	591.4	0.714	1.126	0.54	0.939	78.5	137.9	18.9	0.194
4-6090	4-6640	0.452	337.9	-11.4	-3.70	1.442	74.4	0.549	1.431	44.9	268.4	---	2.215	0.44	1.127	60.9	127.5	19.8	0.542
4-6090	4-6640	0.152	19.6	-33.6	-3.70	1.302	88.2	0.223	0.925	9.3	592.9	0.718	1.131	0.44	0.943	78.4	146.6	15.7	0.194
4-6090	4-6650	0.410	344.1	-12.5	-3.61	1.443	76.9	0.537	1.441	38.0	271.1	---	2.216	0.38	1.131	62.0	135.9	17.6	0.522
4-6090	4-6650	0.146	34.7	-34.1	-3.61	1.304	89.7	0.225	0.929	1.4	594.5	0.720	1.137	0.38	0.946	78.1	155.1	12.3	0.195
4-6090	4-6660	0.371	351.4	-13.7	-3.54	1.445	79.4	0.528	1.451	30.9	273.6	---	2.218	0.34	1.134	63.0	144.2	15.0	0.505
4-6090	4-6660	0.148	50.4	-33.0	-3.54	1.306	91.2	0.228	0.932	353.5	956.2	0.719	1.145	0.34	0.950	77.7	163.4	8.8	0.200
4-6090	4-6670	0.336	0.5	-15.0	-3.48	1.447	82.0	0.521	1.460	23.5	275.9	---	2.221	0.32	1.138	63.8	152.4	12.1	0.490
4-6090	4-6670	0.156	65.1	-30.5	-3.48	1.307	92.7	0.235	0.936	345.5	957.9	0.716	1.155	0.32	0.954	77.2	171.7	5.1	0.207
4-6090	4-6680	0.306	11.8	-16.3	-3.42	1.448	84.7	0.516	1.469	15.7	277.7	---	2.227	0.30	1.142	64.4	160.8	8.8	0.479
4-6090	4-6680	0.172	78.0	-26.9	-3.42	1.309	94.4	0.244	0.939	337.5	959.5	0.709	1.168	0.30	0.959	76.5	180.0	1.4	0.218
4-6090	4-6690	0.284	25.7	-17.3	-3.37	1.449	87.5	0.514	1.477	7.4	279.1	---	2.236	0.30	1.146	64.9	169.2	5.3	0.473
4-6090	4-6690	0.195	88.9	-23.1	-3.37	1.310	96.2	0.257	0.942	329.2	960.9	0.699	1.184	0.30	0.963	75.6	188.4	-2.3	0.233
4-6090	4-6690	0.481	140.7	-7.7	-3.37	1.195	113.4	0.398	0.742	250.4	1242.2	0.448	1.037	0.30	0.801	101.1	304.4	-18.8	0.269
4-6100	4-6140	0.541	78.3	-10.7	-3.44	1.691	96.9	1.056	12.562	346.7	423.8	0.709	---	-1.26	1.446	122.9	188.3	-5.7	0.797
4-6100	4-6150	0.386	80.9	-12.9	-3.23	1.536	96.0	0.700	2.364	345.5	432.6	0.710	---	-1.23	1.258	118.9	192.1	-7.7	0.600
4-6100	4-6160	0.286	81.3	-15.3	-3.01	1.440	94.8	0.497	1.415	345.5	442.5	0.712	---	-1.24	1.137	114.8	196.0	-9.8	0.462
4-6100	4-6170	0.220	79.7	-17.7	-2.79	1.380	93.6	0.374	1.140	346.7	453.5	0.714	---	-1.29	1.056	110.9	199.8	-12.1	0.361
4-6100	4-6180	0.176	76.3	-19.8	-2.55	1.341	92.6	0.296	1.017	348.7	465.2	0.716	---	-1.38	1.002	107.2	203.0	-14.6	0.284
4-6100	4-6190	0.145	71.6	-20.9	-2.26	1.315	91.7	0.246	0.952	351.2	477.5	0.718	---	-1.53	0.966	103.8	205.4	-17.4	0.225
4-6100	4-6200	0.125	66.6	-20.1	-1.89	1.299	91.1	0.214	0.914	353.8	489.7	0.719	---	-1.77	0.941	100.8	206.2	-20.7	0.179
4-6100	4-6210	0.110	62.1	-16.2	-1.37	1.289	90.7	0.194	0.892	356.0	501.5	0.719	---	-2.18	0.924	98.1	204.4	-25.1	0.145
4-6100	4-6220	0.100	59.0	-6.5	-0.51	1.282	90.4	0.182	0.880	357.5	512.6	0.719	---	-2.93	0.913	95.7	198.4	-31.9	0.123
4-6100	4-6230	0.100	57.7	17.2	1.33	1.278	90.3	0.175	0.872	358.1	522.8	0.719	---	-4.66	0.907	93.6	184.4	-43.2	0.121
4-6100	4-6240	0.212	58.2	68.1	8.86	1.277	90.3	0.172	0.869	358.0	532.1	0.719	---	-12.09	0.904	91.6	152.7	-58.6	0.215
4-6100	4-6250	0.462	104.6	-88.7	-21.20	1.276	90.6	0.171	0.868	356.2	540.2	0.719	1.017	18.08	0.903	90.0	227.3	53.8	0.307
4-6100	4-6260	0.203	66.1	-66.3	-8.35	1.277	90.8	0.172	0.869	354.5	547.9	0.719	1.018	5.33	0.903	88.4	205.2	37.4	0.121
4-6100	4-6270	0.163	70.8	-56.3	-6.08	1.278	91.2	0.175	0.871	352.0	554.8	0.718	1.023	3.17	0.906	86.9	194.1	25.0	0.105
4-6100	4-6280	0.149	76.8	-49.6	-5.10	1.279	91.7	0.179	0.873	348.8	561.2	0.717	1.030	2.30	0.909	85.6	189.8	17.2	0.108
4-6100	4-6290	0.145	83.4	-44.0	-4.53	1.281	92.3	0.184	0.877	345.0	567.0	0.716	1.038	1.84	0.913	84.3	189.4	11.7	0.117
4-6100	4-6300	0.147	90.4	-38.9	-4.14	1.283	93.0	0.190	0.881	340.8	572.4	0.713	1.048	1.57	0.918	83.1	191.4	7.3	0.128
4-6100	4-6310	0.153	97.3	-34.0	-3.84	1.285	93.9	0.198	0.885	336.1	577.3	0.709	1.060	1.40	0.923	81.9	195.0	3.4	0.142
4-6100	4-6320	0.164	104.0	-29.2	-3.59	1.287	94.9	0.208	0.889	330.9	581.9	0.704	1.074	1.30	0.928	80.6	199.8	-0.2	0.158
4-6100	4-6330	0.180	110.3	-24.6	-3.36	1.289	96.1	0.221	0.893	325.2	586.0	0.696	1.090	1.25	0.934	79.4	205.4	-3.5	0.176
4-6100	4-6340	0.202	116.3	-20.4	-3.15	1.291	97.5	0.236	0.898	319.1	589.6	0.686	1.110	1.23	0.940	78.0	211.9	-6.8	0.197
4-6100	4-6350	0.232	121.9	-16.4	-2.94	1.293	99.2	0.256	0.902	312.3	592.7	0.671	1.133	1.25	0.946	76.4	219.0	-9.8	0.222
4-6100	4-6360	0.270	127.4	-12.8	-2.71	1.295	101.3	0.282	0.907	304.6	595.1	0.651	1.162	1.31	0.952	74.6	226.9	-12.6	0.253
4-6100	4-6370	0.322	132.7	-9.6	-2.44	1.298	103.9	0.316	0.912	296.5	596.8	0.624	1.200	1.43	0.958	72.3	235.6	-15.1	0.294
4-6100	4-6380	0.392	138..	-6.7	-2.12	1.300	107.5	0.363	0.917	287.0	597.3	0.583	1.250	1.61	0.964	69.2	245.2	-17.2	0.348
4-6100	4-6380	0.783	174.1	-2.2	-2.12	1.078	130.4	0.660	0.618	218.7	889.0	0.210	1.025	1.61	0.633	109.7	346.9	-3.4	0.472
4-6100	4-6390	0.493	144.1	-4.1	-1.68	1.302	110.4	0.432	0.922	275.7	596.1	0.324	1.320	1.93	0.969	64.7	255.9	-18.8	0.425
4-6100	4-6390	0.738	174.7	-1.9	-1.68	1.061	126.1	0.635	0.605	218.3	898.7	0.221	0.988	1.93	0.609	92.3	334.0	-7.7	0.406
4-6100	4-6400	0.645	151.0	-1.7	-0.99	1.305	119.7	0.533	0.928	261.7	592.2	0.433	1.422	2.50	0.975	58.0	268.4	-19.6	0.543
4-6100	4-6400	0.781	175.7	-1.0	-0.99	1.056	130.5	0.667	0.600	216.4	906.9	0.200	1.000	2.50	0.601	76.7	322.7	-11.3	0.449
4-6100	4-6410	0.921	178.1	0.3	0.34	1.055	138.4	0.759	0.599	211.5	912.2	0.144	1.054	3.72	0.602	58.2	318.1	-12.8	0.594
4-6100	4-6450	0.921	292.8	-4.6	-6.30	1.017	41.7	0.766	0.572	151.2	892.6	0.134	1.011	-3.37	0.534	112.3	48.1	14.8	0.559
4-6100	4-6460	0.622	324.0	-3.7	-5.17	1.310	62.3	0.509	0.939	93.6	485.2	0.462	1.417	-2.35	0.983	120.5	111.2	18.1	0.520
4-6100	4-6470	0.480	331.7	-11.7	-4.54	1.313	69.3	0.418	0.945	78.3	480.0	0.550	1.340	-1.85	0.985	114.6	124.1	15.7	0.418
4-6100	4-6480	0.381	339.0	-13.8	-4.13	1.315	74.2	0.359	0.951	64.9	476.8	0.610	1.293	-1.57	0.986	110.9	135.7	12.6	0.353
4-6100	4-6490	0.310	346.6	-16.1	-3.82	1.318	78.0	0.320	0.957	52.7	474.5	0.651	1.263	-1.40	0.987	108.6	146.4	9.0	0.310
4-6100	4-6500	0.255	356.0	-18.5	-3.57	1.320	81.0	0.295	0.963	41.0	472.9	0.679	1.247	-1.30	0.988	107.1	156.7	5.1	0.282
4-6100	4-6510	0.213	7.3	-21.1	-3.34	1.323	83.6	0.279	0.969	29.7	471.5	0.699	1.240	-1.24	0.988	106.2	166.7	0.8	0.265
4-6100	4-6520	0.183	21.8	-23.3	-3.13	1.325	86.1	0.272	0.976	18.6	470.4	0.711	1.242	-1.23	0.989	105.7	176.6	-3.5	0.257
4-6100	4-6530	0.718	314.0	-4.2	-2.91	1.241	55.3	0.567	0.805	115.1	576.7	0.349	1.262	-1.26	0.869	58.1	46.0	15.5	0.542
4-6100	4-6530	0.164	40.1	-24.2	-2.91	1.328	88.4	0.271	0.984	7.7	469.3	0.718	1.250	-1.26	0.990	105.7	186.4	-7.9	0.256
4-6100	4-6540	0.639	317.5	-4.6	-2.68	1.250	60.1	0.511	0.821	107.8	579.2	0.402	1.240	-1.32	0.879	61.9	54.3	17.2	0.484
4-6100	4-6540	0.161	60.8	-22.8	-2.68	1.332	90.7	0.276	0.993	356.9	828.3	0.719	1.267	-1.32	0.992	106.0	196.3	-12.2	0.262
4-6100	4-6550	0.564	321.1	-4.9	-2.42	1.259	63.9	0.458	0.836	100.2	581.4	0.453	1.220	-1.44	0.889	65.2	62.9	18.4	0.430
4-6100	4-6550	0.173	80.3	-19.0	-2.42	1.336	93.0	0.287	1.003	346.4	827.5	0.715	1.291	-1.44	0.994	106.7	206.3	-16.2	0.275
4-6100	4-6560	0.495	324.9	-5.0	-2.10	1.267	67.3	0.411	0.851	92.3	583.2	0.501	1.200	-1.63	0.897	68.1	71.9	18.8	0.383
4-6100	4-6560	0.201	96.1	-14.1	-2.10	1.340	95.5	0.305	1.014	336.2	827.0	0.705	1.323	-1.63	0.997	107.7	216.3	-19.9	0.295
4-6100	4-6570	0.432	328.9	-4.7	-1.67	1.274	70.5	0.369	0.864	84.2	584.7	0.545	1.183	-1.93	0.905	70.6	81.0	18.3	0.341
4-6100	4-6570	0.241	108.1	-9.3	-1.67	1.344	98.2	0.329	1.027	326.3	826.8	0.689	1.364	-1.93	1.001	109.2	226.3	-23.3	0.322
4-6100	4-6580	0.375	333.3	-3.4	-1.02	1.280	73.3	0.334	0.876	75.8	585.9	0.583	1.168	-2.47	0.912	72.6	90.3	16.4	0.307
4-6100	4-6580	0.291	117.2	-4.7	-1.02	1.349	101.0	0.350	1.041	316.9	827.0	0.668	1.414	-2.47	1.006	110.9	236.2	-26.5	0.356
4-6100	4-6590	0.325	337.9	0.6	0.16	1.286	75.9	0.305	0.886	67.3	587.0	0.616	1.157	-3.54	0.918	74.3	99.3	12.0	0.281
4-6100	4-6590	0.349	124.3	0.6	0.16	1.355	104.0	0.393	1.057	308.1	827.7	0.641	1.473	-3.54	1.012	113.1	246.0	-30.0	0.397
4-6100	4-6600	0.290	342.6	14.4	3.28	1.290	78.1	0.282	0.896	58.8	568.0	0.643	1.148	-6.56	0.923	75.5	107.7	0.4	0.274
4-6100	4-6600	0.420	130.4	10.2	3.28	1.360	107.2	0.433	1.075	299.8	828.9	0.610	1.540	-6.56	1.019	115.5	255.0	-36.3	0.451
4-6100	4-6620	0.326	348.9	-52.1	-11.55	1.297	82.0	0.250	0.911	41.7	590.1	0.683	1.138	8.47	0.932	77.1	141.9	47.7	0.261
4-6100	4-6620	0.610	141.9	-24.3	-11.55	1.372	114.0	0.520	1.113	284.4	832.8	0.534	1.692	8.47	1.034	121.0	274.5	-9.9	0.559
4-6100	4-6630	0.592	340.6	-15.9	-6.98	1.439	67.6	0.591	1.408	62.5	260.4	---	2.240	4.01	1.121	97.1	123.2	26.3	0.610
4-6100	4-6630	0.238	0.7	-41.4	-6.98	1.300	83.7	0.241	0.917	33.5	591.4	0.696	1.137	4.01	0.937	77.5	143.5	32.3	0.221
4-6100	4-6640	0.538	345.1	-14.1	-5.54	1.441	70.1	0.576	1.421	56.1	263.6	---	2.238	2.68	1.125	58.6	131.2	22.7	0.587
4-6100	4-6640	0.201	10.9	-38.7	-5.54	1.302	85.3	0.234	0.922	25.4	592.8	0.706	1.138	2.68	0.941	77.7	150.5	24.7	0.209
4-6100	4-6650	0.490	350.0	-13.6	-4.80	1.443	72.6	0.562	1.433	49.7	266.6	---	2.237	2.05	1.129	59.9	139.2	19.6	0.548
4-6100	4-6650	0.177	22.6	-38.0	-4.80	1.305	86.8	0.231	0.927	17.4	594.3	0.713	1.141	2.05	0.945	77.8	158.2	19.2	0.204
4-6100	4-6660	0.444	355.4	-13.7	-4.33	1.445	75.0	0.549	1.444	63.0	269.6	---	2.237	1.70	1.133	61.1	147.1	16.6	0.537

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6100	4-6660	0.161	36.3	-37.7	-4.32	1.307	88.3	0.230	0.931	9.4	595.9	0.717	1.145	1.70	0.950	77.7	166.3	14.4	0.203
4-6100	4-6670	0.402	2.1	-14.2	-3.99	1.447	77.5	0.539	1.454	36.1	272.3	---	2.237	1.48	1.337	62.2	155.1	13.4	0.518
4-6100	4-6670	0.153	51.7	-36.5	-3.99	1.308	89.7	0.231	0.935	1.4	597.6	0.719	1.151	1.48	0.954	77.5	174.0	10.0	0.204
4-6100	4-6680	0.362	10.0	-14.8	-3.71	1.448	80.1	0.530	1.464	28.9	274.8	---	2.239	1.35	1.141	65.2	163.1	10.2	0.501
4-6100	4-6680	0.152	67.5	-33.8	-3.71	1.310	91.2	0.235	0.939	353.4	959.3	0.718	1.159	1.35	0.959	77.1	182.0	5.7	0.209
4-6100	4-6690	0.328	19.7	-15.4	-3.48	1.459	82.7	0.523	1.473	21.4	277.0	---	2.243	1.27	1.145	64.0	171.1	6.7	0.488
4-6100	4-6690	0.160	82.5	-29.8	-3.48	1.311	92.8	0.241	0.942	345.3	960.9	0.715	1.169	1.27	0.963	76.6	190.2	1.6	0.217
4-6100	4-6700	0.300	31.8	-16.0	-3.26	1.451	85.4	0.519	1.481	13.4	278.8	---	2.249	1.24	1.149	64.6	179.4	3.2	0.479
4-6100	4-6700	0.176	95.5	-25.1	-3.26	1.313	94.6	0.251	0.945	337.0	962.4	0.708	1.183	1.24	0.968	75.9	198.5	-2.3	0.229
4-6100	4-6700	0.510	156.8	-7.0	-3.26	1.204	114.7	0.419	0.751	250.6	1235.9	0.436	1.065	1.24	0.814	105.5	322.0	-11.7	0.316
4-6100	4-6700	0.722	161.2	-4.5	-3.26	1.223	124.9	0.576	1.778	241.3	1226.6	0.330	1.227	1.24	0.843	121.4	333.0	-9.4	0.534
4-6110	4-6150	0.439	79.9	-12.6	-3.41	1.612	92.0	0.868	5.419	355.8	426.7	0.718	---	-2.19	1.349	120.7	195.0	-10.4	0.661
4-6110	4-6160	0.307	79.5	-14.8	-3.03	1.481	91.4	0.577	1.696	356.0	436.8	0.718	---	-2.09	1.187	116.4	198.3	-12.4	0.516
4-6110	4-6170	0.227	76.3	-16.7	-2.67	1.402	90.7	0.413	1.224	357.8	448.3	0.719	---	-2.07	1.085	112.2	201.5	-14.7	0.395
4-6110	4-6180	0.177	70.7	-18.0	-2.32	1.353	89.8	0.316	1.050	0.7	101.0	---	---	-2.10	1.018	108.2	204.4	-17.3	0.307
4-6110	4-6190	0.146	63.6	-17.8	-1.94	1.322	89.1	0.256	0.966	4.2	114.2	---	---	-2.20	0.974	104.6	206.3	-20.1	0.240
4-6110	4-6200	0.128	56.6	-15.6	-1.52	1.302	88.6	0.220	0.920	7.0	127.5	---	---	-2.38	0.944	101.4	206.7	-23.5	0.190
4-6110	4-6210	0.116	51.0	-11.2	-1.00	1.290	88.2	0.198	0.894	10.8	140.1	---	---	-2.67	0.925	98.5	204.7	-27.7	0.153
4-6110	4-6220	0.109	47.3	-3.8	-0.33	1.283	88.0	0.186	0.879	12.8	151.6	---	---	-3.14	0.913	96.0	199.2	-33.0	0.128
4-6110	4-6230	0.107	45.7	8.0	0.67	1.279	87.9	0.178	0.871	13.6	162.1	---	---	-3.95	0.906	93.2	189.1	-39.4	0.117
4-6110	4-6240	0.116	45.7	27.6	2.41	1.277	88.0	0.175	0.867	13.4	171.4	---	---	-5.51	0.903	93.8	174.3	-46.8	0.124
4-6110	4-6250	0.174	45.7	57.3	6.59	1.276	88.2	0.173	0.866	12.4	179.8	---	---	-9.51	0.902	90.1	155.6	-54.9	0.176
4-6110	4-6260	0.701	272.5	80.4	32.78	1.277	88.3	0.174	0.868	11.3	187.7	---	1.018	-35.53	0.903	88.4	148.7	-60.9	0.581
4-6110	4-6270	0.436	19.7	-86.0	-19.88	1.278	89.0	0.175	0.870	6.4	195.6	---	1.022	17.31	0.905	87.2	226.7	52.4	0.298
4-6110	4-6280	0.231	62.1	-70.0	-9.76	1.280	89.5	0.177	0.873	3.6	200.0	---	1.020	7.36	0.909	85.8	208.6	40.9	0.156
4-6110	4-6290	0.179	71.5	-60.2	-6.96	1.282	90.0	0.180	0.877	359.9	565.7	0.719	1.035	4.74	0.913	84.7	200.9	28.6	0.133
4-6110	4-6300	0.157	80.7	-52.8	-5.60	1.284	90.7	0.185	0.881	355.6	571.0	0.718	1.044	3.56	0.918	83.5	199.3	17.2	0.133
4-6110	4-6310	0.148	90.0	-46.1	-4.75	1.286	91.5	0.190	0.886	350.9	576.0	0.717	1.054	2.92	0.924	82.5	200.9	12.3	0.139
4-6110	4-6320	0.146	99.3	-39.7	-4.15	1.288	92.3	0.197	0.890	345.7	580.5	0.715	1.066	2.53	0.929	81.4	204.4	6.7	0.150
4-6110	4-6330	0.150	108.2	-33.3	-3.68	1.291	93.3	0.205	0.895	340.2	584.7	0.711	1.079	2.29	0.936	80.4	209.1	2.1	0.162
4-6110	4-6340	0.161	116.5	-27.2	-3.27	1.293	94.5	0.215	0.900	334.2	588.5	0.706	1.094	2.15	0.942	79.3	214.9	-2.0	0.176
4-6110	4-6350	0.178	124.1	-21.5	-2.90	1.295	95.8	0.228	0.905	327.7	591.9	0.698	1.111	2.08	0.948	78.2	221.5	-5.6	0.195
4-6110	4-6360	0.202	131.1	-16.4	-2.55	1.297	97.4	0.245	0.909	320.7	594.8	0.687	1.132	2.07	0.954	76.9	228.7	-8.8	0.217
4-6110	4-6370	0.235	137.5	-11.9	-2.18	1.300	99.3	0.266	0.914	313.1	597.2	0.671	1.158	2.13	0.960	75.3	236.7	-11.6	0.244
4-6110	4-6380	0.280	143.6	-8.1	-1.77	1.302	101.7	0.294	0.919	304.8	598.9	0.648	1.190	2.26	0.965	73.4	245.4	-13.9	0.278
4-6110	4-6390	0.340	149.5	-4.8	-1.29	1.304	104.7	0.333	0.924	295.5	599.7	0.616	1.232	2.50	0.971	70.9	254.9	-15.6	0.323
4-6110	4-6390	0.836	189.4	-1.2	-1.29	1.103	132.8	0.686	0.638	219.4	883.6	0.200	1.076	2.50	0.676	119.5	5.4	5.3	0.547
4-6110	4-6400	0.423	155.5	-2.0	-0.68	1.307	108.8	0.387	0.929	284.8	599.1	0.569	1.289	2.89	0.976	67.5	265.3	-16.6	0.385
4-6110	4-6400	0.722	189.6	-0.8	-0.68	1.075	127.0	0.617	0.614	220.3	894.5	0.235	0.993	2.89	0.632	98.7	351.9	1.4	0.405
4-6110	4-6410	0.544	162.1	0.4	0.19	1.309	114.6	0.467	0.935	272.1	596.5	0.498	1.371	3.55	0.981	62.3	276.8	-16.8	0.476
4-6110	4-6410	0.730	190.3	0.2	0.19	1.066	127.5	0.626	0.607	219.1	903.5	0.227	0.988	3.55	0.620	84.2	339.7	-2.7	0.405
4-6110	4-6420	0.816	191.9	1.6	1.65	1.064	132.3	0.687	0.605	216.1	910.7	0.190	1.021	4.81	0.617	88.7	332.0	-5.6	0.498
4-6110	4-6470	0.867	310.4	-5.9	-7.01	1.028	45.0	0.727	0.579	148.5	894.1	0.158	1.000	-4.79	0.549	105.1	63.6	16.1	0.505
4-6110	4-6480	0.564	343.6	-11.9	-5.57	1.317	65.3	0.473	0.953	86.5	482.1	0.502	1.404	-3.54	0.987	118.2	132.5	11.0	0.479
4-6110	4-6490	0.441	351.1	-13.5	-4.71	1.319	71.4	0.398	0.959	72.0	477.8	0.577	1.341	-2.89	0.988	113.4	144.2	7.2	0.395
4-6110	4-6500	0.353	358.8	-15.0	-4.10	1.322	75.7	0.349	0.965	59.2	474.9	0.628	1.302	-2.50	0.989	110.4	155.0	3.1	0.341
4-6110	4-6510	0.288	7.3	-16.6	-3.63	1.324	79.2	0.317	0.971	47.2	472.8	0.663	1.279	-2.27	0.989	108.4	165.2	-1.2	0.306
4-6110	4-6520	0.237	17.5	-18.1	-3.23	1.327	82.1	0.296	0.977	35.7	471.3	0.688	1.267	-2.13	0.989	107.2	175.1	-5.7	0.284
4-6110	4-6530	0.199	30.3	-19.4	-2.86	1.329	84.6	0.284	0.984	24.5	470.0	0.704	1.264	-2.07	0.990	106.5	185.0	-10.1	0.271
4-6110	4-6540	0.782	327.9	-3.2	-2.51	1.239	52.6	0.613	0.801	119.7	575.0	0.310	1.291	-2.07	0.861	54.8	57.0	17.4	0.590
4-6110	4-6540	0.172	46.7	-19.7	-2.51	1.332	87.0	0.280	0.991	13.6	468.8	0.714	1.269	-2.07	0.991	106.2	195.0	-14.4	0.267
4-6110	4-6550	0.700	331.3	-3.2	-2.14	1.248	56.8	0.556	0.817	112.8	577.7	0.362	1.271	-2.14	0.872	58.7	65.3	18.5	0.530
4-6110	4-6550	0.160	66.3	-18.2	-2.14	1.335	89.4	0.281	1.000	2.9	467.8	0.718	1.281	-2.14	0.993	106.3	205.1	-18.5	0.270
4-6110	4-6560	0.623	334.8	-3.1	-1.75	1.257	60.8	0.504	0.832	105.5	580.2	0.414	1.250	-2.27	0.883	62.2	73.9	18.9	0.475
4-6110	4-6560	0.164	86.6	-14.4	-1.75	1.339	91.7	0.289	1.009	352.3	826.9	0.717	1.301	-2.27	0.995	106.8	215.4	-22.3	0.279
4-6110	4-6570	0.551	338.4	-2.7	-1.29	1.266	64.4	0.453	0.847	98.1	582.3	0.463	1.230	-2.50	0.892	65.4	82.6	18.5	0.424
4-6110	4-6570	0.184	104.2	-9.4	-1.29	1.342	94.2	0.303	1.019	342.0	826.3	0.711	1.328	-2.50	0.998	107.6	225.8	-25.7	0.296
4-6110	4-6580	0.485	342.1	-1.7	-0.71	1.273	67.7	0.408	0.860	90.3	584.2	0.509	1.212	-2.86	0.900	68.1	91.5	17.1	0.360
4-6110	4-6580	0.219	118.0	-4.3	-0.71	1.347	96.7	0.323	1.031	332.1	825.9	0.698	1.364	-2.86	1.002	108.8	236.3	-28.6	0.320
4-6110	4-6590	0.425	346.1	0.3	0.09	1.280	70.7	0.370	0.873	82.4	585.8	0.550	1.196	-3.47	0.908	70.3	100.3	14.4	0.343
4-6110	4-6590	0.265	128.4	0.5	0.09	1.351	99.4	0.349	1.045	322.6	826.0	0.480	1.409	-3.47	1.007	110.4	246.9	-31.2	0.350
4-6110	4-6600	0.373	350.2	4.5	1.36	1.285	73.4	0.337	0.884	74.3	587.3	0.587	1.182	-4.55	0.915	72.2	108.7	9.5	0.314
4-6110	4-6600	0.321	336.6	5.6	1.36	1.356	102.3	0.388	1.060	313.5	826.5	0.657	1.463	-4.55	1.012	112.2	257.3	-34.0	0.389
4-6110	4-6610	0.335	354.3	14.5	3.85	1.290	75.9	0.310	0.894	66.2	588.6	0.617	1.171	-6.86	0.921	73.7	116.4	0.2	0.300
4-6110	4-6610	0.391	143.4	13.0	3.85	1.362	105.4	0.415	1.076	305.0	827.4	0.629	1.524	-6.86	1.019	114.4	267.4	-36.1	0.438
4-6110	4-6620	0.380	354.4	43.2	11.85	1.295	78.0	0.288	0.903	58.1	589.9	0.643	1.163	-14.69	0.927	74.9	123.2	-21.5	0.352
4-6110	4-6620	0.516	151.7	31.1	11.85	1.367	108.6	0.459	1.094	297.0	828.8	0.596	1.592	-14.69	1.026	116.8	279.6	-49.5	0.528
4-6110	4-6640	0.352	4.0	-55.7	-13.03	1.301	81.9	0.256	0.918	41.2	592.6	0.682	1.153	10.54	0.938	76.4	166.2	45.3	0.285
4-6110	4-6650	0.587	357.6	-18.8	-8.13	1.442	88.2	0.590	1.422	60.7	261.6	---	2.261	5.81	1.126	57.4	144.0	23.9	0.607
4-6110	4-6650	0.256	16.7	-45.8	-8.13	1.304	83.6	0.247	0.924	33.2	594.1	0.695	1.152	5.81	0.943	76.8	165.4	31.4	0.237
4-6110	4-6660	0.531	2.4	-16.2	-6.22	1.444	70.7	0.575	1.434	54.4	264.8	---	2.259	4.08	1.131	58.8	151.1	19.1	0.578
4-6110	4-6660	0.211	27.4	-41.8	-6.22	1.306	85.2	0.241	0.929	25.3	595.7	0.705	1.152	4.08	0.948	77.1	170.7	22.8	0.222
4-6110	4-6670	0.481	7.6	-15.0	-5.16	1.446	73.2	0.562	1.446	47.9	267.9	---	2.258	3.21	1.135	60.2	158.5	15.2	0.554
4-6110	4-6670	0.183	39.4	-39.8	-5.16	1.308	86.7	0.237	0.933	17.3	597.3	0.712	1.154	3.21	0.953	77.1	177.5	16.4	0.215
4-6110	4-6680	0.434	13.5	-14.5	-4.44	1.448	75.6	0.550	1.457	41.2	270.9	---	2.258	2.71	1.139	61.4	166.0	11.5	0.533
4-6110	4-6680	0.165	53.4	-38.1	-4.44	1.310	88.2	0.235	0.938	9.3	599.0	0.717	1.159	2.71	0.958	77.1	184.8	11.0	0.213
4-6110	4-6690	0.391	20.5	-14.3	-3.92	1.450	78.2	0.540	1.467	34.2	273.6	---	2.258	2.40	1.144	62.5	173.7	7.9	0.515
4-6110	4-6690	0.154	69.1	-35.5	-3.92	1.312	89.7	0.237	0.942	1.3	600.7	0.719	1.165	2.40	0.963	76.9	192.4	6.1	0.215
4-6110	4-6700	0.352	28.9	-14.3	-3.48	1.451	80.7	0.531	1.476	26.9	276.1	---	2.261	2.21	1.148	63.4	181.5	4.3	0.499
4-6110	4-6700	0.153	85.2	-31.5	-3.48	1.313	91.3	0.241	0.945	353.2	962.3	0.718	1.173	2.21	0.968	76.5	200.3	1.7	0.220

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6110	4-6710	0.318	39.4	-14.2	-3.10	1.452	83.4	0.525	1.485	19.3	278.3	---	2.265	2.10	1.152	64.2	189.6	0.7	0.488
4-6110	4-6710	0.160	100.3	-26.2	-3.10	1.315	93.0	0.248	0.948	344.8	963.2	0.714	1.183	2.10	0.973	76.0	208.5	-2.4	0.229
4-6120	4-6150	0.554	76.1	-12.3	-3.95	1.720	86.0	1.124	-5.745	7.6	62.3	---	---	-3.35	1.476	123.2	197.4	-12.8	0.827
4-6120	4-6160	0.362	74.4	-14.1	-3.31	1.529	86.7	0.681	2.240	8.2	72.7	---	---	-3.03	1.246	118.4	200.0	-14.5	0.587
4-6120	4-6170	0.260	69.3	-15.4	-2.78	1.424	86.6	0.459	1.320	10.8	85.1	---	---	-2.84	1.112	113.8	202.5	-16.6	0.435
4-6120	4-6180	0.203	61.8	-15.5	-2.29	1.362	86.2	0.337	1.075	14.9	99.0	---	---	-2.75	1.029	109.4	204.7	-19.0	0.330
4-6120	4-6190	0.172	53.7	-14.2	-1.83	1.324	85.6	0.268	0.970	19.9	114.7	---	---	-2.74	0.976	105.4	205.9	-21.7	0.254
4-6120	4-6200	0.158	46.8	-11.4	-1.35	1.301	85.5	0.229	0.916	24.6	128.0	---	---	-2.81	0.942	101.9	205.7	-24.7	0.199
4-6120	4-6210	0.146	41.9	-7.4	-0.84	1.287	85.3	0.207	0.887	28.2	141.3	---	---	-2.97	0.921	98.8	203.1	-28.3	0.159
4-6120	4-6220	0.141	39.2	-2.3	-0.25	1.279	85.2	0.194	0.872	30.5	153.1	---	---	-3.25	0.908	96.1	197.4	-32.2	0.132
4-6120	4-6230	0.138	38.2	4.4	0.47	1.275	85.2	0.187	0.864	31.3	163.5	---	---	-3.69	0.901	93.7	188.5	-36.1	0.117
4-6120	4-6240	0.138	38.5	13.6	1.46	1.274	85.4	0.183	0.861	30.8	172.5	---	---	-4.42	0.898	91.7	177.6	-39.8	0.115
4-6120	4-6250	0.145	39.8	27.1	2.98	1.274	85.6	0.181	0.861	29.3	180.5	---	1.017	-5.69	0.897	89.9	166.9	-43.8	0.127
4-6120	4-6260	0.177	41.0	46.8	5.85	1.275	86.0	0.181	0.862	27.0	187.7	---	1.018	-8.30	0.899	88.3	156.9	-49.6	0.162
4-6120	4-6270	0.318	32.1	72.2	13.77	1.276	86.3	0.181	0.866	24.3	194.3	---	1.023	-16.01	0.902	86.9	147.7	-58.1	0.279
4-6120	4-6290	0.397	32.4	-81.0	-17.85	1.281	87.7	0.183	0.875	15.1	205.1	---	1.034	16.07	0.911	84.7	226.1	48.7	0.286
4-6120	4-6300	0.236	63.4	-67.9	-9.83	1.283	88.3	0.185	0.880	11.0	210.3	---	1.043	8.28	0.917	83.6	213.0	37.0	0.181
4-6120	4-6310	0.183	75.5	-58.6	-6.97	1.286	89.0	0.189	0.885	6.2	215.1	---	1.052	5.66	0.923	82.7	209.1	25.3	0.15
4-6120	4-6320	0.157	86.8	-51.0	-5.44	1.289	89.8	0.193	0.890	1.0	219.6	---	1.062	4.39	0.929	81.8	210.0	16.3	0.157
4-6120	4-6330	0.145	98.2	-43.7	-4.45	1.291	90.8	0.198	0.895	355.5	583.8	0.718	1.073	3.66	0.936	80.9	213.3	9.3	0.162
4-6120	4-6340	0.141	109.5	-36.3	-3.71	1.294	91.8	0.205	0.901	349.5	587.7	0.716	1.085	3.22	0.942	80.0	218.1	3.7	0.171
4-6120	4-6350	0.145	120.2	-28.9	-3.12	1.296	92.9	0.213	0.906	343.2	591.2	0.713	1.099	2.95	0.949	79.2	223.9	-0.9	0.183
4-6120	4-6360	0.157	130.1	-21.9	-2.60	1.299	94.2	0.223	0.911	336.5	594.4	0.708	1.115	2.80	0.955	78.2	230.6	-4.8	0.198
4-6120	4-6370	0.177	138.9	-15.6	-2.11	1.301	95.7	0.237	0.916	329.3	597.1	0.699	1.133	2.74	0.961	77.1	238.1	-8.6	0.216
4-6120	4-6380	0.205	146.7	-10.3	-1.63	1.303	97.5	0.255	0.921	321.5	599.4	0.687	1.156	2.76	0.967	75.9	246.2	-10.6	0.239
4-6120	4-6390	0.244	152.9	-5.9	-1.12	1.306	99.7	0.278	0.926	313.1	601.0	0.669	1.184	2.88	0.972	74.3	255.0	-12.5	0.267
4-6120	4-6400	0.295	160.5	-2.4	-0.55	1.308	102.4	0.309	0.932	303.9	601.9	0.643	1.220	3.10	0.977	72.3	264.4	-13.8	0.304
4-6120	4-6410	0.366	166.9	0.5	0.14	1.310	105.8	0.353	0.937	293.6	601.7	0.606	1.268	3.48	0.982	69.5	274.5	-14.3	0.355
4-6120	4-6410	0.724	204.6	0.2	0.14	1.088	126.9	0.612	0.625	221.9	890.1	0.243	1.008	3.48	0.657	104.8	9.8	9.9	0.421
4-6120	4-6420	0.465	173.5	2.8	1.07	1.313	110.6	0.416	0.942	281.7	600.0	0.550	1.335	4.12	0.986	65.5	285.4	-14.0	0.427
4-6120	4-6420	0.699	205.2	1.3	1.07	1.077	125.6	0.598	0.616	221.3	899.6	0.248	0.984	4.12	0.639	90.6	357.3	6.3	0.382
4-6120	4-6430	0.611	180.8	4.7	2.46	1.315	117.6	0.510	0.948	267.3	595.8	0.464	1.432	5.24	0.990	59.4	297.6	-12.5	0.536
4-6120	4-6430	0.746	206.2	2.8	2.46	1.073	128.1	0.632	0.612	219.4	907.9	0.225	0.999	5.24	0.633	76.9	347.1	2.6	0.431
4-6120	4-6440	0.880	208.6	4.3	5.00	1.072	135.4	0.722	0.612	214.9	913.5	0.170	1.054	7.52	0.632	60.5	343.6	0.9	0.570
4-6120	4-6480	0.951	325.9	-6.9	-9.74	1.041	40.6	0.773	0.588	150.1	889.7	0.134	1.043	-9.19	0.568	119.9	86.7	16.6	0.594
4-6120	4-6490	0.672	354.9	-11.7	-6.84	1.320	60.2	0.543	0.960	96.1	485.7	0.439	1.482	-5.55	0.989	122.9	140.0	6.9	0.559
4-6120	4-6490	0.831	327.7	-6.3	-6.84	1.038	47.1	0.701	0.586	146.6	896.2	0.175	0.996	-5.55	0.558	98.8	77.9	16.4	0.469
4-6120	4-6500	0.515	3.0	-12.8	-5.33	1.323	67.8	0.447	0.967	80.1	479.7	0.535	1.399	-4.30	0.990	116.5	152.2	2.3	0.449
4-6120	4-6510	0.407	10.7	-13.7	-4.35	1.325	73.0	0.384	0.973	66.4	475.8	0.599	1.347	-3.60	0.990	112.6	163.1	-2.3	0.379
4-6120	4-6520	0.327	18.8	-14.5	-3.63	1.328	77.0	0.343	0.979	53.9	473.2	0.643	1.315	-3.18	0.990	110.0	173.5	-6.9	0.334
4-6120	4-6530	0.267	28.1	-15.2	-3.05	1.330	80.3	0.316	0.985	42.1	471.3	0.674	1.296	-2.93	0.991	108.4	183.6	-11.4	0.306
4-6120	4-6540	0.220	39.5	-15.5	-2.54	1.333	83.1	0.299	0.992	30.8	469.8	0.695	1.288	-2.79	0.991	107.4	193.7	-15.8	0.288
4-6120	4-6550	0.185	54.0	-15.0	-2.07	1.335	85.6	0.290	0.999	19.7	468.5	0.709	1.289	-2.74	0.992	106.9	204.0	-20.0	0.280
4-6120	4-6560	0.763	345.2	-2.1	-1.61	1.246	53.5	0.602	0.812	117.6	576.0	0.324	1.301	-2.77	0.866	55.4	76.5	19.4	0.577
4-6120	4-6560	0.164	72.0	-13.2	-1.61	1.338	88.0	0.288	1.007	8.9	467.3	0.717	1.297	-2.77	0.994	106.8	214.5	-23.8	0.280
4-6120	4-6570	0.685	348.5	-1.7	-1.12	1.255	57.6	0.548	0.828	110.7	578.7	0.374	1.281	-2.88	0.877	59.1	85.0	19.2	0.520
4-6120	4-6570	0.160	92.2	-9.4	-1.12	1.341	90.4	0.293	1.015	358.3	826.3	0.718	1.313	-2.88	0.996	107.0	225.2	-27.1	0.286
4-6120	4-6580	0.611	352.0	-1.0	-0.58	1.264	61.4	0.497	0.843	103.6	581.2	0.424	1.261	-2.09	0.887	62.4	93.5	18.2	0.468
4-6120	4-6580	0.173	111.3	-4.5	-0.58	1.345	92.8	0.303	1.025	348.0	825.6	0.715	1.336	-3.09	0.999	107.6	236.2	-29.9	0.299
4-6120	4-6590	0.582	355.5	0.1	0.07	1.271	64.8	0.450	0.857	96.2	583.4	0.471	1.242	-3.44	0.896	65.4	102.0	16.3	0.421
4-6120	4-6590	0.202	127.0	0.5	0.07	1.349	95.3	0.319	1.036	337.9	825.1	0.706	1.367	-3.44	1.003	108.6	247.3	-32.2	0.320
4-6120	4-6600	0.479	359.2	2.2	0.90	1.278	66.0	0.408	0.870	88.7	585.4	0.515	1.224	-3.99	0.905	67.9	110.3	13.2	0.380
4-6120	4-6600	0.244	139.1	4.9	0.90	1.353	97.9	0.341	1.049	328.2	824.9	0.691	1.407	-3.99	1.008	109.9	258.4	-34.0	0.347
4-6120	4-6610	0.424	3.0	6.0	2.09	1.284	70.9	0.371	0.882	81.0	587.2	0.555	1.209	-4.93	0.913	70.0	118.3	8.4	0.347
4-6120	4-6610	0.297	168.4	9.4	2.09	1.358	100.7	0.369	1.063	319.0	825.2	0.671	1.455	-4.93	1.013	111.5	269.4	-35.7	0.381
4-6120	4-6620	0.380	6.7	13.3	4.07	1.290	73.5	0.346	0.892	73.1	588.9	0.589	1.196	-6.66	0.920	71.7	125.6	0.8	0.326
4-6120	4-6620	0.362	156.0	15.0	4.07	1.363	103.7	0.401	1.079	310.2	825.9	0.646	1.511	-6.66	1.020	113.5	286.2	-38.0	0.425
4-6120	4-6630	0.370	9.3	29.5	8.37	1.294	75.8	0.314	0.902	65.3	590.4	0.618	1.186	-10.73	0.927	73.1	131.7	-13.1	0.332
4-6120	4-6630	0.452	162.2	24.9	8.37	1.368	106.8	0.438	1.095	302.0	827.1	0.616	1.575	-10.73	1.027	115.7	290.7	-43.1	0.486
4-6120	4-6640	0.628	349.4	63.7	26.33	1.298	77.8	0.295	0.910	57.8	592.0	0.642	1.179	-28.46	0.933	74.1	139.9	-42.0	0.532
4-6120	4-6650	0.744	332.5	-70.6	-33.19	1.302	80.2	0.273	0.918	48.2	593.5	0.667	1.169	31.29	0.940	75.3	209.0	51.1	0.565
4-6120	4-6660	0.348	21.3	-55.0	-12.76	1.305	81.9	0.262	0.924	40.8	595.2	0.682	1.167	11.09	0.945	75.8	184.2	38.6	0.296
4-6120	4-6670	0.576	15.0	-19.5	-8.20	1.445	66.8	0.589	1.435	59.0	262.9	---	2.282	6.77	1.133	57.7	165.4	18.7	0.603
4-6120	4-6670	0.258	33.6	-45.9	-8.20	1.307	83.5	0.253	0.930	33.0	596.9	0.695	1.165	6.77	0.951	76.2	184.2	26.4	0.251
4-6120	4-6680	0.519	20.0	-16.4	-6.15	1.447	71.3	0.575	1.448	52.6	266.2	---	2.280	4.96	1.137	59.2	169.9	13.5	0.575
4-6120	4-6680	0.212	44.5	-41.3	-6.15	1.310	85.1	0.246	0.935	25.3	598.6	0.705	1.166	4.96	0.957	76.4	189.0	18.1	0.234
4-6120	4-6690	0.468	25.5	-14.8	-4.92	1.449	73.8	0.562	1.459	46.1	269.3	---	2.278	4.00	1.142	60.5	176.9	9.2	0.551
4-6120	4-6690	0.182	56.8	-38.2	-4.92	1.312	86.7	0.242	0.940	17.1	600.4	0.712	1.168	4.00	0.962	76.5	195.4	11.6	0.227
4-6120	4-6700	0.422	31.7	-13.7	-4.07	1.450	76.3	0.550	1.469	39.3	272.3	---	2.278	3.43	1.147	61.7	184.3	5.3	0.530
4-6120	4-6700	0.162	71.1	-35.3	-4.07	1.313	88.2	0.241	0.944	9.1	602.1	0.717	1.172	3.43	0.967	76.5	202.6	6.2	0.224
4-6120	4-6710	0.379	39.2	-13.0	-3.42	1.452	78.8	0.541	1.479	32.2	275.0	---	2.279	3.08	1.151	62.8	191.9	1.6	0.513
4-6120	4-6710	0.151	87.1	-31.3	-3.42	1.315	89.8	0.242	0.948	0.9	603.7	0.718	1.178	3.08	0.973	76.3	210.3	1.5	0.226
4-6120	4-6720	0.340	48.3	-12.2	-2.86	1.453	81.4	0.533	1.488	24.8	277.5	---	2.281	2.87	1.155	63.7	199.8	-1.9	0.499
4-6120	4-6720	0.150	103.5	-26.0	-2.86	1.316	91.5	0.246	0.952	352.5	965.2	0.717	1.186	2.87	0.978	76.0	218.4	-2.6	0.252
4-6130	4-6160	0.487	68.6	-13.0	-4.00	1.594	79.7	0.832	4.133	22.8	71.1	---	---	-4.27	1.326	121.8	200.4	-16.0	0.698
4-6130	4-6170	0.338	62.2	-13.4	-3.15	1.444	81.0	0.516	1.430	26.7	84.9	---	---	-3.76	1.138	116.2	202.1	-17.7	0.490
4-6130	4-6180	0.265	54.4	-12.6	-2.46	1.364	81.4	0.364	1.082	32.7	100.6	---	---	-3.44	1.032	111.0	203.4	-19.7	0.360
4-6130	4-6190	0.230	47.3	-10.7	-1.87	1.318	81.6	0.287	0.957	39.3	116.8	---	---	-3.27	0.968	106.4	203.7	-21.9	0.272
4-6130	4-6200	0.212	42.1	-8.0	-1.32	1.292	81.6	0.246	0.898	44.9	132.1	---	---	-3.19	0.930	102.3	202.4	-24.4	0.210
4-6130	4-6210	0.201	38.9	-4.9	-0.78	1.278	81.6	0.225	0.869	48.7	145.6	---	---	-3.21	0.908	98.9	198.8	-27.0	0.166

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6130	4-6220	0.194	37.4	-1.4	-0.22	1.270	81.8	0.213	0.854	50.6	157.0	---	---	-3.32	0.895	95.9	192.7	-29.4	0.138
4-6130	4-6230	0.189	37.2	2.6	0.39	1.267	82.0	0.206	0.848	50.8	166.7	---	---	-3.55	0.889	93.4	184.6	-31.3	0.122
4-6130	4-6240	0.184	38.0	7.6	1.11	1.266	82.3	0.201	0.847	49.6	175.1	---	---	-3.92	0.887	91.2	176.2	-32.6	0.117
4-6130	4-6250	0.181	39.5	12.2	2.03	1.267	82.6	0.198	0.848	47.5	182.5	---	1.017	-4.51	0.888	89.4	169.1	-34.2	0.121
4-6130	4-6260	0.183	41.4	23.5	3.31	1.269	83.1	0.196	0.852	44.6	189.0	---	1.020	-5.50	0.891	87.8	164.0	-37.1	0.133
4-6130	4-6270	0.197	43.4	36.9	5.39	1.271	83.6	0.195	0.857	41.1	195.0	---	1.024	-7.28	0.896	86.4	160.1	-42.3	0.158
4-6130	4-6280	0.256	42.8	55.9	9.62	1.274	84.2	0.195	0.863	37.2	200.7	---	1.030	-11.24	0.901	85.2	155.9	-50.9	0.215
4-6130	4-6290	0.534	4.0	77.2	24.17	1.278	84.7	0.195	0.869	33.5	206.0	---	1.038	-25.52	0.907	84.1	154.5	-63.3	0.433
4-6130	4-6310	0.348	50.4	-74.6	-15.17	1.264	86.5	0.194	0.881	21.7	214.7	---	1.052	14.36	0.921	82.5	226.9	42.4	0.272
4-6130	4-6320	0.225	71.3	-62.3	-8.90	1.287	87.3	0.196	0.888	16.6	219.1	---	1.061	9.38	0.928	81.7	219.2	29.9	0.198
4-6130	4-6330	0.176	83.7	-53.6	-6.24	1.290	88.2	0.198	0.894	11.0	223.2	---	1.071	8.00	0.935	81.0	218.8	19.1	0.180
4-6130	4-6340	0.150	96.0	-45.0	-4.72	1.293	89.1	0.202	0.900	5.1	227.0	---	1.081	6.77	0.942	80.3	221.7	10.9	0.178
4-6130	4-6350	0.138	108.7	-37.1	-3.68	1.296	90.2	0.207	0.906	358.8	590.6	0.719	1.093	6.06	0.949	79.6	226.5	4.6	0.183
4-6130	4-6360	0.135	121.5	-29.0	-2.88	1.299	91.4	0.213	0.912	352.2	593.9	0.717	1.106	5.62	0.955	78.9	232.5	-0.4	0.191
4-6130	4-6370	0.141	133.7	-21.0	-2.22	1.301	92.7	0.221	0.917	345.2	596.8	0.714	1.120	5.36	0.962	78.1	239.4	-4.4	0.203
4-6130	4-6380	0.155	144.8	-13.8	-1.63	1.304	94.1	0.232	0.923	337.8	599.4	0.709	1.137	5.22	0.968	77.2	247.1	-7.5	0.218
4-6130	4-6390	0.179	154.6	-7.8	-1.07	1.306	95.8	0.247	0.928	329.8	601.5	0.699	1.157	5.19	0.973	76.2	255.4	-9.9	0.237
4-6130	4-6400	0.213	163.2	-3.0	-0.50	1.309	97.8	0.266	0.934	321.3	603.1	0.686	1.182	5.26	0.978	74.9	264.2	-11.4	0.261
4-6130	4-6410	0.258	170.9	0.6	0.12	1.311	100.3	0.291	0.939	312.1	604.1	0.665	1.213	5.44	0.983	73.3	273.6	-12.2	0.292
4-6130	4-6420	0.319	178.0	3.4	0.84	1.313	103.3	0.327	0.944	302.0	604.1	0.635	1.253	5.76	0.987	71.1	283.5	-12.2	0.335
4-6130	4-6420	0.748	219.9	-1.0	0.84	1.105	127.9	0.621	0.640	223.1	865.2	0.242	1.037	3.76	0.685	111.7	28.4	17.2	0.461
4-6130	4-6430	0.402	184.9	5.4	1.74	1.315	107.3	0.377	0.950	290.7	602.9	0.591	1.308	4.31	0.990	87.9	394.0	-11.3	0.391
4-6130	4-6430	0.684	220.2	2.3	1.74	1.088	324.6	0.581	0.625	223.1	895.4	0.262	0.988	4.31	0.658	96.3	15.6	14.8	0.375
4-6130	4-6440	0.520	192.0	7.0	2.99	1.318	112.9	0.451	0.955	277.5	599.9	0.524	1.387	5.23	0.994	83.2	305.3	-9.4	0.476
4-6130	4-6440	0.699	221.0	3.8	2.99	1.081	125.4	0.594	0.620	221.9	904.3	0.252	0.987	5.23	0.646	83.7	3.7	11.1	0.387
4-6130	4-6450	0.785	222.5	5.3	4.99	1.079	129.9	0.654	0.618	219.1	911.6	0.214	1.022	6.93	0.544	69.9	356.9	8.2	0.479
4-6130	4-6500	0.885	383.9	-7.1	-8.56	1.051	44.4	0.729	0.596	147.0	890.4	0.161	1.030	-8.05	0.579	113.3	103.8	14.7	0.531
4-6130	4-6510	0.609	14.5	-11.8	-6.03	1.325	63.2	0.508	0.974	89.4	482.7	0.479	1.470	-5.81	0.991	120.5	159.6	-1.8	0.518
4-6130	4-6510	0.810	344.8	-5.9	-6.03	1.045	48.2	0.685	0.591	145.3	898.6	0.186	0.997	-5.81	0.563	93.0	91.1	16.1	0.448
4-6130	4-6520	0.472	22.5	-12.1	-4.57	1.328	69.7	0.428	0.981	74.4	477.5	0.561	1.400	-4.66	0.991	115.3	171.1	-6.8	0.427
4-6130	4-6530	0.375	30.4	-12.3	-3.57	1.330	74.5	0.374	0.987	61.1	474.1	0.617	1.356	-3.99	0.992	112.0	181.8	-11.7	0.369
4-6130	4-6540	0.303	39.1	-12.2	-2.81	1.333	78.2	0.339	0.993	48.9	473.7	0.656	1.330	-3.59	0.992	109.8	192.3	-16.3	0.332
4-6130	4-6550	0.247	49.3	-11.7	-2.17	1.335	81.3	0.316	0.999	37.3	469.8	0.683	1.316	-3.34	0.993	108.4	202.8	-20.6	0.308
4-6130	4-6560	0.204	62.1	-10.5	-1.60	1.338	84.0	0.303	1.006	26.1	468.2	0.702	1.311	-3.22	0.994	107.6	213.6	-24.5	0.296
4-6130	4-6570	0.175	76.3	-8.2	-1.06	1.341	86.6	0.297	1.014	15.1	466.9	0.713	1.315	-3.19	0.995	107.3	224.6	-27.8	0.291
4-6130	4-6580	0.747	2.4	-0.7	-0.52	1.252	54.3	0.592	0.823	115.7	577.0	0.336	1.311	-3.25	0.871	55.9	96.2	19.2	0.566
4-6130	4-6580	0.162	97.6	-4.3	-0.52	1.344	89.0	0.298	1.022	4.4	465.7	0.718	1.326	-3.25	0.997	107.3	235.9	-30.6	0.294
4-6130	4-6590	0.672	5.7	0.1	0.06	1.261	58.2	0.541	0.838	108.8	579.8	0.385	1.291	-3.41	0.882	59.4	104.4	17.7	0.512
4-6130	4-6590	0.167	117.6	0.5	0.06	1.347	91.4	0.304	1.032	353.9	824.8	0.718	1.346	-3.41	1.000	107.7	247.4	-32.7	0.304
4-6130	4-6600	0.601	9.0	1.3	0.72	1.269	61.8	0.492	0.853	101.8	582.3	0.433	1.272	-3.70	0.892	62.5	112.6	15.4	0.462
4-6130	4-6600	0.190	135.1	5.1	0.72	1.350	93.9	0.317	1.042	343.7	824.2	0.712	1.372	-3.70	1.004	108.4	259.0	-34.1	0.321
4-6130	4-6610	0.535	12.5	3.3	1.52	1.276	65.2	0.447	0.866	94.6	584.6	0.479	1.254	-4.16	0.902	65.2	120.5	12.1	0.419
4-6130	4-6610	0.227	149.1	9.0	1.52	1.354	96.5	0.336	1.054	333.8	823.8	0.700	1.407	-4.16	1.009	109.5	270.5	-35.0	0.344
4-6130	4-6620	0.477	16.0	6.4	2.58	1.283	66.2	0.408	0.879	87.2	586.7	0.521	1.237	-4.91	0.911	67.6	128.2	7.6	0.382
4-6130	4-6620	0.276	159.8	12.6	2.58	1.359	99.2	0.360	1.067	324.4	823.9	0.683	1.451	-4.91	1.015	110.9	281.7	-35.6	0.374
4-6130	4-6630	0.428	19.6	11.9	4.15	1.288	71.0	0.373	0.890	79.7	588.7	0.558	1.222	-6.20	0.919	69.6	135.2	1.1	0.354
4-6130	4-6630	0.336	168.3	16.7	4.15	1.363	102.1	0.389	1.081	315.4	824.4	0.651	1.502	-6.20	1.021	112.6	292.7	-36.3	0.413
4-6130	4-6640	0.397	22.7	22.2	6.95	1.293	73.5	0.343	0.900	72.2	590.6	0.591	1.210	-8.71	0.927	71.2	141.3	-9.1	0.346
4-6130	4-6640	0.412	175.6	22.8	6.95	1.368	105.1	0.423	1.097	307.0	825.4	0.633	1.561	-8.71	1.029	114.7	303.4	-38.2	0.442
4-6130	4-6650	0.438	22.0	43.3	13.82	1.298	75.8	0.319	0.910	64.6	592.5	0.619	1.200	-15.31	0.934	72.6	145.9	-27.2	0.381
4-6130	4-6650	0.538	184.3	35.4	13.82	1.373	108.2	0.460	1.115	299.0	826.9	0.602	1.627	-15.31	1.037	116.9	314.1	-45.1	0.545
4-6130	4-6670	0.570	12.6	-67.0	-24.09	1.305	80.1	0.279	0.925	47.9	596.0	0.667	1.183	23.14	0.948	74.7	211.3	44.3	0.456
4-6130	4-6680	0.326	40.0	-51.5	-11.37	1.307	81.8	0.267	0.931	40.4	597.9	0.682	1.180	10.69	0.954	75.2	198.9	30.3	0.298
4-6130	4-6690	0.559	32.7	-18.2	-7.42	1.447	69.4	0.588	1.449	57.3	264.4	---	2.301	7.02	1.140	58.1	181.4	11.8	0.599
4-6130	4-6690	0.247	53.4	-42.8	-7.42	1.310	83.5	0.258	0.937	32.7	599.7	0.695	1.178	7.02	0.960	75.6	200.6	19.5	0.260
4-6130	4-6700	0.503	37.9	-15.0	-5.44	1.449	71.9	0.574	1.461	50.9	267.7	---	2.299	5.33	1.145	59.6	187.8	6.7	0.571
4-6130	4-6700	0.203	62.3	-37.5	-5.44	1.312	85.1	0.251	0.942	24.7	601.5	0.705	1.178	5.33	0.966	75.9	205.8	11.8	0.244
4-6130	4-6730	0.453	43.6	-13.0	-4.18	1.450	74.4	0.561	1.472	44.2	270.8	---	2.298	4.36	1.150	60.9	194.8	2.4	0.548
4-6130	4-6710	0.174	74.8	-33.5	-4.18	1.314	86.7	0.247	0.946	16.7	603.3	0.713	1.180	4.39	0.972	76.1	212.5	5.8	0.237
4-6130	4-6720	0.407	50.3	-11.5	-3.28	1.452	76.9	0.550	1.482	37.3	273.8	---	2.298	3.83	1.154	62.1	202.3	-1.4	0.528
4-6130	4-6720	0.154	89.5	-29.2	-3.28	1.316	88.3	0.246	0.951	8.5	605.0	0.717	1.184	3.83	0.977	76.0	220.0	0.9	0.235
4-6130	4-6730	0.364	58.2	-10.1	-2.56	1.454	79.5	0.541	1.491	30.1	276.5	---	2.298	3.48	1.158	63.1	210.2	-4.8	0.512
4-6130	4-6730	0.145	105.9	-23.9	-2.56	1.317	90.0	0.247	0.954	0.1	606.5	0.719	1.190	3.48	0.982	75.9	228.0	-3.3	0.238
4-6140	4-6170	0.493	57.9	-11.4	-4.00	1.468	72.7	0.603	1.596	46.9	88.8	---	---	-5.07	1.169	120.8	199.6	-17.6	0.589
4-6140	4-6180	0.379	51.0	-10.1	-2.91	1.357	74.8	0.408	1.064	55.2	106.9	---	---	-4.32	1.024	113.9	199.9	-19.1	0.410
4-6140	4-6190	0.326	45.7	-8.1	-2.08	1.302	75.9	0.323	0.921	63.0	124.4	---	---	-3.86	0.947	108.1	199.0	-20.6	0.301
4-6140	4-6200	0.298	42.2	-5.8	-1.39	1.273	76.6	0.283	0.862	68.6	139.6	---	---	-3.58	0.905	103.1	196.6	-22.1	0.229
4-6140	4-6210	0.281	40.5	-3.4	-0.79	1.259	77.1	0.261	0.836	71.6	152.2	---	---	-3.43	0.882	99.0	192.1	-23.4	0.181
4-6140	4-6220	0.269	40.1	-1.0	-0.21	1.252	77.6	0.249	0.825	72.3	162.5	---	---	-3.39	0.871	95.6	185.9	-24.2	0.152
4-6140	4-6230	0.258	40.6	1.7	0.36	1.251	78.1	0.240	0.822	71.3	171.1	---	---	-3.44	0.867	92.8	179.0	-24.3	0.135
4-6140	4-6240	0.248	41.8	4.7	0.96	1.252	78.6	0.234	0.824	69.2	178.5	---	---	-3.59	0.868	90.5	172.9	-24.2	0.129
4-6140	4-6250	0.239	43.5	8.5	1.64	1.255	79.2	0.228	0.829	66.2	185.0	---	1.018	-3.86	0.872	88.5	168.7	-24.6	0.130
4-6140	4-6260	0.231	45.5	13.2	2.45	1.258	79.8	0.224	0.835	62.5	190.8	---	1.022	-4.32	0.877	86.9	166.5	-26.0	0.136
4-6140	4-6270	0.227	47.9	19.7	3.52	1.263	80.5	0.219	0.842	58.4	196.2	---	1.027	-5.05	0.884	85.6	165.7	-29.0	0.146
4-6140	4-6280	0.229	50.2	28.9	5.07	1.267	81.2	0.216	0.850	53.9	201.3	---	1.034	-6.28	0.891	84.4	165.7	-34.2	0.162
4-6140	4-6290	0.251	51.8	42.3	7.72	1.271	81.9	0.213	0.858	49.3	206.1	---	1.041	-8.63	0.899	83.4	165.2	-42.3	0.193
4-6140	4-6300	0.343	47.7	61.3	13.77	1.275	82.7	0.211	0.866	44.4	210.7	---	1.049	-14.39	0.907	82.5	163.0	-54.7	0.274
4-6140	4-6320	0.642	359.7	-78.1	-29.45	1.283	84.8	0.205	0.882	31.5	218.4	---	1.063	29.40	0.924	81.4	244.4	42.9	0.505
4-6140	4-6330	0.293	68.7	-65.9	-12.03	1.287	85.6	0.206	0.889	26.5	222.6	---	1.072	12.28	0.932	80.7	229.9	33.6	0.257
4-6140	4-6340	0.203	83.5	-53.4	-7.26	1.291	86.5	0.207	0.897	20.6	226.4	---	1.082	7.80	0.940	80.1	227.3	21.0	0.209

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
APRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6140	4-6350	0.162	95.8	-43.7	-4.97	1.294	87.5	0.208	0.904	14.4	230.0	---	1.092	5.83	0.947	79.6	229.8	11.5	0.197
4-6140	4-6360	0.140	107.9	-35.0	-3.56	1.297	88.6	0.211	0.910	7.9	233.3	---	1.103	4.75	0.955	79.0	234.6	4.5	0.196
4-6140	4-6370	0.130	121.5	-26.6	-2.56	1.300	89.8	0.216	0.917	1.0	236.4	---	1.114	4.11	0.961	78.5	240.8	-0.7	0.201
4-6140	4-6380	0.130	135.5	-18.1	-1.78	1.303	91.1	0.222	0.923	353.8	599.2	0.718	1.128	3.72	0.968	77.9	248.0	-4.7	0.210
4-6140	4-6390	0.139	148.9	-10.4	-1.10	1.306	92.6	0.230	0.929	346.1	601.6	0.715	1.143	3.50	0.974	77.2	255.9	-7.6	0.222
4-6140	4-6400	0.158	160.9	-4.0	-0.49	1.308	94.2	0.242	0.935	338.1	603.6	0.709	1.161	3.40	0.979	76.4	264.4	-9.6	0.237
4-6140	4-6410	0.188	171.4	0.8	0.11	1.311	96.1	0.257	0.941	329.5	605.2	0.699	1.182	3.40	0.984	75.3	273.3	-10.7	0.257
4-6140	4-6420	0.227	180.6	4.2	0.74	1.313	98.3	0.278	0.946	320.2	606.1	0.683	1.209	3.52	0.988	74.0	282.7	-11.0	0.283
4-6140	4-6430	0.280	188.7	6.6	1.43	1.315	101.1	0.307	0.952	310.2	606.3	0.659	1.244	3.77	0.992	72.2	292.5	-10.4	0.317
4-6140	4-6440	0.351	196.1	8.2	2.26	1.318	104.5	0.348	0.957	299.3	605.5	0.624	1.290	4.20	0.994	69.7	302.6	-9.0	0.364
4-6140	4-6440	0.683	235.3	3.0	2.26	1.099	124.3	0.574	0.635	224.7	890.9	0.270	1.000	4.20	0.678	101.8	35.0	21.7	0.384
4-6140	4-6450	0.448	203.4	9.3	3.33	1.320	109.2	0.406	0.963	296.9	603.2	0.572	1.354	4.91	0.997	66.1	313.3	-6.7	0.431
4-6140	4-6450	0.671	235.9	4.5	3.33	1.090	123.7	0.568	0.628	224.0	900.3	0.271	0.984	4.91	0.663	89.5	22.0	19.0	0.360
4-6140	4-6460	0.588	211.1	10.0	4.90	1.323	115.8	0.493	0.969	272.3	598.8	0.491	1.447	6.14	0.999	60.5	324.8	-3.4	0.530
4-6140	4-6460	0.721	237.0	6.0	4.90	1.087	126.2	0.603	0.625	222.1	908.6	0.248	1.002	6.14	0.656	77.4	12.3	15.6	0.414
4-6140	4-6470	0.848	239.3	7.1	7.61	1.087	132.9	0.689	0.625	217.9	914.4	0.194	1.056	8.54	0.653	62.7	9.3	13.9	0.545
4-6140	4-6520	0.834	1.6	-6.4	-6.89	1.060	47.0	0.696	0.603	144.6	891.7	0.183	1.023	-7.47	0.587	108.0	119.9	11.8	0.482
4-6140	4-6530	0.555	34.1	-10.4	-4.76	1.330	65.6	0.482	0.988	83.4	480.2	0.512	1.464	-5.66	0.992	118.8	178.8	-10.5	0.488
4-6140	4-6530	0.914	358.4	-3.6	-4.76	1.031	41.8	0.762	0.582	150.1	906.9	0.139	1.025	-5.66	0.527	69.4	87.3	18.3	0.548
4-6140	4-6530	0.804	1.5	-4.8	-4.76	1.050	48.3	0.682	0.596	144.7	901.6	0.189	1.003	-5.66	0.564	86.7	103.1	15.7	0.444
4-6140	4-6540	0.434	42.0	-10.0	-3.44	1.333	71.4	0.413	0.995	69.1	475.6	0.584	1.405	-4.67	0.993	114.4	190.2	-15.6	0.411
4-6140	4-6550	0.346	50.3	-9.3	-2.49	1.335	75.8	0.367	1.001	56.2	472.4	0.634	1.368	-4.07	0.993	111.5	201.3	-20.2	0.363
4-6140	4-6560	0.290	59.7	-8.2	-1.74	1.337	79.3	0.337	1.007	48.1	470.1	0.668	1.347	-3.71	0.994	109.7	212.4	-24.3	0.332
4-6140	4-6570	0.229	71.1	-6.4	-1.10	1.340	82.3	0.318	1.014	32.6	468.1	0.692	1.336	-3.50	0.995	108.5	223.8	-27.8	0.313
4-6140	4-6580	0.192	85.5	-3.6	-0.51	1.342	85.0	0.307	1.021	21.4	466.5	0.708	1.335	-3.40	0.997	107.9	235.4	-30.6	0.305
4-6140	4-6590	0.170	103.3	0.4	0.05	1.345	87.6	0.304	1.029	10.5	465.2	0.716	1.342	-3.40	0.999	107.7	247.2	-32.6	0.304
4-6140	4-6600	0.734	19.5	0.9	0.64	1.298	55.0	0.585	0.834	113.9	578.1	0.346	1.322	-3.49	0.877	56.2	115.4	16.7	0.556
4-6140	4-6600	0.166	123.3	5.2	0.64	1.348	90.0	0.307	1.038	359.8	824.1	0.719	1.357	-3.49	1.003	107.9	259.2	-33.9	0.310
4-6140	4-6610	0.661	22.7	2.1	1.27	1.266	58.7	0.535	0.849	107.1	580.9	0.395	1.382	-3.70	0.888	59.5	123.2	14.2	0.505
4-6140	4-6610	0.182	142.4	9.5	1.27	1.352	92.5	0.317	1.048	349.4	823.2	0.716	1.380	-3.70	1.007	108.4	271.0	-34.4	0.323
4-6140	4-6620	0.593	26.0	3.8	2.00	1.273	62.2	0.488	0.862	100.2	583.5	0.441	1.284	-4.05	0.899	62.5	130.9	10.8	0.458
4-6140	4-6620	0.213	156.2	12.8	2.00	1.355	95.1	0.332	1.059	339.4	822.7	0.708	1.410	-4.05	1.011	109.2	282.6	-34.3	0.363
4-6140	4-6630	0.531	29.3	6.4	2.92	1.280	65.5	0.446	0.875	93.2	586.0	0.485	1.266	-4.62	0.909	65.1	138.2	6.5	0.418
4-6140	4-6630	0.257	170.5	15.4	2.92	1.359	97.7	0.352	1.071	329.8	822.6	0.694	1.449	-4.62	1.017	110.4	293.8	-33.8	0.369
4-6140	4-6640	0.477	32.7	10.5	4.17	1.286	68.4	0.408	0.887	86.0	588.3	0.525	1.249	-5.54	0.918	67.3	145.2	0.9	0.384
4-6140	4-6640	0.312	180.1	18.2	4.17	1.364	100.5	0.379	1.085	320.6	822.9	0.674	1.496	-5.54	1.024	112.0	304.5	-33.2	0.402
4-6140	4-6650	0.435	35.9	17.4	6.12	1.292	71.1	0.375	0.898	78.6	590.5	0.562	1.235	-7.19	0.927	69.2	151.4	-7.0	0.361
4-6140	4-6650	0.379	187.9	21.9	6.12	1.368	103.5	0.409	1.100	311.9	823.7	0.650	1.550	-7.19	1.031	113.8	315.0	-33.2	0.443
4-6140	4-6660	0.423	38.1	30.2	9.85	1.296	73.6	0.346	0.908	71.5	592.6	0.594	1.223	-10.62	0.935	70.8	156.5	-19.3	0.359
4-6140	4-6660	0.468	195.3	28.7	9.85	1.373	106.5	0.444	1.116	303.7	825.0	0.621	1.612	-10.62	1.039	115.9	325.4	-35.2	0.500
4-6140	4-6670	0.547	30.7	54.7	20.76	1.300	75.7	0.323	0.917	64.0	594.6	0.620	1.213	-21.24	0.943	72.0	160.0	-42.0	0.454
4-6140	4-6690	0.451	42.7	-60.0	-17.67	1.307	80.1	0.283	0.932	47.5	598.6	0.668	1.196	17.76	0.957	74.2	216.7	34.7	0.391
4-6140	4-6700	0.293	39.4	-45.2	-9.24	1.310	81.8	0.271	0.938	39.9	600.6	0.683	1.193	9.62	0.964	74.7	212.3	21.0	0.295
4-6140	4-6710	0.538	50.7	-15.3	-6.01	1.448	70.0	0.587	1.462	55.5	266.0	---	2.321	6.70	1.148	58.6	198.6	4.1	0.593
4-6140	4-6710	0.229	69.7	-36.6	-6.01	1.312	83.5	0.262	0.943	32.9	602.5	0.696	1.191	6.70	0.970	75.2	215.9	11.6	0.265
4-6140	4-6720	0.484	56.0	-12.2	-4.23	1.450	72.5	0.573	1.474	49.0	269.3	---	2.318	5.24	1.152	60.0	209.3	-0.6	0.567
4-6140	4-6720	0.189	80.6	-30.7	-4.23	1.314	85.2	0.255	0.948	24.1	604.4	0.706	1.190	5.24	0.976	75.5	222.0	4.9	0.252
4-6140	4-6730	0.436	62.0	-9.9	-3.05	1.452	75.1	0.561	1.484	42.2	272.4	---	2.317	4.41	1.157	61.3	212.7	-4.4	0.545
4-6140	4-6730	0.162	93.5	-25.5	-3.05	1.316	86.8	0.251	0.953	15.9	606.1	0.714	1.192	4.41	0.981	75.7	229.3	-0.3	0.246
4-6140	4-6740	0.391	69.1	-7.9	-2.17	1.453	77.7	0.550	1.494	35.2	275.4	---	2.316	3.91	1.161	62.5	220.5	-7.7	0.527
4-6140	4-6740	0.146	108.6	-20.0	-2.17	1.318	88.5	0.250	0.957	7.5	607.7	0.718	1.196	3.91	0.986	75.7	237.4	-4.3	0.245
4-6150	4-6180	0.573	51.0	-8.4	-3.93	1.344	64.8	0.505	1.031	82.5	118.0	---	---	-5.71	1.009	120.3	194.4	-16.6	0.517
4-6150	4-6190	0.472	47.2	-6.4	-2.57	1.271	68.0	0.403	0.860	89.9	139.1	---	---	-4.68	0.906	111.7	192.7	-17.3	0.362
4-6150	4-6200	0.420	45.3	-4.5	-1.61	1.239	70.0	0.357	0.805	93.8	148.6	---	---	-4.06	0.858	105.0	189.5	-17.7	0.271
4-6150	4-6210	0.388	44.8	-2.6	-0.86	1.227	71.3	0.330	0.786	94.8	159.2	---	---	-3.68	0.838	99.6	184.8	-17.7	0.215
4-6150	4-6220	0.365	45.3	-0.7	-0.22	1.224	72.4	0.312	0.781	93.8	167.8	---	---	-3.45	0.831	95.4	179.4	-17.2	0.181
4-6150	4-6230	0.347	46.4	1.2	0.35	1.226	73.3	0.298	0.784	91.5	175.1	---	---	-3.34	0.833	92.1	174.1	-16.3	0.163
4-6150	4-6240	0.330	48.0	3.3	0.91	1.230	74.2	0.286	0.791	88.3	181.4	---	1.017	-3.32	0.838	89.4	170.2	-15.7	0.155
4-6150	4-6250	0.314	49.9	5.6	1.47	1.236	75.1	0.275	0.800	84.4	187.0	---	1.020	-3.40	0.847	87.3	168.1	-15.7	0.153
4-6150	4-6260	0.300	52.1	8.4	2.08	1.242	76.0	0.265	0.810	80.1	192.2	---	1.025	-3.58	0.856	85.7	167.8	-16.6	0.155
4-6150	4-6270	0.286	54.5	11.9	2.77	1.249	76.9	0.257	0.821	75.5	197.1	---	1.031	-3.89	0.866	84.3	168.7	-18.6	0.160
4-6150	4-6280	0.275	57.0	16.4	3.63	1.255	77.8	0.249	0.831	70.5	201.7	---	1.039	-4.41	0.876	83.2	170.6	-21.9	0.166
4-6150	4-6290	0.268	59.6	22.7	4.79	1.261	78.7	0.242	0.842	65.4	206.1	---	1.046	-5.24	0.887	82.2	173.0	-26.7	0.176
4-6150	4-6300	0.270	61.9	31.8	6.55	1.267	79.6	0.236	0.853	60.1	210.4	---	1.054	-6.70	0.897	81.5	175.2	-33.8	0.192
4-6150	4-6310	0.300	65.9	45.4	9.81	1.272	80.5	0.231	0.863	54.6	214.5	---	1.062	-9.66	0.907	80.8	176.2	-44.6	0.227
4-6150	4-6320	0.442	52.7	65.3	18.56	1.277	81.5	0.228	0.872	49.2	218.5	---	1.071	-18.13	0.91	80.2	174.3	-61.1	0.342
4-6150	4-6340	0.430	60.8	-71.5	-18.58	1.286	83.8	0.219	0.890	35.7	225.6	---	1.085	19.58	0.9	79.5	243.2	37.1	0.369
4-6150	4-6350	0.241	86.5	-53.7	-8.68	1.290	84.8	0.218	0.899	29.7	229.2	---	1.094	9.97	0.944	79.1	236.0	22.6	0.244
4-6150	4-6360	0.179	97.9	-40.7	-5.19	1.294	85.9	0.217	0.907	23.3	232.6	---	1.104	6.78	0.952	78.7	237.6	11.3	0.217
4-6150	4-6370	0.149	109.3	-30.5	-3.34	1.298	87.1	0.218	0.914	16.5	235.8	---	1.114	5.24	0.960	78.4	242.5	3.5	0.210
4-6150	4-6380	0.132	122.1	-21.5	-2.13	1.301	88.3	0.220	0.921	9.5	238.7	---	1.125	4.38	0.967	78.0	248.9	-1.9	0.212
4-6150	4-6390	0.126	136.4	-13.0	-1.24	1.304	89.6	0.224	0.928	2.1	241.4	---	1.137	3.86	0.973	77.5	256.4	-5.7	0.218
4-6150	4-6400	0.130	151.3	-5.2	-0.52	1.307	91.1	0.230	0.935	354.3	603.7	0.719	1.150	3.54	0.979	77.0	264.6	-8.3	0.227
4-6150	4-6410	0.144	165.5	1.1	0.12	1.310	92.7	0.239	0.941	346.1	605.6	0.716	1.166	3.37	0.984	76.4	273.3	-9.8	0.239
4-6150	4-6420	0.168	178.2	5.5	0.71	1.312	94.5	0.252	0.947	337.4	607.1	0.709	1.185	3.32	0.989	75.6	282.4	-10.4	0.256
4-6150	4-6430	0.202	189.2	8.5	1.31	1.315	96.6	0.269	0.953	328.1	608.0	0.697	1.209	3.36	0.992	74.5	291.7	-10.1	0.277
4-6150	4-6440	0.248	198.6	10.2	1.94	1.317	99.1	0.292	0.959	318.2	608.3	0.679	1.239	3.53	0.995	73.1	301.4	-9.0	0.305
4-6150	4-6450	0.309	206.9	11.2	2.66	1.319	102.2	0.325	0.965	307.5	607.7	0.651	1.278	3.84	0.998	71.1	311.3	-7.1	0.343
4-6150	4-6450	0.698	250.6	3.5	2.66	1.111	124.9	0.580	0.648	226.0	886.2	0.272	1.023	3.84	0.699	107.6	55.7	26.1	0.410
4-6150	4-6460	0.390	214.6	11.6	3.55	1.322	106.1	0.372	0.970	295.7	606.0	0.609	1.331	4.36	1.000	68.2	321.5	-4.3	0.396

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
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DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEEC
4-6150	4-6440	0.656	251.0	5.0	3.55	1.099	122.7	[illegible]	0.637	225.7	896.1	0.285	0.988	4.35	0.678	94.8	42.3	25.1	0.349
4-6150	4-6470	0.504	222.2	11.7	4.75	1.324	111.5	C.440	0.978	282.2	602.7	0.546	1.426	5.21	1.00'	65.9	332.3	-0.8	0.473
4-6150	4-6470	0.677	251.8	6.4	4.75	1.094	123.8	0.568	0.632	224.5	904.9	0.273	0.991	5.21	0.668	83.6	30.1	22.3	0.368
4-6150	4-6480	0.370	230.4	11.5	6.60	1.327	119.3	C.542	0.983	266.2	596.4	0.450	1.515	6.74	1.005	57.2	344.2	3.7	0.591
4-6150	4-6480	0.760	253.3	7.5	6.60	1.092	128.0	C.626	0.631	221.8	912.3	0.236	1.026	6.74	0.663	71.1	23.6	19.8	0.456
4-6150	4-6530	0.923	16.7	-6.3	-8.08	1.069	42.1	0.752	0.611	147.0	887.8	0.152	1.071	-9.41	0.601	121.0	139.8	-6.8	0.577
4-6150	4-6540	0.661	-5.2	-8.7	-4.93	1.332	60.3	C.550	0.996	93.7	484.2	0.448	1.544	-6.56	0.993	123.4	186.3	-13.2	0.566
4-6150	4-6540	0.794	19.1	-5.0	-4.93	1.068	49.0	0.670	0.611	142.6	893.1	0.202	1.019	-6.56	0.594	103.6	135.3	8.1	0.444
4-6150	4-6550	0.508	53.5	-7.8	-3.21	1.334	67.7	C.461	1.002	77.8	477.9	0.541	1.464	-5.15	0.994	117.4	198.7	-18.5	0.464
4-6150	4-6560	0.400	61.6	-6.7	-2.08	1.337	73.0	C.401	1.009	64.0	473.7	0.604	1.413	-4.34	0.995	113.6	210.6	-23.0	0.400
4-6150	4-6570	0.320	70.4	-5.0	-1.24	1.339	77.0	C.361	1.015	51.3	470.7	0.648	1.382	-3.85	0.996	111.2	222.4	-26.8	0.359
4-6150	4-6580	0.260	80.7	-2.8	-0.55	1.341	80.4	C.336	1.022	39.3	468.3	0.679	1.365	-3.55	0.997	109.6	234.4	-29.8	0.334
4-6150	4-6590	0.214	93.5	0.3	0.06	1.344	83.4	C.320	1.029	27.8	466.3	0.700	1.358	-3.38	0.999	108.6	246.6	-31.9	0.320
4-6150	4-6600	0.184	109.6	4.5	0.62	1.347	86.1	C.312	1.037	16.6	464.7	0.713	1.361	-3.32	1.002	108.2	258.9	-33.2	0.315
4-6150	4-6610	0.172	128.7	9.2	1.17	1.349	88.6	C.312	1.045	5.8	463.3	0.719	1.371	-3.34	1.005	108.1	271.1	-33.6	0.317
4-6150	4-6620	0.722	36.5	2.5	1.75	1.262	55.6	C.578	0.844	112.2	579.4	0.357	1.332	-3.47	0.885	56.5	133.9	12.5	0.548
4-6150	4-6620	0.179	148.7	13.4	1.75	1.353	91.2	C.318	1.054	355.2	822.3	0.719	1.389	-3.47	1.009	108.4	282.9	-33.2	0.326
4-6150	4-6630	0.652	39.6	4.0	2.39	1.270	59.2	C.530	0.858	105.6	582.2	0.404	1.313	-3.71	0.896	59.6	141.3	9.1	0.499
4-6150	4-6630	0.203	166.4	16.2	2.39	1.356	93.7	C.330	1.065	344.9	821.6	0.714	1.416	-3.71	1.014	109.1	294.3	-32.2	0.342
4-6150	4-6640	0.587	42.8	6.1	3.15	1.277	62.6	C.485	0.872	98.8	584.9	C.449	1.295	-4.11	0.907	62.4	148.4	5.1	0.455
4-6150	4-6640	0.241	180.5	18.0	3.15	1.360	96.3	C.347	1.076	335.1	821.2	0.703	1.450	-4.11	1.020	110.1	305.2	-30.7	0.364
4-6150	4-6650	0.528	46.1	9.2	4.13	1.283	65.8	C.444	0.884	91.8	587.5	0.492	1.277	-4.75	0.917	64.9	155.3	0.1	0.417
4-6150	4-6650	0.291	191.4	19.5	4.13	1.364	99.1	C.370	1.089	325.7	821.4	0.686	1.492	-4.75	1.027	111.4	315.6	-29.0	0.393
4-6150	4-6660	0.478	49.3	14.0	5.52	1.289	68.6	C.409	0.896	84.7	590.0	0.531	1.261	-5.82	0.927	67.1	161.8	-6.3	0.386
4-6150	4-6660	0.350	200.0	21.6	5.52	1.368	101.9	0.398	1.103	316.8	822.0	0.664	1.542	-5.82	1.034	113.0	325.5	-27.4	0.428
4-6150	4-6670	0.444	52.2	22.0	7.81	1.294	71.3	C.376	0.906	77.5	592.4	0.566	1.247	-7.81	0.936	68.9	167.6	-15.2	0.367
4-6150	4-6670	0.423	207.4	25.2	7.81	1.373	104.9	C.430	1.119	308.3	823.1	0.638	1.599	-7.61	1.042	114.9	335.3	-27.2	0.473
4-6150	4-6680	0.453	53.1	37.1	12.67	1.298	73.6	C.348	0.916	70.3	594.6	0.597	1.235	-12.38	0.945	70.4	171.8	-29.8	0.378
4-6150	4-6680	0.528	215.1	33.0	12.67	1.377	108.0	0.466	1.135	300.3	824.7	0.607	1.664	-12.38	1.051	117.0	345.3	-30.1	0.537
4-6150	4-6690	0.737	29.4	63.2	21.40	1.302	75.7	0.327	0.924	63.3	596.9	0.622	1.226	-30.83	0.953	71.6	177.0	-53.1	0.586
4-6150	4-6710	0.360	-67.3	-49.7	-12.29	1.309	80.1	C.287	0.939	46.8	601.2	0.669	1.208	13.42	0.967	73.7	224.7	23.4	0.347
4-6150	4-6720	0.575	63.7	-15.8	-6.69	1.347	68.2	0.600	1.463	60.0	264.2	---	2.342	8.12	1.150	57.5	209.4	1.7	0.618
4-6150	4-6720	0.258	78.7	-35.8	-6.69	1.311	81.9	C.275	0.945	39.1	603.2	0.685	1.204	8.12	0.974	74.4	225.7	11.2	0.289
4-6150	4-6730	0.516	68.8	-11.2	-4.19	1.449	70.7	0.585	1.475	53.6	267.6	---	2.339	5.93	1.155	59.1	215.7	-3.6	0.587
4-6150	4-6730	0.208	88.4	-27.3	-4.19	1.314	83.6	C.265	0.950	31.2	605.2	0.698	1.202	5.93	0.980	74.8	231.2	3.5	0.268
4-6150	4-6740	0.465	74.3	-8.1	-2.71	1.451	73.3	0.572	1.487	47.0	271.0	---	2.336	4.78	1.160	60.5	223.1	-7.5	0.563
4-6150	4-6740	0.175	99.4	-20.8	-2.71	1.316	85.3	C.258	0.955	23.0	607.0	0.708	1.202	4.78	0.985	75.2	238.5	-1.9	0.258
4-6150	4-6750	0.418	80.6	-5.7	-1.68	1.453	75.8	C.560	1.497	40.1	274.1	---	2.335	4.10	1.164	61.8	231.1	-10.6	0.543
4-6150	4-6750	0.153	112.8	-14.7	-1.68	1.317	87.0	C.255	0.960	14.7	608.7	0.715	1.204	4.10	0.990	75.4	246.7	-5.8	0.253
4-6160	4-6190	0.702	50.2	-5.4	-3.76	1.227	56.0	C.564	0.789	116.7	145.8	---	---	-6.15	0.846	120.7	186.7	-12.6	0.503
4-6160	4-6200	0.594	49.6	-3.7	-2.11	1.187	60.7	0.490	0.733	117.7	156.4	---	---	-4.77	0.784	109.6	183.6	-12.2	0.362
4-6160	4-6210	0.532	50.2	-2.1	-1.04	1.177	63.6	C.445	0.721	116.4	164.7	---	---	-4.00	0.767	101.6	179.6	-11.5	0.283
4-6160	4-6220	0.490	51.5	-0.6	-0.25	1.180	65.7	C.412	0.724	113.8	171.6	---	---	-3.52	0.768	95.8	175.3	-10.4	0.238
4-6160	4-6230	0.457	53.3	0.9	0.38	1.188	67.4	0.385	0.734	110.3	177.7	---	---	-3.23	0.779	91.5	171.7	-9.4	0.212
4-6160	4-6240	0.430	55.4	2.4	0.93	1.197	68.8	0.363	0.747	106.2	183.1	---	1.017	-3.06	0.793	88.2	169.4	-8.8	0.199
4-6160	4-6250	0.406	57.6	4.0	.44	1.208	70.2	C.343	0.761	101.6	188.1	---	1.022	-2.95	0.808	85.8	168.6	-8.8	0.193
4-6160	4-6260	0.384	60.0	5.8	1.93	1.218	71.4	C.326	0.776	96.7	192.7	---	1.029	-3.00	0.824	84.0	169.4	-9.6	0.190
4-6160	4-6270	0.363	62.5	7.9	2.45	1.228	72.6	C.310	0.791	91.7	197.2	---	1.036	-3.09	0.839	82.6	171.3	-11.1	0.190
4-6160	4-6280	0.344	65.1	10.5	3.02	1.238	73.8	C.297	0.805	86.4	201.4	---	1.044	-3.29	0.854	81.5	174.2	-13.5	0.191
4-6160	4-6290	0.326	67.7	13.7	3.68	1.246	75.0	C.284	0.820	81.0	205.6	---	1.053	-3.62	0.868	80.6	177.7	-16.7	0.194
4-6160	4-6300	0.312	70.4	18.0	4.53	1.254	76.1	C.274	0.833	75.4	209.6	---	1.061	-4.16	0.882	79.9	181.6	-21.0	0.198
4-6160	4-6310	0.302	73.2	23.9	5.71	1.262	77.2	C.264	0.846	69.7	213.6	---	1.069	-5.06	0.895	79.4	185.6	-26.8	0.205
4-6160	4-6320	0.303	75.5	32.9	7.62	1.268	78.3	C.255	0.858	63.9	217.4	---	1.077	-6.69	0.907	79.0	189.2	-35.0	0.218
4-6160	4-6330	0.341	75.8	47.3	11.52	1.274	79.4	C.248	0.870	58.0	221.2	---	1.086	-10.33	0.918	78.6	191.1	-48.0	0.256
4-6160	4-6340	0.576	53.4	68.9	25.21	1.280	80.5	C.243	0.881	52.3	224.9	---	1.095	-23.77	0.929	78.3	190.8	-70.1	0.438
4-6160	4-6360	0.297	91.3	-55.9	-11.08	1.289	83.1	C.231	0.900	38.2	231.5	---	1.108	13.04	0.948	78.1	245.2	24.7	0.294
4-6160	4-6370	0.200	103.7	-37.1	-5.37	1.294	84.2	C.229	0.909	31.7	234.8	---	1.117	7.60	0.957	77.8	245.3	10.4	0.238
4-6160	4-6380	0.162	113.6	-24.4	-2.96	1.298	85.5	C.228	0.918	24.7	237.9	---	1.127	5.46	0.965	77.6	250.2	1.6	0.225
4-6160	4-6390	0.141	124.9	-14.6	-1.56	1.301	86.8	C.228	0.926	17.5	240.7	---	1.136	4.36	0.972	77.4	257.1	-4.0	0.223
4-6160	4-6400	0.130	138.1	-6.1	-0.61	1.305	88.1	C.229	0.933	10.0	243.2	---	1.147	3.72	0.978	77.1	264.9	-7.5	0.226
4-6160	4-6410	0.128	153.0	1.3	0.13	1.308	89.6	C.233	0.940	2.1	245.5	---	1.160	3.34	0.984	76.8	273.4	-9.6	0.233
4-6160	4-6420	0.136	168.6	7.1	0.74	1.311	91.2	C.239	0.947	353.8	607.3	0.720	1.174	3.11	0.989	76.3	282.3	-10.5	0.243
4-6160	4-6430	0.155	183.5	11.0	1.29	1.313	93.0	C.249	0.954	345.0	608.7	0.716	1.191	3.00	0.993	75.7	291.5	-10.5	0.256
4-6160	4-6440	0.183	196.5	13.2	1.83	1.316	95.0	C.262	0.960	335.8	609.7	0.708	1.212	2.99	0.996	74.8	300.9	-9.6	0.273
4-6160	4-6450	0.222	207.6	14.1	2.37	1.318	97.3	C.281	0.966	326.0	610.0	0.694	1.238	3.07	0.999	73.7	310.4	-7.9	0.296
4-6160	4-6460	0.274	217.1	14.2	2.97	1.321	100.1	C.308	0.972	315.4	609.7	C.672	1.271	3.27	1.001	72.1	320.1	-5.5	0.327
4-6160	4-6460	0.744	266.1	3.6	2.97	1.127	127.1	C.607	0.666	226.6	880.8	0.262	1.069	3.27	0.727	115.0	77.7	27.6	0.468
4-6160	4-6470	0.343	225.5	13.9	3.66	1.323	103.5	0.346	0.978	304.0	608.4	0.640	1.316	3.61	1.002	69.8	329.9	-2.4	0.369
4-6160	4-6470	0.653	266.1	5.2	3.66	1.108	122.5	C.546	0.646	227.2	891.6	0.294	0.999	3.61	0.693	99.9	64.3	28.5	0.352
4-6160	4-6480	0.436	233.3	13.3	4.55	1.325	108.0	C.400	0.984	291.4	605.8	C.590	1.377	4.18	1.001	66.4	340.2	1.3	0.430
4-6160	4-6480	0.649	266.7	6.5	4.55	1.101	122.2	C.544	0.640	226.4	900.9	0.292	0.989	4.18	0.671	89.0	50.6	27.2	0.339
4-6160	4-6490	0.567	241.2	12.5	5.80	1.328	114.3	0.480	0.990	278.8	601.2	0.515	1.465	5.13	1.004	61.3	351.3	5.8	0.519
4-6160	4-6490	0.698	267.8	7.5	5.80	1.098	124.7	C.580	0.638	224.6	909.1	0.268	1.008	5.13	0.672	77.9	40.7	24.9	0.392
4-6160	4-6500	0.815	269.9	8.0	7.87	1.098	130.8	C.660	0.638	220.7	915.1	0.217	1.060	6.92	0.668	64.6	37.8	23.5	0.512
4-6160	4-6550	0.860	34.7	-4.5	-5.10	1.077	45.3	0.713	0.619	144.1	888.1	0.178	1.061	-7.35	0.609	115.9	156.7	1.4	0.519
4-6160	4-6560	0.602	64.6	-5.7	-2.87	1.335	63.0	0.521	1.010	87.7	481.4	0.484	1.536	-5.39	0.995	121.4	207.1	-20.4	0.531
4-6160	4-6560	0.761	36.4	-3.1	-2.87	1.075	50.6	C.648	0.618	140.9	894.5	0.218	1.018	-5.39	0.602	99.9	150.4	3.8	0.413
4-6160	4-6570	0.467	72.9	-4.2	-1.55	1.338	69.6	C.443	1.017	72.5	475.7	0.566	1.467	-4.35	0.997	116.3	220.0	-24.8	0.446
4-6160	4-6580	0.370	81.3	-2.2	-0.64	1.340	74.4	0.391	1.023	58.9	471.8	0.623	1.423	-3.74	0.998	113.0	232.7	-28.1	0.392
4-6160	4-6590	0.298	90.8	0.3	0.06	1.343	78.3	0.357	1.030	46.4	468.7	C.662	1.397	-3.37	1.000	110.9	245.4	-30.5	0.358

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6160	4-6600	0.243	102.3	3.5	0.65	1.345	81.6	0.335	1.037	34.4	466.3	0.690	1.384	-3.14	1.002	109.5	258.0	-31.8	0.337
4-6160	4-6610	0.205	116.6	7.7	1.17	1.348	84.5	0.323	1.044	22.9	464.3	0.707	1.381	-3.02	1.005	108.8	270.5	-32.2	0.327
4-6160	4-6620	0.183	134.5	12.4	1.67	1.350	87.2	0.318	1.052	11.7	462.7	0.718	1.387	-2.98	1.008	108.5	282.6	-32.8	0.325
4-6160	4-6630	0.783	50.3	2.8	2.18	1.258	52.4	0.620	0.840	117.1	577.6	0.319	1.361	-3.03	0.882	53.4	144.5	3[illegible]	0.593
4-6160	4-6630	0.180	154.5	16.6	2.18	1.353	89.8	0.320	1.061	0.9	461.4	0.721	1.401	-3.03	1.013	108.5	294.3	-30.5	0.331
4-6160	4-6640	0.711	53.4	4.0	2.71	1.266	56.2	0.571	0.854	110.7	580.7	0.366	1.342	-3.17	0.894	56.7	151.7	7.0	0.542
4-6160	4-6640	0.196	173.8	19.1	2.71	1.356	92.4	0.329	1.071	350.4	820.4	0.719	1.423	-3.17	1.018	109.0	305.4	-28.7	0.342
4-6160	4-6650	0.643	56.5	5.7	3.32	1.273	59.7	0.525	0.868	104.1	583.7	0.413	1.324	-3.43	0.906	59.7	158.7	3.1	0.495
4-6160	4-6650	0.228	189.8	20.1	3.32	1.360	95.0	0.343	1.082	340.3	819.9	0.710	1.453	-3.43	1.024	109.8	315.8	-26.4	0.361
4-6160	4-6660	0.580	59.7	8.0	4.05	1.280	63.0	0.481	0.881	97.3	586.5	0.457	1.305	-3.85	0.917	62.4	165.6	-1.4	0.453
4-6160	4-6660	0.271	202.2	20.6	4.05	1.363	97.7	0.303	1.094	330.7	819.9	0.697	1.491	-3.85	1.030	110.9	325.7	-24.0	0.385
4-6160	4-6670	0.525	62.9	11.3	5.03	1.286	66.1	0.442	0.893	90.5	589.2	0.498	1.288	-4.53	0.927	64.8	172.4	-6.7	0.417
4-6160	4-6670	0.324	211.8	21.3	5.03	1.367	100.5	0.388	1.107	321.5	820.3	0.677	1.536	-4.53	1.037	112.3	335.2	-21.6	0.415
4-6160	4-6680	0.478	66.0	16.5	6.48	1.291	68.9	0.407	0.904	83.4	591.8	0.536	1.272	-5.70	0.937	66.9	178.7	-13.4	0.388
4-6160	4-6680	0.387	219.6	22.9	6.48	1.372	103.4	0.418	1.121	312.8	821.2	0.653	1.590	-5.70	1.045	114.0	344.4	-19.8	0.452
4-6160	4-6690	0.450	68.6	25.5	9.06	1.296	71.5	0.376	0.914	76.3	594.4	0.571	1.258	-8.01	0.947	68.6	184.4	-23.0	0.372
4-6160	4-6690	0.465	226.5	26.5	9.06	1.376	106.5	0.451	1.137	304.6	822.7	0.624	1.650	-8.01	1.054	116.0	353.7	-19.4	0.499
4-6160	4-6700	0.487	67.7	43.0	15.42	1.300	73.8	0.349	0.924	69.1	596.8	0.601	1.246	-14.11	0.955	70.1	188.1	-40.2	0.399
4-6160	4-6700	0.589	234.8	36.0	15.42	1.381	109.6	0.487	1.154	296.9	824.5	0.592	1.716	-14.11	1.062	118.3	3.6	-24.1	0.574
4-6160	4-6720	0.495	70.3	-58.5	-19.24	1.307	76.4	0.304	0.939	53.2	601.5	0.654	1.225	21.07	0.970	72.6	240.2	28.0	0.452
4-6160	4-6730	0.293	88.7	-35.8	-7.62	1.310	80.2	0.289	0.946	45.8	603.7	0.672	1.219	9.71	0.977	73.4	235.5	11.0	0.318
4-6160	4-6740	0.549	82.0	-10.0	-4.03	1.448	68.9	0.598	1.477	58.1	265.9	---	2.359	6.39	1.158	58.1	226.2	-6.6	0.608
4-6160	4-6740	0.229	97.7	-23.5	-4.03	1.313	82.1	0.277	0.952	37.9	605.8	0.688	1.215	6.39	0.983	74.1	240.3	1.5	0.284
4-6160	4-6750	0.496	87.0	-6.2	-2.22	1.450	71.5	0.583	1.488	51.5	269.4	---	2.356	4.86	1.162	59.6	233.6	-10.6	0.582
4-6160	4-6750	0.191	107.2	-15.3	-2.22	1.315	83.8	0.267	0.957	29.8	607.7	0.701	1.213	4.86	0.989	74.6	247.5	-4.2	0.270
4-6160	4-6760	0.447	92.7	-3.3	-1.07	1.451	74.1	0.570	1.499	44.7	272.7	---	2.353	4.02	1.166	61.0	241.8	-13.4	0.559
4-6160	4-6760	0.165	118.7	-8.6	-1.07	1.317	85.6	0.261	0.962	21.5	609.4	0.711	1.213	4.02	0.993	74.9	255.9	-7.9	0.262
4-6170	4-6200	0.859	54.1	-3.2	-3.43	1.121	45.9	0.699	0.662	139.5	162.1	---	---	-6.29	0.684	122.7	181.1	-7.6	0.552
4-6170	4-6210	0.730	55.8	-1.8	-1.46	1.108	52.6	0.614	0.649	135.8	168.0	---	---	-4.54	0.659	107.7	178.0	-6.7	0.411
4-6170	4-6220	0.651	58.0	-0.5	-0.32	1.117	56.8	0.554	0.658	131.7	173.5	---	---	-3.63	0.672	97.9	174.8	-5.6	0.335
4-6170	4-6230	0.597	60.5	0.7	0.45	1.134	59.8	0.507	0.674	127.2	178.5	---	---	-3.09	0.697	91.5	172.2	-4.7	0.291
4-6170	4-6240	0.554	63.2	1.9	1.04	1.151	62.2	0.469	0.693	122.4	183.3	---	1.018	-2.77	0.724	87.1	170.8	-4.2	0.266
4-6170	4-6250	0.518	65.8	3.1	1.52	1.169	64.2	0.436	0.713	117.4	187.8	---	1.024	-2.56	0.751	84.1	170.7	-4.3	0.251
4-6170	4-6260	0.486	68.5	4.4	1.95	1.185	66.0	0.408	0.733	112.2	192.0	---	1.032	-2.45	0.777	81.9	171.9	-5.0	0.242
4-6170	4-6270	0.457	71.2	5.7	2.36	1.200	67.6	0.383	0.753	106.8	196.2	---	1.041	-2.42	0.800	80.4	174.3	-6.3	0.236
4-6170	4-6280	0.430	73.9	7.3	2.77	1.214	69.2	0.361	0.772	101.3	200.3	---	1.050	-2.45	0.822	79.3	177.5	-8.2	0.232
4-6170	4-6290	0.404	76.7	9.2	3.20	1.226	70.6	0.341	0.790	95.7	204.2	---	1.059	-2.55	0.843	78.5	181.4	-10.6	0.230
4-6170	4-6300	0.381	79.4	11.4	3.68	1.237	72.1	0.324	0.807	90.0	208.1	---	1.068	-2.74	0.860	77.9	185.9	-13.6	0.228
4-6170	4-6310	0.359	82.2	14.3	4.26	1.247	73.4	0.308	0.823	84.2	212.0	---	1.077	-3.06	0.876	77.5	190.9	-17.3	0.227
4-6170	4-6320	0.340	85.1	18.2	5.02	1.255	74.8	0.295	0.839	78.3	215.7	---	1.086	-3.58	0.891	77.2	196.3	-21.8	0.227
4-6170	4-6330	0.326	88.0	23.7	6.14	1.263	76.1	0.283	0.853	72.2	219.4	---	1.094	-4.46	0.906	77.1	201.4	-27.7	0.230
4-6170	4-6340	0.325	90.4	32.4	8.09	1.270	77.4	0.272	0.856	66.1	223.1	---	1.102	-6.19	0.919	76.9	206.3	-36.3	0.240
4-6170	4-6350	0.370	90.1	48.0	12.71	1.277	78.6	0.263	0.879	59.9	226.6	---	1.110	-10.60	0.930	76.9	209.6	-51.5	0.280
4-6170	4-6370	0.416	92.4	-62.8	-15.89	1.288	81.4	0.247	0.901	46.0	233.3	---	1.123	19.42	0.951	76.9	257.1	29.4	0.391
4-6170	4-6380	0.224	111.8	-33.4	-5.51	1.293	82.6	0.242	0.911	39.4	236.5	---	1.132	8.26	0.961	76.9	253.0	9.0	0.259
4-6170	4-6390	0.179	126.6	-17.2	-2.35	1.297	83.9	0.239	0.921	32.4	239.5	---	1.140	5.31	0.969	76.8	258.1	-1.4	0.238
4-6170	4-6400	0.156	130.1	-6.7	-0.80	1.301	85.3	0.237	0.929	25.1	242.2	---	1.150	4.00	0.976	76.7	265.5	-8.9	0.234
4-6170	4-6410	0.142	141.6	1.4	0.15	1.305	86.7	0.236	0.938	17.5	244.7	---	1.159	3.29	0.982	76.6	273.8	-9.9	0.235
4-6170	4-6420	0.136	155.4	8.2	0.84	1.308	88.2	0.238	0.946	9.5	246.9	---	1.171	2.81	0.988	76.4	282.6	-11.4	0.240
4-6170	4-6430	0.137	171.1	13.4	1.39	1.311	89.8	0.242	0.953	1.1	248.8	---	1.183	2.61	0.992	76.1	291.7	-11.6	0.247
4-6170	4-6440	0.148	187.3	16.7	1.86	1.314	91.5	0.249	0.960	352.4	610.2	0.721	1.198	2.47	0.996	75.7	300.9	-10.9	0.257
4-6170	4-6450	0.170	202.4	18.1	2.30	1.317	93.4	0.259	0.967	345.2	611.2	0.716	1.217	2.42	0.999	75.0	310.3	-9.4	0.271
4-6170	4-6460	0.202	215.5	18.1	2.73	1.319	95.6	0.274	0.973	333.4	611.6	0.706	1.240	2.44	1.001	74.1	319.7	-7.1	0.290
4-6170	4-6470	0.246	226.5	17.2	3.18	1.322	98.2	0.296	0.979	323.1	611.4	0.689	1.269	2.54	1.003	72.8	329.1	-4.3	0.315
4-6170	4-6480	0.303	235.9	16.0	3.69	1.324	101.3	0.326	0.985	312.0	610.4	0.664	1.306	2.75	1.004	71.0	338.7	-0.9	0.349
4-6170	4-6480	0.654	281.3	5.2	3.69	1.118	122.9	0.550	0.658	228.5	886.9	0.296	1.020	2.75	0.710	105.1	86.8	28.5	0.371
4-6170	4-6490	0.380	244.2	14.6	4.30	1.326	105.1	0.370	0.991	299.9	608.4	0.625	1.357	3.08	1.005	68.3	348.6	3.0	0.396
4-6170	4-6490	0.634	281.7	6.4	4.30	1.108	121.4	0.530	0.649	228.1	896.5	0.305	0.993	3.08	0.691	93.9	73.2	29.2	0.324
4-6170	4-6500	0.486	252.1	13.2	5.11	1.329	110.3	0.432	0.997	286.4	604.9	0.566	1.428	3.64	1.005	64.4	359.2	7.4	0.465
4-6170	4-6500	0.656	282.4	7.3	5.11	1.104	122.5	0.547	0.646	226.9	905.3	0.293	0.998	3.64	0.681	83.7	60.7	28.0	0.346
4-6170	4-6510	0.637	260.3	11.7	6.31	1.331	117.6	0.525	1.004	270.7	599.0	0.477	1.531	4.61	1.006	58.3	11.0	12.3	0.569
4-6170	4-6510	0.732	283.9	7.7	6.31	1.103	126.4	0.602	0.645	224.3	912.6	0.257	1.032	4.61	0.676	72.3	54.0	26.5	0.428
4-6170	4-6520	0.885	286.9	7.5	8.44	1.105	134.5	0.706	0.646	218.6	916.8	0.190	1.102	6.52	0.674	57.8	54.7	26.1	0.578
4-6170	4-6570	0.809	52.5	-2.3	-2.33	1.084	48.0	0.678	0.628	141.5	888.7	0.202	1.053	-5.30	0.619	111.7	173.5	-4.2	0.472
4-6170	4-6580	0.552	84.0	-1.9	-0.85	1.339	65.4	0.496	1.024	81.9	478.6	0.517	1.532	-4.04	0.998	119.7	229.3	-25.4	0.504
4-6170	4-6580	0.734	53.6	-1.0	-0.85	1.082	52.0	0.627	0.626	139.2	895.9	0.233	1.018	-4.04	0.612	96.8	165.6	-0.7	0.388
4-6170	4-6590	0.432	92.4	0.2	0.08	1.341	71.3	0.428	1.031	67.1	473.4	0.590	1.472	-3.34	1.000	115.3	242.9	-28.2	0.432
4-6170	4-6600	0.344	101.3	2.8	0.75	1.343	75.9	0.382	1.038	53.7	469.6	0.641	1.435	-2.92	1.002	112.5	256.2	-29.9	0.386
4-6170	4-6610	0.279	111.7	6.1	1.28	1.346	79.6	0.353	1.045	41.2	466.5	0.676	1.413	-2.66	1.005	110.6	269.1	-30.4	0.358
4-6170	4-6620	0.231	124.6	10.1	1.73	1.348	82.8	0.335	1.052	29.2	464.1	0.699	1.404	-2.50	1.008	109.5	281.6	-30.0	0.342
4-6170	4-6630	0.200	140.8	14.7	2.15	1.351	85.7	0.326	1.060	17.7	462.1	0.714	1.405	-2.43	1.012	108.9	293.6	-28.7	0.335
4-6170	4-6640	0.187	160.2	18.8	2.55	1.354	88.4	0.325	1.068	6.5	460.5	0.721	1.415	-2.42	1.017	108.7	304.9	-26.7	0.336
4-6170	4-6650	0.770	67.2	3.9	2.97	1.262	53.1	0.612	0.850	115.5	579.0	0.330	1.371	-2.48	0.892	53.7	162.0	4.3	0.585
4-6170	4-6650	0.193	180.3	21.3	2.97	1.357	91.0	0.330	1.077	355.8	819.3	0.722	1.432	-2.48	1.022	109.0	315.6	-24.2	0.344
4-6170	4-6660	0.700	70.2	5.2	3.42	1.269	56.8	0.564	0.864	109.1	582.2	0.377	1.352	-2.63	0.905	56.9	169.0	0.7	0.536
4-6170	4-6660	0.217	198.1	21.9	3.42	1.360	93.7	0.341	1.087	345.5	818.6	0.717	1.458	-2.63	1.028	109.6	325.7	-21.3	0.358
4-6170	4-6670	0.634	73.4	6.9	3.94	1.276	60.3	0.519	0.878	102.5	585.3	0.422	1.333	-2.87	0.917	59.8	176.0	-3.3	0.491
4-6170	4-6670	0.254	212.2	21.5	3.94	1.363	96.4	0.358	1.099	335.6	818.3	0.705	1.492	-2.87	1.034	110.5	335.2	-18.2	0.379
4-6170	4-6680	0.573	76.5	9.2	4.59	1.283	63.5	0.477	0.890	95.8	588.2	0.465	1.315	-3.27	0.928	62.4	183.0	-7.8	0.451
4-6170	4-6680	0.301	223.1	21.1	4.59	1.367	99.1	0.380	1.111	326.2	818.6	0.689	1.533	-3.27	1.041	111.7	344.3	-15.2	0.405

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6170	4-6690	0.519	79.7	12.6	5.49	1.288	66.5	0.439	0.902	89.0	591.1	0.506	1.298	-3.93	0.938	64.8	189.9	-13.0	0.416
4-6170	4-6690	0.356	231.6	21.1	5.49	1.371	102.0	0.407	1.125	317.3	819.4	0.667	1.582	-3.93	1.049	113.3	359.1	-12.5	0.436
4-6170	4-6700	0.474	82.8	17.9	6.91	1.293	69.2	0.405	0.913	82.0	593.8	0.543	1.282	-5.12	0.948	66.8	196.6	-19.6	0.388
4-6170	4-6700	0.421	238.6	22.3	6.91	1.375	105.0	0.438	1.139	308.9	820.7	0.640	1.638	-5.12	1.057	115.1	1.9	-10.5	0.475
4-6170	4-6710	0.450	85.3	27.4	9.68	1.298	71.8	0.374	0.922	74.9	596.5	0.577	1.268	-7.68	0.957	68.5	202.7	-29.6	0.373
4-6170	4-6710	0.502	245.1	26.1	9.68	1.380	108.1	0.472	1.156	300.9	822.5	0.610	1.701	-7.68	1.066	117.2	11.0	-10.5	0.523
4-6170	4-6720	0.528	81.6	48.6	18.45	1.302	74.1	0.349	0.931	67.7	599.0	0.606	1.256	-16.24	0.966	70.0	207.0	-50.8	0.425
4-6170	4-6740	0.337	99.3	-37.5	-9.19	1.308	78.5	0.305	0.946	52.0	603.9	0.657	1.235	-11.82	0.980	72.4	245.5	11.8	0.353
4-6170	4-6750	0.581	95.3	-8.4	-3.67	1.446	67.2	0.610	1.478	62.3	264.1	---	2.380	6.51	1.160	57.1	236.8	-9.6	0.629
4-6170	4-6750	0.252	108.3	-19.2	-3.67	1.311	80.5	0.290	0.953	44.3	606.1	0.676	1.229	6.51	0.986	73.3	249.2	-1.0	0.301
4-6170	4-6760	0.527	100.0	-3.9	-3.51	1.448	69.8	0.594	1.490	55.9	267.7	---	2.376	4.58	1.144	58.7	244.3	-13.6	0.600
4-6170	4-6760	0.211	116.5	-9.3	-1.51	1.314	82.4	0.278	0.959	36.2	608.1	0.692	1.225	4.58	0.992	73.9	256.7	-7.1	0.282
4-6170	4-6770	0.478	105.2	-0.9	-0.30	1.450	72.4	0.580	1.501	49.1	271.1	---	2.372	3.61	1.160	60.2	252.7	-16.1	0.576
4-6170	4-6770	0.182	126.3	-2.2	-0.30	1.316	84.2	0.269	0.964	27.9	609.9	0.705	1.223	3.61	0.996	74.4	265.4	-10.5	0.272
4-6180	4-6230	0.873	64.1	-0.4	-0.49	1.036	43.6	0.740	0.592	148.3	174.1	---	---	-3.83	0.541	306.1	177.5	-3.2	0.497
4-6180	4-6230	0.775	67.5	0.6	0.61	1.061	49.4	0.665	0.611	142.8	178.1	---	---	-2.88	0.576	93.8	175.5	-2.4	0.413
4-6180	4-6240	0.707	70.8	1.6	1.29	1.089	53.5	0.605	0.634	137.4	182.2	---	1.018	-2.36	0.624	86.7	174.4	-2.0	0.364
4-6180	4-6250	0.652	74.0	2.5	1.77	1.116	56.7	0.555	0.658	131.9	186.2	---	1.024	-2.05	0.670	82.3	174.4	-2.0	0.333
4-6180	4-6260	0.607	77.1	3.5	2.14	1.140	59.3	0.513	0.683	126.4	190.3	---	1.034	-1.85	0.710	79.6	175.7	-2.6	0.313
4-6180	4-6270	0.567	80.1	4.4	2.46	1.162	61.6	0.476	0.708	120.8	194.2	---	1.044	-1.74	0.745	77.8	178.0	-3.7	0.299
4-6180	4-6280	0.531	83.1	5.5	2.75	1.181	63.7	0.443	0.731	115.2	198.1	---	1.055	-1.68	0.776	76.6	181.2	-5.3	0.288
4-6180	4-6290	0.497	86.0	6.7	3.03	1.198	65.6	0.414	0.753	109.4	202.0	---	1.065	-1.66	0.804	75.9	185.2	-7.3	0.280
4-6180	4-6300	0.466	88.9	8.0	3.32	1.213	67.4	0.389	0.774	103.7	206.8	---	1.076	-1.70	0.828	75.4	189.8	-9.7	0.273
4-6180	4-6310	0.437	91.7	9.5	3.63	1.226	69.1	0.366	0.794	97.8	209.6	---	1.085	-1.79	0.850	75.1	194.9	-12.4	0.267
4-6180	4-6320	0.409	94.6	11.4	3.98	1.238	70.7	0.346	0.813	91.9	213.4	---	1.094	-1.95	0.870	75.0	200.5	-15.4	0.262
4-6180	4-6330	0.384	97.6	13.8	4.42	1.249	72.3	0.328	0.830	85.8	217.1	---	1.103	-2.21	0.888	75.0	206.5	-18.9	0.257
4-6180	4-6340	0.360	100.6	17.0	5.02	1.258	73.8	0.312	0.847	79.7	220.7	---	1.111	-2.65	0.904	75.1	212.9	-22.9	0.254
4-6180	4-6350	0.340	103.7	21.8	5.95	1.266	75.2	0.298	0.862	73.4	224.4	---	1.119	-3.42	0.919	75.2	219.4	-28.1	0.253
4-6180	4-6360	0.335	106.4	29.9	7.74	1.273	76.7	0.286	0.876	67.1	227.9	---	1.126	-5.06	0.932	75.3	226.0	-36.1	0.257
4-6180	4-6370	0.386	105.7	47.6	13.17	1.280	78.1	0.275	0.889	60.6	231.3	---	1.134	-10.34	0.944	75.4	232.0	-53.6	0.297
4-6180	4-6390	0.249	121.7	-29.7	-5.57	1.291	81.0	0.258	0.913	46.6	237.7	---	1.148	8.69	0.964	75.8	260.9	7.2	0.279
4-6180	4-6400	0.200	139.5	-8.7	-1.35	1.296	82.4	0.252	0.923	39.5	240.7	---	1.155	4.62	0.972	75.9	266.4	-5.8	0.250
4-6180	4-6410	0.178	137.5	1.6	0.22	1.300	83.8	0.248	0.933	32.2	243.4	---	1.166	3.21	0.979	76.0	274.4	-10.9	0.245
4-6180	4-6420	0.162	141.2	8.7	1.07	1.304	85.3	0.245	0.942	24.5	245.9	---	1.173	2.51	0.986	76.0	283.2	-13.0	0.245
4-6180	4-6430	0.151	155.3	14.4	1.64	1.308	86.8	0.244	0.950	16.5	248.1	---	1.183	2.12	0.991	76.0	292.3	-13.5	0.248
4-6180	4-6440	0.146	173.9	18.9	2.07	1.311	88.4	0.246	0.958	8.1	249.9	---	1.194	1.89	0.995	75.8	301.5	-12.9	0.253
4-6180	4-6450	0.149	190.1	21.8	2.42	1.314	90.1	0.251	0.966	359.4	611.4	0.724	1.208	1.75	0.999	75.5	310.7	-11.5	0.261
4-6180	4-6460	0.163	207.0	22.7	2.73	1.317	92.0	0.258	0.973	350.2	612.4	0.722	1.224	1.68	1.001	75.1	319.9	-9.3	0.272
4-6180	4-6470	0.186	222.0	21.9	3.03	1.320	94.1	0.270	0.980	340.6	612.9	0.715	1.244	1.66	1.003	74.3	329.1	-6.6	0.286
4-6180	4-6480	0.222	234.8	20.1	3.32	1.323	96.5	0.287	0.986	330.5	612.9	0.703	1.269	1.70	1.005	73.3	338.4	-3.3	0.306
4-6180	4-6490	0.270	245.4	18.0	3.65	1.325	99.3	0.312	0.992	319.7	612.1	0.683	1.302	1.80	1.005	71.8	347.8	0.4	0.333
4-6180	4-6490	0.694	296.6	4.9	3.65	1.131	124.4	0.569	0.673	229.3	881.8	0.290	1.056	1.80	0.731	111.2	108.5	25.3	0.413
4-6180	4-6500	0.334	254.6	15.8	4.02	1.327	102.7	0.347	0.998	308.1	610.5	0.652	1.344	1.97	1.006	69.7	357.4	4.4	0.371
4-6180	4-6500	0.629	296.7	6.1	4.02	1.116	121.1	0.524	0.659	229.6	892.0	0.314	1.004	1.97	0.704	98.6	96.2	27.6	0.324
4-6180	4-6510	0.420	262.8	13.7	4.48	1.330	107.0	0.396	1.005	295.4	607.8	0.607	1.403	2.25	1.006	66.7	7.7	8.6	0.424
4-6180	4-6510	0.628	297.2	6.1	4.48	1.110	121.1	0.524	0.654	228.8	901.2	0.311	0.996	2.25	0.691	88.7	82.7	28.2	0.316
4-6180	4-6520	0.539	270.8	11.7	5.11	1.332	112.9	0.469	1.011	281.1	603.4	0.537	1.485	2.72	1.007	62.1	18.8	13.2	0.503
4-6180	4-6520	0.674	298.2	7.0	5.11	1.108	123.4	0.559	0.652	227.0	909.3	0.288	1.016	2.72	0.684	78.6	72.8	27.5	0.366
4-6180	4-6530	0.776	300.1	6.8	6.11	1.109	128.8	0.633	0.652	223.4	915.5	0.239	1.064	3.56	0.680	66.6	69.6	26.9	0.474
4-6180	4-6580	0.909	67.1	-1.2	-1.44	1.090	42.5	0.743	0.635	144.8	885.5	0.163	1.107	-4.71	0.631	123.6	191.2	-9.5	0.575
4-6180	4-6590	0.661	94.7	0.2	0.11	1.339	60.0	0.562	1.032	92.6	482.8	0.452	1.612	-3.30	1.001	124.2	238.1	-25.0	0.580
4-6180	4-6590	0.765	70.0	0.1	0.11	1.091	50.4	0.646	0.636	139.1	889.4	0.225	1.047	-3.30	0.631	108.1	190.5	-9.5	0.432
4-6180	4-6600	0.508	103.3	2.4	0.96	1.342	67.6	0.473	1.039	76.1	475.9	0.547	1.530	-2.60	1.003	118.2	252.7	-27.3	0.482
4-6180	4-6600	0.954	63.4	0.7	0.96	1.049	39.2	0.786	0.601	150.2	910.1	0.129	1.073	-2.60	0.552	58.8	148.8	10.5	0.589
4-6180	4-6600	0.709	70.7	1.2	0.96	1.088	53.4	0.607	0.633	137.5	897.3	0.249	1.018	-2.60	0.624	94.1	181.2	-5.3	0.366
4-6180	4-6610	0.400	112.0	4.9	1.53	1.344	73.1	0.414	1.046	61.6	470.9	0.613	1.478	-2.19	1.005	114.4	266.5	-28.2	0.421
4-6180	4-6620	0.321	121.7	8.0	1.95	1.346	77.4	0.375	1.052	48.3	467.1	0.658	1.447	-1.94	1.008	111.9	279.7	-27.9	0.382
4-6180	4-6630	0.262	133.3	11.6	2.30	1.349	81.0	0.350	1.059	35.7	464.1	0.689	1.430	-1.79	1.012	110.4	292.1	-26.7	0.359
4-6180	4-6640	0.221	147.9	16.0	2.60	1.351	84.1	0.336	1.067	23.7	461.7	0.708	1.425	-1.70	1.016	109.4	303.8	-24.6	0.347
4-6180	4-6650	0.198	166.0	20.1	2.89	1.354	87.0	0.330	1.075	12.2	459.7	0.720	1.430	-1.66	1.021	109.0	314.8	-22.0	0.344
4-6180	4-6660	0.195	186.3	22.7	3.17	1.357	89.7	0.332	1.084	1.1	458.2	0.724	1.443	-1.68	1.026	109.0	325.1	-18.9	0.348
4-6180	4-6670	0.757	84.1	4.7	3.46	1.265	53.9	0.603	0.861	113.8	580.6	0.341	1.380	-1.74	0.904	54.1	179.4	-2.1	0.579
4-6180	4-6670	0.209	205.6	23.1	3.46	1.360	92.4	0.340	1.093	350.5	817.3	0.721	1.465	-1.74	1.032	109.4	334.8	-15.5	0.358
4-6180	4-6680	0.688	87.1	5.9	3.79	1.272	57.5	0.557	0.874	107.4	583.8	0.387	1.361	-1.86	0.917	57.2	186.4	-5.7	0.531
4-6180	4-6680	0.238	221.6	22.1	3.79	1.383	95.1	0.354	1.104	340.4	816.8	0.713	1.495	-1.86	1.039	110.2	344.1	-12.0	0.374
4-6180	4-6690	0.623	90.3	7.5	4.17	1.279	60.9	0.513	0.887	100.9	587.0	0.432	1.342	-2.06	0.929	60.0	193.6	-9.5	0.488
4-6180	4-6690	0.279	233.8	20.7	4.17	1.366	97.8	0.373	1.115	330.8	816.9	0.699	1.532	-2.06	1.046	111.2	353.0	-8.5	0.396
4-6180	4-6700	0.564	93.5	9.8	4.68	1.285	64.0	0.472	0.899	94.2	590.1	0.475	1.323	-2.39	0.940	62.6	201.0	-13.6	0.449
4-6180	4-6700	0.329	243.3	19.5	4.68	1.370	100.6	0.398	1.128	321.7	817.6	0.680	1.577	-2.39	1.053	112.6	1.7	-5.3	0.424
4-6180	4-6710	0.510	96.7	12.7	5.40	1.290	66.9	0.435	0.910	87.3	593.0	0.515	1.306	-2.95	0.950	64.8	208.5	-18.2	0.415
4-6180	4-6710	0.386	250.8	19.0	5.40	1.374	103.6	0.426	1.142	313.1	818.8	0.655	1.629	-2.95	1.061	114.3	10.2	-2.4	0.457
4-6180	4-6720	0.465	100.0	17.6	6.63	1.295	69.7	0.401	0.921	80.3	595.9	0.551	1.290	-4.03	0.960	66.8	216.0	-24.0	0.387
4-6180	4-6720	0.451	257.1	19.8	6.63	1.378	106.6	0.459	1.157	304.9	820.5	0.626	1.689	-4.03	1.069	116.2	18.9	-0.5	0.495
4-6180	4-6730	0.441	102.6	27.3	9.41	1.299	72.3	0.372	0.930	73.2	598.7	0.555	1.276	-6.66	0.968	68.5	223.2	-33.6	0.372
4-6180	4-6730	0.532	263.1	23.6	9.41	1.382	109.8	0.494	1.174	297.1	822.4	0.595	1.754	-6.66	1.077	118.4	28.0	-1.0	0.543
4-6180	4-6740	0.608	91.8	55.8	23.62	1.303	74.5	0.341	0.939	66.0	601.3	0.613	1.265	-20.72	0.976	70.0	232.2	-63.1	0.480
4-6180	4-6750	0.417	108.2	-44.9	-13.38	1.307	76.9	0.323	0.947	57.9	603.8	0.641	1.252	16.43	0.983	71.3	257.1	16.4	0.418
4-6180	4-6760	0.275	119.8	-13.7	-2.92	1.309	78.9	0.305	0.954	50.3	606.1	0.663	1.245	8.10	0.989	72.3	258.1	-4.4	0.315
4-6180	4-6770	0.558	113.3	-1.1	-0.46	1.447	68.0	0.606	1.491	60.0	265.9	---	2.396	3.80	1.166	57.7	255.3	-16.7	0.619
4-6180	4-6770	0.234	126.9	-2.6	-0.46	1.312	80.9	0.290	0.960	42.3	608.2	0.682	1.239	3.80	0.994	73.2	266.1	-11.0	0.294

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6180	4-6780	0.509	118.1	1.8	0.68	1.448	70.7	0.591	1.503	53.4	269.5	---	2.391	2.82	1.169	59.3	263.9	-18.5	0.594
4-6180	4-6780	0.204	135.3	4.3	0.68	1.314	82.8	0.278	0.966	34.0	610.1	0.697	1.235	2.82	0.998	73.9	275.2	-13.7	0.282
4-6190	4-6240	0.901	71.9	1.4	1.88	1.009	41.6	0.768	0.575	151.5	180.3	---	1.016	-1.63	0.478	89.0	179.9	-1.6	0.506
4-6190	4-6250	0.818	81.9	2.2	2.31	1.047	46.9	0.699	0.601	145.5	183.9	---	1.022	-1.26	0.552	81.1	179.7	-1.6	0.447
4-6190	4-6260	0.732	89.5	2.9	2.59	1.081	51.0	0.641	0.629	139.7	187.6	---	1.032	-1.06	0.615	77.0	180.6	-2.0	0.400
4-6190	4-6270	0.658	79.0	3.6	2.80	1.112	54.3	0.590	0.657	133.9	191.4	---	1.044	-0.93	0.668	74.6	181.7	-2.9	0.381
4-6190	4-6280	0.610	92.3	4.4	2.97	1.139	57.1	0.545	0.684	128.1	195.2	---	1.057	-0.85	0.714	73.1	185.6	-4.2	0.361
4-6190	4-6290	0.617	95.4	5.2	3.12	1.162	59.7	0.505	0.710	122.4	199.0	---	1.069	-0.81	0.753	72.5	189.3	-5.8	0.345
4-6190	4-6300	0.547	98.5	6.0	3.25	1.182	62.0	0.470	0.735	116.5	202.7	---	1.081	-0.79	0.786	72.2	193.8	-7.8	0.331
4-6190	4-6310	0.530	101.5	6.9	3.38	1.200	64.1	0.439	0.759	110.7	206.5	---	1.092	-0.79	0.815	72.1	198.8	-10.0	0.320
4-6190	4-6320	0.495	104.4	7.9	3.52	1.216	66.1	0.411	0.781	104.7	210.3	---	1.102	-0.81	0.841	72.2	204.4	-12.4	0.310
4-6190	4-6330	0.467	107.4	9.1	3.67	1.230	67.9	0.386	0.802	98.7	214.0	---	1.112	-0.87	0.864	72.4	210.4	-14.9	0.301
4-6190	4-6340	0.439	110.4	10.5	3.85	1.242	69.7	0.364	0.822	92.6	217.7	---	1.121	-0.96	0.884	72.6	217.0	-17.5	0.292
4-6190	4-6350	0.401	113.5	12.2	4.09	1.252	71.4	0.344	0.840	86.4	221.4	---	1.129	-1.11	0.902	73.0	223.9	-20.3	0.285
4-6190	4-6360	0.353	116.7	14.4	4.42	1.261	73.1	0.326	0.857	80.1	225.0	---	1.137	-1.37	0.918	73.3	231.3	-23.2	0.278
4-6190	4-6370	0.318	120.1	17.8	4.98	1.270	74.7	0.311	0.873	73.7	228.6	---	1.144	-1.85	0.932	73.7	239.1	-26.6	0.273
4-6190	4-6380	0.317	123.4	23.9	6.21	1.277	76.2	0.297	0.887	67.1	232.0	---	1.151	-3.02	0.945	74.0	247.2	-32.1	0.271
4-6190	4-6390	0.319	123.2	44.4	12.21	1.284	77.7	0.285	0.901	60.3	235.3	---	1.158	-8.94	0.956	74.4	256.7	-51.2	0.303
4-6190	4-6400	0.216	132.8	-25.6	-5.39	1.290	79.3	0.275	0.915	53.3	238.4	---	1.164	8.73	0.966	74.7	269.0	4.9	0.298
4-6190	4-6410	0.216	139.7	2.4	0.43	1.295	80.8	0.267	0.925	46.1	241.4	---	1.171	2.98	0.975	75.0	275.3	-12.6	0.262
4-6190	4-6420	0.206	146.4	30.4	1.65	1.300	82.3	0.260	0.936	38.7	244.2	---	1.179	1.83	0.982	75.2	284.2	-16.0	0.257
4-6190	4-6430	0.187	154.7	15.5	2.21	1.304	83.8	0.255	0.946	31.0	246.7	---	1.187	1.35	0.988	75.4	293.4	-16.6	0.257
4-6190	4-6440	0.172	165.0	19.6	2.54	1.308	85.4	0.253	0.955	23.0	248.9	---	1.196	1.09	0.993	75.5	302.6	-15.9	0.258
4-6190	4-6450	0.161	178.0	23.2	2.77	1.312	87.0	0.252	0.963	14.7	250.7	---	1.206	0.95	0.997	75.4	311.8	-14.3	0.261
4-6190	4-6460	0.157	193.5	25.6	2.96	1.315	88.8	0.254	0.971	6.1	252.2	---	1.219	0.86	1.001	75.3	320.9	-12.0	0.266
4-6190	4-6470	0.165	210.5	26.3	3.11	1.318	90.6	0.259	0.979	357.0	613.3	0.725	1.233	0.81	1.003	75.0	329.9	-9.2	0.274
4-6190	4-6480	0.175	227.1	25.1	3.25	1.321	92.6	0.268	0.986	347.5	614.0	0.722	1.251	0.79	1.005	74.4	338.9	-6.0	0.286
4-6190	4-6490	0.201	241.8	22.7	3.39	1.323	94.9	0.282	0.993	337.6	614.1	0.713	1.273	0.79	1.006	73.6	347.9	-2.4	0.301
4-6190	4-6500	0.241	254.1	19.6	3.53	1.326	97.4	0.301	1.000	327.1	613.6	0.698	1.301	0.82	1.007	72.5	357.1	1.4	0.323
4-6190	4-6510	0.291	264.3	16.6	3.69	1.328	100.5	0.329	1.006	315.9	612.4	0.675	1.337	0.88	1.007	70.8	6.5	5.4	0.352
4-6190	4-6510	0.633	311.8	5.6	3.69	1.125	121.5	0.527	0.670	230.9	887.3	0.317	1.023	0.88	0.718	103.4	117.9	22.8	0.340
4-6190	4-6520	0.361	273.1	13.9	3.88	1.330	104.3	0.369	1.012	303.9	610.3	0.639	1.386	0.97	1.007	68.4	16.5	9.5	0.394
4-6190	4-6520	0.611	312.1	6.1	3.88	1.117	120.3	0.511	0.662	230.5	896.8	0.324	1.000	0.97	0.702	93.3	105.3	25.0	0.302
4-6190	4-6530	0.461	281.3	11.3	4.12	1.333	109.1	0.426	1.018	290.6	606.8	0.585	1.452	1.13	1.007	64.8	27.3	13.7	0.454
4-6190	4-6530	0.633	312.8	6.2	4.12	1.114	121.4	0.528	0.659	229.3	905.5	0.311	1.007	1.13	0.692	83.9	93.4	25.8	0.323
4-6190	4-6540	0.597	289.4	9.0	4.47	1.335	115.8	0.509	1.025	275.4	601.4	0.503	1.546	1.40	1.008	59.4	39.4	17.8	0.544
4-6190	4-6540	0.699	314.1	5.8	4.47	1.113	124.9	0.578	0.658	226.8	912.8	0.278	1.039	1.40	0.687	73.6	86.7	25.7	0.397
4-6190	4-6550	0.831	316.7	5.0	5.04	1.114	131.9	0.672	0.659	221.7	917.5	0.216	1.103	1.91	0.685	69.6	86.9	25.6	0.530
4-6190	4-6600	0.846	85.0	1.4	1.53	1.098	46.1	0.700	0.644	141.4	885.2	0.193	1.094	-1.94	0.644	116.9	210.0	-14.5	0.520
4-6190	4-6610	0.665	114.0	4.2	2.11	1.343	82.9	0.531	1.046	86.0	479.4	0.491	1.602	-1.43	1.006	122.0	261.7	-25.5	0.548
4-6190	4-6610	0.736	87.4	2.5	2.11	1.098	52.6	0.616	0.644	136.7	890.1	0.248	1.041	-1.43	0.644	105.0	208.0	-13.9	0.398
4-6190	4-6620	0.409	122.8	6.6	2.46	1.345	69.8	0.453	1.053	70.0	472.9	0.576	1.530	-1.15	1.009	116.9	276.1	-25.6	0.465
4-6190	4-6620	0.919	80.8	1.9	2.46	1.059	41.4	0.761	0.611	148.0	910.9	0.146	1.075	-1.15	0.578	60.4	166.4	4.7	0.561
4-6190	4-6620	0.685	87.8	3.2	2.46	1.095	54.8	0.586	0.641	135.7	898.6	0.265	1.017	-1.15	0.638	91.9	197.3	-9.6	0.347
4-6190	4-6630	0.372	132.0	9.5	2.70	1.347	74.9	0.401	1.060	55.7	468.1	0.634	1.486	-0.99	1.012	113.6	289.4	-24.5	0.413
4-6190	4-6640	0.300	142.7	12.8	2.88	1.349	78.9	0.368	1.067	42.4	464.4	0.674	1.460	-0.89	1.016	111.4	301.7	-22.5	0.380
4-6190	4-6650	0.248	155.9	16.6	3.04	1.352	82.4	0.348	1.074	29.9	461.4	0.700	1.448	-0.83	1.021	110.1	313.2	-19.8	0.362
4-6190	4-6660	0.215	172.4	20.4	3.18	1.354	85.5	0.338	1.082	17.9	459.1	0.716	1.448	-0.79	1.025	109.4	323.9	-16.6	0.353
4-6190	4-6670	0.200	192.1	23.1	3.31	1.357	88.4	0.336	1.090	6.5	457.3	0.724	1.457	-0.78	1.031	109.2	333.9	-13.1	0.353
4-6190	4-6680	0.204	212.4	23.6	3.45	1.360	91.1	0.341	1.099	355.6	816.1	0.725	1.474	-0.80	1.037	109.4	343.0	-9.4	0.359
4-6190	4-6690	0.742	101.0	5.0	3.59	1.269	54.7	0.594	0.871	112.1	582.3	0.353	1.388	-0.84	0.917	54.5	197.0	-8.4	0.573
4-6190	4-6690	0.225	230.1	22.2	3.59	1.363	93.8	0.352	1.109	345.2	815.4	0.719	1.500	-0.84	1.043	109.9	352.6	-5.6	0.372
4-6190	4-6700	0.674	104.1	6.0	3.75	1.275	58.2	0.548	0.884	105.6	585.6	0.399	1.368	-0.91	0.929	57.5	204.4	-11.6	0.527
4-6190	4-6700	0.260	244.0	20.0	3.75	1.366	96.6	0.369	1.120	335.4	815.3	0.707	1.533	-0.91	1.050	110.8	1.5	-1.9	0.390
4-6190	4-6710	0.610	107.3	7.3	3.96	1.282	61.5	0.505	0.896	99.1	588.9	0.443	1.349	-1.02	0.941	60.3	212.1	-14.8	0.485
4-6190	4-6710	0.304	254.6	17.9	3.96	1.369	99.4	0.390	1.132	326.0	815.8	0.690	1.574	-1.02	1.057	112.0	10.1	1.7	0.414
4-6190	4-6720	0.551	110.5	9.0	4.23	1.287	64.6	0.465	0.908	92.3	592.0	0.485	1.331	-1.21	0.952	62.8	220.1	-18.0	0.448
4-6190	4-6720	0.355	262.9	16.2	4.23	1.373	102.2	0.416	1.145	317.8	816.9	0.668	1.622	-1.21	1.065	113.5	18.7	5.0	0.443
4-6190	4-6730	0.496	113.9	11.2	4.64	1.292	67.5	0.429	0.919	85.4	595.1	0.525	1.313	-1.55	0.961	65.0	228.4	-21.3	0.414
4-6190	4-6730	0.413	269.5	15.1	4.64	1.377	105.2	0.447	1.160	308.9	818.5	0.642	1.678	-1.55	1.072	115.3	27.3	7.9	0.476
4-6190	4-6740	0.449	117.5	14.9	5.42	1.297	70.2	0.396	0.929	78.4	598.0	0.561	1.298	-2.26	0.970	66.9	236.9	-25.3	0.385
4-6190	4-6740	0.477	275.1	15.1	5.42	1.381	108.3	0.480	1.175	300.9	820.6	0.611	1.740	-2.26	1.080	117.4	36.1	9.9	0.515
4-6190	4-6750	0.417	120.7	23.2	7.61	1.301	72.7	0.368	0.938	71.1	600.8	0.593	1.284	-4.38	0.978	68.6	245.7	-32.7	0.365
4-6190	4-6750	0.552	280.4	18.0	7.61	1.385	111.5	0.517	1.192	293.4	823.0	0.576	1.807	-4.38	1.088	119.7	45.3	9.4	0.560
4-6190	4-6770	0.300	132.0	-5.0	-1.17	1.308	77.3	0.321	0.954	55.9	605.8	0.648	1.261	4.54	0.991	71.3	267.3	-10.3	0.327
4-6190	4-6780	0.592	126.7	2.6	1.16	1.445	66.4	0.618	1.492	64.0	264.1	---	2.415	2.28	1.167	56.7	266.6	-19.9	0.638
4-6190	4-6780	0.262	138.1	5.7	1.16	1.311	79.4	0.304	0.961	48.0	608.2	0.669	1.253	2.28	0.996	72.4	276.1	-16.2	0.306
4-6190	4-6790	0.542	131.1	4.9	1.96	1.447	69.0	0.602	1.505	57.4	267.7	---	2.411	1.56	1.170	58.4	275.6	-20.8	0.612
4-6190	4-6790	0.231	145.3	11.1	1.96	1.313	81.4	0.289	0.967	39.8	610.1	0.688	1.247	1.56	1.000	73.2	285.7	-17.5	0.294
4-6200	4-6260	0.929	93.4	2.5	3.63	1.008	40.0	0.784	0.576	152.4	184.4	---	1.027	0.28	0.480	74.6	186.9	-2.7	0.535
4-6200	4-6270	0.853	97.5	3.1	3.56	1.049	45.0	0.721	0.605	146.3	187.9	---	1.041	0.23	0.562	70.9	188.3	-3.3	0.487
4-6200	4-6280	0.789	101.2	3.7	3.51	1.085	49.1	0.664	0.634	140.4	191.5	---	1.055	0.19	0.628	69.2	190.8	-4.4	0.453
4-6200	4-6290	0.733	104.7	4.2	3.48	1.116	52.5	0.613	0.663	134.5	195.3	---	1.070	0.17	0.683	68.5	194.1	-5.8	0.426
4-6200	4-6300	0.683	108.0	4.8	3.44	1.143	55.5	0.568	0.691	128.7	199.0	---	1.084	0.16	0.729	68.2	198.2	-7.4	0.405
4-6200	4-6310	0.637	111.2	5.3	3.42	1.167	58.2	0.527	0.718	122.8	202.8	---	1.097	0.15	0.768	68.4	202.9	-9.3	0.386
4-6200	4-6320	0.594	114.4	5.9	3.39	1.187	60.7	0.490	0.744	116.9	206.6	---	1.109	0.15	0.802	68.7	208.3	-11.3	0.370
4-6200	4-6330	0.554	117.4	6.5	3.37	1.205	63.0	0.457	0.768	110.9	210.4	---	1.120	0.15	0.831	69.1	214.2	-13.3	0.356
4-6200	4-6340	0.516	120.4	7.2	3.34	1.221	65.1	0.428	0.791	104.9	214.1	---	1.130	0.16	0.857	69.6	220.6	-15.4	0.343
4-6200	4-6350	0.479	123.5	7.9	3.31	1.234	67.1	0.401	0.813	98.7	217.9	---	1.139	0.17	0.880	70.2	227.4	-17.3	0.331
4-6200	4-6360	0.445	126.6	8.6	3.27	1.246	69.0	0.377	0.833	92.5	221.6	---	1.147	0.19	0.899	70.8	234.8	-19.0	0.320

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6200	4-6370	0.411	129.8	9.3	3.22	1.257	70.9	0.356	0.851	86.2	225.2	---	1.155	0.23	0.917	71.4	242.5	-20.4	0.311
4-6200	4-6380	0.379	135.2	10.1	3.14	1.266	72.6	0.337	0.869	79.7	228.8	---	1.162	0.29	0.932	71.9	250.7	-21.4	0.302
4-6200	4-6390	0.348	136.9	10.6	3.00	1.274	74.3	0.320	0.885	73.1	232.2	---	1.168	0.42	0.946	72.5	259.2	-21.8	0.294
4-6200	4-6400	0.317	141.0	10.2	2.60	1.281	76.0	0.306	0.900	66.3	235.6	---	1.175	0.80	0.957	73.0	268.0	-20.9	0.288
4-6200	4-6410	0.358	141.7	-39.0	-10.30	1.288	77.6	0.293	0.917	59.4	238.7	---	1.181	13.69	0.968	73.5	279.3	14.0	0.365
4-6200	4-6420	0.272	150.1	20.4	4.28	1.294	79.2	0.283	0.626	52.2	241.7	---	1.188	-0.90	0.976	74.0	286.4	-25.7	0.277
4-6200	4-6430	0.244	156.2	20.5	3.81	1.299	80.8	0.274	0.938	44.8	244.5	---	1.195	-0.44	0.984	74.3	295.5	-22.9	0.274
4-6200	4-6440	0.220	163.5	22.0	3.65	1.304	82.4	0.267	0.949	37.1	247.1	---	1.202	-0.30	0.990	74.6	304.6	-20.7	0.271
4-6200	4-6450	0.199	172.4	24.1	3.57	1.308	84.1	0.262	0.959	29.2	249.3	---	1.210	-0.23	0.995	74.9	313.6	-18.3	0.271
4-6200	4-6460	0.182	183.6	26.2	3.52	1.312	85.7	0.260	0.968	21.0	251.2	---	1.220	-0.20	0.999	75.0	322.5	-15.5	0.271
4-6200	4-6470	0.170	197.5	28.0	3.48	1.315	87.5	0.260	0.977	12.4	252.8	---	1.231	-0.17	1.002	74.9	331.3	-12.4	0.274
4-6200	4-6480	0.166	213.8	28.6	3.44	1.318	89.3	0.263	0.985	3.5	254.0	---	1.244	-0.16	1.004	74.8	340.1	-9.0	0.279
4-6200	4-6490	0.171	231.1	27.4	3.42	1.321	91.2	0.269	0.993	354.2	614.8	0.726	1.260	-0.15	1.006	74.4	348.8	-5.4	0.288
4-6200	4-6500	0.188	247.4	24.6	3.39	1.324	93.4	0.279	1.000	344.4	615.1	0.721	1.279	-0.15	1.007	73.8	357.6	-1.6	0.299
4-6200	4-6510	0.217	261.4	20.9	3.36	1.327	95.8	0.295	1.007	334.2	614.8	0.710	1.303	-0.15	1.007	72.9	6.6	2.3	0.316
4-6200	4-6520	0.260	273.1	17.1	3.33	1.329	98.6	0.317	1.013	323.5	614.0	0.692	1.334	-0.16	1.008	71.5	15.9	6.3	0.339
4-6200	4-6530	0.318	282.9	13.7	3.30	1.331	101.9	0.349	1.020	312.0	612.3	0.664	1.375	-0.17	1.008	69.6	25.7	10.2	0.371
4-6200	4-6540	0.396	291.5	10.6	3.26	1.334	106.0	0.393	1.026	299.5	609.7	0.622	1.429	-0.20	1.008	66.9	36.2	13.9	0.418
4-6200	4-6540	0.605	327.5	5.2	3.26	1.320	120.0	0.506	0.667	231.2	901.4	0.329	1.005	-0.20	0.701	88.6	114.3	21.1	0.296
4-6200	4-6550	0.504	299.7	7.9	3.21	1.336	111.4	0.458	1.032	281.6	605.5	0.560	1.505	-0.23	1.008	82.8	47.8	17.4	0.486
4-6200	4-6550	0.644	328.4	4.7	3.21	1.318	122.1	0.538	0.665	221.6	909.4	0.308	1.023	-0.23	0.695	79.4	105.1	22.2	0.341
4-6200	4-6560	0.659	308.0	5.6	3.14	1.338	119.0	0.552	1.039	269.4	599.0	0.465	1.613	-0.30	1.009	56.5	61.1	20.5	0.589
4-6200	4-6560	0.733	330.1	3.8	3.14	1.119	126.8	0.604	0.666	226.2	915.8	0.263	1.068	-0.30	0.692	68.6	101.8	22.6	0.437
4-6200	4-6570	0.897	333.5	2.6	3.00	1.120	135.7	0.718	0.667	219.4	918.6	0.188	1.146	-0.42	0.692	54.6	105.0	22.3	0.594
4-6200	4-6620	0.790	102.7	3.9	3.69	1.105	49.3	0.657	0.652	138.2	885.2	0.223	1.081	0.33	0.659	114.8	229.3	-17.8	0.474
4-6200	4-6630	0.555	133.4	8.0	3.59	1.346	65.7	0.502	1.061	79.1	475.9	0.529	1.593	0.25	1.013	120.3	284.7	-22.3	0.522
4-6200	4-6630	0.690	104.6	4.7	3.59	1.105	54.7	0.585	0.653	134.1	890.9	0.271	1.034	0.25	0.660	102.4	226.2	-16.9	0.369
4-6200	4-6640	0.433	142.5	10.5	3.54	1.348	71.9	0.434	1.068	63.1	469.8	0.604	1.532	0.21	1.016	115.6	298.2	-20.5	0.451
4-6200	4-6640	0.887	98.1	2.9	3.54	1.068	43.4	0.736	0.620	145.8	911.9	0.164	1.076	0.21	0.597	61.6	183.6	-1.3	0.537
4-6200	4-6640	0.660	104.8	4.9	3.54	1.101	56.2	0.564	0.649	133.8	899.9	0.203	1.015	0.21	0.655	90.1	214.1	-13.2	0.330
4-6200	4-6650	0.345	152.6	13.4	3.49	1.350	76.7	0.391	1.075	49.5	465.1	0.655	1.494	0.18	1.021	112.8	310.5	-17.8	0.407
4-6200	4-6660	0.280	167.6	16.7	3.46	1.352	80.6	0.363	1.082	36.2	461.5	0.689	1.474	0.17	1.025	111.0	321.8	-14.6	0.380
4-6200	4-6670	0.235	179.6	20.0	3.43	1.355	83.9	0.348	1.089	23.7	458.6	0.711	1.468	0.16	1.030	109.9	332.4	-10.9	0.365
4-6200	4-6680	0.209	198.1	22.6	3.41	1.357	87.0	0.341	1.097	11.9	456.5	0.722	1.472	0.15	1.036	109.4	342.3	-7.1	0.360
4-6200	4-6690	0.204	218.6	23.3	3.38	1.360	89.8	0.343	1.106	0.6	454.9	0.726	1.485	0.15	1.042	109.4	351.8	-3.1	0.362
4-6200	4-6700	0.215	237.7	21.7	3.35	1.363	92.6	0.351	1.115	350.0	814.1	0.723	1.507	0.15	1.049	109.8	1.0	0.9	0.371
4-6200	4-6710	0.727	117.9	4.8	3.32	1.272	55.5	0.584	0.880	110.1	584.1	0.366	1.394	0.16	0.930	55.0	215.3	-13.8	0.569
4-6200	4-6710	0.243	253.4	19.0	3.32	1.366	95.3	0.365	1.125	339.9	813.8	0.715	1.536	0.16	1.054	110.5	9.9	4.7	0.386
4-6200	4-6720	0.659	121.1	5.5	3.29	1.278	59.0	0.539	0.893	103.7	587.5	0.412	1.575	0.18	0.942	58.0	223.3	-16.3	0.524
4-6200	4-6770	0.281	265.4	16.1	3.29	1.369	98.1	0.384	1.137	330.4	814.2	0.700	1.573	0.18	1.062	111.5	18.7	8.4	0.406
4-6200	4-6730	0.596	124.3	6.2	3.25	1.284	62.3	0.497	0.906	97.1	590.8	0.456	1.356	0.21	0.953	60.7	231.6	-18.4	0.484
4-6200	4-6730	0.328	276.6	13.5	3.25	1.372	100.9	0.408	1.149	321.4	815.1	0.680	1.618	0.21	1.069	112.9	27.5	11.8	0.431
4-6200	4-6740	0.536	127.7	7.0	3.19	1.290	65.3	0.458	0.917	90.3	594.0	0.497	1.337	0.25	0.963	63.1	240.2	-20.1	0.447
4-6200	4-6740	0.380	281.9	11.3	3.19	1.376	103.8	0.436	1.162	312.8	816.6	0.656	1.669	0.25	1.076	114.5	36.4	15.0	0.462
4-6200	4-6750	0.480	131.3	7.8	3.09	1.295	68.2	0.423	0.928	83.3	597.1	0.536	1.320	0.34	0.972	65.3	249.3	-21.3	0.414
4-6200	4-6750	0.438	287.8	9.3	3.09	1.380	106.9	0.467	1.177	304.8	818.6	0.627	1.727	0.34	1.083	116.4	45.3	17.8	0.496
4-6200	4-6760	0.427	135.2	8.3	2.87	1.299	70.9	0.391	0.938	76.1	600.0	0.571	1.304	0.54	0.980	67.2	258.5	-21.8	0.386
4-6200	4-6760	0.502	292.8	7.5	2.87	1.384	110.0	0.502	1.193	297.1	821.2	0.594	1.791	0.54	1.090	118.6	54.2	20.4	0.535
4-6200	4-6770	0.677	139.6	6.5	1.95	1.303	73.4	0.363	0.947	68.8	602.8	0.603	1.290	1.45	0.987	68.8	268.1	-19.7	0.361
4-6200	4-6770	0.565	297.1	4.4	1.95	1.388	113.2	0.539	1.210	289.8	823.8	0.558	1.861	1.45	1.097	121.0	63.1	23.5	0.578
4-6200	4-6780	0.350	143.5	20.0	5.43	1.306	75.7	0.339	0.955	61.1	605.3	0.631	1.278	-2.05	0.992	70.3	278.1	-28.9	0.341
4-6200	4-6790	0.302	149.4	17.1	3.98	1.309	77.9	0.318	0.962	53.4	607.7	0.656	1.268	-0.60	0.997	71.5	287.6	-24.2	0.322
4-6200	4-6800	0.578	144.2	8.6	3.72	1.446	67.4	0.613	1.506	61.3	265.9	---	2.430	-0.36	1.171	57.4	287.7	-23.0	0.692
4-6200	4-6600	0.265	155.9	18.4	3.72	1.312	80.0	0.301	0.969	49.2	609.8	0.677	1.261	-0.36	1.001	72.5	297.3	-22.2	0.308
4-6210	4-6280	0.953	109.7	3.2	4.73	1.020	38.9	0.793	0.585	152.3	187.5	---	1.049	1.85	0.510	64.0	196.9	-5.6	0.570
4-6210	4-6290	0.880	113.7	3.6	4.30	1.060	43.7	0.734	0.617	146.2	191.1	---	1.065	1.52	0.589	63.2	199.6	-6.7	0.527
4-6210	4-6300	0.817	117.4	4.0	3.99	1.095	47.8	0.679	0.644	140.3	194.8	---	1.082	1.32	0.653	63.3	203.2	-8.0	0.494
4-6210	4-6310	0.760	120.9	4.3	3.74	1.125	51.3	0.629	0.674	134.4	198.5	---	1.097	1.19	0.706	63.7	207.6	-9.6	0.467
4-6210	4-6320	0.708	124.2	4.7	3.53	1.152	54.4	0.587	0.702	128.5	202.3	---	1.112	1.12	0.750	64.3	212.6	-11.7	0.443
4-6210	4-6330	0.660	127.4	5.0	3.34	1.174	57.2	0.542	0.730	122.5	206.1	---	1.125	1.08	0.789	65.1	218.1	-13.1	0.423
4-6210	4-6340	0.615	130.6	5.3	3.16	1.194	59.8	0.504	0.756	116.5	209.9	---	1.137	1.07	0.821	65.9	224.3	-14.8	0.404
4-6210	4-6350	0.572	133.7	5.6	2.97	1.212	62.2	0.470	0.780	110.5	213.7	---	1.147	1.10	0.850	66.8	230.9	-16.3	0.388
4-6210	4-6360	0.531	136.7	5.8	2.76	1.227	64.5	0.440	0.803	104.3	217.5	---	1.157	1.17	0.875	67.7	238.0	-17.6	0.372
4-6210	4-6370	0.492	139.9	5.8	2.52	1.240	66.4	0.412	0.825	98.1	221.2	---	1.165	1.28	0.896	68.5	245.6	-18.5	0.359
4-6210	4-6380	0.454	143.1	5.7	2.22	1.252	68.6	0.387	0.845	91.7	224.9	---	1.173	1.47	0.915	69.4	253.5	-18.9	0.346
4-6210	4-6390	0.418	146.4	5.1	1.79	1.262	70.5	0.365	0.864	85.3	228.5	---	1.180	1.79	0.931	70.2	261.7	-18.5	0.335
4-6210	4-6400	0.383	150.0	3.4	1.08	1.271	72.4	0.345	0.882	78.7	232.1	---	1.187	2.39	0.946	70.9	270.1	-16.9	0.325
4-6210	4-6410	0.349	153.8	-1.4	-0.40	1.279	74.2	0.328	0.898	71.9	235.4	---	1.193	3.78	0.958	71.6	278.5	-12.4	0.320
4-6210	4-6420	0.346	156.6	-23.8	-6.41	1.286	75.9	0.313	0.913	61.0	238.7	---	1.199	9.69	0.968	72.3	287.7	4.2	0.347
4-6210	4-6430	0.485	149.6	55.9	18.54	1.293	77.7	0.299	0.927	47.7	241.7	---	1.205	-15.36	0.977	72.9	317.3	-57.2	0.396
4-6210	4-6440	0.303	165.8	33.2	7.46	1.298	79.3	0.289	0.940	40.4	244.5	---	1.211	-4.39	0.985	73.4	309.9	-32.7	0.302
4-6210	4-6450	0.240	173.1	28.8	5.59	1.303	81.0	0.280	0.951	32.8	247.1	---	1.218	-2.60	0.991	73.8	317.2	-25.3	0.291
4-6210	4-6460	0.230	181.1	28.0	4.76	1.308	82.7	0.274	0.962	25.0	249.4	---	1.226	-1.89	0.996	74.2	325.4	-20.5	0.287
4-6210	4-6470	0.206	190.8	28.4	4.31	1.312	84.4	0.269	0.972	26.8	251.4	---	1.234	-1.53	1.000	74.4	333.7	-16.4	0.285
4-6210	4-6480	0.187	202.9	29.1	3.98	1.316	86.1	0.267	0.982	18.4	253.1	---	1.244	-1.31	1.002	74.5	342.0	-12.4	0.285
4-6210	4-6490	0.175	217.6	29.4	3.73	1.319	88.0	0.269	0.991	9.6	254.4	---	1.256	-1.18	1.005	74.5	350.4	-8.5	0.287
4-6210	4-6500	0.171	234.4	28.3	3.51	1.322	89.9	0.272	0.999	0.5	255.3	---	1.270	-1.11	1.006	74.2	358.8	-4.5	0.292
4-6210	4-6510	0.178	251.7	25.5	3.32	1.325	91.9	0.279	1.006	351.1	615.8	0.725	1.287	-1.08	1.007	73.8	7.4	-0.6	0.300

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6210	4-6520	0.198	267.4	21.9	3.13	1.328	94.2	0.291	1.013	341.2	615.8	0.719	1.308	-1.07	1.008	73.1	16.2	3.3	0.312
4-6210	4-6530	0.231	280.8	17.1	2.94	1.330	96.8	0.309	1.020	330.8	615.3	0.706	1.335	-1.11	1.008	72.1	25.3	7.1	0.330
4-6210	4-6530	0.725	342.7	3.8	2.94	1.156	126.0	0.588	0.707	231.7	876.2	0.291	1.123	-1.11	0.763	117.2	156.5	8.0	0.461
4-6210	4-6530	0.853	344.2	3.0	2.94	1.178	132.3	0.673	0.735	228.4	872.8	0.240	1.229	-1.11	0.797	127.4	162.2	6.3	0.594
4-6210	4-6540	0.278	291.9	13.0	2.74	1.333	99.7	0.334	1.027	319.8	614.1	0.684	1.369	-1.18	1.009	70.5	34.9	10.6	0.355
4-6210	4-6540	0.608	342.0	4.4	2.74	1.134	120.2	0.506	0.603	253.4	887.7	0.337	1.028	-1.18	0.725	102.1	145.8	10.9	0.317
4-6210	4-6550	0.343	301.3	9.5	2.50	1.335	103.3	0.369	1.033	308.0	612.0	0.652	1.415	-1.29	1.009	68.4	45.3	13.9	0.391
4-6210	4-6550	0.587	342.3	4.2	2.50	1.127	119.2	0.493	0.676	233.0	897.0	0.343	1.009	-1.29	0.711	92.9	134.5	13.8	0.284
4-6210	4-6560	0.430	309.8	6.5	2.20	1.337	107.9	0.419	1.040	295.1	608.8	0.604	1.476	-1.48	1.009	65.3	56.5	16.7	0.443
4-6210	4-6560	0.605	342.9	3.5	2.20	1.124	120.2	0.508	0.673	231.9	905.6	0.331	1.015	-1.48	0.703	84.3	123.9	16.3	0.303
4-6210	4-6570	0.552	318.0	4.0	1.78	1.339	113.9	0.492	1.046	280.6	603.9	0.531	1.561	-1.79	1.010	60.6	69.0	19.0	0.520
4-6210	4-6570	0.663	344.0	2.9	1.78	1.123	123.3	0.553	0.672	229.6	913.0	0.301	1.044	-1.79	0.699	75.0	117.8	17.6	0.369
4-6210	4-6580	0.776	346.3	1.3	1.12	1.124	129.2	0.636	0.673	225.1	918.1	0.245	1.101	-2.36	0.698	65.5	117.5	17.9	0.484
4-6210	4-6630	0.900	116.7	5.1	6.05	1.110	43.6	0.727	0.659	142.0	882.7	0.180	1.139	3.03	0.672	125.3	246.0	-18.7	0.587
4-6210	4-6640	0.663	148.7	9.0	5.06	1.547	60.7	0.564	1.068	89.8	480.0	0.466	1.670	2.13	1.017	124.2	292.1	-18.9	0.596
4-6210	4-6640	0.740	120.3	6.0	5.06	1.112	52.3	0.616	0.661	135.1	885.3	0.254	1.068	2.13	0.676	111.1	249.0	-18.9	0.435
4-6210	4-6650	0.508	153.0	11.2	4.51	1.349	68.4	0.475	1.075	72.3	472.2	0.564	1.586	1.67	1.021	118.2	306.1	-16.2	0.500
4-6210	4-6650	0.655	121.9	6.4	4.51	1.112	56.8	0.554	0.661	131.9	891.8	0.295	1.027	1.67	0.678	100.0	244.9	-18.1	0.343
4-6210	4-6660	0.398	162.8	13.6	4.14	1.351	74.1	0.418	1.082	56.9	466.4	0.630	1.534	1.41	1.025	114.4	318.5	-12.9	0.439
4-6210	4-6660	0.855	115.4	3.7	4.14	1.077	45.4	0.710	0.629	143.6	913.0	0.182	1.076	1.41	0.621	82.5	200.8	-7.1	0.516
4-6210	4-6660	0.635	121.9	6.1	4.14	1.108	57.8	0.541	0.657	131.8	901.3	0.302	1.013	1.41	0.674	88.5	231.3	-15.6	0.315
4-6210	4-6670	0.319	173.9	16.3	3.86	1.353	78.5	0.381	1.089	42.9	461.9	0.674	1.504	1.25	1.030	112.1	329.9	-9.1	0.402
4-6210	4-6680	0.261	187.6	19.0	3.64	1.356	82.3	0.360	1.096	29.7	458.5	0.702	1.491	1.15	1.036	110.6	340.4	-5.1	0.380
4-6210	4-6690	0.224	204.6	21.3	3.44	1.358	85.5	0.349	1.104	17.4	455.8	0.719	1.489	1.09	1.041	109.8	350.4	-1.0	0.369
4-6210	4-6700	0.206	224.5	22.0	3.25	1.360	88.5	0.347	1.112	5.7	454.0	0.726	1.498	1.07	1.047	109.5	360.0	3.1	0.367
4-6210	4-6710	0.208	244.7	20.5	3.07	1.363	91.4	0.352	1.121	354.8	812.8	0.727	1.515	1.08	1.053	109.7	9.3	7.2	0.372
4-6210	4-6720	0.228	262.0	17.5	2.87	1.366	94.1	0.363	1.131	344.4	812.4	0.720	1.541	1.13	1.059	110.2	18.6	11.0	0.383
4-6210	4-6730	0.709	135.0	4.0	2.65	1.275	56.5	0.573	0.890	108.0	586.0	0.380	1.400	1.21	0.943	55.6	234.5	-17.7	0.565
4-6210	4-6730	0.261	275.6	14.0	2.65	1.369	96.9	0.380	1.141	334.7	812.6	0.708	1.574	1.21	1.066	111.1	27.7	14.6	0.400
4-6210	4-6740	0.642	138.2	4.1	2.39	1.282	59.9	0.529	0.903	101.5	589.4	0.425	1.380	1.36	0.954	58.5	243.1	-19.0	0.522
4-6210	4-6740	0.303	286.0	10.7	2.39	1.372	99.7	0.401	1.153	325.5	813.4	0.691	1.615	1.36	1.072	112.3	36.9	18.0	0.422
4-6210	4-6750	0.579	141.5	4.0	2.03	1.287	63.1	0.488	0.915	94.8	592.8	0.469	1.361	1.60	0.964	61.2	251.9	-19.6	0.483
4-6210	4-6750	0.352	294.0	7.8	2.03	1.376	102.5	0.426	1.166	316.9	814.8	0.669	1.662	1.60	1.079	113.8	46.2	21.0	0.449
4-6210	4-6760	0.519	145.0	3.4	1.50	1.292	66.1	0.450	0.926	88.0	596.0	0.510	1.342	2.02	0.973	63.5	260.9	-19.2	0.447
4-6210	4-6760	0.407	300.5	4.9	1.50	1.379	105.5	0.456	1.179	308.7	816.7	0.642	1.717	2.02	1.086	115.6	55.5	23.9	0.481
4-6210	4-6770	0.463	148.8	1.4	0.54	1.297	69.0	0.415	0.937	80.9	599.1	0.548	1.325	2.88	0.981	65.6	270.1	-17.3	0.417
4-6210	4-6770	0.466	305.9	1.5	0.54	1.383	108.5	0.488	1.194	300.9	819.1	0.611	1.777	2.88	1.092	117.6	64.8	26.9	0.518
4-6210	4-6780	0.414	152.7	-5.9	-1.97	1.301	71.6	0.385	0.946	73.6	601.9	0.582	1.310	5.30	0.988	67.5	279.1	-10.9	0.397
4-6210	4-6780	0.532	310.7	-4.8	-1.97	1.387	111.7	0.523	1.210	293.5	821.8	0.577	1.843	5.30	1.098	119.8	73.8	31.7	0.563
4-6210	4-6800	0.386	158.9	35.6	10.15	1.308	76.4	0.334	0.963	58.3	607.1	0.641	1.285	7.02	0.998	70.5	304.2	-38.7	0.362
4-6210	4-6810	0.311	166.7	27.2	6.34	1.311	78.6	0.315	0.970	50.3	609.2	0.664	1.275	-3.30	1.001	71.7	310.7	-28.1	0.330
4-6220	4-6310	0.901	130.3	3.7	4.51	1.075	42.9	0.740	0.628	145.5	193.9	---	1.093	2.55	0.624	57.7	212.9	-10.7	0.563
4-6220	4-6320	0.838	133.9	3.9	4.00	1.108	46.9	0.687	0.658	139.6	197.6	---	1.110	2.25	0.684	58.9	217.4	-12.1	0.531
4-6220	4-6330	0.780	137.4	4.0	3.59	1.137	50.5	0.638	0.687	133.6	201.4	---	1.126	2.06	0.733	60.1	222.6	-13.6	0.502
4-6220	4-6340	0.727	140.7	4.2	3.23	1.162	53.7	0.593	0.716	127.7	205.3	---	1.140	1.95	0.775	61.4	228.4	-15.1	0.477
4-6220	4-6350	0.676	143.9	4.2	2.89	1.184	56.6	0.551	0.743	121.7	209.1	---	1.153	1.91	0.811	62.6	234.7	-16.4	0.455
4-6220	4-6360	0.629	147.0	4.2	2.56	1.203	59.2	0.513	0.769	115.6	213.0	---	1.164	1.92	0.842	63.9	241.6	-17.5	0.434
4-6220	4-6370	0.584	150.2	4.1	2.21	1.220	61.7	0.479	0.794	109.4	216.8	---	1.174	2.00	0.869	65.0	248.8	-18.2	0.416
4-6220	4-6380	0.541	153.3	3.7	1.82	1.234	64.1	0.448	0.817	103.2	220.6	---	1.183	2.15	0.892	66.2	256.5	-18.4	0.399
4-6220	4-6390	0.500	156.5	3.1	1.35	1.247	66.3	0.420	0.839	96.9	224.3	---	1.191	2.40	0.913	67.3	264.4	-18.1	0.393
4-6220	4-6400	0.460	159.7	1.8	0.72	1.259	68.4	0.394	0.859	90.4	228.0	---	1.198	2.83	0.930	68.3	272.5	-16.8	0.370
4-6220	4-6410	0.423	163.1	-0.6	-0.21	1.269	70.4	0.372	0.878	83.9	231.5	---	1.205	3.57	0.945	69.3	280.6	-14.2	0.358
4-6220	4-6420	0.390	166.6	-5.9	-1.88	1.277	72.4	0.352	0.896	77.1	235.0	---	1.211	5.06	0.958	70.1	288.5	-9.2	0.352
4-6220	4-6430	0.377	169.5	-20.6	-6.17	1.285	74.2	0.335	0.912	70.3	238.2	---	1.217	9.17	0.968	71.0	295.9	2.6	0.365
4-6220	4-6450	0.435	171.1	50.8	15.42	1.298	77.9	0.305	0.941	55.6	244.2	---	1.228	-12.76	0.985	72.4	333.8	-48.6	0.380
4-6220	4-6460	0.315	182.8	36.7	8.45	1.304	79.6	0.295	0.954	48.1	246.9	---	1.235	-5.95	0.991	73.0	331.9	-30.6	0.322
4-6220	4-6470	0.267	190.6	31.9	6.28	1.308	81.3	0.286	0.966	40.4	249.2	---	1.242	-3.96	0.996	73.4	337.8	-22.6	0.308
4-6220	4-6480	0.234	199.3	30.1	5.17	1.313	83.1	0.280	0.976	32.4	251.3	---	1.250	-3.04	1.000	73.8	345.1	-16.9	0.301
4-6220	4-6490	0.208	209.8	29.5	4.47	1.317	84.8	0.276	0.987	24.1	253.1	---	1.259	-2.53	1.003	74.0	352.8	-12.1	0.298
4-6220	4-6500	0.188	222.7	29.0	3.96	1.320	86.7	0.275	0.996	15.6	254.6	---	1.269	-2.23	1.005	74.0	0.7	-7.6	0.297
4-6220	4-6510	0.176	238.1	27.7	3.54	1.324	88.6	0.276	1.004	6.7	255.6	---	1.282	-2.05	1.006	74.0	8.9	-3.4	0.299
4-6220	4-6520	0.173	255.2	25.1	3.18	1.327	90.6	0.281	1.013	357.5	616.3	0.726	1.297	-1.95	1.007	73.7	17.1	0.6	0.304
4-6220	4-6530	0.183	272.1	21.1	2.85	1.329	92.7	0.290	1.020	347.9	616.6	0.724	1.316	-1.91	1.008	73.2	25.7	4.3	0.312
4-6220	4-6540	0.207	287.1	16.4	2.52	1.332	95.1	0.303	1.027	337.9	616.4	0.716	1.339	-1.93	1.009	72.4	34.8	7.8	0.325
4-6220	4-6550	0.244	299.8	11.9	2.18	1.334	97.8	0.323	1.034	327.4	615.6	0.700	1.368	-2.01	1.009	71.2	44.3	11.0	0.344
4-6220	4-6550	0.624	357.1	3.4	2.18	1.145	121.1	0.518	0.696	234.5	882.7	0.335	1.056	-2.01	0.741	106.9	163.6	2.6	0.349
4-6220	4-6560	0.297	310.4	8.0	1.80	1.337	101.0	0.351	1.041	316.2	614.1	0.675	1.406	-2.16	1.010	69.5	54.4	13.8	0.371
4-6220	4-6560	0.578	357.1	3.1	1.80	1.135	118.9	0.486	0.685	234.7	892.5	0.352	1.018	-2.16	0.722	96.9	153.4	5.2	0.285
4-6220	4-6570	0.369	319.6	4.7	1.34	1.339	104.9	0.390	1.047	304.1	611.6	0.638	1.456	-2.41	1.011	67.1	65.3	16.0	0.411
4-6220	4-6570	0.578	357.5	2.3	1.34	1.131	118.9	0.487	0.681	233.9	901.5	0.349	1.012	-2.41	0.712	88.6	142.5	8.3	0.280
4-6220	4-6580	0.467	328.0	2.0	0.75	1.341	109.8	0.447	1.054	290.8	607.9	0.583	1.524	-2.81	1.012	63.5	77.2	17.5	0.469
4-6220	4-6580	0.612	358.3	1.2	0.75	1.129	120.7	0.514	0.679	232.4	909.5	0.330	1.028	-2.81	0.707	80.2	134.3	10.9	0.320
4-6220	4-6590	0.605	336.4	-0.2	-0.10	1.343	116.6	0.528	1.060	275.5	602.1	0.500	1.630	-3.48	1.013	58.2	90.3	18.1	0.558
4-6220	4-6590	0.689	359.9	-0.1	-0.10	1.129	124.7	0.573	0.679	229.4	916.1	0.290	1.068	-3.48	0.706	70.6	131.1	12.1	0.403
4-6220	4-6600	0.829	2.9	-1.5	-1.53	1.131	132.1	0.672	0.681	223.5	919.7	0.223	1.139	-4.74	0.707	58.3	133.4	12.0	0.540
4-6220	4-6650	0.829	134.7	7.1	7.08	1.118	47.9	0.674	0.660	137.8	881.9	0.218	1.118	4.66	0.689	120.3	266.6	-18.2	0.532
4-6220	4-6660	0.601	163.4	11.5	5.68	1.350	64.1	0.527	1.083	81.9	475.6	0.512	1.653	3.45	1.026	121.6	313.1	-12.0	0.563
4-6220	4-6660	0.692	137.8	7.5	5.68	1.120	55.1	0.576	0.670	132.0	885.6	0.284	1.055	-3.48	0.694	107.9	268.5	-17.7	0.400
4-6220	4-6670	0.463	173.2	13.5	4.84	1.353	71.0	0.452	1.090	65.0	468.3	0.597	1.582	2.79	1.031	116.6	325.9	-8.0	0.481
4-6220	4-6670	0.620	139.2	7.5	4.84	1.120	58.8	0.523	0.669	129.4	892.7	0.319	1.019	2.79	0.697	97.9	263.4	-17.3	0.321

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6220	4-6680	0.364	183.7	15.5	4.25	1.355	76.2	0.404	1.096	49.9	462.8	0.653	1.539	2.39	1.036	113.4	337.5	-3.7	0.430
4-6220	4-6680	0.822	32.7	4.1	4.25	1.086	47.4	0.684	0.638	141.3	914.2	0.202	1.075	2.39	0.646	63.5	218.3	-12.2	0.497
4-6220	4-6680	0.609	139.0	6.7	4.25	1.115	59.3	0.517	0.665	129.7	902.7	0.321	1.009	2.39	0.693	87.1	248.8	-16.5	0.302
4-6220	4-6690	0.292	196.3	17.6	3.79	1.357	80.4	0.375	1.103	36.0	458.6	0.690	1.517	2.15	1.041	111.4	348.2	0.6	0.399
4-6220	4-6700	0.242	211.8	19.4	3.41	1.359	84.0	0.358	1.111	23.1	455.5	0.713	1.509	2.00	1.046	110.3	358.4	4.9	0.381
4-6220	4-6710	0.213	230.6	20.0	3.07	1.361	87.1	0.352	1.119	11.0	453.2	0.725	1.513	1.93	1.052	109.7	8.2	9.1	0.374
4-6220	4-6720	0.205	251.0	18.5	2.74	1.364	90.1	0.354	1.127	359.6	811.8	0.728	1.526	1.91	1.058	109.7	17.9	13.1	0.374
4-6220	4-6730	0.216	268.8	15.3	2.40	1.367	92.9	0.362	1.136	349.0	811.1	0.724	1.548	1.95	1.064	110.0	27.6	16.8	0.382
4-6220	4-6740	0.243	285.1	11.5	2.03	1.369	95.7	0.376	1.146	339.1	811.2	0.715	1.577	2.06	1.070	110.8	37.2	20.2	0.395
4-6220	4-6750	0.291	152.0	2.5	1.61	1.279	57.5	0.561	0.900	105.7	587.9	0.395	1.405	2.25	0.955	56.3	254.6	-19.5	0.561
4-6220	4-6750	0.281	296.8	7.8	1.61	1.372	98.4	0.395	1.357	329.7	811.9	0.700	1.614	2.25	1.076	111.8	46.9	23.2	0.414
4-6220	4-6760	0.625	159.3	1.9	1.07	1.285	60.9	0.518	0.913	99.1	591.4	0.440	1.485	2.58	0.965	59.1	263.4	-19.2	0.520
4-6220	4-6760	0.327	305.9	4.4	1.07	1.376	101.3	0.418	1.169	320.9	813.2	0.680	1.658	2.58	1.082	113.1	56.7	25.9	0.439
4-6220	4-6770	0.562	158.7	0.7	0.33	1.291	64.1	0.477	0.924	92.4	594.7	0.483	1.366	3.13	0.974	61.7	272.3	-17.9	0.482
4-6220	4-6770	0.379	313.1	1.2	0.33	1.379	104.1	0.445	1.182	312.6	815.0	0.656	1.708	3.13	1.088	114.8	66.6	28.4	0.468
4-6220	4-6780	0.504	162.3	-2.0	-0.86	1.295	67.0	0.441	0.935	85.4	597.9	0.523	1.347	4.14	0.981	64.0	281.1	-14.9	0.450
4-6220	4-6780	0.437	319.0	-2.6	-0.86	1.383	107.1	0.476	1.196	304.7	817.2	0.627	1.765	4.14	1.094	116.7	76.5	31.0	0.503
4-6220	4-6790	0.455	165.8	-8.9	-3.31	1.300	69.8	0.407	0.945	78.2	600.9	0.560	1.331	6.41	0.988	66.1	289.6	-8.5	0.428
4-6220	4-6790	0.503	324.2	-6.6	-3.31	1.386	110.1	0.509	1.211	297.3	819.9	0.595	1.827	6.41	1.099	118.8	86.3	34.8	0.546
4-6220	4-6800	0.475	166.2	-33.6	-12.21	1.304	72.3	0.378	0.955	70.9	603.6	0.593	1.316	15.14	0.9[illegible]	67.8	297.8	10.8	0.464
4-6220	4-6820	0.385	176.5	38.6	10.83	1.211	77.2	0.330	0.971	55.1	608.5	0.651	1.291	-8.25	1.001	70.8	327.6	-35.9	0.371
4-6230	4-6330	0.915	147.1	3.4	4.21	1.092	42.9	0.743	0.644	144.4	196.4	---	1.122	3.30	0.663	53.9	227.7	-14.7	0.596
4-6230	4-6340	0.852	150.6	3.4	3.58	1.123	46.9	0.691	0.674	138.4	200.2	---	1.139	2.95	0.717	55.8	233.0	-15.9	0.562
4-6230	4-6350	0.794	154.0	3.4	3.04	1.151	50.0	0.643	0.703	132.4	204.1	---	1.155	2.74	0.762	57.5	239.0	-17.0	0.533
4-6230	4-6360	0.739	157.3	3.3	2.57	1.174	53.3	0.598	0.731	126.4	208.3	---	1.169	2.63	0.801	59.2	245.5	-17.9	0.507
4-6230	4-6370	0.687	160.5	3.1	2.11	1.195	56.2	0.557	0.759	120.4	211.9	---	1.181	2.60	0.835	60.8	252.5	-18.5	0.482
4-6230	4-6380	0.638	163.7	2.7	1.65	1.213	59.0	0.519	0.785	114.2	215.8	---	1.192	2.66	0.863	62.3	259.8	-18.7	0.460
4-6230	4-6390	0.592	166.8	2.1	1.15	1.229	61.5	0.484	0.809	108.0	219.6	---	1.201	2.80	0.888	63.8	267.5	-18.4	0.440
4-6230	4-6400	0.548	170.0	1.2	0.57	1.243	64.0	0.453	0.832	101.7	223.4	---	1.210	3.06	0.909	65.1	275.3	-17.4	0.422
4-6230	4-6410	0.505	173.2	-0.3	-0.15	1.255	66.2	0.425	0.854	95.2	227.1	---	1.217	3.49	0.928	66.5	283.3	-15.5	0.405
4-6230	4-6420	0.466	176.4	-2.9	-1.15	1.266	68.4	0.399	0.874	88.7	230.7	---	1.224	4.23	0.943	67.5	291.1	-12.5	0.391
4-6230	4-6430	0.431	179.7	-7.7	-2.76	1.276	70.5	0.377	0.893	82.0	234.3	---	1.230	5.58	0.956	68.6	298.6	-7.5	0.382
4-6230	4-6440	0.410	182.6	-18.2	-6.00	1.284	72.4	0.357	0.911	75.2	237.5	---	1.236	8.58	0.967	69.6	305.5	1.7	0.385
4-6230	4-6450	0.508	178.5	-46.5	-17.22	1.291	74.3	0.340	0.927	68.4	240.6	---	1.243	19.57	0.977	70.4	[illegible].1	24.2	0.477
4-6230	4-6470	0.404	190.8	46.8	13.33	1.304	78.2	0.310	0.956	53.1	246.3	---	1.252	-11.45	0.990	72.0	330.1	-36.8	0.378
4-6230	4-6480	0.313	200.7	36.3	8.26	1.309	80.0	0.300	0.968	45.6	248.8	---	1.259	-6.61	0.995	72.6	351.1	-24.6	0.336
4-6230	4-6490	0.265	208.9	31.7	6.16	1.314	81.7	0.292	0.980	37.7	251.0	---	1.266	-4.75	0.999	73.0	356.6	-17.1	0.321
4-6230	4-6500	0.231	218.1	29.3	4.95	1.318	83.5	0.286	0.991	29.7	252.9	---	1.275	-3.80	1.002	73.4	3.5	-11.3	0.313
4-6230	4-6510	0.204	229.2	27.7	4.13	1.322	85.3	0.283	1.001	21.3	254.5	---	1.284	-3.25	1.004	73.5	10.9	-6.4	0.309
4-6230	4-6520	0.185	242.8	26.0	3.50	1.325	87.2	0.283	1.010	12.7	255.7	---	1.296	-2.92	1.006	73.6	18.6	-2.1	0.307
4-6230	4-6530	0.174	258.6	23.4	2.98	1.328	89.2	0.285	1.019	3.7	256.6	---	1.309	-2.72	1.007	73.4	26.8	1.9	0.309
4-6230	4-6540	0.175	275.7	19.6	2.52	1.331	91.2	0.291	1.027	354.5	617.1	0.728	1.326	-2.62	1.008	73.1	35.3	5.5	0.314
4-6230	4-6550	0.188	292.1	14.8	2.07	1.334	93.5	0.301	1.034	344.8	617.2	0.722	1.346	-2.60	1.009	72.5	44.2	8.7	0.323
4-6230	4-6560	0.217	306.4	10.0	1.62	1.336	96.0	0.317	1.041	334.7	616.8	0.712	1.371	-2.66	1.010	71.6	53.6	11.4	0.337
4-6230	4-6560	0.669	12.6	2.4	1.62	1.160	123.3	0.549	0.714	235.0	877.1	0.322	1.107	-2.66	0.762	113.4	181.1	-5.4	0.412
4-6230	4-6570	0.260	318.5	5.8	1.14	1.339	98.9	0.338	1.048	324.1	615.8	0.693	1.403	-2.80	1.011	70.3	63.6	13.6	0.357
4-6230	4-6570	0.579	12.1	.2.0	1.14	1.144	118.9	0.485	0.695	236.2	887.9	0.358	1.033	-2.80	0.734	100.9	171.4	-3.6	0.299
4-6230	4-6580	0.319	328.7	2.5	0.60	1.341	102.2	0.369	1.054	312.7	614.0	0.665	1.444	-3.05	1.012	68.4	74.2	15.2	0.388
4-6230	4-6580	0.560	12.3	1.1	0.60	1.138	118.0	0.473	0.669	235.9	897.2	0.363	1.015	-3.05	0.722	92.5	160.7	-0.7	0.269
4-6230	4-6590	0.399	337.8	-0.2	-0.07	1.343	106.4	0.418	1.061	300.3	611.2	0.623	1.499	-3.44	1.014	65.7	85.5	16.0	0.432
4-6230	4-6590	0.576	12.8	-0.1	-0.07	1.136	118.9	0.486	0.686	234.8	905.7	0.353	1.020	-3.44	0.717	84.7	151.1	2.7	0.286
4-6230	4-6600	0.509	346.2	-2.4	-0.97	1.345	111.9	0.475	1.067	286.5	606.9	0.560	1.575	-4.08	1.016	61.7	97.7	15.9	0.498
4-6230	4-6600	0.626	13.9	-1.9	-0.97	1.135	121.5	0.525	0.686	232.8	913.2	0.326	1.046	-4.08	0.714	76.3	145.5	5.0	0.343
4-6230	4-6610	0.665	355.0	-4.1	-2.32	1.347	119.5	0.566	1.074	270.2	600.1	0.466	1.683	-5.19	1.018	55.6	111.2	14.7	0.600
4-6230	4-6610	0.724	16.0	-2.9	-2.32	1.136	126.5	0.597	0.687	228.8	918.7	0.277	1.096	-5.19	0.715	66.2	144.9	5.9	0.445
4-6230	4-6670	0.763	152.7	8.3	7.18	1.126	51.7	0.622	0.677	133.8	881.3	0.256	1.098	5.63	0.709	115.9	286.4	-13.1	0.484
4-6230	4-6680	0.542	183.6	13.0	5.61	1.354	67.3	0.495	1.097	73.9	471.1	0.554	1.640	4.31	1.036	119.3	332.8	-3.4	0.534
4-6230	4-6680	0.646	155.3	8.3	5.61	1.128	57.8	0.537	0.678	128.9	886.1	0.314	1.042	4.31	0.714	105.1	287.1	-14.4	0.368
4-6230	4-6690	0.418	193.9	14.5	4.62	1.357	73.5	0.432	1.104	57.5	464.4	0.627	1.581	3.56	1.041	115.1	344.7	1.3	0.465
4-6230	4-6690	0.586	156.5	7.8	4.62	1.127	60.8	0.492	0.677	126.9	893.8	0.344	1.011	3.56	0.717	96.0	281.1	-14.6	0.301
4-6230	4-6700	0.330	205.5	15.9	3.89	1.359	78.3	0.393	1.110	42.6	459.3	0.674	1.547	3.11	1.046	112.5	355.8	6.0	0.421
4-6230	4-6700	0.788	150.0	4.1	3.89	1.096	49.5	0.656	0.647	138.8	915.5	0.223	1.072	3.11	0.671	64.5	236.9	-15.9	0.479
4-6230	4-6700	0.584	156.1	6.5	3.89	1.123	60.8	0.494	0.673	127.6	904.3	0.341	1.005	3.11	0.713	85.9	265.9	-15.8	0.292
4-6230	4-6710	0.267	219.7	17.0	3.31	1.361	82.3	0.370	1.118	29.0	455.5	0.704	1.532	2.84	1.052	110.9	6.4	10.4	0.396
4-6230	4-6720	0.225	237.1	17.2	2.81	1.363	85.7	0.360	1.125	16.4	452.7	0.720	1.530	2.68	1.057	110.1	16.7	14.6	0.382
4-6230	4-6730	0.206	257.0	15.8	2.35	1.365	88.8	0.358	1.133	4.7	451.0	0.728	1.538	2.61	1.063	109.8	26.9	18.5	0.378
4-6230	4-6740	0.208	276.8	12.6	1.89	1.368	91.7	0.363	1.142	353.7	810.0	0.727	1.556	2.59	1.068	110.0	37.1	21.9	0.382
4-6230	4-6750	0.228	293.8	8.5	1.42	1.370	94.5	0.374	1.151	343.6	809.9	0.720	1.582	2.71	1.074	110.5	47.4	24.9	0.392
4-6230	4-6760	0.261	307.0	4.6	0.89	1.373	97.2	0.391	1.161	334.0	810.4	0.708	1.615	2.90	1.079	111.4	57.7	27.5	0.408
4-6230	4-6770	0.672	169.1	0.4	0.25	1.284	58.6	0.548	0.910	103.3	589.8	0.411	1.409	3.24	0.965	57.1	274.9	-18.7	0.558
4-6230	4-6770	0.304	317.3	1.1	0.25	1.376	100.0	0.411	1.172	325.1	811.6	0.690	1.655	3.24	1.085	112.6	68.1	29.6	0.429
4-6230	4-6780	0.607	172.4	-1.1	-0.58	1.289	61.9	0.506	0.922	96.6	593.2	0.456	1.389	3.79	0.974	59.8	283.6	-16.7	0.518
4-6230	4-6780	0.354	325.3	-2.2	-0.58	1.379	102.8	0.436	1.185	316.7	813.3	0.668	1.701	3.79	1.090	114.1	78.6	31.4	0.456
4-6230	4-6790	0.547	175.8	-3.9	-1.81	1.294	65.0	0.467	0.934	89.7	596.9	0.498	1.370	4.76	0.981	62.3	292.0	-13.2	0.483
4-6230	4-6790	0.411	331.9	-5.9	-1.81	1.383	105.7	0.464	1.198	308.7	815.5	0.642	1.754	4.76	1.095	115.8	89.0	33.1	0.488
4-6230	4-6800	0.496	179.2	-9.6	-3.96	1.299	67.9	0.431	0.944	82.6	599.6	0.537	1.352	6.66	0.988	64.5	300.0	-7.2	0.457
4-6230	4-6800	0.475	337.5	-11.0	-3.96	1.386	108.7	0.495	1.212	301.1	818.1	0.612	1.813	6.66	1.100	117.8	99.4	35.6	0.527
4-6230	4-6810	0.477	181.4	-24.4	-9.21	1.303	70.6	0.400	0.954	75.4	602.4	0.573	1.336	11.68	0.993	66.5	307.1	5.5	0.457
4-6230	4-6810	0.565	343.6	-21.5	-9.21	1.390	111.7	0.529	1.228	293.9	821.0	0.579	1.877	11.68	1.104	120.0	109.5	41.7	0.587
4-6230	4-6850	0.595	178.7	54.6	20.87	1.310	75.8	0.345	0.972	59.5	607.6	0.436	1.307	-18.86	1.000	69.8	354.5	-45.6	0.483

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THETA1	THETA2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6240	4-6360	0.862	167.5	2.7	2.78	1.140	46.3	0.092	0.691	136.9	202.7	---	1.169	3.40	0.750	53.5	250.0	-10.7	0.590
4-6240	4-6370	0.803	170.9	2.4	2.18	1.165	49.9	0.645	0.720	130.9	206.7	---	1.184	3.20	0.791	55.7	256.4	-19.1	0.559
4-6240	4-6380	0.747	174.1	2.1	1.62	1.187	53.1	0.660	0.748	124.8	210.6	---	1.197	3.11	0.827	57.7	263.7	-19.2	0.531
4-6240	4-6390	0.694	177.3	1.5	1.07	1.207	56.1	0.559	0.775	118.7	214.5	---	1.209	3.11	0.857	59.5	271.0	-18.9	0.504
4-6240	4-6400	0.644	180.4	0.8	0.51	1.224	58.9	0.522	0.801	112.5	218.4	---	1.219	3.22	0.883	61.3	278.6	-18.0	0.482
4-6240	4-6410	0.597	183.6	-0.2	-0.13	1.239	61.6	0.487	0.825	106.2	222.2	---	1.228	3.45	0.905	62.9	286.3	-16.5	0.461
4-6240	4-6420	0.552	186.7	-1.8	-0.88	1.252	64.0	0.456	0.848	99.8	226.0	---	1.236	3.84	0.924	64.3	294.0	-14.2	0.441
4-6240	4-6430	0.510	189.9	-4.2	-1.86	1.264	66.3	0.428	0.870	93.2	229.6	---	1.243	4.49	0.941	65.7	301.6	-11.0	0.424
4-6240	4-6440	0.473	193.1	-8.3	-3.30	1.274	68.5	0.403	0.890	86.6	233.1	---	1.249	5.62	0.954	67.0	308.9	-6.2	0.411
4-6240	4-6450	0.446	196.0	-16.0	-5.81	1.283	70.6	0.381	0.909	79.8	236.5	---	1.255	7.83	0.966	68.1	315.5	1.4	0.406
4-6240	4-6460	0.463	196.8	-32.9	-11.79	1.291	72.6	0.362	0.926	73.0	239.7	---	1.261	12.52	0.975	69.1	321.0	15.8	0.434
4-6240	4-6480	0.604	189.0	60.2	24.38	1.305	76.8	0.326	0.957	57.7	245.6	---	1.269	-23.19	0.989	71.0	16.9	-42.9	0.520
4-6240	4-6490	0.373	210.4	42.0	11.22	1.310	78.5	0.315	0.971	50.5	248.1	---	1.277	-10.30	0.994	71.7	5.4	-28.9	0.377
4-6240	4-6500	0.301	219.1	33.5	7.36	1.315	80.4	0.306	0.983	42.9	250.4	---	1.284	-6.72	0.998	72.2	8.2	-17.0	0.345
4-6240	4-6510	0.257	227.5	28.9	5.45	1.320	82.2	0.298	0.995	35.0	252.4	---	1.291	-5.10	1.001	72.6	14.0	-10.2	0.330
4-6240	4-6520	0.224	237.1	25.9	4.25	1.324	84.0	0.293	1.005	26.9	254.1	---	1.300	-4.22	1.004	72.9	20.9	-4.9	0.322
4-6240	4-6530	0.198	248.8	23.3	3.40	1.327	85.9	0.291	1.015	18.5	255.6	---	1.310	-3.69	1.006	73.1	28.3	-0.4	0.317
4-6240	4-6540	0.180	262.8	20.5	2.71	1.331	87.8	0.291	1.024	9.8	256.7	---	1.323	-3.37	1.007	73.1	36.3	3.5	0.316
4-6240	4-6550	0.172	279.0	16.7	2.13	1.334	89.8	0.295	1.033	0.9	257.5	---	1.337	-3.18	1.009	72.9	44.7	6.8	0.317
4-6240	4-6560	0.177	295.8	12.1	1.59	1.336	91.9	0.302	1.041	351.6	617.9	0.726	1.355	-3.10	1.010	72.5	53.5	9.6	0.323
4-6240	4-6570	0.195	311.7	7.3	1.07	1.339	94.3	0.313	1.048	341.9	617.8	0.720	1.376	-3.11	1.011	71.8	62.8	11.9	0.332
4-6240	4-6580	0.229	325.4	3.1	0.53	1.341	96.9	0.330	1.055	331.8	617.3	0.707	1.403	-3.21	1.012	70.9	72.6	13.5	0.347
4-6240	4-6590	0.590	27.1	0.9	0.53	1.155	119.5	0.493	0.705	237.6	883.1	0.359	1.056	-3.21	0.748	105.2	188.9	-11.6	0.327
4-6240	4-6590	0.277	337.0	-0.3	-0.06	1.343	99.9	0.354	1.062	321.0	616.1	0.686	1.437	-3.42	1.014	69.4	83.0	14.5	0.370
4-6240	4-6590	0.550	27.1	-0.1	-0.06	1.146	117.6	0.464	0.698	237.7	892.8	0.374	1.022	-3.42	0.733	96.2	178.9	-9.6	0.371
4-6240	4-6600	0.343	347.0	-2.9	-0.75	1.346	103.5	0.388	1.068	309.4	614.0	0.654	1.482	-3.76	1.016	67.3	93.9	14.6	0.404
4-6240	4-6600	0.549	27.5	-1.4	-0.75	1.143	117.5	0.468	0.694	237.1	901.7	0.372	1.016	-3.76	0.726	88.6	168.4	-6.3	0.260
4-6240	4-6610	0.433	356.0	-4.8	-1.62	1.348	108.1	0.436	1.075	296.6	610.7	0.606	1.543	-4.32	1.018	64.3	105.4	13.9	0.453
4-6240	4-6610	0.580	28.3	-2.8	-1.62	1.141	119.1	0.488	0.693	235.6	909.7	0.354	1.031	-4.32	0.723	81.0	160.6	-3.0	0.300
4-6240	4-6620	0.556	4.6	-6.3	-2.82	1.350	114.1	0.505	1.081	282.1	605.7	0.535	1.627	-5.23	1.021	59.8	117.7	12.1	0.529
4-6240	4-6620	0.647	29.8	-4.2	-2.82	1.141	122.5	0.539	0.693	232.9	916.5	0.320	1.066	-5.23	0.723	72.4	157.6	-1.0	0.373
4-6240	4-6630	0.768	32.5	-5.5	-4.73	1.143	128.7	0.626	0.694	227.8	920.9	0.260	1.128	-6.86	0.726	61.7	159.3	-0.9	0.495
4-6240	4-6680	0.873	166.4	8.7	9.28	1.132	46.3	0.693	0.683	137.7	879.2	0.210	1.156	8.47	0.721	124.9	300.2	-12.0	0.597
4-6240	4-6690	0.701	170.6	8.7	6.52	1.135	55.2	0.573	0.685	129.9	881.1	0.293	1.078	5.99	0.728	112.1	305.1	-10.1	0.440
4-6240	4-6700	0.484	204.2	13.2	4.97	1.359	70.3	0.468	1.111	65.8	466.7	0.591	1.630	4.73	1.046	117.4	351.8	5.9	0.508
4-6240	4-6700	0.602	172.9	8.2	4.97	1.135	60.2	0.500	0.686	125.9	886.8	0.343	1.029	4.73	0.733	102.5	304.6	-9.3	0.339
4-6240	4-6710	0.375	215.3	13.9	3.93	1.361	75.9	0.416	1.118	49.8	460.5	0.652	1.583	4.06	1.052	113.9	3.4	10.9	0.450
4-6240	4-6710	0.553	173.8	7.2	3.93	1.135	62.6	0.463	0.685	124.3	895.0	0.368	1.003	4.00	0.736	94.3	297.9	-10.3	0.282
4-6240	4-6720	0.297	228.2	14.3	3.14	1.363	80.4	0.386	1.124	35.3	455.9	0.691	1.550	3.56	1.057	111.8	14.6	15.4	0.414
4-6240	4-6720	0.751	167.5	3.6	3.14	1.106	51.7	0.625	0.657	136.2	916.7	0.246	1.067	3.56	0.695	65.8	256.1	-17.9	0.459
4-6240	4-6720	0.560	173.3	5.6	3.14	1.130	62.1	0.472	0.680	125.5	906.0	0.359	1.002	3.56	0.733	84.6	282.2	-13.8	0.284
4-6240	4-6730	0.243	244.1	14.0	2.49	1.365	84.1	0.369	1.132	22.1	452.6	0.724	1.549	3.29	1.062	110.6	25.5	19.5	0.393
4-6240	4-6740	0.212	263.0	12.4	1.91	1.367	87.4	0.363	1.139	9.9	450.4	0.725	1.553	3.14	1.068	110.0	36.4	23.1	0.384
4-6240	4-6750	0.204	283.1	9.2	1.36	1.369	90.4	0.365	1.147	358.7	809.2	0.728	1.567	3.10	1.073	110.0	47.3	26.2	0.383
4-6240	4-6760	0.216	301.6	5.1	0.81	1.372	93.2	0.374	1.156	348.2	808.8	0.724	1.588	3.15	1.078	110.3	58.2	28.6	0.389
4-6240	4-6770	0.244	316.5	1.2	0.22	1.374	96.0	0.388	1.166	338.5	809.2	0.714	1.618	3.31	1.083	111.1	69.2	30.5	0.402
4-6240	4-6780	0.720	183.1	-0.7	-0.46	1.283	56.3	0.579	0.908	107.2	588.1	0.382	1.433	3.61	0.965	54.9	286.4	-17.6	0.596
4-6240	4-6780	0.284	328.1	-2.2	-0.46	1.377	98.7	0.406	1.176	329.4	810.2	0.699	1.654	3.61	1.087	112.1	80.2	31.8	0.420
4-6240	4-6790	0.654	186.3	-2.2	-1.31	1.288	59.7	0.535	0.920	100.6	591.6	0.428	1.412	4.11	0.973	57.9	294.8	-15.3	0.554
4-6240	4-6790	0.331	337.1	-5.4	-1.31	1.380	101.5	0.428	1.188	320.8	811.8	0.679	1.697	4.11	1.092	113.5	91.1	32.7	0.444
4-6240	4-6800	0.591	189.5	-4.8	-2.47	1.294	63.0	0.494	0.932	93.8	595.0	0.471	1.393	4.95	0.980	60.5	302.9	-11.6	0.516
4-6240	4-6800	0.385	344.4	-8.6	-2.47	1.383	104.3	0.454	1.200	312.7	813.9	0.655	1.746	4.95	1.096	115.1	101.8	33.3	0.473
4-6240	4-6810	0.537	192.8	-9.5	-4.29	1.299	66.0	0.456	0.943	86.8	598.1	0.513	1.374	6.47	0.987	62.9	310.5	-6.1	0.485
4-6240	4-6810	0.447	350.6	-12.8	-4.29	1.387	107.2	0.483	1.214	305.1	816.4	0.627	1.801	6.47	1.100	116.9	112.4	34.5	0.509
4-6240	4-6820	0.501	195.5	-19.4	-7.87	1.303	68.9	0.423	0.954	79.7	601.1	0.551	1.357	9.76	0.992	65.1	317.3	3.5	0.469
4-6240	4-6820	0.525	356.5	-19.9	-7.87	1.390	110.2	0.515	1.229	297.8	819.2	0.596	1.861	9.76	1.104	119.0	123.0	37.5	0.557
4-6240	4-6830	0.583	191.4	-44.4	-19.22	1.307	71.5	0.393	0.963	72.5	603.7	0.584	1.342	20.83	0.995	66.9	323.3	25.0	0.539
4-6250	4-6390	0.808	187.8	1.2	1.08	1.180	58.0	0.643	0.738	129.1	209.1	---	1.213	3.41	0.818	54.5	275.1	-19.5	0.581
4-6250	4-6400	0.752	191.0	0.6	0.49	1.201	53.2	0.600	0.766	122.9	213.1	---	1.225	3.36	0.850	56.6	282.4	-18.6	0.552
4-6250	4-6410	0.698	194.1	-0.2	-0.12	1.219	56.3	0.560	0.793	116.7	217.0	---	1.236	3.41	0.877	58.7	289.9	-17.3	0.525
4-6250	4-6420	0.648	197.3	-1.2	-0.76	1.235	59.1	0.523	0.818	110.4	220.8	---	1.246	3.58	0.901	60.5	297.4	-15.3	0.500
4-6250	4-6430	0.600	200.4	-2.7	-1.49	1.250	61.7	0.489	0.843	104.1	224.6	---	1.254	3.90	0.920	62.2	304.9	-12.7	0.477
4-6250	4-6440	0.556	203.5	-4.9	-2.40	1.262	64.2	0.458	0.865	97.6	228.3	---	1.262	4.43	0.937	63.8	312.2	-9.3	0.457
4-6250	4-6450	0.515	206.6	-8.3	-3.65	1.273	66.6	0.430	0.887	91.0	231.9	---	1.268	5.33	0.951	65.2	319.3	-4.8	0.440
4-6250	4-6460	0.482	209.6	-14.0	-5.58	1.283	68.8	0.406	0.907	84.3	235.3	---	1.274	6.94	0.965	66.5	325.8	1.6	0.428
4-6250	4-6470	0.471	211.7	-24.8	-9.33	1.291	70.9	0.384	0.925	77.5	238.5	---	1.280	10.38	0.973	67.7	331.4	11.9	0.432
4-6250	4-6480	0.585	205.8	-48.6	-20.72	1.299	72.9	0.366	0.942	70.7	241.5	---	1.287	21.46	0.981	68.7	336.0	33.6	0.523
4-6250	4-6500	0.473	217.8	50.4	16.57	1.311	77.1	0.332	0.972	55.2	247.2	---	1.295	-16.41	0.993	70.7	22.1	-30.3	0.447
4-6250	4-6510	0.343	229.7	35.9	8.97	1.317	78.9	0.321	0.986	47.8	249.5	---	1.302	-9.12	0.997	71.3	20.0	-17.1	0.375
4-6250	4-6520	0.285	237.8	28.4	5.98	1.322	80.8	0.312	0.998	40.2	251.7	---	1.309	-6.43	1.000	71.8	24.4	-8.9	0.350
4-6250	4-6530	0.246	246.2	23.8	4.32	1.326	82.6	0.305	1.009	32.3	253.6	---	1.317	-5.09	1.003	72.2	30.1	-3.1	0.337
4-6250	4-6540	0.215	256.2	20.2	3.21	1.330	84.5	0.301	1.020	24.1	255.2	---	1.327	-4.32	1.005	72.5	37.9	1.5	0.329
4-6250	4-6550	0.191	268.3	16.7	2.37	1.333	86.4	0.299	1.028	15.8	256.6	---	1.337	-3.85	1.007	72.6	45.7	5.3	0.324
4-6250	4-6560	0.176	282.7	12.9	1.80	1.336	88.3	0.300	1.038	7.2	257.6	---	1.350	-3.56	1.009	72.6	54.1	8.3	0.322
4-6250	4-6570	0.172	299.0	8.4	1.08	1.339	90.4	0.305	1.047	353.2	618.3	0.728	1.346	-3.41	1.011	72.4	62.6	10.8	0.324
4-6250	4-6580	0.181	315.6	3.8	0.51	1.342	92.6	0.313	1.054	349.0	618.6	0.725	1.384	-3.36	1.012	71.9	72.1	12.5	0.330
4-6250	4-6590	0.205	330.9	-0.4	-0.06	1.344	95.1	0.325	1.062	339.3	618.5	0.716	1.407	-3.40	1.014	71.2	81.7	13.6	0.340
4-6250	4-6590	0.620	42.5	-0.1	-0.06	1.169	120.9	0.511	0.723	238.5	877.7	0.352	1.095	-3.40	0.767	110.4	206.9	-18.1	0.375
4-6250	4-6600	0.244	344.2	-3.6	-0.65	1.346	97.8	0.344	1.069	329.0	617.6	0.701	1.436	-3.55	1.016	70.1	91.8	15.9	0.357
4-6250	4-6600	0.548	42.1	-1.2	-0.65	1.156	117.4	0.461	0.702	239.5	888.3	0.382	1.034	-3.55	0.745	99.7	197.3	-17.4	0.282

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THETA1	THETA2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

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DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7200	3-7770	0.433	122.7	17.2	-1.98	0.853	55.5	0.569	1.576	118.9	276.2	---	2.473	0.14	1.166	61.9	20.0	8.7	0.566
3-7200	3-7780	0.405	124.3	16.4	-2.08	0.857	57.5	0.541	1.592	115.6	282.7	---	2.454	0.24	1.166	64.7	25.8	11.2	0.547
3-7200	3-7790	0.381	125.4	14.3	-2.02	0.860	59.3	0.516	1.607	112.4	289.2	---	2.436	0.97	1.166	67.4	30.9	14.9	0.530
3-7200	3-7800	0.356	127.6	16.4	-1.38	0.863	61.0	0.492	1.620	109.4	295.9	---	2.418	-0.48	1.167	70.0	37.5	13.5	0.420
3-7200	3-7810	0.335	128.8	15.2	-1.66	0.866	62.5	0.471	1.632	106.6	302.7	---	2.400	-0.19	1.167	72.5	42.2	15.7	0.383
3-7200	3-7820	0.317	130.0	14.4	-1.74	0.868	63.8	0.452	1.642	104.1	309.7	---	2.384	-0.12	1.167	74.9	46.5	17.0	0.342
3-7200	3-7830	0.301	131.1	13.7	-1.77	0.870	65.0	0.435	1.651	101.7	317.0	---	2.369	-0.09	1.168	77.3	50.8	18.0	0.304
3-7200	3-7840	0.287	132.0	13.1	-1.79	0.871	65.9	0.421	1.658	99.7	324.5	---	2.356	-0.08	1.168	79.7	52.1	18.6	0.269
3-7200	3-7850	0.276	132.8	12.6	-1.81	0.872	66.7	0.409	1.664	98.0	332.3	---	2.346	-0.07	1.169	82.0	52.5	18.7	0.238
3-7200	3-7860	0.267	133.5	12.2	-1.82	0.873	67.3	0.401	1.669	96.6	340.5	---	2.339	-0.06	1.170	84.4	50.6	18.2	0.212
3-7200	3-7860	0.368	349.8	-8.1	-1.82	0.710	110.7	0.429	1.366	214.8	818.7	0.665	1.666	-0.06	1.053	114.4	269.8	-22.3	0.439
3-7200	3-7860	0.433	347.3	-8.6	-1.82	0.723	116.0	0.486	1.192	218.5	822.4	0.613	1.771	-0.06	1.062	117.9	287.7	-22.6	0.502
3-7200	3-7870	0.262	133.9	11.5	-1.83	0.874	67.7	0.396	1.673	95.7	349.1	---	2.335	-0.06	1.171	86.9	45.9	16.9	0.194
3-7200	3-7870	0.262	359.7	-5.3	-1.83	0.688	101.1	0.356	1.126	201.7	815.1	0.725	1.526	-0.06	1.040	110.1	301.9	-20.4	0.363
3-7200	3-7870	0.585	345.8	-8.3	-1.83	0.752	127.7	0.626	1.256	219.9	833.3	0.470	2.042	-0.06	1.083	127.4	292.1	-22.0	0.674
3-7200	3-7880	0.261	134.1	11.7	-1.84	0.875	67.8	0.394	1.675	95.3	358.3	---	2.336	-0.05	1.172	89.5	38.8	14.9	0.197
3-7200	3-7880	0.219	9.0	-2.2	-1.84	0.679	96.2	0.339	1.110	192.4	815.4	0.734	1.486	-0.05	1.035	109.2	311.6	-18.1	0.348
3-7200	3-7890	0.264	134.0	11.8	-1.85	0.875	67.6	0.398	1.677	95.6	368.1	1.010	2.344	-0.05	1.174	92.3	30.9	12.2	0.195
3-7200	3-7890	0.193	20.0	1.6	-1.85	0.672	92.1	0.338	1.099	184.0	816.6	0.728	1.470	-0.05	1.032	109.2	320.5	-15.6	0.351
3-7200	3-7900	0.272	133.6	12.1	-1.86	0.875	67.0	0.407	1.678	96.5	378.7	0.996	2.361	-0.06	1.176	95.4	24.0	9.7	0.219
3-7200	3-7900	0.179	33.1	6.3	-1.86	0.667	88.1	0.348	1.091	176.3	818.5	0.712	1.470	-0.06	1.030	109.9	328.9	-12.8	0.364
3-7200	3-7910	0.288	132.7	12.7	-1.87	0.875	65.9	0.423	1.679	98.4	390.2	0.968	2.389	-0.06	1.178	98.9	19.3	7.9	0.261
3-7200	3-7910	0.179	48.1	11.2	-1.87	0.663	83.9	0.368	1.084	169.3	821.1	0.685	1.484	-0.06	1.030	111.3	336.7	-9.9	0.389
3-7200	3-7920	0.314	131.4	13.6	-1.88	0.875	64.2	0.450	1.679	101.4	402.9	0.923	2.434	-0.06	1.180	103.0	16.9	6.9	0.321
3-7200	3-7920	0.197	63.5	15.4	-1.88	0.655	79.2	0.401	1.079	163.0	824.5	0.646	1.512	-0.06	1.030	113.4	344.1	-6.9	0.427
3-7200	3-7930	0.355	129.4	14.7	-1.90	0.875	61.3	0.492	1.678	105.8	417.1	0.852	2.504	-0.07	1.182	108.1	16.0	6.6	0.403
3-7200	3-7930	0.237	77.0	18.4	-1.90	0.656	73.7	0.451	1.074	157.8	829.1	0.590	1.558	-0.07	1.030	116.6	350.9	-4.1	0.483
3-7200	3-7940	0.419	126.5	16.2	-1.92	0.875	56.9	0.555	1.678	112.2	433.3	0.746	2.610	-0.09	1.184	114.7	14.0	6.6	0.516
3-7200	3-7940	0.302	87.3	20.2	-1.92	0.654	66.7	0.523	1.070	154.1	835.3	0.511	1.630	-0.09	1.032	121.3	357.0	-1.4	0.566
3-7200	3-7940	0.484	21.2	7.4	-1.92	0.432	109.9	0.763	0.851	186.6	1227.7	0.202	1.500	-0.09	0.907	139.0	340.4	-8.3	0.809
3-7200	3-7950	0.518	122.2	18.0	-1.95	0.875	50.0	0.650	1.678	121.5	452.5	0.588	2.769	-0.11	1.187	123.8	16.0	6.6	0.676
3-7200	3-7950	0.403	93.7	21.3	-1.95	0.652	57.2	0.627	1.067	153.0	844.0	0.398	1.737	-0.11	1.033	128.7	2.0	0.7	0.691
3-7200	3-7950	0.440	44.1	15.4	-1.95	0.401	83.1	0.767	0.833	177.9	1228.9	0.194	1.472	-0.11	0.896	139.2	348.7	-4.9	0.810
3-7200	3-7960	0.558	95.5	22.3	-2.00	0.651	43.5	0.770	1.066	156.2	857.1	0.245	1.888	-0.16	1.035	140.3	5.2	2.1	0.882
3-7200	3-7960	0.519	61.5	20.0	-2.00	0.388	59.2	0.842	0.826	173.4	1234.3	0.130	1.521	-0.16	0.894	146.6	355.1	-2.2	0.918
3-7210	3-7280	0.490	23.3	8.1	-2.10	0.442	113.1	0.762	0.866	187.9	214.1	---	---	-0.28	0.936	40.8	290.9	-22.3	0.809
3-7210	3-7290	0.696	21.6	6.6	-2.02	0.515	105.6	0.644	0.921	189.1	225.5	---	---	-0.23	0.974	50.1	294.9	-21.7	0.677
3-7210	3-7300	0.330	18.6	4.5	-1.96	0.576	102.0	0.539	0.982	190.7	237.2	---	---	-0.17	1.008	57.4	299.1	-21.0	0.568
3-7210	3-7310	0.285	14.6	1.9	-1.93	0.625	100.2	0.451	1.042	193.0	249.7	---	---	-0.15	1.036	63.3	303.2	-20.2	0.476
3-7210	3-7320	0.255	9.9	-0.9	-1.90	0.663	99.5	0.381	1.098	196.1	263.0	---	---	-0.14	1.059	68.4	307.1	-19.4	0.397
3-7210	3-7330	0.237	5.2	-3.6	-1.81	0.692	99.2	0.328	1.148	199.9	277.1	---	---	-0.13	1.077	72.6	310.6	-18.6	0.329
3-7210	3-7340	0.224	1.0	-5.9	-1.85	0.714	99.1	0.289	1.190	204.2	291.4	---	---	-0.13	1.089	76.3	313.4	-18.0	0.272
3-7210	3-7350	0.221	357.6	-7.6	-1.83	0.730	99.2	0.262	1.224	208.3	305.7	---	---	-0.13	1.098	79.5	315.2	-17.6	0.223
3-7210	3-7360	0.218	355.0	-8.9	-1.81	0.741	99.2	0.244	1.249	211.9	319.3	---	---	-0.13	1.103	82.4	315.6	-17.7	0.182
3-7210	3-7370	0.216	353.1	-9.6	-1.78	0.748	99.2	0.232	1.266	214.5	331.9	---	---	-0.14	1.106	84.8	313.9	-18.4	0.150
3-7210	3-7380	0.214	352.3	-10.0	-1.75	0.753	99.2	0.225	1.276	216.3	343.4	---	---	-0.16	1.106	87.0	309.8	-19.9	0.126
3-7210	3-7390	0.212	352.0	-10.1	-1.71	0.755	99.1	0.221	1.281	216.5	355.8	---	---	-0.19	1.105	88.9	303.4	-21.8	0.113
3-7210	3-7400	0.209	352.1	-9.9	-1.65	0.755	98.8	0.218	1.281	215.9	363.1	1.002	---	-0.23	1.102	90.5	295.9	-23.8	0.105
3-7210	3-7410	0.205	352.7	-9.4	-1.55	0.753	98.5	0.216	1.277	214.6	371.5	1.001	---	-0.32	1.099	92.0	289.4	-25.6	0.106
3-7210	3-7420	0.200	353.4	-8.3	-1.32	0.751	98.0	0.215	1.271	212.5	379.1	0.998	---	-0.54	1.095	93.4	285.5	-28.0	0.112
3-7210	3-7430	0.193	352.6	-2.8	0.12	0.747	97.5	0.215	1.263	209.8	386.2	0.992	---	-1.97	1.090	94.5	285.4	-40.0	0.126
3-7210	3-7440	0.191	359.8	-13.1	-3.05	0.744	96.8	0.216	1.254	206.7	392.6	0.984	---	1.21	1.086	95.6	283.5	-13.1	0.134
3-7210	3-7450	0.182	0.9	-9.8	-2.30	0.739	96.1	0.217	1.244	203.1	398.7	0.974	---	0.47	1.081	96.6	287.0	-19.0	0.145
3-7210	3-7460	0.174	3.5	-8.2	-2.11	0.735	95.2	0.219	1.234	199.2	404.3	0.963	---	0.30	1.077	97.5	291.2	-20.0	0.158
3-7210	3-7470	0.166	6.9	-6.7	-2.03	0.730	94.2	0.223	1.223	195.0	409.7	0.951	---	0.23	1.073	98.4	296.2	-19.9	0.172
3-7210	3-7480	0.157	11.0	-5.1	-1.97	0.725	93.1	0.227	1.213	190.6	414.8	0.937	---	0.18	1.069	99.3	301.9	-19.2	0.186
3-7210	3-7490	0.149	16.1	-3.2	-1.94	0.720	91.8	0.234	1.202	185.9	419.7	0.921	---	0.16	1.066	100.2	308.0	-18.0	0.202
3-7210	3-7500	0.141	22.4	-0.8	-1.91	0.715	90.4	0.242	1.192	181.2	424.5	0.903	---	0.14	1.063	101.2	314.3	-16.5	0.219
3-7210	3-7510	0.136	30.1	2.0	-1.88	0.710	88.8	0.253	1.183	176.4	429.2	0.883	1.482	0.13	1.060	102.3	320.8	-14.7	0.238
3-7210	3-7520	0.133	39.5	5.3	-1.86	0.706	86.9	0.268	1.173	171.5	433.9	0.859	1.487	0.13	1.058	103.5	327.3	-12.7	0.259
3-7210	3-7530	0.134	50.4	9.0	-1.84	0.701	84.8	0.286	1.164	166.7	438.7	0.831	1.497	0.13	1.057	104.9	333.8	-10.4	0.285
3-7210	3-7540	0.143	62.4	12.6	-1.82	0.696	82.3	0.310	1.156	162.0	443.7	0.797	1.514	0.13	1.054	106.6	340.3	-7.9	0.316
3-7210	3-7550	0.161	74.5	15.6	-1.80	0.692	79.2	0.341	1.148	157.6	449.0	0.756	1.539	0.14	1.055	108.7	346.7	-5.3	0.354
3-7210	3-7560	0.192	85.5	17.8	-1.77	0.688	75.5	0.383	1.140	153.7	454.8	0.704	1.577	0.15	1.055	111.5	352.8	-2.7	0.403
3-7210	3-7570	0.239	94.5	19.2	-1.74	0.684	70.7	0.439	1.133	150.6	461.4	0.636	1.631	0.17	1.055	115.2	358.7	-0.2	0.469
3-7210	3-7580	0.309	101.0	20.2	-1.69	0.681	64.4	0.517	1.128	148.8	469.5	0.545	1.710	0.20	1.056	120.5	4.1	2.1	0.560
3-7210	3-7590	0.412	104.7	21.1	-1.62	0.678	55.5	0.624	1.124	149.4	480.0	0.422	1.825	0.26	1.057	128.2	8.5	4.0	0.692
3-7210	3-7600	0.566	104.8	22.1	-1.49	0.678	42.4	0.769	1.122	153.9	494.5	0.259	1.985	0.38	1.059	140.0	11.2	5.1	0.888
3-7210	3-7650	0.596	77.0	22.5	-2.05	0.419	42.4	0.891	0.851	171.7	562.7	0.093	1.610	-0.24	0.926	27.3	302.3	-20.2	1.009
3-7210	3-7650	0.488	3.8	-0.7	-2.05	0.611	120.3	0.635	1.024	202.3	593.3	0.374	1.674	-0.24	1.027	50.6	284.3	-23.1	0.684
3-7210	3-7660	0.499	76.4	21.9	-1.99	0.455	54.3	0.811	0.875	169.7	570.9	0.165	1.584	-0.19	0.944	36.1	308.0	-19.0	0.889
3-7210	3-7660	0.482	8.7	0.6	-1.99	0.603	109.6	0.549	1.014	198.1	599.3	0.457	1.570	-0.19	1.023	56.7	292.2	-22.2	0.582
3-7210	3-7670	0.391	71.3	20.6	-1.95	0.497	67.2	0.702	0.906	169.3	580.7	0.270	1.542	-0.16	0.965	45.6	312.9	-17.8	0.750
3-7210	3-7670	0.302	20.4	4.8	-1.95	0.588	99.4	0.507	0.996	189.3	600.7	0.491	1.501	-0.16	1.015	59.5	302.3	-20.4	0.535
3-7210	3-7730	0.573	120.2	19.2	-1.79	0.821	44.4	0.714	1.480	135.6	247.8	---	2.537	-0.14	1.158	47.8	356.4	-1.7	0.806
3-7210	3-7740	0.536	122.2	18.6	-1.77	0.827	47.2	0.679	1.502	131.9	254.1	---	2.523	-0.15	1.160	51.2	2.9	1.1	0.749
3-7210	3-7750	0.502	124.0	18.0	-1.73	0.833	49.9	0.645	1.524	128.2	260.3	---	2.506	-0.17	1.161	54.5	9.2	3.7	0.693
3-7210	3-7760	0.469	125.8	17.4	-1.68	0.838	52.3	0.612	1.544	124.7	266.7	---	2.489	-0.20	1.162	57.6	15.5	6.3	0.639
3-7210	3-7770	0.439	127.6	16.8	-1.61	0.843	54.6	0.581	1.563	121.3	273.0	---	2.471	-0.27	1.163	60.6	21.7	8.6	0.587
3-7210	3-7780	0.411	129.3	16.4	-1.47	0.847	56.6	0.552	1.580	117.9	279.5	---	2.453	-0.40	1.164	63.5	27.8	10.6	0.538

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7210	3-7790	0.384	131.1	16.5	-1.03	0.851	58.5	0.525	1.596	114.8	286.0	---	2.434	-0.83	1.165	66.2	34.0	31.7	0.490
3-7210	3-7800	0.384	126.6	0.1	-0.67	0.854	60.3	0.501	1.610	111.8	292.7	---	2.416	7.82	1.165	68.8	33.6	33.2	0.466
3-7210	3-7810	0.340	133.0	12.2	-2.52	0.857	61.8	0.478	1.622	108.9	299.5	---	2.398	0.69	1.165	71.4	45.6	18.6	0.400
3-7210	3-7820	0.320	134.4	12.2	-2.19	0.859	63.2	0.458	1.633	106.3	306.4	---	2.382	0.37	1.166	73.8	48.6	19.2	0.359
3-7210	3-7830	0.303	135.7	11.7	-2.07	0.861	64.4	0.440	1.643	103.9	313.6	---	2.366	0.25	1.166	76.3	52.5	19.9	0.319
3-7210	3-7840	0.288	136.7	11.3	-2.00	0.863	65.5	0.425	1.651	101.8	321.0	---	2.353	0.20	1.167	78.6	55.4	20.5	0.283
3-7210	3-7850	0.276	137.6	10.8	-1.96	0.864	66.4	0.413	1.658	100.0	328.7	---	2.341	0.17	1.168	81.0	58.6	20.7	0.250
3-7210	3-7860	0.267	138.4	10.4	-1.92	0.865	67.0	0.403	1.663	98.5	336.8	---	2.333	0.15	1.169	83.4	61.8	20.5	0.221
3-7210	3-7870	0.260	138.9	10.2	-1.90	0.866	67.5	0.396	1.667	97.4	345.3	---	2.328	0.14	1.170	85.8	65.0	19.7	0.199
3-7210	3-7880	0.393	356.9	-5.3	-1.90	0.694	108.6	0.419	1.152	211.1	818.9	0.670	1.634	0.14	1.049	113.9	299.7	-20.3	0.430
3-7210	3-7870	0.475	351.9	-6.3	-1.90	0.721	119.5	0.532	1.205	218.4	826.3	0.564	1.845	0.14	1.067	120.9	295.8	-21.1	0.558
3-7210	3-7880	0.257	139.2	10.0	-1.87	0.867	67.7	0.393	1.670	96.9	354.3	---	2.327	0.13	1.171	88.4	45.6	18.1	0.187
3-7210	3-7880	0.258	6.3	-2.5	-1.87	0.676	100.5	0.365	1.120	199.4	816.8	0.711	1.529	0.13	1.039	110.8	310.7	-17.8	0.376
3-7210	3-7890	0.258	139.3	10.1	-1.85	0.867	67.7	0.394	1.672	96.8	363.8	1.013	2.332	0.13	1.173	91.1	37.6	15.7	0.189
3-7210	3-7890	0.217	16.1	0.9	-1.85	0.667	95.5	0.352	1.105	190.2	817.2	0.716	1.494	0.13	1.034	110.1	320.0	-15.2	0.366
3-7210	3-7900	0.264	139.1	10.4	-1.83	0.868	67.3	0.401	1.673	97.4	374.0	1.003	2.344	0.13	1.175	94.0	30.0	13.0	0.206
3-7210	3-7900	0.191	28.0	5.0	-1.83	0.661	91.1	0.354	1.095	162.0	818.6	0.707	1.482	0.13	1.032	110.3	328.6	-12.4	0.370
3-7210	3-7910	0.276	138.5	11.0	-1.81	0.868	66.4	0.414	1.674	98.8	385.1	0.981	2.367	0.13	1.177	97.3	24.5	10.9	0.240
3-7210	3-7910	0.181	42.2	9.8	-1.81	0.656	86.8	0.367	1.086	174.4	820.7	0.688	1.485	0.13	1.031	111.2	336.7	-9.4	0.387
3-7210	3-7920	0.297	137.4	11.8	-1.78	0.868	65.0	0.436	1.674	101.2	397.2	0.944	2.403	0.14	1.179	101.1	21.3	9.5	0.292
3-7210	3-7920	0.186	58.2	14.4	-1.78	0.651	82.2	0.392	1.080	167.6	823.6	0.656	1.503	0.14	1.030	112.8	344.3	-6.3	0.417
3-7210	3-7930	0.350	135.8	12.9	-1.76	0.868	62.7	0.470	1.674	104.8	410.5	0.887	2.460	0.15	1.181	105.6	20.0	9.0	0.363
3-7210	3-7930	0.212	73.7	17.9	-1.76	0.648	77.0	0.432	1.074	161.7	827.4	0.610	1.538	0.15	1.031	115.3	351.4	-3.4	0.462
3-7210	3-7940	0.381	133.5	14.4	-1.72	0.868	59.2	0.522	1.673	110.0	425.5	0.860	2.546	0.18	1.184	111.3	19.9	8.9	0.459
3-7210	3-7940	0.262	86.6	20.0	-1.72	0.644	70.8	0.490	1.070	157.0	832.6	0.545	1.594	0.18	1.031	119.2	358.0	-0.5	0.528
3-7210	3-7950	0.459	130.1	16.2	-1.66	0.867	53.7	0.599	1.673	117.4	442.8	0.671	2.676	0.22	1.186	119.0	20.2	8.9	0.592
3-7210	3-7950	0.342	95.6	21.1	-1.66	0.642	62.6	0.575	1.066	154.3	839.7	0.453	1.680	0.22	1.033	125.0	3.8	2.0	0.628
3-7210	3-7950	0.459	34.3	12.5	-1.64	0.401	100.4	0.770	0.841	183.2	1228.6	0.193	1.489	0.22	0.903	139.5	348.9	-4.6	0.817
3-7210	3-7960	0.581	125.0	18.3	-1.57	0.868	45.1	0.711	1.674	128.4	463.7	0.484	2.865	0.30	1.189	129.7	20.0	8.8	0.781
3-7210	3-7960	0.464	100.3	21.9	-1.57	0.641	51.3	0.696	1.064	154.8	850.1	0.324	1.804	0.30	1.034	134.0	8.1	3.8	0.779
3-7210	3-7960	0.487	56.0	19.0	-1.57	0.378	74.6	0.805	0.828	176.1	1231.5	0.161	1.495	0.30	0.896	142.8	356.3	-1.4	0.864
3-7210	3-7970	0.583	70.6	22.1	-1.37	0.368	47.9	0.895	0.823	173.6	1238.9	0.086	1.560	0.50	0.895	152.9	1.7	1.0	1.010
3-7210	3-8010	0.553	3.9	-0.3	-2.11	0.602	126.4	0.700	1.013	201.5	947.2	0.304	1.722	-0.29	1.022	45.6	281.8	-23.3	0.764
3-7220	3-7280	0.574	21.5	7.4	-2.62	0.461	126.7	0.810	0.988	190.8	211.6	---	---	-0.85	0.951	36.1	292.0	-22.5	0.883
3-7220	3-7290	0.457	19.5	5.9	-2.33	0.522	114.8	0.682	0.938	193.1	224.0	---	---	-0.59	0.983	47.0	295.5	-22.0	0.730
3-7220	3-7300	0.378	16.4	3.7	-2.17	0.581	108.7	0.568	0.999	195.6	236.8	---	---	-0.46	1.017	55.4	299.3	-21.4	0.604
3-7220	3-7310	0.326	12.2	1.2	-2.07	0.631	105.5	0.473	1.064	198.9	250.2	---	---	-0.39	1.046	62.1	303.0	-20.7	0.500
3-7220	3-7320	0.292	7.7	-1.4	-1.99	0.671	103.8	0.398	1.125	203.0	264.5	---	---	-0.34	1.069	67.6	306.5	-20.1	0.413
3-7220	3-7330	0.272	3.8	-3.8	-1.93	0.701	102.9	0.343	1.179	207.8	279.4	---	---	-0.32	1.087	72.2	309.5	-19.5	0.380
3-7220	3-7340	0.261	359.5	-5.8	-1.87	0.723	102.3	0.304	1.225	212.8	294.6	---	---	-0.30	1.100	76.2	311.8	-19.1	0.379
3-7220	3-7350	0.254	356.5	-7.2	-1.82	0.739	102.3	0.279	1.261	217.4	309.3	---	---	-0.30	1.109	79.6	312.9	-19.3	0.227
3-7220	3-7360	0.251	354.3	-8.2	-1.76	0.749	102.1	0.262	1.287	221.0	323.0	---	---	-0.31	1.114	82.6	312.4	-19.7	0.185
3-7220	3-7370	0.248	352.9	-8.7	-1.70	0.756	102.0	0.252	1.304	223.5	335.5	---	---	-0.32	1.116	85.1	309.9	-20.9	0.153
3-7220	3-7380	0.245	352.2	-8.9	-1.64	0.759	101.8	0.245	1.313	224.7	346.6	---	---	-0.35	1.116	87.4	305.7	-22.7	0.130
3-7220	3-7390	0.241	352.0	-8.8	-1.56	0.760	101.5	0.240	1.315	224.8	356.6	---	---	-0.40	1.114	89.3	297.8	-24.9	0.117
3-7220	3-7400	0.237	352.3	-8.4	-1.44	0.759	101.2	0.237	1.312	223.9	365.5	1.001	---	-0.49	1.111	92.1	290.5	-26.9	0.113
3-7220	3-7410	0.232	352.8	-7.6	-1.27	0.757	100.8	0.235	1.306	222.1	373.6	1.000	---	-0.63	1.107	92.6	284.9	-28.8	0.116
3-7220	3-7420	0.225	353.5	-6.3	-0.94	0.753	100.3	0.233	1.297	219.7	380.9	0.995	---	-0.93	1.102	93.9	282.1	-31.3	0.124
3-7220	3-7430	0.218	353.6	-2.7	0.05	0.749	99.6	0.231	1.286	216.8	387.6	0.988	---	-1.90	1.097	95.1	282.3	-38.4	0.137
3-7220	3-7440	0.483	41.4	-42.7	-32.50	0.744	98.9	0.231	1.274	213.4	394.0	0.980	---	30.47	1.091	96.2	249.9	58.5	0.566
3-7220	3-7450	0.207	3.0	-12.4	-3.51	0.739	98.1	0.231	1.261	209.5	399.7	0.970	---	1.72	1.086	97.1	284.7	-10.9	0.158
3-7220	3-7460	0.195	4.3	-9.0	-2.67	0.733	97.2	0.232	1.248	205.4	405.1	0.959	---	0.89	1.081	98.0	289.8	-16.5	0.169
3-7220	3-7470	0.189	6.9	-7.1	-2.36	0.728	96.1	0.230	1.236	201.0	410.3	0.947	---	0.62	1.077	98.9	295.2	-17.7	0.181
3-7220	3-7480	0.175	10.4	-5.3	-2.20	0.722	95.0	0.237	1.223	196.4	415.2	0.933	---	0.48	1.072	99.7	301.2	-17.7	0.194
3-7220	3-7490	0.165	14.8	-3.5	-2.09	0.716	93.7	0.242	1.211	191.6	419.9	0.916	---	0.40	1.068	100.6	307.5	-16.9	0.209
3-7220	3-7500	0.155	20.2	-2.3	-2.01	0.710	92.2	0.249	1.199	186.7	424.5	0.901	---	0.36	1.065	101.5	313.9	-15.6	0.224
3-7220	3-7510	0.146	26.9	1.2	-1.95	0.705	90.6	0.258	1.188	181.7	429.1	0.882	---	0.33	1.062	102.4	320.6	-13.9	0.241
3-7220	3-7520	0.139	35.3	4.8	-1.89	0.699	88.7	0.270	1.177	176.6	433.5	0.859	1.495	0.31	1.060	103.5	327.2	-11.9	0.261
3-7220	3-7530	0.136	45.5	7.8	-1.84	0.694	86.6	0.286	1.167	171.5	436.1	0.833	1.501	0.30	1.058	104.8	333.9	-9.7	0.284
3-7220	3-7540	0.139	57.5	11.5	-1.79	0.689	84.2	0.306	1.157	166.4	442.8	0.903	1.512	0.30	1.057	106.3	340.5	-7.2	0.311
3-7220	3-7550	0.151	70.4	14.8	-1.74	0.684	81.4	0.333	1.148	161.9	447.8	0.706	1.531	0.31	1.056	108.2	347.0	-4.6	0.345
3-7220	3-7560	0.173	82.9	17.4	-1.68	0.679	77.9	0.369	1.140	157.5	453.1	0.719	1.561	0.33	1.055	110.6	353.4	-1.9	0.387
3-7220	3-7570	0.211	93.8	19.0	-1.61	0.673	73.6	0.417	1.132	153.8	459.2	0.660	1.604	0.37	1.055	113.8	359.5	0.7	0.443
3-7220	3-7580	0.267	102.2	19.9	-1.52	0.671	68.0	0.482	1.126	151.0	466.3	0.583	1.668	0.43	1.055	118.1	5.3	3.1	0.519
3-7220	3-7590	0.350	107.9	20.6	-1.39	0.668	60.5	0.572	1.120	150.0	475.2	0.480	1.761	0.53	1.056	124.4	10.4	5.3	0.627
3-7220	3-7600	0.474	110.2	21.4	-1.18	0.666	49.8	0.695	1.117	152.0	487.1	0.340	1.894	0.72	1.057	133.7	14.3	6.9	0.784
3-7220	3-7650	0.556	9.2	1.8	-2.45	0.595	127.0	0.710	1.015	200.9	586.5	0.294	1.736	-0.70	1.023	44.8	287.9	-23.1	0.779
3-7220	3-7660	0.531	80.5	22.3	-2.24	0.421	51.0	0.850	0.861	171.3	567.0	0.129	1.593	-0.52	0.934	32.1	310.3	-18.6	0.945
3-7220	3-7660	0.431	12.4	2.4	-2.24	0.588	114.5	0.605	1.007	198.8	594.6	0.398	1.616	-0.52	1.020	52.8	294.7	-22.2	0.648
3-7220	3-7670	0.426	76.8	21.3	-2.12	0.464	64.0	0.751	0.890	170.3	576.3	0.221	1.558	-0.42	0.954	41.6	315.4	-17.3	0.811
3-7220	3-7670	0.337	21.6	5.5	-2.12	0.575	103.9	0.545	0.992	191.8	597.7	0.452	1.532	-0.42	1.013	57.0	303.8	-20.4	0.577
3-7220	3-7730	0.582	124.7	18.4	-1.73	0.909	83.1	0.730	1.464	138.0	249.7	---	2.532	-0.31	1.154	46.2	357.8	-1.3	0.833
3-7220	3-7740	0.548	126.7	17.8	-1.67	0.816	46.0	0.694	1.486	134.3	251.0	---	2.519	-0.34	1.197	49.7	4.3	1.4	0.774
3-7220	3-7750	0.510	128.6	17.2	-1.60	0.822	47.7	0.659	1.509	130.6	257.3	---	2.503	-0.38	1.158	53.0	10.7	4.1	0.717
3-7220	3-7760	0.477	130.5	16.6	-1.51	0.827	51.3	0.626	1.529	127.1	263.6	---	2.487	-0.44	1.160	56.2	17.0	6.5	0.662
3-7220	3-7770	0.446	132.3	16.1	-1.37	0.832	53.6	0.594	1.549	123.6	269.9	---	2.469	-0.54	1.161	59.3	23.3	8.8	0.609
3-7220	3-7780	0.417	134.1	15.7	-1.15	0.837	55.8	0.564	1.567	120.3	276.4	---	2.451	-0.74	1.162	62.2	29.6	10.6	0.559
3-7220	3-7790	0.390	135.9	16.0	-0.64	0.841	57.8	0.536	1.584	117.1	282.9	---	2.432	-1.22	1.163	65.0	35.9	11.6	0.510
3-7220	3-7800	0.366	139.1	20.3	1.95	0.844	59.6	0.510	1.599	114.1	289.5	---	2.414	-3.79	1.163	67.7	43.7	7.5	0.468
3-7220	3-7810	0.350	135.5	5.7	-5.22	0.848	61.2	0.486	1.612	111.2	296.3	---	2.396	3.41	1.164	70.5	43.8	26.0	0.422

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7220	3-7820	0.325	138.4	9.2	-2.98	0.850	62.6	0.465	1.424	108.6	303.2	---	2.379	1.19	1.164	72.8	50.3	22.1	0.376
3-7220	3-7830	0.306	140.0	9.4	-2.89	0.852	63.9	0.446	1.434	106.1	310.3	---	2.363	0.73	1.165	75.2	54.9	22.1	0.335
3-7220	3-7840	0.291	141.2	9.2	-2.28	0.854	65.0	0.430	1.443	103.9	317.7	---	2.349	0.54	1.166	77.6	58.3	22.4	0.297
3-7220	3-7850	0.278	142.2	8.9	-2.19	0.856	66.0	0.416	1.450	102.0	325.3	---	2.337	0.44	1.167	80.0	60.2	22.6	0.262
3-7220	3-7860	0.267	143.0	8.6	-2.05	0.857	66.7	0.405	1.456	100.4	333.3	---	2.327	0.38	1.168	82.4	60.2	22.6	0.231
3-7220	3-7870	0.259	143.7	8.3	-1.98	0.858	67.3	0.397	1.461	99.2	341.6	---	2.321	0.34	1.169	84.8	57.6	22.1	0.206
3-7220	3-7880	0.255	144.2	8.2	-1.92	0.859	67.6	0.393	1.464	98.5	350.4	---	2.318	0.32	1.171	87.3	52.1	20.9	0.190
3-7220	3-7880	0.326	3.8	-2.5	-1.92	0.680	107.1	0.417	1.142	207.8	819.7	0.666	1.617	0.32	1.046	113.8	309.0	-17.9	0.432
3-7220	3-7880	0.506	356.9	-3.9	-1.92	0.718	122.4	0.569	1.215	217.7	829.6	0.523	1.906	0.32	1.071	123.6	303.9	-19.3	0.607
3-7220	3-7890	0.254	144.4	8.3	-1.87	0.859	67.6	0.392	1.467	98.2	359.7	---	2.320	0.30	1.172	89.9	44.4	18.9	0.186
3-7220	3-7890	0.252	13.2	0.5	-1.87	0.664	99.7	0.375	1.115	196.9	818.4	0.696	1.533	0.30	1.038	111.4	319.3	-15.0	0.390
3-7220	3-7900	0.258	144.3	8.6	-1.82	0.860	67.4	0.396	1.468	98.5	369.7	1.007	2.329	0.30	1.174	92.7	36.3	16.3	0.196
3-7220	3-7900	0.213	23.7	4.1	-1.82	0.655	94.5	0.366	1.100	187.9	819.1	0.698	1.502	0.30	1.034	111.0	328.2	-12.1	0.383
3-7220	3-7910	0.263	143.9	9.2	-1.77	0.860	66.7	0.406	1.469	99.6	380.4	0.991	2.347	0.31	1.176	95.8	29.9	13.9	0.224
3-7220	3-7910	0.190	36.7	8.5	-1.77	0.649	89.9	0.371	1.090	179.9	820.7	0.685	1.494	0.31	1.032	111.4	336.6	-9.0	0.392
3-7220	3-7920	0.284	143.1	10.0	-1.71	0.860	65.6	0.424	1.469	101.4	391.9	0.961	2.377	0.32	1.178	99.4	25.8	12.2	0.267
3-7220	3-7920	0.184	52.3	13.2	-1.71	0.643	85.3	0.389	1.082	172.5	823.0	0.661	1.502	0.32	1.031	112.6	344.4	-5.8	0.413
3-7220	3-7930	0.310	141.8	11.0	-1.65	0.860	64.7	0.452	1.469	104.3	404.6	0.914	2.424	0.33	1.181	103.5	24.0	11.3	0.329
3-7220	3-7930	0.196	69.0	17.2	-1.65	0.639	80.5	0.420	1.075	166.0	826.3	0.624	1.526	0.35	1.031	114.5	351.8	-2.7	0.448
3-7220	3-7940	0.351	140.0	12.4	-1.57	0.860	60.9	0.495	1.468	108.5	418.6	0.842	2.495	0.35	1.183	108.6	23.7	11.0	0.412
3-7220	3-7940	0.232	84.2	19.7	-1.57	0.635	74.	0.467	1.070	160.5	830.6	0.570	1.569	0.39	1.031	117.6	358.7	0.2	0.502
3-7220	3-7950	0.414	137.2	14.1	-1.47	0.860	56.5	0.559	1.468	114.6	434.5	0.736	2.600	0.47	1.185	115.1	24.7	11.1	0.525
3-7220	3-7950	0.294	95.9	21.0	-1.47	0.632	67.2	0.536	1.065	156.6	836.5	0.494	1.637	0.47	1.032	122.2	5.0	2.9	0.582
3-7220	3-7960	0.509	133.2	16.2	-1.31	0.860	49.7	0.652	1.468	123.3	453.2	0.581	2.756	0.60	1.188	124.0	24.5	11.1	0.681
3-7220	3-7960	0.391	103.3	21.6	-1.31	0.630	57.7	0.636	1.062	155.1	844.9	0.387	1.737	0.60	1.034	129.3	10.3	5.2	0.702
3-7220	3-7960	0.458	47.3	17.0	-1.31	0.373	91.5	0.792	0.834	180.4	1230.3	0.173	1.494	0.60	0.900	141.5	356.9	-0.9	0.847
3-7220	3-7970	0.537	105.9	22.3	-1.00	0.629	44.2	0.771	1.061	157.5	857.3	0.243	1.879	0.87	1.036	140.4	13.9	6.7	0.884
3-7220	3-7970	0.509	67.3	21.7	-1.00	0.354	64.5	0.851	0.824	175.1	1234.9	0.123	1.525	0.87	0.896	147.5	3.6	2.0	0.934
3-7220	3-8020	0.489	10.8	2.1	-2.34	0.587	120.4	0.657	1.006	200.0	950.4	0.345	1.666	-0.60	1.019	48.9	291.2	-22.7	0.710
3-7230	3-7290	0.541	17.7	5.2	-2.77	0.553	125.6	0.729	0.979	197.4	223.0	---	---	-1.09	1.006	43.2	295.0	-22.3	0.800
3-7230	3-7300	0.443	14.4	3.1	-2.44	0.602	116.5	0.603	1.037	201.2	237.0	---	---	-0.81	1.034	53.0	299.0	-21.8	0.650
3-7230	3-7310	0.38.	10.3	0.7	-2.24	0.649	111.5	0.500	1.104	205.7	251.6	---	---	-0.66	1.062	60.6	302.3	-21.5	0.531
3-7230	3-7320	0.340	6.0	-1.8	-2.11	0.687	108.7	0.421	1.170	210.9	267.1	---	---	-0.57	1.085	66.7	305.2	-20.8	0.434
3-7230	3-7330	0.317	1.9	-3.9	-2.00	0.717	107.1	0.365	1.230	216.7	283.0	---	---	-0.51	1.103	71.8	307.7	-20.5	0.354
3-7230	3-7340	0.303	358.5	-5.5	-1.90	0.738	106.2	0.327	1.279	222.3	298.7	---	---	-0.48	1.116	76.1	309.3	-20.4	0.288
3-7230	3-7350	0.294	356.0	-6.7	-1.82	0.754	105.7	0.303	1.317	227.1	313.6	---	---	-0.47	1.124	79.7	309.6	-20.8	0.234
3-7230	3-7360	0.289	354.2	-7.4	-1.73	0.763	105.3	0.288	1.343	230.6	327.2	---	---	-0.47	1.129	82.8	308.1	-21.7	0.191
3-7230	3-7370	0.285	353.2	-7.7	-1.65	0.769	104.9	0.279	1.358	232.7	339.3	---	---	-0.49	1.131	85.5	304.4	-23.3	0.159
3-7230	3-7380	0.280	352.7	-7.8	-1.55	0.771	104.6	0.272	1.364	233.5	350.1	---	---	-0.53	1.129	.9	298.5	-25.3	0.138
3-7230	3-7390	0.275	352.7	-7.5	-1.44	0.770	104.3	0.267	1.363	233.1	359.6	---	---	-0.59	1.126	89.	291.3	-27.3	0.127
3-7230	3-7400	0.270	353.1	-7.0	-1.30	0.768	103.8	0.262	1.356	231.8	368.1	1.000	---	-0.68	1.122	91.7	284.6	-28.9	0.125
3-7230	3-7410	0.262	353.7	-6.2	-1.09	0.764	103.3	0.258	1.345	229.6	375.7	0.997	---	-0.84	1.117	93.2	280.2	-30.4	0.129
3-7230	3-7420	0.256	354.4	-4.8	-0.74	0.759	102.7	0.255	1.331	226.9	382.7	0.992	---	-1.15	1.111	94.6	278.5	-32.5	0.138
3-7230	3-7430	0.246	354.9	-2.2	0.03	0.753	102.0	0.252	1.316	223.6	389.1	0.984	---	-1.88	1.105	95.7	279.4	-37.1	0.150
3-7230	3-7440	0.241	352.3	9.0	3.72	0.747	101.2	0.249	1.300	219.9	395.1	0.976	---	-5.53	1.099	96.8	283.8	-57.4	0.186
3-7230	3-7450	0.247	9.4	-20.5	-7.46	0.740	100.3	0.248	1.283	215.9	400.7	0.965	---	5.69	1.092	97.7	280.3	10.0	0.197
3-7230	3-7460	0.221	6.1	-10.4	-3.63	0.733	99.3	0.247	1.267	211.6	405.9	0.954	---	1.91	1.087	98.6	288.0	-11.1	0.183
3-7230	3-7470	0.207	7.8	-7.4	-2.85	0.727	98.2	0.247	1.252	207.0	410.9	0.942	---	1.16	1.081	99.4	294.1	-15.3	0.193
3-7230	3-7480	0.195	10.6	-5.4	-2.50	0.720	97.0	0.249	1.236	202.3	415.7	0.928	---	0.96	1.076	100.2	300.3	-18.5	0.205
3-7230	3-7490	0.183	14.3	-3.5	-2.30	0.713	95.6	0.252	1.222	197.3	420.2	0.914	---	0.69	1.072	101.0	306.9	-15.7	0.218
3-7230	3-7500	0.171	19.0	-1.4	-2.15	0.707	94.2	0.257	1.208	192.2	424.7	0.897	---	0.59	1.068	101.8	313.5	-14.7	0.232
3-7230	3-7510	0.160	24.8	0.9	-2.04	0.700	92.5	0.265	1.195	187.0	429.0	0.879	---	0.53	1.065	102.7	320.3	-13.1	0.247
3-7230	3-7520	0.150	32.1	3.7	-1.95	0.694	90.7	0.275	1.183	181.8	433.4	0.858	---	0.50	1.062	103.7	327.0	-11.2	0.265
3-7230	3-7530	0.143	41.3	6.9	-1.86	0.688	88.6	0.288	1.171	176.5	437.7	0.834	1.508	0.48	1.059	104.8	333.8	-9.0	0.285
3-7230	3-7540	0.140	52.5	10.5	-1.78	0.682	86.2	0.305	1.160	171.4	442.2	0.806	1.515	0.47	1.058	106.2	340.6	-6.5	0.310
3-7230	3-7550	0.145	65.5	14.0	-1.70	0.676	83.5	0.329	1.150	166.3	446.8	0.772	1.538	0.48	1.056	107.9	347.2	-3.9	0.339
3-7230	3-7560	0.160	79.1	16.9	-1.62	0.671	80.2	0.359	1.141	161.6	451.8	0.731	1.550	0.50	1.055	110.0	353.8	-1.3	0.376
3-7230	3-7570	0.188	91.8	18.8	-1.52	0.666	76.3	0.400	1.132	157.3	457.4	0.679	1.585	0.54	1.055	112.7	0.1	1.4	0.424
3-7230	3-7580	0.234	102.2	19.7	-1.40	0.661	71.3	0.455	1.124	153.9	463.7	0.612	1.636	0.61	1.055	116.4	6.2	4.0	0.489
3-7230	3-7590	0.302	109.8	20.3	-1.23	0.657	64.7	0.531	1.118	151.7	471.5	0.524	1.711	0.73	1.055	121.5	11.9	6.3	0.577
3-7230	3-7600	0.402	114.2	20.8	-0.98	0.654	55.7	0.635	1.115	151.8	481.5	0.406	1.819	0.94	1.056	129.0	16.6	8.2	0.705
3-7230	3-7610	0.549	114.9	21.6	-0.51	0.653	42.8	0.773	1.111	155.3	495.2	0.252	1.969	1.36	1.057	140.3	19.7	9.4	0.893
3-7230	3-7660	0.563	84.3	22.6	-2.59	0.385	47.5	0.886	0.848	172.8	563.2	0.097	1.599	-0.9	0.924	28.0	312.5	-18.1	1.001
3-7230	3-7660	0.487	16.9	4.5	-2.59	0.571	120.3	0.668	0.999	198.7	589.1	0.331	1.667	-0.93	1.016	48.1	297.6	-22.0	0.726
3-7230	3-7670	0.460	81.7	21.9	-2.34	0.429	61.1	0.796	0.875	171.5	572.1	0.178	1.571	-0.72	0.944	37.6	317.7	-18.8	0.869
3-7230	3-7670	0.377	23.9	6.7	-2.34	0.559	107.9	0.589	0.986	193.5	594.1	0.405	1.567	-0.72	1.010	53.9	305.8	-20.4	0.629
3-7230	3-7680	0.332	66.2	18.9	-2.17	0.492	79.9	0.649	0.922	174.4	585.2	0.324	1.520	-0.61	0.974	49.7	320.8	-16.0	0.691
3-7230	3-7680	0.303	46.9	14.1	-2.17	0.527	91.6	0.582	0.953	181.1	591.9	0.399	1.508	-0.61	0.992	54.5	317.3	-17.2	0.617
3-7230	3-7730	0.592	129.1	17.5	-1.69	0.797	41.8	0.746	1.447	140.4	241.7	---	2.526	-0.48	1.151	44.5	359.1	-0.9	0.859
3-7230	3-7740	0.554	131.1	16.8	-1.61	0.804	44.8	0.710	1.470	136.6	247.9	---	2.514	-0.51	1.153	48.1	5.6	1.8	0.800
3-7230	3-7750	0.518	133.0	16.2	-1.50	0.811	47.6	0.674	1.493	133.0	254.2	---	2.499	-0.55	1.155	51.5	12.0	4.4	0.742
3-7230	3-7760	0.484	134.9	15.6	-1.38	0.817	50.2	0.639	1.515	129.4	260.5	---	2.483	-0.63	1.157	54.8	18.4	6.9	0.686
3-7230	3-7770	0.453	136.8	15.1	-1.21	0.822	52.7	0.607	1.535	126.0	266.9	---	2.466	-0.75	1.158	57.9	24.8	9.1	0.631
3-7230	3-7780	0.423	138.6	14.8	-0.95	0.827	54.9	0.575	1.554	122.6	273.3	---	2.448	-0.96	1.159	60.9	31.2	10.9	0.579
3-7230	3-7790	0.395	140.5	14.9	-0.47	0.831	57.0	0.546	1.572	119.4	279.8	---	2.430	-1.40	1.160	63.8	37.6	11.9	0.530
3-7230	3-7800	0.370	143.0	16.8	0.90	0.835	58.8	0.519	1.588	116.4	286.4	---	2.412	-2.73	1.161	66.5	44.4	10.6	0.484
3-7230	3-7820	0.332	141.5	4.4	-4.67	0.841	62.1	0.472	1.614	110.8	300.1	---	2.377	2.92	1.163	71.7	51.4	27.2	0.395
3-7230	3-7830	0.311	143.9	6.5	-3.17	0.844	63.4	0.452	1.625	108.3	307.1	---	2.360	1.46	1.164	74.2	56.9	24.7	0.351
3-7230	3-7840	0.294	145.4	6.8	-2.66	0.846	64.6	0.435	1.635	106.1	314.4	---	2.346	0.95	1.164	76.6	61.0	24.4	0.311
3-7230	3-7850	0.280	146.6	6.7	-2.39	0.848	65.6	0.420	1.643	104.1	322.0	---	2.333	0.57	1.166	79.0	63.6	24.5	0.275

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7230	3-7860	0.268	147.5	6.6	-2.22	0.849	66.4	0.408	1.649	102.4	329.9	---	2.322	0.64	1.167	81.4	64.4	24.5	0.242
3-7230	3-7870	0.259	148.3	6.4	-2.09	0.850	67.0	0.399	1.654	101.1	338.1	---	2.314	0.56	1.168	83.8	62.8	24.2	0.214
3-7230	3-7880	0.254	148.9	6.4	-1.99	0.851	67.4	0.393	1.658	100.2	346.7	---	2.310	0.51	1.170	86.3	58.3	23.4	0.194
3-7230	3-7890	0.252	149.2	6.5	-1.91	0.851	67.6	0.391	1.66	99.7	355.9	---	2.310	0.49	1.171	88.8	51.2	21.8	0.185
3-7230	3-7890	0.311	10.7	0.4	-1.91	0.666	105.7	0.418	1.132	204.6	820.7	0.659	1.605	0.49	1.044	118.0	318.0	-15.1	0.437
3-7230	3-7890	0.538	1.9	-1.4	-1.91	0.714	125.0	0.605	1.223	216.6	832.8	0.483	1.963	0.49	1.075	126.1	312.1	-17.2	0.654
3-7230	3-7900	0.253	149.3	6.7	-1.82	0.852	67.5	0.393	1.663	99.8	365.6	1.010	2.316	0.47	1.173	91.6	42.8	19.5	0.190
3-7230	3-7900	0.245	20.5	3.7	-1.82	0.652	98.7	0.386	1.108	194.3	820.1	0.680	1.536	0.47	1.037	112.2	327.6	-11.9	0.405
3-7230	3-7910	0.260	149.1	7.3	-1.74	0.852	67.8	0.400	1.664	100.5	375.9	0.998	2.330	0.47	1.175	94.5	35.5	16.9	0.210
3-7230	3-7910	0.209	32.0	7.6	-1.74	0.643	93.4	0.381	1.095	185.6	821.0	0.678	1.512	0.47	1.034	112.0	336.3	-8.7	0.402
3-7230	3-7920	0.273	148.5	8.0	-1.66	0.852	66.1	0.415	1.664	101.9	387.0	0.974	2.355	0.49	1.178	97.8	30.6	14.9	0.247
3-7230	3-7920	0.190	46.4	12.1	-1.66	0.636	88.5	0.390	1.084	177.7	822.8	0.661	1.508	0.49	1.032	112.6	344.3	-5.5	0.415
3-7230	3-7930	0.295	147.5	9.1	-1.57	0.852	64.5	0.438	1.664	104.2	399.1	0.935	2.393	0.52	1.180	101.7	28.0	13.7	0.301
3-7230	3-7930	0.190	63.2	16.4	-1.57	0.631	83.5	0.413	1.077	170.6	825.5	0.632	1.521	0.52	1.031	114.1	352.0	-2.3	0.441
3-7230	3-7940	0.328	146.0	10.4	-1.46	0.852	62.2	0.474	1.664	107.7	412.4	0.875	2.452	0.57	1.182	106.2	27.4	13.1	0.373
3-7230	3-7940	0.211	80.3	19.4	-1.46	0.627	77.9	0.451	1.070	164.5	829.1	0.588	1.552	0.57	1.032	116.5	359.2	0.9	0.484
3-7230	3-7950	0.378	143.8	12.0	-1.33	0.852	58.6	0.527	1.663	112.6	427.2	0.787	2.535	0.66	1.184	112.0	27.8	13.1	0.470
3-7230	3-7950	0.257	94.7	20.9	-1.33	0.623	71.4	0.507	1.065	159.5	834.1	0.525	1.605	0.66	1.032	120.3	5.9	3.7	0.5[illegible]
3-7230	3-7960	0.455	140.6	14.0	-1.13	0.852	53.2	0.604	1.663	119.7	444.2	0.658	2.667	0.81	1.187	119.5	28.5	13.2	0.6
3-7230	3-7960	0.534	104.7	21.4	-1.13	0.620	63.0	0.589	1.061	156.5	841.0	0.436	1.686	0.81	1.033	125.9	11.9	6.2	0.643
3-7230	3-7970	0.572	135.8	16.4	-0.80	0.852	48.7	0.714	1.663	130.0	464.5	0.476	2.851	1.09	1.189	130.1	28.7	13.1	0.787
3-7230	3-7970	0.452	110.1	21.8	-0.80	0.618	51.7	0.704	1.058	156.5	851.0	0.313	1.803	1.09	1.035	134.6	16.6	8.2	0.790
3-7230	3-7970	0.475	60.3	20.5	-0.80	0.345	81.9	0.824	0.828	178.3	1232.7	0.145	1.510	1.09	0.899	144.7	4.7	2.7	0.894
3-7230	3-7980	0.568	77.4	23.4	-0.09	0.330	52.4	0.901	0.821	175.0	1239.5	0.082	1.560	1.76	0.896	153.6	10.4	5.2	1.020
3-7230	3-8020	0.558	15.7	4.4	-2.80	0.573	127.5	0.729	1.001	199.2	944.2	0.272	1.731	-1.11	1.017	43.2	294.5	-22.5	0.804
3-7230	3-8030	0.594	94.3	22.7	-2.46	0.462	36.3	0.885	0.898	169.3	925.0	0.103	1.693	-0.82	0.959	27.9	315.7	-17.2	1.020
3-7230	3-8030	0.432	16.9	5.0	-2.46	0.569	114.5	0.623	0.997	197.2	952.4	0.376	1.619	-0.82	1.016	81.4	301.0	-21.4	0.670
3-7240	3-7300	0.531	12.9	2.6	-2.82	0.648	125.3	0.649	1.117	207.7	238.1	---	---	-1.25	1.067	50.0	298.3	-22.4	0.714
3-7240	3-7310	0.451	8.9	0.3	-2.48	0.684	118.3	0.537	1.180	213.5	254.2	---	---	-0.97	1.089	58.8	301.0	-22.0	0.573
3-7240	3-7320	0.401	4.8	-1.9	-2.25	0.718	114.2	0.455	1.249	220.0	270.9	---	---	-0.82	1.110	65.7	303.3	-21.7	0.462
3-7240	3-7330	0.372	-1.1	-3.8	-2.09	0.744	111.7	0.399	1.313	226.6	287.6	---	---	-0.72	1.126	71.3	305.1	-21.7	0.373
3-7240	3-7340	0.354	358.1	-5.2	-1.95	0.764	110.3	0.363	1.365	232.6	303.7	---	---	-0.67	1.138	75.9	305.9	-21.9	0.301
3-7240	3-7350	0.342	356.0	-6.1	-1.84	0.777	109.3	0.340	1.403	237.3	318.5	---	---	-0.64	1.145	79.8	305.3	-22.5	0.244
3-7240	3-7360	0.334	354.6	-6.6	-1.72	0.784	108.7	0.326	1.427	240.4	331.7	---	---	-0.63	1.148	83.2	302.7	-23.7	0.200
3-7240	3-7370	0.327	353.8	-6.8	-1.61	0.788	108.2	0.316	1.438	242.0	343.3	---	---	-0.65	1.148	86.0	298.0	-25.4	0.169
3-7240	3-7380	0.321	353.6	-6.7	-1.49	0.788	107.7	0.308	1.438	242.2	353.5	---	---	-0.68	1.145	88.5	291.4	-27.3	0.150
3-7240	3-7390	0.314	353.8	-6.3	-1.35	0.785	107.2	0.301	1.430	241.3	362.5	0.999	---	-0.74	1.141	90.6	284.4	-28.8	0.141
3-7240	3-7400	0.306	354.3	-5.7	-1.19	0.781	106.6	0.295	1.416	239.5	370.5	0.998	---	-0.84	1.136	92.4	278.8	-30.0	0.141
3-7240	3-7410	0.297	355.0	-4.9	-0.96	0.775	106.0	0.289	1.398	237.0	377.8	0.994	---	-1.00	1.129	94.0	275.6	-31.1	0.146
3-7240	3-7420	0.287	355.8	-3.6	-0.62	0.768	105.3	0.283	1.377	233.9	384.4	0.988	---	-1.29	1.122	95.3	275.0	-32.7	0.155
3-7240	3-7430	0.276	356.5	-1.5	0.02	0.760	104.5	0.277	1.356	230.4	390.6	0.980	---	-1.87	1.115	96.5	276.7	-35.9	0.166
3-7240	3-7440	0.266	356.2	3.7	1.80	0.752	103.7	0.273	1.334	226.4	396.3	0.970	---	-3.59	1.107	97.5	280.5	-45.0	0.185
3-7240	3-7460	0.253	9.7	-13.8	-5.72	0.736	101.6	0.266	1.292	217.7	406.8	0.948	---	4.03	1.094	99.3	285.5	-1.1	0.208
3-7240	3-7470	0.233	9.5	-8.0	-3.62	0.728	100.5	0.264	1.272	213.0	411.6	0.936	---	1.99	1.087	100.1	292.7	-11.4	0.208
3-7240	3-7480	0.218	11.6	-5.3	-2.92	0.720	99.2	0.264	1.253	208.1	416.2	0.923	---	1.34	1.081	100.8	299.4	-14.0	0.218
3-7240	3-7490	0.204	14.6	-3.3	-2.56	0.712	97.8	0.265	1.236	203.0	420.6	0.908	---	1.04	1.076	101.6	306.2	-14.4	0.229
3-7240	3-7500	0.190	18.6	-1.3	-2.33	0.704	96.3	0.268	1.220	197.7	424.9	0.893	---	0.86	1.072	102.3	313.0	-13.7	0.241
3-7240	3-7510	0.176	23.6	0.9	-2.15	0.697	94.6	0.273	1.204	192.4	429.1	0.875	---	0.76	1.068	103.1	319.9	-12.4	0.255
3-7240	3-7520	0.164	29.9	3.4	-2.02	0.689	92.7	0.281	1.190	187.0	433.3	0.855	---	0.69	1.064	104.0	326.8	-10.6	0.271
3-7240	3-7530	0.153	37.9	6.3	-1.90	0.682	90.7	0.292	1.177	181.6	437.5	0.833	---	0.65	1.061	105.0	333.7	-8.4	0.289
3-7240	3-7540	0.146	48.0	9.7	-1.79	0.676	88.3	0.307	1.164	176.2	441.8	0.807	1.522	0.64	1.059	106.2	340.5	-6.0	0.311
3-7240	3-7550	0.145	60.4	13.2	-1.68	0.669	85.6	0.327	1.153	170.9	446.2	0.776	1.529	0.64	1.057	107.7	347.3	-3.4	0.337
3-7240	3-7560	0.152	74.4	16.4	-1.57	0.663	82.5	0.353	1.142	165.9	450.8	0.739	1.545	0.66	1.056	109.5	354.0	-0.7	0.369
3-7240	3-7570	0.172	88.5	18.6	-1.45	0.658	78.8	0.388	1.132	161.2	456.0	0.693	1.572	0.70	1.055	111.9	0.6	2.1	0.411
3-7240	3-7580	0.208	100.9	19.7	-1.30	0.652	74.3	0.435	1.123	157.1	461.7	0.635	1.612	0.77	1.054	115.0	7.0	4.7	0.465
3-7240	3-7590	0.263	110.4	20.0	-1.12	0.648	68.4	0.499	1.116	154.1	468.6	0.559	1.672	0.89	1.054	119.4	13.0	7.2	0.540
3-7240	3-7600	0.344	116.8	20.2	-0.85	0.644	60.7	0.587	1.109	152.7	477.2	0.459	1.760	1.09	1.054	125.5	18.4	9.3	0.645
3-7240	3-7610	0.464	119.8	20.7	-0.41	0.641	49.9	0.706	1.106	154.1	488.6	0.325	1.886	1.47	1.055	134.6	22.6	10.3	0.798
3-7240	3-7660	0.595	87.8	22.7	-3.09	0.386	43.8	0.917	0.836	174.3	559.4	0.969	1.603	-1.49	0.915	23.9	314.8	-17.7	1.056
3-7240	3-7660	0.551	22.1	6.8	-3.09	0.553	127.1	0.739	0.990	197.6	582.7	0.259	1.722	-1.49	1.012	42.4	301.0	-21.7	0.817
3-7240	3-7670	0.493	86.1	22.2	-2.63	0.392	58.2	0.838	0.861	172.8	568.1	0.140	1.582	-1.10	0.934	33.5	320.0	-16.2	0.927
3-7240	3-7670	0.423	27.1	8.1	-2.63	0.543	113.0	0.641	0.980	194.6	589.9	0.352	1.608	-1.10	1.007	50.1	308.0	-20.1	0.691
3-7240	3-7680	0.374	76.0	20.6	-2.36	0.451	75.3	0.714	0.899	173.9	579.4	0.257	1.542	-0.89	0.960	44.7	323.9	-15.2	0.767
3-7240	3-7680	0.330	43.3	13.1	-2.36	0.518	97.8	0.602	0.955	185.2	590.7	0.380	1.536	-0.89	0.997	53.0	318.0	-17.3	0.642
3-7240	3-7740	0.563	135.3	15.8	-1.56	0.792	43.6	0.725	1.454	138.9	244.9	---	2.508	-0.66	1.150	46.5	6.9	2.3	0.825
3-7240	3-7750	0.527	137.3	15.1	-1.43	0.799	46.5	0.689	1.477	135.3	251.2	---	2.495	-0.70	1.152	50.0	13.4	4.8	0.766
3-7240	3-7760	0.493	139.2	14.5	-1.28	0.805	49.2	0.653	1.500	131.7	257.5	---	2.480	-0.78	1.154	53.4	19.8	7.3	0.709
3-7240	3-7770	0.460	141.1	14.0	-1.09	0.811	51.7	0.619	1.521	128.2	263.9	---	2.463	-0.91	1.156	56.6	26.2	9.4	0.653
3-7240	3-7780	0.430	143.0	13.7	-0.82	0.816	54.0	0.587	1.541	124.9	270.3	---	2.446	-1.12	1.157	59.7	32.6	11.2	0.600
3-7240	3-7790	0.402	144.9	13.7	-0.37	0.821	56.2	0.557	1.559	121.7	276.8	---	2.428	-1.51	1.158	62.6	39.1	12.3	0.549
3-7240	3-7800	0.376	147.1	14.7	0.59	0.825	58.1	0.529	1.576	118.6	283.4	---	2.409	-2.41	1.159	65.4	45.7	12.0	0.502
3-7240	3-7810	0.358	151.4	22.1	4.71	0.829	59.9	0.503	1.591	115.7	290.1	---	2.391	-6.48	1.160	68.1	54.6	4.0	0.468
3-7240	3-7820	0.360	140.2	-7.5	-10.74	0.832	61.8	0.479	1.604	113.0	297.0	---	2.374	9.02	1.161	70.7	50.7	42.4	0.439
3-7240	3-7830	0.317	147.1	2.6	-4.36	0.835	62.9	0.458	1.616	110.5	304.0	---	2.357	2.70	1.162	73.2	58.6	28.7	0.368
3-7240	3-7840	0.298	149.2	4.1	-3.22	0.837	64.1	0.440	1.626	108.2	311.3	---	2.342	1.61	1.163	75.6	63.4	26.9	0.396
3-7240	3-7850	0.282	150.7	4.4	-2.73	0.839	65.2	0.424	1.635	106.1	318.8	---	2.328	1.18	1.164	78.0	66.7	26.4	0.288
3-7240	3-7860	0.270	151.8	4.4	-2.44	0.841	66.1	0.411	1.642	104.4	326.6	---	2.317	0.94	1.166	80.4	68.3	26.3	0.254
3-7240	3-7870	0.260	152.7	4.4	-2.24	0.842	66.8	0.400	1.648	103.0	334.7	---	2.308	0.81	1.167	82.8	67.6	26.1	0.224
3-7240	3-7880	0.253	153.4	4.4	-2.09	0.843	67.3	0.393	1.652	101.9	343.2	---	2.302	0.72	1.169	85.3	64.2	25.6	0.200
3-7240	3-7890	0.250	153.9	4.5	-1.96	0.844	67.5	0.390	1.656	101.3	352.2	---	2.301	0.67	1.171	87.8	57.8	24.5	0.186

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MAR
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7240	3-7900	0.250	154.1	4.0	-1.84	0.844	67.5	0.390	1.658	101.2	361.6	1.011	2.304	0.64	1.173	90.5	49.5	22.5	0.185
3-7240	3-7900	0.296	17.9	3.5	-1.84	0.652	104.3	0.422	1.123	201.4	821.9	0.649	1.597	0.64	1.043	114.3	326.6	-12.0	0.444
3-7240	3-7900	0.566	7.0	1.1	-1.84	0.709	127.7	0.639	1.241	215.4	835.9	0.445	2.017	0.64	1.080	128.5	320.1	-14.7	0.700
3-7240	3-7910	0.255	154.1	5.3	-1.74	0.844	67.2	0.395	1.659	101.6	371.7	1.003	2.315	0.63	1.175	93.3	41.5	19.9	0.200
3-7240	3-7910	0.238	28.3	7.0	-1.74	0.639	97.5	0.398	1.102	191.6	821.8	0.663	1.541	0.63	1.037	113.8	335.8	-8.6	0.421
3-7240	3-7920	0.265	153.7	6.0	-1.63	0.844	66.4	0.407	1.659	102.7	382.5	0.984	2.335	0.64	1.177	96.5	35.6	17.6	0.230
3-7240	3-7920	0.205	41.2	11.1	-1.63	0.630	92.1	0.398	1.089	183.1	823.0	0.656	1.522	0.64	1.034	113.1	344.1	-5.2	0.423
3-7240	3-7930	0.282	152.9	7.0	-1.51	0.844	65.2	0.426	1.659	104.5	394.1	0.952	2.367	0.67	1.179	100.0	32.3	16.0	0.276
3-7240	3-7930	0.191	57.2	15.4	-1.51	0.624	86.9	0.412	1.079	175.5	825.1	0.634	1.523	0.67	1.033	114.0	352.0	-1.9	0.440
3-7240	3-7940	0.310	151.7	8.3	-1.38	0.844	63.3	0.456	1.659	107.3	406.7	0.902	2.415	0.73	1.181	104.2	31.1	15.2	0.34
3-7240	3-7940	0.199	75.1	19.0	-1.38	0.618	81.4	0.441	1.071	168.7	828.2	0.599	1.543	0.73	1.032	115.9	359.5	1.4	0.473
3-7240	3-7950	0.351	149.9	9.9	-1.22	0.844	60.5	0.507	1.658	111.4	420.7	0.826	2.488	0.82	1.184	109.3	31.3	15.0	0.424
3-7240	3-7950	0.230	91.8	20.8	-1.22	0.614	75.2	0.486	1.065	163.1	832.3	0.548	1.583	0.82	1.032	118.9	6.6	4.4	0.524
3-7240	3-7960	0.413	147.3	11.7	-1.00	0.844	55.9	0.565	1.657	117.2	436.4	0.720	2.595	0.97	1.186	115.9	32.2	15.1	0.538
3-7240	3-7960	0.290	104.6	21.3	-1.00	0.610	67.6	0.593	1.060	158.9	838.1	0.474	1.646	0.97	1.033	123.4	13.1	7.1	0.602
3-7240	3-7970	0.507	143.5	13.9	-0.68	0.844	49.1	0.658	1.657	125.5	454.7	0.566	2.749	1.24	1.188	124.7	33.0	15.1	0.693
3-7240	3-7970	0.384	112.7	21.4	-0.68	0.608	57.8	0.649	1.057	157.1	846.3	0.371	1.742	1.24	1.034	130.3	18.6	9.3	0.719
3-7240	3-7970	0.499	49.0	10.1	-0.68	0.350	105.2	0.827	0.838	183.3	1232.4	0.145	1.532	1.24	0.907	145.2	4.9	2.9	0.904
3-7240	3-7980	0.525	115.9	21.8	-0.07	0.606	44.4	0.778	1.055	159.0	858.2	0.234	1.876	1.79	1.036	141.0	22.5	10.8	0.894
3-7240	3-7980	0.510	72.7	23.0	-0.07	0.317	70.9	0.865	0.823	176.9	1236.1	0.111	1.535	1.79	0.897	149.2	12.0	6.1	0.958
3-7240	3-8030	0.489	22.8	6.8	-2.84	0.556	120.7	0.684	0.994	197.5	947.5	0.314	1.673	-1.27	1.014	46.8	303.6	-21.2	0.746
3-7240	3-8040	0.566	355.7	-5.2	-2.49	0.832	124.8	0.573	1.602	239.4	639.5	0.684	2.520	-0.98	1.187	62.7	287.0	-24.4	0.548
3-7240	3-8040	0.530	98.1	22.2	-2.49	0.458	46.9	0.845	0.904	169.2	929.3	0.140	1.668	-0.98	0.963	32.5	323.5	-15.0	0.956
3-7240	3-8040	0.380	29.0	8.5	-2.49	0.550	108.4	0.601	0.988	193.2	953.4	0.394	1.581	-0.98	1.011	53.1	311.1	-19.4	0.645
3-7240	3-7310	0.546	7.9	0.1	-2.78	0.745	125.6	0.594	1.335	222.7	258.1	---	---	-1.36	1.133	56.5	298.9	-22.9	0.633
3-7250	3-7320	0.480	4.1	-1.9	-2.44	0.767	120.0	0.508	1.396	230.3	275.9	---	---	-1.10	1.147	64.4	300.7	-22.8	0.502
3-7250	3-7330	0.440	0.8	-3.5	-2.21	0.786	116.7	0.451	1.458	237.4	293.3	---	---	-0.95	1.159	70.6	301.7	-22.9	0.401
3-7250	3-7340	0.416	358.2	-4.7	-2.03	0.801	114.6	0.416	1.509	243.4	309.3	---	---	-0.86	1.168	75.7	301.6	-23.4	0.322
3-7250	3-7350	0.399	356.4	-5.4	-1.87	0.810	113.2	0.394	1.543	247.6	323.7	---	---	-0.81	1.173	79.9	300.0	-24.3	0.261
3-7250	3-7360	0.387	355.3	-5.8	-1.73	0.814	112.3	0.379	1.560	250.1	336.2	---	---	-0.79	1.173	83.5	296.4	-25.6	0.215
3-7250	3-7370	0.377	354.8	-5.8	-1.59	0.815	111.5	0.368	1.560	251.0	347.1	---	---	-0.79	1.171	86.5	290.8	-27.1	0.185
3-7250	3-7380	0.368	354.8	-5.6	-1.45	0.812	110.9	0.357	1.549	250.6	356.7	---	---	-0.82	1.167	88.1	284.1	-28.6	0.168
3-7250	3-7390	0.358	355.2	-5.1	-1.29	0.806	110.3	0.347	1.528	249.2	365.1	0.998	---	-0.88	1.161	91.3	277.8	-29.6	0.161
3-7250	3-7400	0.347	355.8	-4.5	-1.10	0.799	109.6	0.337	1.501	246.9	372.7	0.996	---	-0.97	1.153	93.2	273.5	-30.3	0.162
3-7250	3-7410	0.336	356.6	-3.6	-0.87	0.790	108.9	0.327	1.471	244.1	379.7	0.991	---	-1.13	1.145	94.8	271.5	-31.1	0.168
3-7250	3-7420	0.324	357.5	-2.4	-0.53	0.781	108.1	0.317	1.440	240.7	386.0	0.983	---	-1.39	1.136	96.2	271.9	-32.4	0.176
3-7250	3-7430	0.311	358.4	-0.7	0.02	0.771	107.3	0.309	1.409	236.9	391.9	0.974	---	-1.87	1.127	97.4	274.4	-34.7	0.186
3-7250	3-7440	0.298	358.9	2.7	1.20	0.761	106.3	0.301	1.379	232.8	397.4	0.964	---	-2.98	1.118	98.4	278.5	-39.9	0.200
3-7250	3-7450	0.295	356.2	15.0	6.12	0.751	105.3	0.294	1.350	228.3	402.5	0.953	---	-7.83	1.110	99.3	284.6	-60.2	0.247
3-7250	3-7460	0.322	20.5	-24.9	-13.29	0.741	104.2	0.289	1.323	223.7	407.6	0.941	---	11.65	1.102	100.1	278.1	24.3	0.208
3-7250	3-7470	0.263	12.2	-9.5	-4.98	0.731	102.9	0.284	1.298	218.8	412.2	0.929	---	3.40	1.095	100.8	290.9	-5.7	0.230
3-7250	3-7480	0.244	13.2	-5.5	-3.54	0.721	101.6	0.282	1.275	213.8	416.7	0.916	---	2.02	1.088	101.5	298.3	-11.5	0.234
3-7250	3-7490	0.227	15.6	-3.0	-2.91	0.712	100.1	0.281	1.254	208.5	421.0	0.902	---	1.47	1.082	102.2	305.4	-12.9	0.243
3-7250	3-7500	0.211	18.9	-0.9	-2.55	0.703	98.5	0.282	1.234	203.2	425.2	0.887	---	1.18	1.076	102.9	312.4	-12.7	0.253
3-7250	3-7510	0.195	23.2	1.2	-2.30	0.694	96.8	0.285	1.216	197.7	429.3	0.870	---	1.01	1.071	103.6	319.5	-11.6	0.265
3-7250	3-7520	0.180	28.6	3.4	-2.11	0.686	94.9	0.290	1.199	192.2	433.3	0.851	---	0.90	1.067	104.4	326.5	-9.9	0.279
3-7250	3-7530	0.167	35.5	6.1	-1.95	0.678	92.8	0.299	1.184	186.7	437.4	0.830	---	0.84	1.064	105.3	333.5	-7.8	0.295
3-7250	3-7540	0.156	44.4	9.1	-1.81	0.670	90.5	0.311	1.170	181.1	441.5	0.806	---	0.80	1.061	106.4	340.5	-5.5	0.314
3-7250	3-7550	0.149	55.7	12.5	-1.67	0.663	87.9	0.327	1.157	175.6	445.7	0.778	1.535	0.79	1.058	107.7	347.4	-2.9	0.337
3-7250	3-7560	0.150	69.2	15.8	-1.54	0.656	84.9	0.350	1.144	170.3	450.1	0.744	1.545	0.80	1.057	109.3	354.2	-0.1	0.365
3-7250	3-7570	0.162	84.1	18.3	-1.39	0.650	81.3	0.380	1.133	165.3	454.9	0.703	1.564	0.84	1.055	111.4	0.9	2.6	0.401
3-7250	3-7580	0.188	98.2	19.7	-1.23	0.644	77.1	0.420	1.123	160.8	460.2	0.652	1.595	0.91	1.054	114.1	7.5	5.4	0.448
3-7250	3-7590	0.232	109.9	20.0	-1.03	0.638	71.8	0.474	1.115	157.0	466.3	0.586	1.643	1.02	1.054	117.7	13.8	7.9	0.511
3-7250	3-7600	0.299	118.3	19.9	-0.76	0.633	65.0	0.549	1.107	154.5	473.8	0.500	1.714	1.21	1.053	122.8	19.7	10.3	0.599
3-7250	3-7610	0.397	123.3	19.9	-0.35	0.630	55.7	0.650	1.101	154.2	483.4	0.386	1.817	1.54	1.054	130.2	24.8	12.1	0.724
3-7250	3-7620	0.539	124.5	20.5	0.41	0.628	42.7	0.782	1.099	157.3	496.6	0.239	1.959	2.23	1.055	141.2	28.3	13.3	0.906
3-7250	3-7670	0.527	90.0	22.3	-3.03	0.353	55.4	0.875	0.848	174.1	564.2	0.106	1.589	-1.57	0.924	29.4	322.2	-15.6	0.984
3-7250	3-7670	0.476	81.1	9.8	-3.03	0.525	118.9	0.700	0.972	194.8	584.9	0.292	1.652	-1.57	1.002	45.6	310.6	-19.7	0.764
3-7250	3-7680	0.413	82.7	21.3	-2.60	0.412	72.3	0.767	0.882	174.3	574.6	0.205	1.558	-1.22	0.948	40.2	326.5	-14.4	0.832
3-7250	3-7680	0.366	48.3	13.3	-2.60	0.504	103.2	0.637	0.952	187.8	588.1	0.345	1.558	-1.22	0.991	50.4	319.4	-17.2	0.684
3-7250	3-7740	0.573	139.5	14.7	-1.52	0.780	42.3	0.741	1.437	141.1	242.0	---	2.502	-0.80	1.147	44.9	8.2	2.7	0.851
3-7250	3-7750	0.536	141.5	14.0	-1.37	0.787	45.4	0.704	1.461	137.5	248.3	---	2.489	-0.84	1.149	48.5	14.7	5.3	0.790
3-7250	3-7760	0.501	143.4	13.3	-1.21	0.794	48.2	0.667	1.484	133.9	254.6	---	2.475	-0.92	1.151	52.0	21.1	7.7	0.732
3-7250	3-7770	0.468	145.3	12.8	-1.00	0.800	50.8	0.633	1.506	130.5	260.9	---	2.459	-1.04	1.153	55.2	27.6	9.8	0.676
3-7250	3-7780	0.437	147.2	12.4	-0.73	0.806	53.2	0.599	1.527	127.1	267.4	---	2.442	-1.23	1.155	58.4	34.1	11.6	0.621
3-7250	3-7790	0.408	149.1	12.3	-0.31	0.811	55.4	0.568	1.546	123.9	273.8	---	2.424	-1.57	1.156	61.4	40.6	12.8	0.569
3-7250	3-7800	0.382	151.3	12.9	0.44	0.815	57.4	0.539	1.564	120.9	280.4	---	2.406	-2.26	1.157	64.2	47.1	12.9	0.520
3-7250	3-7810	0.359	154.3	16.1	2.46	0.819	59.2	0.512	1.580	117.9	287.1	---	2.389	-4.21	1.158	67.0	54.4	9.7	0.476
3-7250	3-7820	0.533	162.4	57.8	31.64	0.823	60.9	0.488	1.594	115.2	293.8	---	2.372	-33.32	1.159	69.5	85.9	-31.5	0.730
3-7250	3-7830	0.329	148.8	-3.9	-7.02	0.826	62.4	0.465	1.607	112.6	301.0	---	2.354	5.41	1.160	72.2	59.8	36.2	0.393
3-7250	3-7840	0.303	152.6	0.7	-4.11	0.828	63.7	0.445	1.618	110.3	308.2	---	2.338	2.56	1.162	74.7	65.6	30.1	0.342
3-7250	3-7850	0.286	154.5	1.8	-3.19	0.831	64.8	0.428	1.627	108.2	315.6	---	2.324	1.71	1.163	77.1	69.5	28.6	0.302
3-7250	3-7860	0.272	155.9	2.1	-2.72	0.832	65.8	0.414	1.635	106.4	323.3	---	2.311	1.31	1.164	79.5	71.8	28.1	0.266
3-7250	3-7870	0.262	156.9	2.2	-2.42	0.834	66.5	0.403	1.641	104.9	331.4	---	2.302	1.09	1.166	81.9	72.1	27.8	0.234
3-7250	3-7880	0.254	157.8	2.3	-2.20	0.835	67.1	0.394	1.646	103.7	339.8	---	2.295	0.95	1.168	84.3	69.6	27.5	0.208
3-7250	3-7890	0.249	158.4	2.5	-2.03	0.836	67.4	0.389	1.650	102.9	348.6	---	2.292	0.87	1.170	86.8	64.2	26.7	0.190
3-7250	3-7900	0.248	158.7	2.8	-1.88	0.836	67.5	0.388	1.652	102.6	357.9	---	2.293	0.82	1.172	89.4	56.2	25.2	0.183
3-7250	3-7910	0.251	158.8	3.3	-1.74	0.837	67.3	0.391	1.654	102.8	367.7	1.006	2.301	0.79	1.174	92.2	47.8	22.8	0.192
3-7250	3-7910	0.281	25.4	6.7	-1.74	0.638	102.7	0.428	1.114	198.3	823.2	0.637	1.591	0.79	1.042	114.8	335.0	-8.6	0.453
3-7250	3-7910	0.593	12.2	3.6	-1.74	0.705	130.3	0.671	1.239	214.1	839.0	0.407	2.071	0.79	1.084	131.0	327.9	-12.0	0.746

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7250	3-7920	0.258	158.6	4.0	-1.61	0.837	66.7	0.400	1.654	103.6	378.2	0.992	2.317	0.79	1.176	95.2	40.9	20.4	0.216
3-7250	3-7920	0.230	37.0	10.4	-1.61	0.626	96.1	0.412	1.095	188.9	823.5	0.644	1.546	0.79	1.036	113.9	343.8	-5.1	0.438
3-7250	3-7930	0.272	158.1	5.0	-1.47	0.837	65.7	0.416	1.654	105.0	389.4	0.966	2.343	0.81	1.178	98.5	36.7	18.4	0.256
3-7250	3-7930	0.202	51.4	14.5	-1.47	0.617	90.5	0.416	1.083	180.7	825.1	0.632	1.533	0.81	1.034	114.3	351.9	-1.6	0.445
3-7250	3-7940	0.295	157.1	6.2	-1.32	0.837	64.1	0.442	1.654	107.3	401.6	0.924	2.384	0.86	1.181	102.4	34.9	17.3	0.312
3-7250	3-7940	0.195	69.0	18.4	-1.32	0.611	84.9	0.436	1.073	173.3	827.5	0.605	1.541	0.86	1.033	115.6	359.7	7.7	0.468
3-7250	3-7950	0.329	155.7	7.4	-1.14	0.836	61.7	0.479	1.653	110.7	414.8	0.861	2.445	0.95	1.183	107.0	34.8	16.8	0.386
3-7250	3-7950	0.212	87.4	20.8	-1.14	0.605	78.9	0.472	1.066	167.0	831.1	0.563	1.568	0.95	1.032	117.9	7.0	4.9	0.508
3-7250	3-7960	0.380	153.5	9.4	-0.91	0.836	58.0	0.534	1.652	115.5	429.5	0.770	2.534	1.10	1.185	112.8	35.7	16.8	0.484
3-7250	3-7960	0.257	103.0	21.4	-0.91	0.601	71.9	0.526	1.060	161.9	835.9	0.502	1.618	1.10	1.033	121.6	13.9	7.8	0.571
3-7250	3-7970	0.456	150.4	11.5	-0.59	0.836	52.4	0.612	1.651	122.2	446.2	0.640	2.683	1.34	1.187	120.4	36.8	16.9	0.617
3-7250	3-7970	0.332	113.8	21.2	-0.59	0.597	63.2	0.606	1.055	158.7	842.6	0.416	1.695	1.34	1.033	127.2	20.1	10.3	0.665
3-7250	3-7980	0.571	145.8	14.0	-0.06	0.836	44.0	0.721	1.652	132.1	466.1	0.460	2.844	1.80	1.190	130.9	37.4	16.9	0.801
3-7250	3-7980	0.446	119.7	21.1	-0.06	0.595	51.6	0.717	1.052	158.4	852.4	0.298	1.807	1.80	1.035	135.7	25.1	12.1	0.807
3-7250	3-7980	0.496	63.8	21.7	-0.06	0.314	92.7	0.849	0.829	180.5	1234.5	0.125	1.534	1.80	0.903	147.4	12.9	6.5	0.935
3-7250	3-7990	0.563	83.7	24.3	1.09	0.289	57.8	0.910	0.819	176.4	1240.4	0.074	1.565	2.88	0.897	154.9	19.1	9.2	1.039
3-7250	3-8020	0.553	27.6	8.8	-3.38	0.542	127.8	0.751	0.939	196.9	941.6	0.246	1.732	-1.88	1.012	41.3	306.6	-20.7	0.836
3-7250	3-8040	0.563	102.7	22.0	-2.80	0.433	42.8	0.879	0.895	170.6	925.6	0.108	1.682	-1.38	0.950	28.6	325.5	-14.5	1.011
3-7250	3-8040	0.427	31.8	9.8	-2.80	0.537	113.8	0.650	0.584	194.6	969.5	0.344	1.625	-1.38	1.009	49.4	313.1	-19.1	0.705
3-7250	3-8050	0.530	359.5	-3.7	-2.46	0.823	122.6	0.539	1.093	240.8	645.9	0.734	2.453	-1.11	1.185	65.7	294.5	-24.0	0.498
3-7250	3-8050	0.458	99.8	21.6	-2.46	0.457	56.3	0.792	0.913	169.2	934.3	0.190	1.636	-1.11	0.968	37.8	330.8	-12.7	0.879
3-7250	3-8050	0.335	43.0	12.9	-2.46	0.528	101.0	0.593	0.975	187.8	952.9	0.397	1.554	-1.11	1.004	53.6	321.6	-16.6	0.636
3-7260	3-7320	0.584	3.7	-1.8	-2.69	0.843	126.2	0.596	1.718	241.6	282.1	---	---	-1.44	1.204	62.6	297.2	-23.9	0.562
3-7260	3-7330	0.528	0.7	-3.2	-2.36	0.850	121.8	0.537	1.748	248.7	299.4	---	---	-1.21	1.208	69.7	297.5	-24.2	0.443
3-7260	3-7340	0.492	358.5	-4.2	-2.12	0.855	119.1	0.499	1.778	254.1	315.0	---	---	-1.07	1.210	75.4	296.5	-24.8	0.354
3-7260	3-7350	0.469	357.0	-4.7	-1.92	0.858	117.3	0.474	1.791	257.6	328.5	---	---	-0.99	1.210	80.0	293.9	-25.8	0.287
3-7260	3-7360	0.451	356.3	-4.9	-1.74	0.856	116.0	0.455	1.785	259.3	340.3	---	---	-0.95	1.207	83.9	289.5	-27.0	0.240
3-7260	3-7370	0.436	356.0	-4.8	-1.58	0.852	115.1	0.438	1.760	259.5	350.5	---	---	-0.93	1.202	87.1	283.6	-28.2	0.209
3-7260	3-7380	0.422	356.2	-4.5	-1.42	0.845	114.3	0.422	1.723	258.5	359.3	---	---	-0.95	1.195	89.8	277.3	-29.2	0.193
3-7260	3-7390	0.408	356.8	-4.0	-1.24	0.835	113.5	0.406	1.677	256.6	367.5	0.997	---	-1.00	1.185	92.2	272.1	-29.8	0.187
3-7260	3-7400	0.395	357.5	-3.3	-1.04	0.824	112.8	0.390	1.627	254.0	374.7	0.991	---	-1.09	1.175	94.1	268.9	-30.2	0.188
3-7260	3-7410	0.380	358.5	-2.4	-0.80	0.812	112.0	0.375	1.577	250.8	381.3	0.986	---	-1.23	1.165	95.8	268.1	-30.8	0.194
3-7260	3-7420	0.365	359.5	-1.3	-0.47	0.800	111.1	0.360	1.528	247.2	387.4	0.978	---	-1.46	1.154	97.2	269.4	-31.8	0.201
3-7260	3-7430	0.350	0.5	0.3	0.02	0.787	110.2	0.347	1.482	243.3	393.1	0.968	---	-1.86	1.143	98.3	272.4	-33.5	0.210
3-7260	3-7440	0.334	1.3	2.8	0.91	0.774	109.1	0.335	1.440	238.9	398.4	0.957	---	-2.67	1.132	99.4	276.9	-36.9	0.221
3-7260	3-7450	0.320	1.0	8.6	3.27	0.761	108.0	0.325	1.401	234.3	403.4	0.946	---	-4.95	1.122	100.2	282.9	-46.3	0.241
3-7260	3-7460	0.539	356.2	53.9	34.55	0.749	106.7	0.315	1.365	229.6	407.9	0.935	---	-36.35	1.112	100.9	147.0	-75.6	0.684
3-7260	3-7470	0.302	16.9	-13.4	-8.00	0.737	105.5	0.309	1.337	224.5	412.8	0.921	---	6.47	1.104	101.7	287.9	4.9	0.267
3-7260	3-7480	0.273	15.4	-6.0	-4.60	0.726	104.1	0.303	1.311	219.3	417.2	0.908	---	3.05	1.095	102.3	297.0	-7.9	0.254
3-7260	3-7490	0.253	17.1	-2.8	-3.40	0.714	102.6	0.299	1.297	214.0	421.4	0.895	---	2.03	1.088	102.9	304.6	-11.1	0.260
3-7260	3-7500	0.234	19.9	-0.5	-2.84	0.704	100.9	0.298	1.2[illegible]	208.6	425.5	0.880	---	1.56	1.082	103.6	311.8	-11.6	0.268
3-7260	3-7510	0.217	23.5	1.6	-2.49	0.694	99.1	0.298	1.2[illegible]	203.0	429.5	0.864	---	1.29	1.076	104.2	319.0	-10.8	0.278
3-7260	3-7520	0.199	28.2	3.7	-2.23	0.684	97.2	0.300	1.271	197.[illegible]	433.4	0.845	---	1.13	1.071	104.9	326.2	-9.3	0.289
3-7260	3-7530	0.183	34.1	6.1	-2.02	0.675	95.1	0.308	1.293	193.[illegible]	437.[illegible]	[illegible]	---	1.03	1.067	105.7	333.3	-7.3	0.303
3-7260	3-7540	0.169	41.8	8.9	-1.84	0.666	92.8	0.317	1.323	188.[illegible]	441.[illegible]	[illegible]	---	0.97	1.063	106.6	340.4	-5.0	0.320
3-7260	3-7550	0.158	51.7	12.0	-1.68	0.658	90.2	0.331	1.362	180.4	445.3	0.778	---	0.94	1.060	107.8	347.3	-2.4	0.340
3-7260	3-7560	0.153	64.3	15.3	-1.52	0.650	87.2	0.349	1.410	174.[illegible]	448.5	0.747	1.[illegible]	0.94	1.058	109.2	354.3	0.3	0.364
3-7260	3-7570	0.157	79.0	18.1	-1.36	0.643	83.9	0.375	1.136	169.6	454.0	0.710	1.561	0.96	1.056	111.0	1.2	3.1	0.396
3-7260	3-7580	0.174	94.4	19.7	-1.17	0.636	79.8	0.409	1.124	164.6	458.9	0.664	1.584	1.03	1.055	113.4	7.9	5.9	0.436
3-7260	3-7590	0.208	108.0	20.1	-0.96	0.629	74.9	0.456	1.134	160.3	464.5	0.606	1.622	1.13	1.053	116.5	14.5	8.6	0.490
3-7260	3-7600	0.262	118.5	19.8	-0.69	0.624	68.8	0.519	1.105	157.0	471.1	0.532	1.679	1.30	1.053	120.8	20.8	11.0	0.564
3-7260	3-7610	0.343	125.5	19.4	-0.30	0.619	60.7	0.605	1.098	155.3	479.4	0.434	1.762	1.60	1.052	126.9	26.4	13.1	0.667
3-7260	3-7620	0.460	128.9	19.5	0.34	0.616	49.6	0.720	1.094	156.3	490.5	0.306	1.882	2.15	1.053	135.8	31.0	14.6	0.817
3-7260	3-7670	0.560	93.5	22.4	-3.60	0.312	52.5	0.908	0.836	175.4	560.4	0.077	1.595	-2.21	0.915	25.2	324.4	-15.0	1.080
3-7260	3-7670	0.534	36.1	11.8	-3.60	0.504	125.8	0.764	0.962	194.1	579.1	0.227	1.698	-2.21	0.997	40.2	313.6	-19.2	0.850
3-7260	3-7680	0.449	88.1	21.7	-2.92	0.373	69.9	0.814	0.866	175.1	570.3	0.161	1.571	-1.62	0.937	35.9	328.8	-13.7	0.894
3-7260	3-7680	0.408	45.4	14.1	-2.92	0.487	108.9	0.682	0.946	189.5	584.6	0.301	1.591	-1.62	0.988	47.1	321.2	-16.9	0.738
3-7260	3-7740	0.583	143.4	13.5	-1.50	0.768	41.1	0.756	1.420	143.3	239.1	---	2.495	-0.94	1.143	43.3	9.5	3.3	0.876
3-7260	3-7750	0.546	135.9	12.7	-1.33	0.776	44.2	0.719	1.445	139.7	245.4	---	2.483	-0.97	1.146	47.0	16.0	5.7	0.815
3-7260	3-7760	0.510	147.3	12.1	-1.15	0.783	47.1	0.682	1.469	136.1	251.7	---	2.470	-1.04	1.148	50.5	22.4	8.1	0.755
3-7260	3-7770	0.476	149.4	11.5	-0.93	0.789	49.8	0.646	1.491	132.7	258.0	---	2.455	-1.15	1.150	53.9	28.9	10.2	0.696
3-7260	3-7780	0.445	151.3	11.1	-0.66	0.795	52.3	0.612	1.513	129.3	264.4	---	2.438	-1.32	1.152	57.1	35.4	12.0	0.642
3-7260	3-7790	0.415	153.2	10.9	-0.27	0.801	54.6	0.579	1.533	126.1	270.9	---	2.421	-1.62	1.153	60.1	42.0	13.3	0.589
3-7260	3-7800	0.388	155.3	11.2	0.36	0.806	56.7	0.549	1.551	123.0	277.5	---	2.403	-2.17	1.155	63.1	48.5	13.7	0.539
3-7260	3-7810	0.364	157.8	13.0	1.68	0.810	58.6	0.521	1.568	120.1	284.2	---	2.385	-3.41	1.156	65.9	55.4	12.1	0.492
3-7260	3-7820	0.352	162.9	22.4	6.80	0.814	60.3	0.496	1.583	117.3	290.9	---	2.368	-8.44	1.157	68.5	64.5	1.3	0.467
3-7260	3-7830	0.395	141.8	-20.2	-17.60	0.817	61.9	0.472	1.597	114.7	298.1	---	2.350	16.03	1.159	71.2	61.7	5.9	0.490
3-7260	3-7840	0.311	155.1	-4.0	-5.70	0.820	63.3	0.451	1.608	112.3	305.2	---	2.334	4.21	1.160	73.7	67.6	15.1	0.362
3-7260	3-7850	0.291	158.0	-1.3	-3.87	0.822	64.4	0.433	1.618	110.2	312.6	---	2.319	2.46	1.162	76.1	72.2	21.3	0.317
3-7260	3-7860	0.276	159.7	-0.4	-3.10	0.824	65.8	0.418	1.627	108.3	320.2	---	2.306	1.77	1.163	78.6	75.2	30.0	0.278
3-7260	3-7870	0.264	161.0	-0.0	-2.66	0.826	66.3	0.405	1.634	106.7	328.2	---	2.296	1.41	1.165	81.0	76.2	29.5	0.244
3-7260	3-7880	0.255	162.0	0.2	-2.35	0.827	66.9	0.396	1.639	105.5	336.5	---	2.288	1.20	1.167	83.4	74.8	29.2	0.216
3-7260	3-7890	0.249	162.7	0.5	-2.12	0.828	67.3	0.389	1.643	104.6	345.2	---	2.283	1.07	1.169	85.9	70.3	28.7	0.194
3-7260	3-7900	0.246	163.2	0.8	-1.93	0.828	67.5	0.387	1.646	104.1	354.3	---	2.283	0.99	1.171	88.4	63.0	27.6	0.183
3-7260	3-7910	0.246	163.4	1.3	-1.76	0.829	67.4	0.388	1.648	104.1	363.9	1.008	2.288	0.95	1.173	91.1	54.3	25.6	0.186
3-7260	3-7910	0.376	21.9	6.4	-1.76	0.649	112.4	0.500	1.146	207.3	827.2	0.574	1.718	0.95	1.053	119.2	333.1	-9.4	0.534
3-7260	3-7910	0.468	18.4	5.7	-1.76	0.669	120.5	0.573	1.183	212.0	831.8	0.505	1.860	0.95	1.056	124.1	331.1	-10.4	0.621
3-7260	3-7920	0.253	163.4	2.0	-1.60	0.829	67.0	0.395	1.649	104.6	354.2	0.998	2.301	0.93	1.175	94.0	46.6	23.1	0.204
3-7260	3-7920	0.267	33.6	9.9	-1.60	0.624	101.1	0.436	1.105	195.1	824.[illegible]	0.624	1.587	0.93	1.041	115.4	343.2	-5.1	0.464
3-7260	3-7930	0.265	163.0	2.9	-1.44	0.829	66.2	0.408	1.649	105.8	385.1	0.976	2.323	0.95	1.178	97.2	41.4	20.9	0.238

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7260	3-7930	0.222	46.5	13.8	-1.44	0.612	94.5	0.427	1.088	186.1	825.4	0.624	1.552	0.95	1.036	114.9	351.7	-1.5	0.456
3-7260	3-7940	0.283	162.3	4.1	-1.27	0.829	64.8	0.429	1.649	187.6	396.7	0.941	2.357	0.99	1.180	100.8	38.8	19.4	0.287
3-7260	3-7940	0.201	62.9	17.7	-1.27	0.604	88.6	0.437	1.076	178.2	827.3	0.606	1.547	0.99	1.034	115.6	359.7	2.0	0.469
3-7260	3-7950	0.312	161.1	5.4	-1.08	0.829	62.7	0.461	1.648	110.4	409.4	0.888	2.408	1.07	1.182	105.1	38.3	18.7	0.353
3-7260	3-7950	0.203	81.8	20.6	-1.08	0.597	82.6	0.463	1.067	171.2	830.2	0.573	1.562	1.07	1.033	117.4	7.8	6.3	0.499
3-7260	3-7960	0.354	159.3	7.1	-0.84	0.829	59.7	0.508	1.647	114.3	423.2	0.811	2.483	1.20	1.184	110.3	39.1	18.5	0.440
3-7260	3-7960	0.232	99.7	21.6	-0.84	0.592	75.9	0.507	1.060	165.4	834.3	0.525	1.598	1.20	1.035	120.3	14.6	8.3	0.549
3-7260	3-7970	0.417	156.8	9.0	-0.53	0.828	55.1	0.574	1.646	119.9	438.8	0.701	2.592	1.42	1.187	116.9	40.4	18.5	0.554
3-7260	3-7970	0.290	113.4	21.2	-0.53	0.588	67.9	0.572	1.055	161.0	839.9	0.451	1.658	1.42	1.033	124.8	21.2	11.0	0.625
3-7260	3-7980	0.510	153.1	11.3	-0.05	0.828	48.2	0.668	1.646	127.9	456.8	0.547	2.746	1.81	1.189	125.8	41.6	18.6	0.710
3-7260	3-7980	0.383	122.0	20.6	-0.05	0.585	57.8	0.666	1.051	159.0	847.9	0.351	1.750	1.81	1.034	131.6	27.8	13.2	0.740
3-7260	3-7990	0.520	125.4	20.6	0.84	0.583	44.1	0.790	1.049	160.6	859.6	0.220	1.877	2.61	1.035	142.1	31.2	14.6	0.911
3-7260	3-7990	0.520	77.5	23.9	0.84	0.280	79.9	0.883	0.823	178.6	1237.6	0.096	1.549	2.61	0.900	151.4	20.5	9.9	0.990
3-7260	3-8040	0.595	106.9	21.7	-3.23	0.408	38.5	0.909	0.887	172.1	921.9	0.081	1.694	-1.88	0.952	24.8	327.4	-18.9	1.064
3-7260	3-8040	0.480	35.5	11.2	-3.23	0.523	120.0	0.707	0.981	195.1	944.9	0.288	1.674	-1.88	1.007	45.0	315.5	-18.7	0.776
3-7260	3-8050	0.564	5.9	-0.9	-2.71	0.814	125.6	0.582	1.585	236.4	636.4	0.662	2.507	-1.45	1.184	61.5	299.8	-23.3	0.571
3-7260	3-8050	0.494	105.2	21.4	-2.71	0.432	52.1	0.833	0.903	170.3	930.4	0.151	1.655	-1.45	0.962	33.8	332.9	-12.1	0.938
3-7260	3-8050	0.372	43.8	14.4	-2.71	0.516	106.3	0.631	0.973	190.1	950.1	0.359	1.587	-1.45	1.002	50.9	323.1	-16.4	0.681
3-7260	3-8060	0.498	3.5	-2.1	-2.38	0.814	120.6	0.510	1.584	241.7	651.9	0.776	2.391	-1.22	1.183	68.3	301.9	-23.2	0.453
3-7260	3-8060	0.363	94.0	21.0	-2.38	0.467	71.0	0.706	0.930	171.6	941.7	0.273	1.586	-1.22	0.977	45.2	336.9	-10.9	0.768
3-7260	3-8060	0.306	68.0	18.5	-2.38	0.497	88.9	0.619	0.955	179.3	949.5	0.364	1.546	-1.22	0.992	51.3	333.2	-12.6	0.664
3-7270	3-7330	0.642	0.9	-2.9	-2.55	0.943	127.1	0.677	2.532	259.8	305.5	---	---	-1.50	1.279	68.4	292.5	-25.4	0.510
3-7270	3-7340	0.589	359.0	-3.7	-2.24	0.932	123.7	0.628	2.413	264.4	320.2	---	---	-1.29	1.270	74.8	290.9	-26.0	0.404
3-7270	3-7350	0.553	357.9	-4.0	-1.99	0.923	121.4	0.592	2.322	266.9	332.9	---	---	-1.17	1.262	80.9	287.6	-26.9	0.329
3-7270	3-7360	0.527	357.4	-4.1	-1.78	0.914	119.8	0.562	2.228	267.8	343.8	---	---	-1.10	1.253	84.2	282.8	-27.9	0.277
3-7270	3-7370	0.505	357.4	-3.9	-1.58	0.902	118.7	0.534	2.128	267.4	353.4	---	---	-1.07	1.242	87.7	277.0	-28.7	0.245
3-7270	3-7380	0.485	357.8	-3.4	-1.40	0.888	117.7	0.508	2.024	265.9	361.8	0.996	---	-1.08	1.230	90.6	271.5	-29.3	0.228
3-7270	3-7390	0.467	358.5	-2.9	-1.21	0.874	116.9	0.482	1.922	263.6	369.4	0.995	---	-1.11	1.217	93.1	267.4	-29.6	0.211
3-7270	3-7400	0.449	359.4	-2.1	-0.99	0.858	116.0	0.458	1.826	260.7	376.3	0.989	---	-1.19	1.203	95.1	265.4	-29.8	0.222
3-7270	3-7410	0.430	0.5	-1.2	-0.75	0.841	115.2	0.435	1.738	257.2	382.7	0.981	---	-1.31	1.189	96.8	265.5	-30.3	0.226
3-7270	3-7420	0.412	1.6	-0.1	-0.43	0.825	114.2	0.414	1.658	253.4	388.5	0.972	---	-1.52	1.176	98.3	267.4	-31.1	0.232
3-7270	3-7430	0.393	2.7	1.2	0.01	0.808	113.2	0.394	1.587	249.2	394.0	0.961	---	-1.86	1.162	99.4	270.9	-32.4	0.239
3-7270	3-7440	0.374	3.8	3.3	0.74	0.792	112.1	0.377	1.524	244.7	398.2	0.950	---	-2.49	1.149	100.4	275.6	-34.8	0.247
3-7270	3-7450	0.356	4.3	6.9	2.25	0.776	110.9	0.361	1.469	240.0	404.1	0.938	---	-3.91	1.137	101.3	281.6	-40.1	0.259
3-7270	3-7460	0.351	2.0	19.2	8.09	0.761	109.6	0.348	1.420	235.1	408.7	0.926	---	-9.66	1.125	102.0	289.2	-59.3	0.309
3-7270	3-7470	0.407	31.3	-25.9	-19.74	0.747	108.3	0.338	2.378	230.0	413.5	0.912	---	18.27	1.115	102.7	276.3	30.9	0.420
3-7270	3-7480	0.307	18.6	-7.4	-6.22	0.733	106.8	0.328	1.340	224.8	417.6	0.900	---	4.83	1.105	103.3	295.2	-2.4	0.282
3-7270	3-7490	0.282	19.2	-2.7	-4.12	0.720	105.2	0.321	1.306	219.4	421.8	0.886	---	2.82	1.096	103.8	303.6	-8.8	0.280
3-7270	3-7500	0.261	21.4	-0.0	-3.23	0.707	103.5	0.317	1.277	213.9	425.8	0.872	---	2.03	1.089	104.3	311.2	-10.3	0.285
3-7270	3-7510	0.240	24.5	2.1	-2.72	0.695	101.7	0.315	1.250	208.3	429.7	0.857	---	1.62	1.082	104.9	318.6	-9.9	0.293
3-7270	3-7520	0.221	28.5	4.2	-2.38	0.684	99.7	0.315	1.227	202.5	433.5	0.840	---	1.38	1.076	105.5	325.9	-8.7	0.302
3-7270	3-7530	0.202	33.6	6.4	-2.11	0.673	97.5	0.319	1.205	196.8	437.4	0.821	---	1.23	1.071	106.2	333.1	-6.8	0.314
3-7270	3-7540	0.185	40.2	8.9	-1.89	0.663	95.2	0.326	1.186	191.0	441.2	0.800	---	1.14	1.066	107.0	340.2	-4.5	0.328
3-7270	3-7550	0.170	48.8	11.7	-1.70	0.654	92.6	0.336	1.169	185.2	445.1	0.776	---	1.09	1.063	108.0	347.3	-2.0	0.345
3-7270	3-7560	0.160	60.0	14.8	-1.52	0.645	89.7	0.352	1.153	179.5	449.1	0.748	1.559	1.07	1.060	109.3	354.3	-0.7	0.366
3-7270	3-7570	0.157	73.9	17.7	-1.33	0.637	86.4	0.373	1.139	173.9	453.3	0.714	1.564	1.09	1.057	110.8	1.3	3.5	0.393
3-7270	3-7580	0.166	89.6	19.7	-1.13	0.629	82.6	0.402	1.126	168.7	457.9	0.673	1.579	1.13	1.055	112.9	8.2	8.4	0.428
3-7270	3-7590	0.190	104.9	20.3	-0.91	0.621	78.0	0.442	1.114	163.9	463.1	0.622	1.607	1.23	1.054	115.6	15.0	9.1	0.474
3-7270	3-7600	0.233	117.6	19.9	-0.64	0.615	72.3	0.496	1.104	159.9	469.0	0.557	1.652	1.38	1.052	119.2	21.6	11.6	0.537
3-7270	3-7610	0.300	126.6	19.1	-0.27	0.609	65.1	0.569	1.096	157.2	476.3	0.472	1.719	1.64	1.051	124.3	27.8	13.9	0.623
3-7270	3-7620	0.397	132.6	18.7	0.29	0.605	55.5	0.668	1.090	156.6	485.7	0.361	1.818	2.09	1.051	131.7	33.1	15.6	0.747
3-7270	3-7630	0.536	133.5	18.9	1.32	0.603	42.2	0.796	1.087	159.3	498.5	0.222	1.952	3.02	1.052	142.6	36.9	16.8	0.926
3-7270	3-7670	0.595	96.6	22.3	-4.45	0.267	49.7	0.937	0.825	176.7	556.6	0.052	1.598	-3.13	0.907	20.8	326.6	-14.4	1.097
3-7270	3-7670	0.599	42.1	13.9	-4.45	0.482	133.7	0.831	0.951	192.5	572.5	0.161	1.741	-3.13	0.991	33.8	317.1	-18.4	0.947
3-7270	3-7680	0.485	92.7	21.8	-3.35	0.331	68.0	0.855	0.852	176.0	566.2	0.123	1.581	-2.13	0.927	31.6	331.1	-13.0	0.954
3-7270	3-7680	0.455	48.3	15.1	-3.35	0.467	115.0	0.733	0.939	190.2	580.4	0.251	1.627	-2.13	0.984	43.0	323.3	-16.4	0.803
3-7270	3-7740	0.594	147.3	12.2	-1.50	0.755	39.8	0.772	1.403	145.5	236.2	---	2.486	-1.07	1.139	41.7	10.7	3.6	0.902
3-7270	3-7750	0.555	149.4	11.5	-1.31	0.764	43.0	0.734	1.428	141.8	242.5	---	2.476	-1.09	1.142	45.4	17.2	6.2	0.839
3-7270	3-7760	0.519	151.4	10.8	-1.11	0.771	46.0	0.696	1.453	138.3	248.8	---	2.464	-1.14	1.145	47.1	23.7	8.5	0.779
3-7270	3-7770	0.485	153.3	10.2	-0.88	0.778	48.8	0.660	1.476	134.1	255.1	---	2.449	-1.24	1.147	52.5	30.2	10.7	0.720
3-7270	3-7780	0.453	155.3	9.7	-0.61	0.785	51.4	0.624	1.498	131.5	261.6	---	2.434	-1.40	1.149	55.8	36.8	12.4	0.663
3-7270	3-7790	0.423	157.2	9.4	-0.24	0.791	53.8	0.591	1.519	128.2	268.0	---	2.417	-1.66	1.151	58.9	43.3	13.8	0.609
3-7270	3-7800	0.395	159.2	9.5	0.31	0.796	56.0	0.560	1.538	125.1	274.6	---	2.399	-2.11	1.152	61.9	49.9	14.4	0.557
3-7270	3-7810	0.370	161.6	10.6	1.29	0.800	58.0	0.531	1.556	122.2	281.2	---	2.381	-3.00	1.154	64.8	56.6	13.6	0.509
3-7270	3-7820	0.350	165.0	14.8	3.82	0.804	59.7	0.504	1.572	119.4	288.0	---	2.364	-5.43	1.155	67.5	63.9	8.6	0.468
3-7270	3-7830	0.502	173.8	52.4	29.62	0.808	61.3	0.480	1.586	116.9	294.9	---	2.348	-31.15	1.157	70.1	90.3	-30.9	0.693
3-7270	3-7840	0.330	155.3	-11.9	-9.30	0.811	62.8	0.457	1.599	114.4	302.2	---	2.330	7.87	1.158	72.7	69.6	44.9	0.395
3-7270	3-7850	0.297	160.9	-5.0	-4.98	0.814	64.1	0.438	1.609	112.2	309.5	---	2.315	3.60	1.160	75.2	74.8	34.9	0.334
3-7270	3-7860	0.280	163.3	-3.2	-3.62	0.816	65.1	0.422	1.619	110.3	317.1	---	2.301	2.37	1.162	77.6	78.4	32.3	0.292
3-7270	3-7870	0.267	164.8	-2.4	-2.96	0.818	66.0	0.408	1.626	108.6	325.0	---	2.290	1.80	1.164	80.1	80.1	31.3	0.256
3-7270	3-7880	0.257	166.0	-2.0	-2.54	0.819	66.7	0.397	1.632	107.3	333.2	---	2.281	1.49	1.166	82.5	79.6	30.8	0.225
3-7270	3-7890	0.250	166.9	-1.6	-2.24	0.820	67.2	0.390	1.637	106.3	341.8	---	2.275	1.30	1.168	84.9	76.2	30.4	0.201
3-7270	3-7900	0.246	167.5	-1.3	-2.00	0.821	67.5	0.386	1.640	105.7	350.8	---	2.273	1.18	1.170	87.4	69.7	29.7	0.185
3-7270	3-7910	0.246	167.9	-0.7	-1.80	0.821	67.5	0.386	1.643	105.5	360.3	1.009	2.276	1.11	1.172	90.1	61.0	28.9	0.183
3-7270	3-7920	0.250	168.0	-0.1	-1.61	0.822	67.2	0.391	1.644	105.8	370.3	1.002	2.286	1.08	1.174	92.9	52.6	25.7	0.195
3-7270	3-7920	0.334	30.4	9.6	-1.61	0.629	108.5	0.483	1.126	202.6	827.1	0.582	1.671	1.08	1.049	118.3	342.0	-5.6	0.518
3-7270	3-7920	0.522	22.8	8.0	-1.61	0.671	125.6	0.630	1.201	211.9	836.4	0.445	1.958	1.08	1.075	120.1	338.1	-7.8	0.694
3-7270	3-7930	0.259	167.8	0.8	-1.43	0.822	66.5	0.401	1.644	106.6	380.9	0.985	2.304	1.07	1.177	95.9	46.4	23.3	0.223
3-7270	3-7930	0.253	42.6	13.2	-1.43	0.609	99.3	0.446	1.097	191.9	826.2	0.608	1.586	1.07	1.040	116.1	351.3	-1.5	0.477
3-7270	3-7940	0.274	167.2	1.9	-1.24	0.822	65.4	0.419	1.644	108.1	392.2	0.955	2.332	1.10	1.179	99.4	43.0	21.5	0.266

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DEC	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7270	3-7940	0.215	57.3	17.0	-1.24	0.598	92.6	0.844	1.081	183.3	827.4	0.601	1.561	1.10	1.036	116.0	359.6	2.2	0.477
3-7270	3-7950	0.298	166.3	7.2	-1.03	0.821	63.7	0.846	1.643	110.4	404.3	0.910	2.376	1.17	1.181	103.3	41.9	20.5	0.325
3-7270	3-7950	0.203	75.6	23.3	-1.03	0.590	86.4	0.460	1.070	175.7	829.7	0.577	1.562	1.17	1.034	117.2	7.5	5.6	0.496
3-7270	3-7960	0.333	164.8	6.8	-0.79	0.821	61.1	0.486	1.642	113.7	417.5	0.844	2.440	1.29	1.184	108.0	42.4	20.1	0.401
3-7270	3-7960	0.216	95.1	21.8	-0.79	0.584	79.8	0.494	1.061	169.2	833.1	0.537	1.585	1.29	1.033	119.4	15.0	8.8	0.536
3-7270	3-7970	0.385	162.7	6.6	-0.48	0.821	57.2	0.543	1.641	118.3	432.1	0.750	2.531	1.48	1.186	113.9	43.8	20.1	0.502
3-7270	3-7970	0.259	111.5	21.4	-0.48	0.579	72.3	0.547	1.055	164.0	837.8	0.478	1.632	1.48	1.033	123.0	22.1	11.6	0.595
3-7270	3-7980	0.462	159.7	8.7	-0.04	0.821	51.6	0.623	1.640	124.9	448.7	0.618	2.662	1.82	1.188	121.6	45.3	20.2	0.636
3-7270	3-7980	0.333	122.9	20.4	-0.04	0.575	63.2	0.625	1.050	160.6	844.5	0.393	1.706	1.82	1.033	128.6	28.5	14.0	0.689
3-7270	3-7990	0.576	155.2	11.3	-0.68	0.821	43.0	0.732	1.641	134.3	468.3	0.439	2.842	2.44	1.190	132.1	46.2	20.1	0.720
3-7270	3-7990	0.446	128.3	19.8	-0.68	0.572	51.3	0.733	1.046	160.1	854.1	0.279	1.813	2.44	1.034	137.1	33.7	15.7	0.829
3-7270	3-7990	0.555	63.1	22.0	-0.68	0.300	115.3	0.887	0.838	183.5	1237.5	0.095	1.581	2.44	0.912	152.0	20.9	9.9	1.005
3-7270	3-8000	0.566	89.5	24.9	-2.24	0.246	65.3	0.923	0.818	177.8	1241.8	0.063	1.573	3.90	0.898	156.8	27.8	12.8	1.065
3-7270	3-8040	0.540	40.1	13.0	-3.82	0.549	127.1	0.768	0.976	194.6	959.5	0.216	1.726	-2.55	1.005	39.8	318.3	-18.1	0.860
3-7270	3-8050	0.528	110.0	20.9	-3.04	0.405	47.8	0.869	0.894	171.6	926.5	0.117	1.670	-1.87	0.956	29.9	334.8	-11.4	0.994
3-7270	3-8050	0.415	46.0	14.2	-3.04	0.503	111.9	0.675	0.970	191.7	946.7	0.315	1.625	-1.87	1.001	47.5	324.8	-16.9	0.736
3-7270	3-8060	0.525	9.5	0.6	-2.57	0.805	123.1	0.546	1.576	237.9	643.0	0.716	2.435	-1.51	1.181	68.7	307.1	-22.3	0.517
3-7270	3-8060	0.417	103.5	20.9	-2.57	0.437	64.7	0.766	0.916	171.3	936.5	0.215	1.616	-1.51	0.969	40.2	339.5	-9.9	0.844
3-7270	3-8060	0.378	63.0	17.7	-2.57	0.488	96.0	0.634	0.957	183.5	948.7	0.351	1.564	-1.51	0.993	50.7	333.6	-12.7	0.683
3-7270	3-8070	0.469	7.5	-0.4	-2.25	0.805	118.9	0.483	1.574	242.1	657.4	0.813	2.335	-1.30	1.180	70.7	309.3	-22.2	0.414
3-7280	3-7340	0.715	359.7	-3.1	-2.38	1.042	128.2	0.830	5.304	273.6	324.5	---	---	-1.54	1.356	74.0	285.1	-26.9	0.483
3-7280	3-7350	0.660	358.8	-3.4	-2.08	1.014	125.5	0.767	4.080	275.3	336.3	---	---	-1.37	1.333	79.7	281.6	-27.6	0.392
3-7280	3-7360	0.620	358.6	-3.3	-1.82	0.991	123.6	0.718	3.424	275.6	346.6	---	---	-1.27	1.314	84.4	276.9	-28.3	0.332
3-7280	3-7370	0.588	358.8	-3.0	-1.60	0.968	122.3	0.667	2.980	276.6	355.6	---	---	-1.21	1.295	88.2	271.7	-28.8	0.294
3-7280	3-7380	0.560	359.5	-2.4	-1.39	0.946	121.2	0.624	2.646	272.7	363.7	0.996	---	-1.20	1.277	91.4	267.0	-29.0	0.274
3-7280	3-7390	0.535	0.4	-1.8	-1.18	0.924	120.2	0.585	2.383	270.1	370.9	0.993	---	-1.22	1.258	94.0	264.0	-29.1	0.265
3-7280	3-7400	0.511	1.4	-1.0	-0.96	0.902	119.3	0.546	2.173	266.9	377.6	0.986	---	-1.28	1.239	96.2	262.8	-29.3	0.263
3-7280	3-7410	0.488	2.6	-0.1	-0.71	0.879	118.4	0.512	1.999	263.2	383.7	0.976	---	-1.39	1.221	98.0	263.6	-29.7	0.265
3-7280	3-7420	0.465	3.8	1.0	-0.40	0.857	117.4	0.481	1.858	259.2	389.4	0.965	---	-1.57	1.203	99.5	266.0	-30.3	0.268
3-7280	3-7430	0.442	5.1	2.3	0.01	0.836	116.4	0.453	1.742	254.9	394.8	0.954	---	-1.86	1.186	100.7	269.8	-31.4	0.273
3-7280	3-7440	0.419	6.3	4.0	0.63	0.816	115.2	0.428	1.645	250.3	399.9	0.942	---	-2.36	1.170	101.7	274.7	-33.2	0.278
3-7280	3-7450	0.397	7.2	6.7	1.73	0.796	113.9	0.406	1.564	245.5	404.7	0.929	---	-3.36	1.155	102.5	280.7	-36.5	0.286
3-7280	3-7460	0.378	7.0	12.6	4.58	0.778	112.6	0.387	1.496	240.5	409.2	0.917	---	-6.11	1.141	103.2	288.0	-45.5	0.304
3-7280	3-7470	0.556	3.9	52.4	33.71	0.760	111.1	0.370	1.438	235.4	413.5	0.906	---	-35.14	1.128	103.7	172.1	-81.8	0.689
3-7280	3-7460	0.354	24.0	-11.5	-10.04	0.743	109.6	0.358	1.388	230.1	418.0	0.891	---	8.71	1.117	104.3	291.6	8.0	0.331
3-7280	3-7490	0.315	21.8	-3.1	-5.23	0.728	108.0	0.347	1.345	224.6	422.1	0.877	---	4.00	1.106	104.8	302.4	-5.6	0.305
3-7280	3-7500	0.290	22.3	0.3	-3.77	0.713	106.2	0.340	1.307	219.1	426.0	0.863	---	2.64	1.097	105.2	310.5	-8.7	0.306
3-7280	3-7510	0.267	25.9	2.7	-3.03	0.699	104.3	0.334	1.275	213.4	429.9	0.849	---	2.01	1.089	105.7	318.1	-9.0	0.310
3-7280	3-7520	0.245	29.3	4.8	-2.56	0.686	102.3	0.332	1.248	207.6	433.7	0.832	---	1.66	1.082	106.2	325.5	-8.0	0.317
3-7280	3-7530	0.224	33.8	6.9	-2.23	0.676	100.1	0.332	1.221	201.8	437.4	0.815	---	1.45	1.076	106.8	332.8	-6.3	0.327
3-7280	3-7540	0.204	39.4	9.1	-1.96	0.662	97.7	0.336	1.198	195.9	441.0	0.795	---	1.32	1.070	107.5	340.0	-4.1	0.338
3-7280	3-7550	0.186	46.8	11.7	-1.73	0.651	95.1	0.344	1.178	190.0	444.9	0.772	---	1.24	1.066	108.4	347.2	-3.6	0.352
3-7280	3-7560	0.172	56.6	14.5	-1.52	0.641	92.3	0.356	1.160	184.1	448.8	0.746	---	1.20	1.062	109.5	354.3	1.1	0.371
3-7280	3-7570	0.163	69.2	17.4	-1.32	0.632	89.0	0.374	1.143	178.4	452.9	0.716	1.571	1.20	1.059	110.8	1.4	3.9	0.394
3-7280	3-7580	0.164	84.5	19.7	-1.11	0.622	85.3	0.399	1.129	172.9	457.2	0.679	1.579	1.24	1.056	112.6	8.4	6.7	0.424
3-7280	3-7590	0.178	100.7	20.6	-0.87	0.614	81.9	0.432	1.116	167.7	461.9	0.634	1.598	1.31	1.054	114.9	15.4	9.5	0.463
3-7280	3-7600	0.211	115.3	20.2	-0.60	0.606	75.7	0.478	1.104	163.2	467.4	0.576	1.632	1.45	1.052	118.0	22.3	12.1	0.516
3-7280	3-7610	0.265	126.5	19.1	-0.25	0.600	69.2	0.540	1.094	159.7	473.8	0.503	1.666	1.67	1.051	122.3	28.8	14.5	0.589
3-7280	3-7620	0.345	133.9	18.2	0.25	0.594	60.6	0.626	1.086	157.8	482.0	0.407	1.766	2.05	1.050	128.4	34.7	16.5	0.692
3-7280	3-7630	0.462	137.5	17.8	1.08	0.590	49.1	0.738	1.081	158.5	492.8	0.283	1.880	2.76	1.050	137.4	39.5	17.9	0.840
3-7280	3-7680	0.522	96.5	21.9	-3.95	0.287	66.9	0.892	0.839	177.0	562.2	0.091	1.588	-2.81	0.918	27.3	333.7	-12.3	1.013
3-7280	3-7680	0.508	52.7	16.5	-3.95	0.445	121.9	0.789	0.930	190.2	575.4	0.196	1.663	-2.81	0.979	38.0	335.9	-15.7	0.879
3-7280	3-7750	0.566	153.1	10.1	-1.29	0.752	41.8	0.749	1.411	143.9	239.6	---	2.468	-1.20	1.138	43.9	18.5	6.6	0.864
3-7280	3-7760	0.529	155.2	9.4	-1.08	0.760	45.0	0.711	1.436	140.4	245.9	---	2.457	-1.24	1.141	47.6	25.0	9.0	0.802
3-7280	3-7770	0.495	157.2	8.8	-0.84	0.767	47.8	0.673	1.460	136.9	252.3	---	2.443	-1.32	1.144	51.1	31.5	11.1	0.742
3-7280	3-7780	0.462	159.1	8.2	-0.57	0.774	50.5	0.637	1.483	133.6	258.7	---	2.428	-1.46	1.146	54.5	38.1	12.9	0.685
3-7280	3-7790	0.431	161.1	7.9	-0.42	0.780	53.0	0.603	1.505	130.3	265.2	---	2.412	-1.69	1.148	57.7	44.7	14.2	0.629
3-7280	3-7800	0.403	163.1	7.8	-0.27	0.786	55.2	0.571	1.525	127.2	271.7	---	2.395	-2.06	1.150	60.7	51.3	15.0	0.578
3-7280	3-7810	0.377	165.3	8.5	-0.06	0.791	57.3	0.540	1.543	124.3	278.4	---	2.377	-2.74	1.152	63.6	57.9	14.7	0.526
3-7280	3-7820	0.354	168.1	10.9	2.68	0.795	59.2	0.512	1.560	121.5	285.1	---	2.360	-4.26	1.153	66.4	64.7	11.9	0.481
3-7280	3-7830	0.349	173.7	21.9	8.64	0.799	60.8	0.487	1.575	118.9	292.0	---	2.343	-10.12	1.155	69.1	73.9	-1.6	0.465
3-7280	3-7840	0.442	142.3	-29.2	-24.36	0.802	62.4	0.463	1.589	116.3	299.4	---	2.324	22.98	1.157	71.8	85.5	73.0	0.563
3-7280	3-7850	0.307	162.8	-10.2	-6.86	0.805	63.7	0.443	1.600	114.2	306.6	---	2.310	5.47	1.159	74.3	77.4	40.7	0.356
3-7280	3-7860	0.285	166.5	-6.4	-4.39	0.808	64.8	0.426	1.610	112.2	314.1	---	2.296	3.21	1.160	76.7	81.4	35.1	0.307
3-7280	3-7870	0.270	168.5	-5.0	-3.37	0.810	65.8	0.411	1.618	110.5	321.9	---	2.284	2.29	1.162	79.2	83.8	33.1	0.268
3-7280	3-7880	0.259	169.9	-4.3	-2.79	0.811	66.5	0.399	1.625	109.1	330.1	---	2.274	1.82	1.164	81.6	84.1	32.3	0.235
3-7280	3-7890	0.251	170.9	-3.8	-2.39	0.812	67.1	0.391	1.630	108.0	338.6	---	2.267	1.55	1.167	84.0	81.7	31.9	0.208
3-7280	3-7900	0.246	171.7	-3.3	-2.10	0.813	67.4	0.385	1.634	107.2	347.4	---	2.263	1.38	1.169	86.5	76.2	31.4	0.189
3-7280	3-7910	0.245	172.2	-2.8	-1.85	0.814	67.5	0.384	1.637	106.9	356.8	---	2.265	1.27	1.171	89.1	67.9	30.2	0.182
3-7280	3-7920	0.247	172.5	-2.1	-1.63	0.814	67.4	0.387	1.638	107.0	366.6	1.005	2.272	1.22	1.173	91.8	59.0	28.1	0.188
3-7280	3-7930	0.254	172.4	-1.2	-1.42	0.814	66.8	0.393	1.639	107.6	376.9	0.991	2.286	1.20	1.176	94.8	51.8	25.7	0.211
3-7280	3-7930	0.305	39.2	12.8	-1.42	0.612	105.7	0.481	1.112	198.6	827.9	0.578	1.646	1.20	1.046	118.2	350.5	-1.8	0.517
3-7280	3-7930	0.561	27.7	10.3	-1.42	0.671	129.4	0.674	1.214	210.9	840.3	0.396	2.032	1.20	1.081	131.4	345.4	-4.8	0.755
3-7280	3-7940	0.267	172.0	-0.2	-1.22	0.814	65.9	0.410	1.639	108.8	387.9	0.967	2.310	1.21	1.178	98.0	47.4	23.6	0.248
3-7280	3-7940	0.241	52.6	16.4	-1.22	0.595	97.3	0.458	1.088	188.8	827.9	0.590	1.586	1.21	1.039	116.9	359.3	2.2	0.492
3-7280	3-7950	0.286	171.3	1.1	-1.00	0.814	64.4	0.433	1.638	110.7	399.7	0.929	2.347	1.27	1.181	101.7	45.7	22.3	0.300
3-7280	3-7950	0.212	69.5	19.8	-1.00	0.585	90.5	0.463	1.074	180.5	829.5	0.576	1.571	1.27	1.036	117.3	7.5	5.8	0.499
3-7280	3-7960	0.316	170.1	2.5	-0.75	0.814	62.2	0.467	1.637	113.4	412.3	0.872	2.402	1.37	1.183	106.0	45.8	21.7	0.368
3-7280	3-7960	0.209	89.3	21.9	-0.75	0.577	83.8	0.487	1.065	173.4	832.3	0.546	1.581	1.37	1.034	118.9	15.3	9.1	0.490
3-7280	3-7970	0.360	168.3	4.2	-0.44	0.814	99.0	0.516	1.639	117.2	426.1	0.791	2.480	1.54	1.185	111.3	47.1	21.4	0.457

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7280	3-7970	0.236	108.1	21.9	-0.44	0.571	76.6	0.529	1.055	167.4	836.3	0.497	1.613	1.54	1.033	121.8	22.7	12.0	0.574
3-7280	3-7980	0.424	165.8	6.2	-0.04	0.813	54.2	0.585	1.635	122.6	441.6	0.678	2.591	1.82	1.187	118.1	48.9	21.5	0.574
3-7280	3-7980	0.294	122.3	20.5	-0.04	0.566	68.1	0.593	1.049	163.0	841.9	0.427	1.671	1.82	1.033	126.3	29.6	14.6	0.650
3-7280	3-7990	0.518	132.1	8.5	0.58	0.813	47.2	0.680	1.634	130.4	459.4	0.522	2.746	2.32	1.189	127.1	50.3	21.6	0.732
3-7280	3-7990	0.386	131.1	19.3	0.58	0.562	57.5	0.685	1.044	160.8	849.8	0.329	1.760	2.32	1.033	133.2	35.6	16.6	0.764
3-7280	3-8000	0.522	134.6	18.9	1.73	0.560	43.4	0.805	1.042	162.2	861.3	0.203	1.882	3.36	1.034	143.6	40.0	17.9	0.933
3-7280	3-8000	0.544	80.8	24.5	1.73	0.257	95.2	0.905	0.825	180.5	1239.7	0.078	1.571	3.36	0.903	154.3	29.0	13.2	1.032
3-7280	3-8050	0.562	114.4	20.4	-3.48	0.379	43.4	0.900	0.885	172.8	922.9	0.088	1.682	-2.39	0.950	26.0	336.8	-10.7	1.048
3-7280	3-8050	0.464	49.2	15.3	-3.48	0.489	118.2	0.726	0.967	192.5	942.5	0.265	1.668	-2.39	0.999	43.5	326.9	-15.5	0.801
3-7280	3-8060	0.556	15.7	3.3	-2.83	0.797	126.0	0.588	1.567	233.8	634.1	0.646	2.488	-1.85	1.180	60.6	311.9	-21.3	0.588
3-7280	3-8060	0.452	110.3	20.4	-2.83	0.409	59.6	0.813	0.904	171.9	932.1	0.169	1.639	-1.85	0.961	35.8	341.7	-9.0	0.908
3-7280	3-8060	0.360	61.7	17.7	-2.83	0.477	102.2	0.662	0.956	186.4	946.6	0.323	1.590	-1.85	0.992	48.6	334.7	-12.6	0.718
3-7280	3-8070	0.489	13.3	2.2	-2.40	0.797	120.9	0.513	1.566	238.8	649.2	0.762	2.370	-1.55	1.178	67.5	314.3	-21.0	0.469
3-7280	3-8080	0.443	11.5	1.4	-2.02	0.796	117.4	0.460	1.564	242.2	662.6	0.845	2.283	-1.38	1.176	72.8	316.5	-20.9	0.379
3-7290	3-7350	0.797	359.8	-2.7	-2.19	1.139	129.4	1.03329	0.155	282.7	338.8	---	---	-1.58	1.434	79.2	276.6	-27.9	0.488
3-7290	3-7360	0.736	359.8	-2.5	-1.88	1.095	127.3	0.93615	0.291	282.4	348.5	---	---	-1.43	1.397	84.5	272.2	-28.3	0.411
3-7290	3-7370	0.689	0.3	-2.1	-1.63	1.057	125.8	0.853	6.772	281.0	357.2	---	---	-1.35	1.366	88.7	267.7	-28.5	0.363
3-7290	3-7380	0.650	1.2	-1.5	-1.39	1.022	124.6	0.781	4.549	278.8	364.9	0.995	---	-1.32	1.337	92.2	264.0	-28.6	0.335
3-7290	3-7390	0.616	2.2	-0.7	-1.17	0.989	123.6	0.717	3.505	276.0	372.0	0.990	---	-1.32	1.310	95.0	261.7	-28.6	0.321
3-7290	3-7400	0.584	3.4	0.1	-0.93	0.958	122.6	0.660	2.890	272.6	378.5	0.982	---	-1.36	1.285	97.3	261.2	-28.7	0.314
3-7290	3-7410	0.554	4.8	1.1	-0.67	0.928	121.4	0.609	2.686	268.8	384.5	0.971	---	-1.46	1.260	99.2	262.4	-29.1	0.312
3-7290	3-7420	0.525	6.1	2.1	-0.37	0.900	120.7	0.564	2.201	264.7	390.1	0.959	---	-1.61	1.237	100.8	265.1	-29.7	0.312
3-7290	3-7430	0.497	7.5	3.3	-0.07	0.873	119.6	0.525	1.990	260.3	395.5	0.946	---	-1.86	1.216	102.0	269.1	-30.5	0.313
3-7290	3-7440	0.470	8.8	4.3	0.55	0.847	118.4	0.490	1.829	255.6	400.3	0.933	---	-2.27	1.196	103.0	274.1	-31.8	0.315
3-7290	3-7450	0.443	10.0	7.0	1.42	0.823	117.1	0.459	1.703	250.8	405.1	0.920	---	-3.02	1.177	103.8	280.1	-34.1	0.318
3-7290	3-7460	0.419	10.6	10.7	3.23	0.800	115.7	0.433	1.602	245.8	409.6	0.907	---	-4.72	1.160	104.4	287.1	-39.1	0.326
3-7290	3-7470	0.411	8.8	22.9	9.94	0.778	114.2	0.411	1.519	240.6	413.9	0.895	---	-11.31	1.145	105.0	295.9	-57.1	0.377
3-7290	3-7480	0.487	40.0	-24.0	-25.17	0.758	112.6	0.394	1.452	235.2	418.4	0.880	---	23.90	1.131	105.5	276.5	32.4	0.535
3-7290	3-7490	0.353	25.3	-4.5	-7.20	0.740	110.9	0.378	1.395	229.7	422.3	0.867	---	6.04	1.118	105.9	300.5	-0.5	0.339
3-7290	3-7500	0.322	25.6	0.5	-4.54	0.722	109.1	0.366	1.347	224.1	426.2	0.854	---	3.49	1.107	106.3	309.6	-6.8	0.330
3-7290	3-7510	0.296	27.7	3.2	-3.44	0.706	107.1	0.357	1.306	218.4	430.0	0.839	---	2.50	1.097	106.7	317.6	-8.0	0.331
3-7290	3-7520	0.271	30.6	5.4	-2.80	0.691	105.1	0.351	1.271	212.6	433.8	0.824	---	1.99	1.089	107.1	325.1	-7.4	0.335
3-7290	3-7530	0.249	34.5	7.4	-2.38	0.676	102.8	0.349	1.240	206.7	437.5	0.807	---	1.69	1.081	107.6	332.5	-5.8	0.342
3-7290	3-7540	0.226	39.4	9.5	-2.05	0.663	100.4	0.350	1.213	200.7	441.1	0.789	---	1.51	1.075	108.2	339.8	-3.8	0.351
3-7290	3-7550	0.205	45.8	11.8	-1.78	0.650	97.8	0.354	1.189	194.7	444.8	0.768	---	1.40	1.070	108.9	347.1	-1.3	0.362
3-7290	3-7560	0.186	54.2	14.4	-1.54	0.639	94.9	0.363	1.168	188.8	448.6	0.744	---	1.33	1.065	109.8	354.3	1.4	0.377
3-7290	3-7570	0.173	65.3	17.2	-1.31	0.628	91.7	0.377	1.150	182.9	452.5	0.716	---	1.31	1.061	111.0	1.5	4.2	0.397
3-7290	3-7580	0.167	79.4	19.6	-1.09	0.617	88.1	0.398	1.133	177.2	456.6	0.682	1.584	1.33	1.058	112.5	8.6	7.1	0.423
3-7290	3-7590	0.172	95.8	20.9	-0.84	0.608	83.9	0.424	1.118	171.7	461.1	0.642	1.595	1.35	1.055	114.5	15.7	9.9	0.456
3-7290	3-7600	0.195	111.9	20.7	-0.57	0.599	79.0	0.465	1.105	166.8	466.1	0.591	1.619	1.50	1.053	117.2	22.8	12.5	0.502
3-7290	3-7610	0.237	125.3	19.4	-0.23	0.591	72.9	0.518	1.093	162.6	471.9	0.527	1.660	1.70	1.051	120.8	29.6	15.0	0.563
3-7290	3-7620	0.304	134.8	17.9	0.22	0.584	65.3	0.591	1.084	159.7	479.0	0.443	1.725	2.03	1.049	125.9	36.0	17.1	0.649
3-7290	3-7630	0.401	140.3	17.0	0.92	0.579	55.2	0.689	1.077	158.8	488.3	0.335	1.819	2.58	1.048	133.3	41.6	18.7	0.773
3-7290	3-7640	0.539	142.0	17.0	2.22	0.577	41.4	0.813	1.074	161.3	500.8	0.201	1.946	3.76	1.048	144.2	45.7	19.8	0.949
3-7290	3-7680	0.559	99.7	21.8	-4.84	0.239	66.8	0.924	0.829	178.0	558.3	0.063	1.594	-3.77	0.909	229.9	335.5	-11.5	1.072
3-7290	3-7680	0.566	58.3	17.9	-4.84	0.418	129.7	0.847	0.918	189.2	569.6	0.140	1.696	-3.77	0.972	32.2	328.9	-14.8	0.966
3-7290	3-7750	0.576	156.8	8.8	-1.29	0.739	40.6	0.764	1.398	146.0	266.8	---	2.459	-1.31	1.133	42.3	19.7	7.1	0.889
3-7290	3-7760	0.539	158.9	8.0	-1.06	0.748	43.9	0.725	1.419	142.4	243.1	---	2.449	-1.34	1.138	46.1	26.2	9.4	0.826
3-7290	3-7770	0.504	160.9	7.3	-0.81	0.756	46.9	0.687	1.444	139.0	249.5	---	2.437	-1.40	1.141	49.7	32.8	11.5	0.765
3-7290	3-7780	0.471	162.9	6.7	-0.54	0.763	49.6	0.651	1.468	135.6	255.9	---	2.422	-1.52	1.143	53.1	39.4	13.3	0.706
3-7290	3-7790	0.439	164.8	6.3	-0.20	0.770	52.2	0.615	1.490	132.4	262.3	---	2.407	-1.71	1.145	56.4	46.0	14.7	0.649
3-7290	3-7800	0.410	166.8	6.2	0.24	0.776	54.5	0.582	1.511	129.3	268.7	---	2.390	-2.03	1.147	59.5	52.6	15.5	0.595
3-7290	3-7810	0.384	169.0	6.5	0.90	0.781	56.7	0.550	1.530	126.3	275.5	---	2.373	-2.57	1.149	62.5	59.2	15.5	0.544
3-7290	3-7820	0.360	171.5	8.0	2.08	0.786	58.6	0.521	1.548	123.5	282.3	---	2.355	-3.63	1.151	65.4	65.9	13.8	0.496
3-7290	3-7830	0.343	175.2	13.3	5.07	0.790	60.3	0.495	1.564	120.8	289.2	---	2.338	-6.50	1.153	68.1	73.1	7.1	0.459
3-7290	3-7840	0.509	182.8	50.2	31.32	0.794	61.8	0.472	1.578	118.4	296.0	---	2.323	-32.65	1.155	70.6	98.0	-33.2	0.706
3-7290	3-7850	0.332	161.7	-18.9	-11.19	0.797	63.3	0.449	1.591	116.1	303.7	---	2.305	9.97	1.157	73.3	81.2	52.1	0.398
3-7290	3-7860	0.292	169.1	-10.4	-5.58	0.800	64.5	0.430	1.601	114.1	311.1	---	2.290	4.48	1.159	75.8	84.5	39.0	0.325
3-7290	3-7870	0.275	171.9	-7.9	-3.93	0.802	65.5	0.415	1.610	112.3	318.9	---	2.277	2.83	1.161	78.3	87.4	35.3	0.282
3-7290	3-7880	0.262	173.6	-6.7	-3.10	0.804	66.3	0.402	1.617	110.8	327.0	---	2.267	2.23	1.163	80.7	88.4	33.9	0.246
3-7290	3-7890	0.253	174.9	-6.0	-2.58	0.805	67.0	0.392	1.623	109.6	335.4	---	2.259	1.83	1.165	83.1	87.0	33.3	0.216
3-7290	3-7900	0.247	175.8	-5.4	-2.21	0.806	67.4	0.385	1.627	108.8	344.1	---	2.254	1.60	1.166	85.6	82.4	32.9	0.194
3-7290	3-7910	0.245	176.4	-4.8	-1.92	0.807	67.6	0.382	1.630	108.3	353.3	---	2.254	1.45	1.170	88.2	74.8	32.1	0.182
3-7290	3-7920	0.245	176.8	-4.4	-1.66	0.807	67.5	0.384	1.632	108.3	363.0	1.006	2.259	1.36	1.173	90.8	65.6	30.4	0.184
3-7290	3-7930	0.251	176.9	-3.9	-1.43	0.807	67.1	0.390	1.633	108.7	373.1	0.996	2.270	1.32	1.175	93.7	57.5	28.0	0.200
3-7290	3-7940	0.261	176.7	-3.3	-1.21	0.807	66.3	0.402	1.633	109.6	383.8	0.976	2.290	1.32	1.177	96.8	52.1	25.8	0.232
3-7290	3-7940	0.282	48.6	15.9	-1.21	0.976	103.1	0.484	1.100	194.8	829.1	0.568	1.632	1.32	1.044	118.5	358.7	2.0	0.522
3-7290	3-7940	0.595	32.9	12.5	-1.21	0.769	132.9	0.713	1.225	209.7	844.0	0.352	2.098	1.32	1.087	134.5	352.8	-1.8	0.811
3-7290	3-7950	0.277	176.1	-1.1	-0.97	0.807	65.1	0.422	1.635	111.1	395.2	0.944	2.322	1.35	1.180	100.3	49.6	28.1	0.278
3-7290	3-7950	0.230	64.0	19.3	-0.97	0.581	95.0	0.473	1.079	185.7	829.8	0.569	1.589	1.35	1.038	117.9	7.3	5.8	0.510
3-7290	3-7960	0.303	175.1	0.3	-0.72	0.807	63.2	0.451	1.632	113.4	407.4	0.895	2.368	1.44	1.182	104.3	49.3	23.2	0.339
3-7290	3-7960	0.211	83.0	21.9	-0.72	0.571	88.0	0.485	1.066	177.9	831.9	0.549	1.583	1.44	1.035	118.8	15.4	9.3	0.525
3-7290	3-7970	0.340	173.6	1.9	-0.42	0.807	60.5	0.494	1.630	116.6	420.6	0.825	2.435	1.58	1.184	109.1	50.4	22.9	0.419
3-7290	3-7970	0.222	103.3	22.4	-0.42	0.563	80.8	0.517	1.056	171.2	835.2	0.510	1.602	1.58	1.034	121.0	23.1	12.4	0.561
3-7290	3-7980	0.393	171.5	3.7	-0.03	0.806	56.4	0.553	1.629	121.1	430.1	0.726	2.530	1.83	1.186	115.1	52.2	22.8	0.521
3-7290	3-7980	0.264	120.3	20.9	-0.03	0.557	72.8	0.569	1.049	165.9	839.9	0.452	1.646	1.83	1.033	124.6	30.5	15.1	0.621
3-7290	3-7990	0.472	168.4	5.8	0.51	0.806	50.6	0.636	1.628	127.5	451.6	0.593	2.663	2.24	1.188	122.9	54.1	22.8	0.658
3-7290	3-7990	0.338	131.8	19.1	0.51	0.553	63.1	0.646	1.043	162.4	846.5	0.369	1.717	2.24	1.033	139.2	37.1	17.3	0.714
3-7290	3-8000	0.586	164.0	8.4	1.42	0.806	41.8	0.746	1.629	136.8	471.0	0.414	2.844	3.02	1.189	133.5	55.2	22.8	0.844
3-7290	3-8000	0.451	137.9	18.0	1.42	0.550	50.6	0.752	1.040	161.8	856.1	0.258	1.821	3.02	1.033	138.7	42.5	18.9	0.853

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANEY= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7290	3-8010	0.578	94.2	25.1	3.39	0.204	78.0	0.937	0.818	179.2	1243.5	0.052	1.585	4.88	0.899	159.1	36.6	16.0	1.096
3-7290	3-8050	0.594	118.4	19.8	-4.10	0.352	38.9	0.928	0.877	174.1	919.3	0.063	1.691	-3.08	0.945	22.1	338.6	-10.0	1.101
3-7290	3-8050	0.519	53.4	16.5	-4.10	0.474	125.3	0.781	0.962	192.4	937.6	0.210	1.714	-3.08	0.997	38.6	329.3	-14.8	0.878
3-7290	3-8060	0.593	22.1	6.0	-3.15	0.789	129.5	0.836	1.559	229.5	624.8	0.568	2.550	-2.27	1.178	56.1	316.5	-20.1	0.667
3-7290	3-8060	0.490	115.9	19.8	-3.15	0.381	55.0	0.853	0.894	172.7	928.1	0.132	1.656	-2.27	0.955	31.7	343.7	-8.2	0.968
3-7290	3-8060	0.399	62.4	18.0	-3.15	0.465	108.4	0.699	0.954	188.4	943.8	0.287	1.622	-2.27	0.991	45.6	336.1	-12.2	0.765
3-7290	3-8070	0.514	19.2	4.7	-2.59	0.789	123.3	0.549	1.557	235.3	640.8	0.703	2.412	-1.84	1.177	63.9	318.8	-19.8	0.530
3-7290	3-8080	0.458	17.1	3.9	-2.20	0.788	119.0	0.485	1.556	239.2	654.8	0.801	2.310	-1.59	1.175	69.9	321.4	-19.5	0.427
3-7290	3-8090	0.583	147.4	12.1	-1.90	0.646	38.0	0.815	1.180	156.9	582.5	0.218	2.143	-1.44	1.082	35.9	3.0	0.3	0.966
3-7290	3-8090	0.418	15.6	3.3	-1.90	0.788	116.0	0.438	1.554	241.9	667.5	0.873	2.234	-1.44	1.172	74.6	323.6	-19.4	0.349
3-7300	3-7360	0.887	1.0	-1.8	-1.96	1.237	130.8	1.270	-3.642	288.3	349.7	---	---	-1.61	1.514	84.2	269.1	-28.1	0.526
3-7300	3-7370	0.815	1.8	-1.3	-1.67	1.174	129.1	1.121	-8.185	286.7	358.1	---	---	-1.50	1.461	89.0	265.3	-28.2	0.458
3-7300	3-7390	0.712	4.1	0.3	-1.16	1.074	126.8	0.899	9.754	281.4	372.6	0.988	---	-1.42	1.378	95.9	260.5	-28.1	0.392
3-7300	3-7400	0.670	5.5	1.2	-0.91	1.031	125.9	0.811	5.177	277.9	378.9	0.978	---	-1.44	1.343	98.5	260.4	-28.2	0.378
3-7300	3-7410	0.631	6.9	2.2	-0.65	0.991	124.9	0.736	3.654	274.0	384.9	0.965	---	-1.52	1.310	100.5	261.8	-28.5	0.370
3-7300	3-7420	0.595	8.4	3.2	-0.35	0.954	123.9	0.671	2.890	269.8	390.4	0.952	---	-1.65	1.280	102.1	264.7	-29.0	0.365
3-7300	3-7430	0.561	9.9	4.4	0.01	0.919	122.8	0.614	2.433	265.4	395.6	0.938	---	-1.86	1.253	103.4	268.7	-29.7	0.361
3-7300	3-7440	0.528	11.4	5.8	0.49	0.886	121.6	0.566	2.130	260.7	400.6	0.924	---	-2.20	1.228	104.4	273.8	-30.7	0.359
3-7300	3-7450	0.496	12.7	7.6	1.21	0.856	120.3	0.525	1.916	255.8	405.3	0.911	---	-2.79	1.204	105.2	279.8	-32.3	0.358
3-7300	3-7460	0.466	13.8	10.3	2.51	0.828	118.9	0.489	1.757	250.7	409.8	0.897	---	-3.96	1.184	105.8	286.6	-35.3	0.359
3-7300	3-7470	0.442	13.8	16.3	5.82	0.802	117.3	0.459	1.635	245.5	414.1	0.884	---	-7.15	1.165	106.3	294.7	-43.7	0.374
3-7300	3-7490	0.406	30.3	-8.5	-11.56	0.756	114.0	0.414	1.462	234.6	422.5	0.857	---	10.47	1.133	107.1	296.6	9.0	0.397
3-7300	3-7500	0.358	28.4	0.2	-5.75	0.735	112.1	0.397	1.399	229.0	426.3	0.843	---	4.77	1.120	107.4	308.5	-4.0	0.360
3-7300	3-7510	0.328	29.8	3.7	-5.99	0.716	110.1	0.384	1.347	223.3	430.1	0.830	---	3.14	1.108	107.7	317.0	-6.7	0.355
3-7300	3-7520	0.301	32.3	6.1	-3.11	0.698	107.9	0.374	1.302	217.4	433.8	0.815	---	2.39	1.098	108.0	324.8	-6.6	0.356
3-7300	3-7530	0.275	35.7	8.1	-2.96	0.681	105.7	0.368	1.265	211.5	437.5	0.799	---	1.97	1.089	108.4	332.3	-5.4	0.360
3-7300	3-7540	0.250	40.0	10.1	-2.16	0.666	103.2	0.366	1.232	205.5	441.1	0.781	---	1.72	1.081	108.9	339.7	-3.4	0.366
3-7300	3-7550	0.226	45.6	12.2	-1.84	0.652	100.6	0.367	1.204	199.4	444.7	0.762	---	1.56	1.074	109.5	347.0	-1.0	0.375
3-7300	3-7560	0.204	52.8	14.5	-1.57	0.638	97.7	0.373	1.179	193.4	448.4	0.740	---	1.47	1.069	110.3	354.2	1.6	0.387
3-7300	3-7570	0.186	62.4	17.0	-1.32	0.626	94.6	0.383	1.158	187.4	452.2	0.714	---	1.42	1.064	111.3	1.5	4.5	0.403
3-7300	3-7580	0.174	75.0	19.5	-1.07	0.614	91.0	0.400	1.139	181.5	456.1	0.683	---	1.42	1.060	112.6	8.7	7.3	0.424
3-7300	3-7590	0.172	90.6	21.1	-0.82	0.603	86.9	0.423	1.122	175.8	460.4	0.647	1.597	1.46	1.056	114.3	16.0	10.2	0.453
3-7300	3-7600	0.185	107.5	21.2	-0.54	0.593	82.2	0.456	1.107	170.5	465.0	0.602	1.612	1.56	1.053	116.6	23.2	12.9	0.491
3-7300	3-7610	0.216	122.8	19.9	-0.22	0.584	76.6	0.502	1.094	165.8	470.3	0.545	1.642	1.72	1.051	119.7	30.3	15.4	0.544
3-7300	3-7620	0.270	134.4	18.1	0.21	0.576	69.5	0.564	1.082	162.1	476.7	0.472	1.693	1.99	1.048	124.0	37.1	17.6	0.616
3-7300	3-7630	0.351	142.1	16.5	0.81	0.569	60.5	0.648	1.074	160.0	484.7	0.378	1.769	2.45	1.047	130.2	43.3	19.4	0.719
3-7300	3-7640	0.468	145.7	15.8	1.82	0.565	48.5	0.758	1.068	160.6	495.3	0.258	1.878	3.32	1.046	139.2	48.3	20.7	0.866
3-7300	3-7680	0.598	102.1	21.7	-6.28	0.187	69.2	0.952	0.819	178.9	554.5	0.040	1.599	-5.28	0.902	18.3	337.6	-10.8	1.132
3-7300	3-7690	0.477	88.1	21.3	-4.13	0.310	97.9	0.850	0.863	181.4	567.1	0.130	1.596	-3.26	0.934	32.2	340.3	-10.2	0.941
3-7300	3-7690	0.475	81.0	20.9	-4.13	0.338	106.2	0.834	0.877	183.4	569.1	0.146	1.607	-3.26	0.944	33.8	339.2	-10.7	0.931
3-7300	3-7750	0.588	160.4	7.4	-1.22	0.727	39.4	0.779	1.377	148.0	234.0	---	2.450	-1.42	1.131	40.7	20.9	7.6	0.914
3-7300	3-7760	0.550	162.5	6.6	-1.04	0.736	42.7	0.740	1.402	144.4	240.3	---	2.441	-1.42	1.134	44.6	27.5	9.9	0.850
3-7300	3-7770	0.514	164.5	5.9	-0.79	0.745	45.8	0.702	1.428	141.0	246.7	---	2.429	-1.47	1.137	48.3	34.0	12.0	0.788
3-7300	3-7780	0.480	166.5	5.3	-0.51	0.753	48.7	0.664	1.452	137.6	253.3	---	2.416	-1.57	1.140	51.8	40.7	13.8	0.728
3-7300	3-7790	0.448	168.5	4.8	-0.19	0.760	51.4	0.628	1.475	134.4	259.5	---	2.401	-1.73	1.142	55.1	47.3	15.2	0.670
3-7300	3-7800	0.419	170.5	4.5	0.22	0.766	53.8	0.593	1.497	131.3	266.1	---	2.385	-2.00	1.145	58.3	54.0	16.1	0.615
3-7300	3-7810	0.390	172.6	4.7	0.79	0.772	56.0	0.561	1.517	128.3	272.7	---	2.368	-2.44	1.147	61.4	60.6	16.2	0.562
3-7300	3-7820	0.362	174.9	5.0	1.72	0.777	58.0	0.532	1.535	125.4	279.4	---	2.350	-3.23	1.149	64.8	67.2	15.2	0.515
3-7300	3-7830	0.346	177.9	8.7	3.61	0.782	59.8	0.503	1.552	122.8	286.3	---	2.333	-5.21	1.151	67.1	73.9	11.2	0.469
3-7300	3-7840	0.349	183.9	21.3	10.44	0.786	61.4	0.478	1.567	120.3	293.3	---	2.317	-11.71	1.153	69.7	82.7	-5.0	0.444
3-7300	3-7850	0.477	144.5	-84.7	-29.02	0.789	63.0	0.454	1.580	117.9	301.0	---	2.298	27.86	1.155	72.5	127.6	77.6	0.621
3-7300	3-7860	0.304	170.5	-15.9	-7.71	0.792	64.2	0.435	1.592	115.9	308.2	---	2.285	6.67	1.157	74.9	88.1	45.3	0.349
3-7300	3-7870	0.281	174.9	-11.1	-4.73	0.794	65.3	0.418	1.601	114.1	315.9	---	2.271	3.82	1.160	77.4	90.9	30.1	0.297
3-7300	3-7880	0.266	177.1	-9.3	-3.52	0.796	66.2	0.404	1.609	112.6	323.9	---	2.260	2.72	1.162	79.8	92.5	35.6	0.258
3-7300	3-7890	0.256	178.6	-8.3	-2.82	0.798	66.9	0.393	1.616	111.3	332.2	---	2.251	2.16	1.164	82.3	91.9	34.6	0.226
3-7300	3-7900	0.249	179.3	-7.5	-2.36	0.799	67.3	0.386	1.621	110.4	340.9	---	2.245	1.84	1.167	84.7	88.4	34.1	0.200
3-7300	3-7910	0.245	180.6	-6.9	-2.00	0.800	67.6	0.381	1.624	109.8	350.0	---	2.243	1.63	1.169	87.2	81.6	33.2	0.184
3-7300	3-7920	0.245	181.1	-6.1	-1.71	0.800	67.6	0.381	1.626	109.6	359.5	---	2.246	1.51	1.172	89.9	72.6	32.4	0.181
3-7300	3-7930	0.248	181.3	-5.3	-1.54	0.800	67.3	0.386	1.628	109.8	369.4	1.000	2.255	1.44	1.174	92.6	65.7	30.2	0.192
3-7300	3-7940	0.256	181.2	-4.3	-1.20	0.801	66.7	0.396	1.628	110.5	379.9	0.984	2.272	1.42	1.177	95.6	57.3	27.9	0.218
3-7300	3-7940	0.369	44.1	15.3	-1.20	0.608	113.1	0.545	1.129	202.9	832.4	0.513	1.744	1.42	1.055	122.5	357.4	1.2	0.593
3-7300	3-7940	0.477	59.3	14.3	-1.20	0.634	123.3	0.626	1.172	208.0	837.4	0.438	1.906	1.42	1.070	128.0	355.4	-0.1	0.694
3-7300	3-7950	0.270	180.8	-3.2	-0.96	0.800	65.7	0.412	1.627	111.7	391.0	0.956	2.298	1.44	1.179	98.9	53.8	26.0	0.259
3-7300	3-7950	0.262	59.2	18.8	-0.96	0.580	100.4	0.491	1.088	191.2	830.5	0.554	1.623	1.44	1.042	119.1	7.0	5.7	0.531
3-7300	3-7960	0.292	180.0	-1.9	-0.69	0.800	64.1	0.438	1.626	113.6	402.8	0.914	2.338	1.50	1.181	102.7	52.9	24.8	0.314
3-7300	3-7970	0.223	76.9	21.7	-0.69	0.567	92.5	0.490	1.071	182.6	831.9	0.546	1.595	1.50	1.037	119.1	15.4	9.3	0.530
3-7300	3-7970	0.323	178.7	-0.4	-0.40	0.800	61.7	0.474	1.625	116.4	415.5	0.854	2.396	1.62	1.183	107.1	53.7	24.2	0.385
3-7300	3-7970	0.217	97.5	22.8	-0.40	0.557	85.1	0.511	1.058	175.3	834.5	0.518	1.599	1.62	1.035	120.5	23.4	12.6	0.554
3-7300	3-7980	0.369	176.9	1.3	-0.03	0.799	58.3	0.526	1.623	120.0	429.3	0.770	2.477	1.83	1.185	112.5	55.5	24.0	0.476
3-7300	3-7980	0.242	116.9	21.6	-0.03	0.550	77.3	0.552	1.049	169.2	838.4	0.470	1.628	1.83	1.033	123.3	31.1	15.4	0.600
3-7300	3-7990	0.435	174.3	3.3	0.46	0.799	55.3	0.598	1.622	125.3	444.6	0.653	2.592	2.17	1.187	119.4	57.6	24.0	0.596
3-7300	3-7990	0.300	131.3	19.3	0.46	0.544	68.2	0.615	1.043	164.7	844.0	0.401	1.684	2.17	1.032	127.9	38.3	17.8	0.676
3-7300	3-8000	0.530	170.6	5.6	1.21	0.799	46.0	0.695	1.622	133.0	462.4	0.495	2.749	2.79	1.186	128.6	59.3	24.0	0.756
3-7300	3-8000	0.393	139.9	17.5	1.21	0.540	57.0	0.706	1.038	162.5	851.9	0.305	1.770	2.79	1.032	134.8	44.5	19.6	0.790
3-7300	3-8010	0.528	143.3	16.8	2.68	0.538	42.4	0.823	1.035	163.8	863.4	0.184	1.887	4.06	1.032	145.3	49.1	20.7	0.958
3-7300	3-8050	0.580	58.6	17.8	-5.00	0.459	133.3	0.839	0.957	191.5	931.9	0.158	1.761	-4.07	0.929	32.9	332.2	-13.9	0.966
3-7300	3-8060	0.526	120.7	19.0	-3.59	0.353	50.4	0.887	0.885	173.7	924.2	0.100	1.670	-2.79	0.949	27.6	314.7	-7.4	1.025
3-7300	3-8060	0.443	64.6	18.5	-3.59	0.452	119.0	0.743	0.951	189.6	940.2	0.244	1.659	-2.79	0.990	42.0	317.9	-11.7	0.823
3-7300	3-8070	0.543	25.3	7.7	-2.84	0.781	126.1	0.590	1.549	231.6	632.3	0.635	2.462	-2.17	1.175	60.1	324.1	-18.5	0.598
3-7300	3-8070	0.396	109.7	20.0	-2.84	0.396	73.2	0.774	0.911	174.9	935.5	0.206	1.615	-2.17	0.964	39.5	349.5	-6.2	0.855

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7300	3-8070	0.354	87.1	20.5	-2.84	0.429	92.7	0.707	0.934	181.1	941.8	0.273	1.594	-2.17	0.978	45.1	346.5	-7.9	0.771
3-7300	3-8080	0.476	22.8	6.2	-2.35	0.780	120.9	0.515	1.547	236.2	647.0	0.751	2.344	-1.83	1.173	66.8	325.8	-18.1	0.480
3-7300	3-8090	0.429	21.1	5.6	-1.98	0.780	117.3	0.459	1.545	239.2	660.1	0.835	2.255	-1.62	1.171	72.1	328.4	-17.7	0.390
3-7300	3-8100	0.545	152.9	10.1	-1.68	0.642	41.3	0.785	1.186	155.5	586.3	0.255	2.117	-1.50	1.083	38.9	10.5	3.3	0.918
3-7300	3-8100	0.394	19.8	5.3	-1.68	0.779	114.7	0.419	1.543	241.2	672.1	0.897	2.189	-1.50	1.168	76.4	330.4	-17.8	0.320
3-7310	3-7370	0.980	3.1	-0.5	-1.72	1.333	132.2	1.526	-1.890	291.7	358.3	---	---	-1.65	1.594	89.0	204.2	-27.8	0.591
3-7310	3-7380	0.896	4.4	0.3	-1.43	1.251	130.3	1.315	-3.150	289.3	365.8	0.993	---	-1.55	1.525	93.3	261.7	-27.7	0.525
3-7310	3-7390	0.830	5.9	1.2	-1.16	1.182	129.9	1.149	-6.612	286.2	372.7	0.986	---	-1.31	1.467	96.8	260.4	-27.7	0.484
3-7310	3-7400	0.773	7.5	2.2	-0.90	1.123	128.9	1.014	71.228	282.7	379.0	0.975	---	-1.52	1.418	99.6	260.4	-27.8	0.457
3-7310	3-7410	0.723	9.1	3.2	-0.63	1.070	128.0	0.902	9.779	278.9	384.9	0.960	---	-1.57	1.374	101.8	261.9	-28.1	0.440
3-7310	3-7420	0.677	10.7	4.3	-0.34	1.021	127.1	0.808	4.912	274.6	390.5	0.945	---	-1.68	1.335	103.6	264.8	-28.5	0.428
3-7310	3-7430	0.634	12.4	5.5	0.01	0.977	126.0	0.728	3.421	270.2	395.7	0.930	---	-1.86	1.299	104.9	268.8	-29.0	0.418
3-7310	3-7440	0.594	13.9	6.8	0.45	0.936	124.8	0.664	2.701	265.5	400.6	0.915	---	-2.14	1.267	106.0	273.8	-29.8	0.411
3-7310	3-7450	0.556	15.4	8.3	1.07	0.899	123.5	0.605	2.279	260.6	405.3	0.901	---	-2.62	1.239	106.8	279.7	-30.9	0.405
3-7310	3-7460	0.520	16.7	10.5	2.07	0.865	122.1	0.557	2.002	255.5	409.8	0.886	---	-3.48	1.215	107.4	286.4	-32.8	0.400
3-7310	3-7470	0.488	17.6	14.3	4.14	0.833	120.5	0.517	1.808	250.3	414.1	0.873	---	-0.43	1.190	107.8	294.0	-33.3	0.402
3-7310	3-7480	0.476	16.3	26.3	11.80	0.804	116.8	0.483	1.665	244.9	418.2	0.860	---	-12.90	1.169	108.1	303.5	-54.4	0.451
3-7310	3-7490	0.550	46.3	-20.4	-28.13	0.777	117.1	0.457	1.555	238.3	422.7	0.844	---	27.10	1.151	108.6	280.3	30.6	0.618
3-7310	3-7500	0.401	31.9	-1.1	-7.85	0.752	115.2	0.434	1.469	233.8	426.4	0.832	---	6.95	1.135	108.7	306.7	0.4	0.399
3-7310	3-7510	0.364	32.3	3.9	-4.79	0.730	113.1	0.415	1.400	228.0	430.1	0.819	---	4.02	1.121	108.9	316.2	-5.0	0.384
3-7310	3-7520	0.333	34.4	6.7	-3.52	0.709	111.0	0.401	1.343	222.2	433.8	0.804	---	2.88	1.108	109.1	324.3	-5.8	0.381
3-7310	3-7530	0.304	37.3	8.7	-2.79	0.690	108.7	0.391	1.296	216.2	437.5	0.789	---	2.29	1.098	109.4	332.0	-4.8	0.381
3-7310	3-7540	0.276	41.1	10.7	-2.30	0.672	106.2	0.385	1.257	210.2	441.1	0.773	---	1.95	1.088	109.7	339.5	-3.0	0.384
3-7310	3-7550	0.250	46.0	12.6	-1.92	0.655	103.5	0.383	1.223	204.1	444.7	0.755	---	1.73	1.080	110.2	346.9	-0.7	0.390
3-7310	3-7560	0.225	52.2	14.7	-1.61	0.640	100.6	0.385	1.194	198.0	448.3	0.734	---	1.60	1.074	110.8	354.2	1.9	0.399
3-7310	3-7570	0.204	60.5	17.0	-1.33	0.625	97.5	0.392	1.168	191.9	452.0	0.710	---	1.53	1.068	111.7	1.5	4.7	0.412
3-7310	3-7580	0.186	71.5	19.3	-1.07	0.612	94.0	0.404	1.146	185.9	455.8	0.683	---	1.51	1.063	112.8	8.8	7.6	0.429
3-7310	3-7590	0.177	85.8	21.2	-0.81	0.599	90.0	0.424	1.127	180.0	459.8	0.649	---	1.53	1.058	114.2	16.1	10.4	0.453
3-7310	3-7600	0.181	102.5	21.8	-0.53	0.588	85.5	0.451	1.110	174.4	464.2	0.609	1.610	1.60	1.054	116.2	23.5	13.2	0.485
3-7310	3-7610	0.201	119.2	20.6	-0.20	0.577	80.1	0.489	1.095	169.3	469.1	0.559	1.631	1.74	1.051	118.8	30.8	15.7	0.529
3-7310	3-7620	0.243	132.9	18.5	0.19	0.568	73.6	0.542	1.082	165.0	474.8	0.495	1.669	1.97	1.048	122.5	37.9	18.0	0.591
3-7310	3-7630	0.310	142.7	16.4	0.73	0.560	65.4	0.614	1.071	162.0	481.8	0.413	1.730	2.35	1.046	127.7	44.6	19.9	0.677
3-7310	3-7640	0.409	148.4	15.0	1.55	0.554	54.7	0.711	1.064	160.9	491.0	0.307	1.820	3.02	1.044	135.2	50.4	21.4	0.800
3-7310	3-7650	0.546	150.1	14.7	3.12	0.551	40.4	0.831	1.060	163.2	503.4	0.179	1.941	4.48	1.044	146.1	54.7	22.2	0.976
3-7310	3-7690	0.521	92.5	21.5	-5.00	0.267	103.1	0.392	0.851	181.6	562.6	0.092	1.609	-4.21	0.925	27.3	342.7	-9.2	1.019
3-7310	3-7690	0.523	84.9	21.2	-5.00	0.304	113.9	0.478	0.866	183.6	564.6	0.106	1.626	-4.21	0.936	28.9	341.6	-9.9	1.001
3-7310	3-7750	0.599	163.9	6.0	-1.30	0.715	38.1	0.795	1.359	149.9	231.2	---	2.439	-1.53	1.126	39.0	22.3	8.0	0.939
3-7310	3-7760	0.561	166.0	5.2	-1.04	0.725	41.6	0.755	1.385	146.4	237.5	---	2.431	-1.51	1.130	43.0	28.7	10.3	0.874
3-7310	3-7770	0.524	168.0	4.4	-0.78	0.734	44.8	0.716	1.411	142.9	243.9	---	2.421	-1.54	1.133	46.8	35.3	12.4	0.811
3-7310	3-7780	0.490	170.1	3.8	-0.50	0.742	47.8	0.678	1.436	139.6	250.3	---	2.408	-1.61	1.136	50.4	41.9	14.2	0.749
3-7310	3-7790	0.458	172.1	3.3	-0.18	0.749	50.5	0.640	1.459	136.3	256.8	---	2.394	-1.75	1.139	53.8	48.6	15.6	0.691
3-7310	3-7800	0.427	174.1	2.9	0.20	0.756	53.0	0.605	1.482	133.2	263.3	---	2.379	-1.97	1.142	57.1	55.3	16.6	0.634
3-7310	3-7810	0.400	176.2	2.8	0.71	0.763	55.3	0.572	1.503	130.2	269.9	---	2.362	-2.34	1.144	60.2	61.9	16.9	0.580
3-7310	3-7820	0.374	178.4	3.5	1.47	0.768	57.4	0.540	1.522	127.4	276.6	---	2.345	-2.96	1.147	63.2	68.5	16.2	0.529
3-7310	3-7830	0.352	181.0	5.4	2.83	0.773	59.3	0.512	1.540	124.7	283.5	---	2.328	-4.18	1.149	66.0	75.1	15.6	0.482
3-7310	3-7840	0.338	185.0	11.6	6.25	0.777	61.0	0.485	1.556	122.2	290.5	---	2.311	-7.48	1.151	68.8	82.0	5.1	0.450
3-7310	3-7850	0.539	190.0	49.5	35.20	0.781	62.4	0.463	1.573	119.9	297.4	---	2.297	-36.29	1.155	71.3	107.3	-37.5	0.758
3-7310	3-7860	0.333	168.5	-24.7	-12.42	0.784	63.9	0.440	1.582	117.7	305.4	---	2.278	11.45	1.156	74.0	94.6	57.0	0.399
3-7310	3-7870	0.289	177.3	-15.2	-5.99	0.787	65.0	0.422	1.592	115.9	313.0	---	2.263	5.15	1.158	76.5	94.6	42.1	0.315
3-7310	3-7880	0.273	180.4	-12.1	-4.08	0.789	66.0	0.407	1.601	114.3	320.9	---	2.253	3.37	1.160	79.0	96.5	37.6	0.271
3-7310	3-7890	0.259	182.3	-10.7	-3.13	0.791	66.7	0.395	1.608	112.9	329.1	---	2.243	2.56	1.163	81.4	96.6	35.9	0.236
3-7310	3-7900	0.251	183.6	-9.7	-2.54	0.792	67.3	0.386	1.613	111.9	337.7	---	2.236	2.11	1.165	83.8	94.1	35.2	0.208
3-7310	3-7910	0.246	184.6	-8.9	-2.11	0.793	67.6	0.381	1.617	111.2	346.7	---	2.233	1.83	1.168	86.3	88.3	34.9	0.188
3-7310	3-7920	0.245	185.2	-8.1	-1.77	0.794	67.7	0.379	1.620	110.9	356.1	---	2.234	1.66	1.171	88.9	79.7	34.0	0.180
3-7310	3-7930	0.247	185.6	-7.3	-1.48	0.794	67.6	0.382	1.622	110.9	365.9	1.002	2.241	1.56	1.173	91.6	70.3	32.2	0.186
3-7310	3-7940	0.253	185.6	-6.3	-1.21	0.794	67.1	0.390	1.622	111.4	376.1	0.990	2.254	1.52	1.176	94.5	62.8	29.9	0.206
3-7310	3-7950	0.265	185.3	-5.2	-0.95	0.794	66.2	0.404	1.622	112.4	387.0	0.967	2.277	1.52	1.178	97.7	58.3	27.8	0.242
3-7310	3-7950	0.318	54.9	18.3	-0.95	0.585	107.9	0.528	1.106	197.8	832.3	0.522	1.689	1.52	1.049	121.4	6.2	5.3	0.574
3-7310	3-7950	0.528	45.7	16.2	-0.95	0.639	125.3	0.687	1.193	207.9	842.5	0.373	2.013	1.52	1.080	132.6	2.2	2.7	0.776
3-7310	3-7960	0.283	184.7	-4.0	-0.68	0.794	64.8	0.426	1.621	113.9	398.4	0.931	2.311	1.56	1.180	101.2	56.7	26.3	0.291
3-7310	3-7960	0.247	71.3	21.3	-0.68	0.565	97.7	0.502	1.078	187.7	832.3	0.536	1.619	1.56	1.040	119.9	15.2	9.3	0.544
3-7310	3-7970	0.310	183.6	-2.6	-0.38	0.793	62.8	0.458	1.619	116.2	410.6	0.878	2.360	1.66	1.182	105.3	57.1	25.5	0.355
3-7310	3-7970	0.221	91.1	23.0	-0.38	0.552	84.7	0.511	1.062	179.7	834.2	0.520	1.604	1.66	1.036	120.5	23.6	12.7	0.554
3-7310	3-7980	0.349	182.1	-1.0	-0.03	0.793	59.8	0.502	1.618	119.3	423.8	0.805	2.431	1.83	1.184	110.3	58.7	25.1	0.437
3-7310	3-7980	0.229	112.1	22.3	-0.03	0.543	81.8	0.540	1.051	172.9	837.4	0.483	1.619	1.83	1.034	122.6	31.6	15.7	0.587
3-7310	3-7990	0.404	179.9	0.8	0.42	0.793	55.6	0.565	1.616	123.8	438.3	0.103	2.529	2.12	1.186	116.4	60.9	25.0	0.543
3-7310	3-7990	0.271	129.3	19.8	0.42	0.536	73.1	0.592	1.043	167.5	842.1	0.426	1.659	2.12	1.032	126.2	39.1	18.8	0.647
3-7310	3-8000	0.485	176.8	2.9	1.07	0.792	49.5	0.650	1.619	130.1	454.8	0.565	2.666	2.61	1.187	124.4	63.1	25.0	0.682
3-7310	3-8000	0.347	140.7	17.3	1.07	0.531	62.8	0.668	1.036	164.0	848.7	0.344	1.729	2.61	1.031	131.8	46.0	20.2	0.740
3-7310	3-8010	0.460	146.5	15.8	2.15	0.528	49.8	0.772	1.033	163.4	858.2	0.236	1.830	3.55	1.031	140.4	51.6	21.5	0.880
3-7310	3-8060	0.560	125.0	18.2	-4.19	0.325	45.7	0.917	0.876	174.7	920.5	0.072	1.680	-2.47	0.943	23.7	347.6	-6.7	1.080
3-7310	3-8060	0.494	68.0	18.2	-4.19	0.438	122.2	0.792	0.948	190.1	935.9	0.197	1.698	-3.47	0.987	37.6	340.0	-11.0	0.892
3-7310	3-8070	0.577	31.7	9.7	-3.15	0.775	129.4	0.636	1.540	227.7	623.6	0.561	2.520	-2.57	1.174	55.8	327.3	-17.1	0.673
3-7310	3-8070	0.444	118.7	18.9	-3.15	0.363	66.1	0.827	0.897	174.6	930.5	0.155	1.638	-2.57	0.955	34.4	352.0	-5.3	0.928
3-7310	3-8070	0.383	83.2	20.4	-3.15	0.421	101.5	0.729	0.935	184.4	940.3	0.254	1.617	-2.57	0.979	43.3	347.3	-12.8	0.800
3-7310	3-8080	0.498	28.7	8.6	-2.52	0.773	123.2	0.549	1.529	233.1	639.1	0.694	2.384	-2.10	1.172	63.5	329.8	-16.7	0.539
3-7310	3-8090	0.442	26.6	7.9	-2.08	0.772	118.9	0.484	1.537	236.6	652.7	0.792	2.281	-1.82	1.169	69.4	332.6	-17.2	0.436
3-7310	3-8100	0.563	156.5	8.7	-1.74	0.430	39.4	0.806	1.176	157.3	583.4	0.227	2.124	-1.65	1.078	36.8	11.9	8.9	0.951
3-7310	3-8100	0.402	25.1	7.5	-1.74	0.771	115.8	0.436	1.534	238.9	665.0	0.965	2.204	-1.65	1.167	74.0	335.2	-15.9	0.357
3-7310	3-8110	0.508	158.2	8.0	-1.44	0.639	44.6	0.752	1.192	154.2	590.3	0.295	2.089	-1.56	1.081	41.9	18.0	6.2	0.869

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7310	3-8110	0.372	24.0	7.3	-1.44	0.771	113.5	0.601	1.532	240.3	676.4	0.918	2.146	-1.56	1.104	77.9	337.0	-16.1	0.294
3-7320	3-7400	0.899	9.4	3.1	-0.90	1.242	131.8	1.295	-3.296	287.2	378.8	0.972	---	-1.59	1.516	100.6	261.2	-27.5	0.559
3-7320	3-7410	0.832	11.2	4.2	-0.62	1.170	131.0	1.124	-7.684	283.3	384.7	0.956	---	-1.62	1.456	103.1	262.7	-27.6	0.528
3-7320	3-7420	0.773	13.0	5.3	-0.33	1.107	130.1	0.987	72.520	279.1	390.3	0.939	---	-1.71	1.404	105.0	265.4	-28.0	0.505
3-7320	3-7430	0.720	14.8	6.5	0.01	1.050	129.1	0.874	7.328	274.7	395.5	0.922	---	-1.85	1.358	106.5	269.3	-28.4	0.487
3-7320	3-7440	0.671	16.5	7.7	0.42	0.999	128.0	0.781	4.157	270.0	400.4	0.906	---	-2.09	1.317	107.6	274.2	-29.0	0.472
3-7320	3-7450	0.625	18.1	9.2	0.96	0.952	126.7	0.704	3.007	265.1	405.2	0.890	---	-2.48	1.281	108.4	279.9	-29.7	0.460
3-7320	3-7460	0.582	19.6	11.0	1.78	0.910	125.3	0.640	2.451	260.1	409.7	0.875	---	-3.15	1.248	109.0	286.4	-30.9	0.449
3-7320	3-7470	0.543	20.9	13.7	3.24	0.871	123.8	0.587	2.084	254.9	414.0	0.861	---	-4.48	1.220	109.4	293.6	-33.5	0.443
3-7320	3-7480	0.510	21.2	16.7	7.00	0.836	122.1	0.542	1.852	249.5	418.2	0.848	---	-8.10	1.195	109.7	302.2	-41.2	0.451
3-7320	3-7500	0.458	37.2	-4.7	-12.33	0.775	118.4	0.476	1.566	238.4	426.3	0.820	---	11.56	1.153	110.1	302.8	6.7	0.462
3-7320	3-7510	0.404	35.2	3.8	-6.02	0.748	116.3	0.452	1.472	232.6	430.1	0.807	---	5.32	1.116	110.2	315.3	-2.7	0.418
3-7320	3-7520	0.369	36.7	7.2	-4.07	0.724	114.1	0.432	1.397	226.8	433.8	0.793	---	3.51	1.111	110.3	323.9	-4.8	0.409
3-7320	3-7530	0.336	39.3	9.4	-3.09	0.701	111.8	0.418	1.337	220.9	437.4	0.779	---	2.67	1.100	110.5	331.8	-4.3	0.405
3-7320	3-7540	0.306	42.6	11.3	-2.47	0.680	109.3	0.407	1.288	214.8	441.1	0.763	---	2.21	1.097	110.7	339.3	-2.7	0.405
3-7320	3-7550	0.276	46.9	13.2	-2.02	0.661	106.6	0.401	1.247	208.7	444.6	0.746	---	1.92	1.088	111.1	346.8	-0.5	0.408
3-7320	3-7560	0.249	52.4	15.1	-1.66	0.645	103.7	0.400	1.212	202.6	448.2	0.727	---	1.75	1.079	111.5	354.1	2.1	0.413
3-7320	3-7570	0.224	59.5	17.2	-1.36	0.627	100.5	0.403	1.182	196.4	451.8	0.709	---	1.65	1.072	112.2	1.5	4.9	0.423
3-7320	3-7580	0.202	69.1	19.3	-1.07	0.612	97.0	0.412	1.156	190.3	455.5	0.680	---	1.60	1.066	113.1	8.9	7.7	0.436
3-7320	3-7590	0.187	81.7	21.2	-0.80	0.598	93.2	0.427	1.134	184.3	459.4	0.650	---	1.60	1.061	114.3	16.3	10.6	0.456
3-7320	3-7600	0.182	97.5	22.2	-0.51	0.584	88.7	0.449	1.114	178.5	463.5	0.634	1.614	1.65	1.056	116.0	23.7	13.4	0.483
3-7320	3-7610	0.193	114.7	21.4	-0.20	0.572	83.6	0.481	1.097	173.0	468.1	0.569	1.625	1.76	1.052	118.3	31.2	16.0	0.520
3-7320	3-7620	0.223	130.3	19.2	0.18	0.562	77.5	0.526	1.082	168.2	473.3	0.513	1.652	1.95	1.048	121.4	38.6	18.3	0.571
3-7320	3-7630	0.278	142.2	16.6	0.66	0.552	70.0	0.588	1.070	164.4	479.6	0.441	1.699	2.26	1.045	125.8	45.6	20.3	0.644
3-7320	3-7640	0.360	149.9	14.5	1.36	0.544	60.3	0.671	1.060	162.2	487.5	0.349	1.772	2.80	1.043	132.0	52.1	21.9	0.747
3-7320	3-7650	0.471	153.6	13.5	2.55	0.539	47.6	0.780	1.054	162.6	498.1	0.232	1.876	3.84	1.041	141.1	57.3	22.9	0.894
3-7320	3-7660	0.572	164.4	3.8	-1.04	0.713	40.4	0.770	1.368	148.3	234.8	---	2.421	-1.60	1.126	41.4	29.9	10.8	0.898
3-7320	3-7670	0.535	171.5	3.0	-0.77	0.722	43.7	0.731	1.394	144.9	241.1	---	2.412	-1.60	1.129	45.3	36.5	12.8	0.834
3-7320	3-7680	0.500	173.6	2.3	-0.48	0.731	44.8	0.692	1.419	141.5	247.5	---	2.400	-1.66	1.135	49.0	43.2	14.6	0.771
3-7320	3-7690	0.467	175.4	1.7	-0.17	0.739	49.7	0.654	1.443	138.3	254.0	---	2.387	-1.77	1.136	52.5	49.9	16.0	0.711
3-7320	3-7800	0.437	177.6	1.3	0.10	0.747	52.3	0.617	1.467	135.1	260.5	---	2.372	-1.95	1.139	55.9	56.6	17.0	0.654
3-7320	3-7810	0.408	179.7	1.2	0.45	0.753	54.7	0.583	1.489	132.1	267.1	---	2.356	-2.25	1.141	59.1	63.3	17.4	0.599
3-7320	3-7820	0.382	181.9	1.5	0.80	0.759	56.8	0.550	1.509	129.2	273.8	---	2.339	-2.75	1.144	62.1	69.9	17.0	0.546
3-7320	3-7830	0.359	184.3	2.8	1.35	0.765	58.8	0.520	1.527	126.5	280.7	---	2.322	-3.65	1.146	65.0	76.4	15.2	0.497
3-7320	3-7840	0.340	187.4	6.4	4.50	0.769	60.6	0.493	1.544	124.6	287.7	---	2.305	-5.67	1.149	67.8	82.8	10.0	0.456
3-7320	3-7850	0.352	193.4	20.9	12.30	0.773	62.1	0.469	1.559	121.7	294.8	---	2.290	-13.33	1.151	70.4	91.1	-9.1	0.466
3-7320	3-7860	0.485	199.8	-38.5	-30.56	0.777	63.6	0.445	1.572	119.5	302.7	---	2.271	29.67	1.154	73.2	158.3	76.0	0.640
3-7320	3-7870	0.301	178.5	-20.7	-9.16	0.719	64.8	0.427	1.583	117.6	310.0	---	2.258	7.41	1.156	75.6	99.3	48.3	0.341
3-7320	3-7880	0.217	163.4	-15.4	-4.90	0.782	65.8	0.411	1.592	116.0	317.9	---	2.246	4.26	1.159	78.1	100.6	40.3	0.286
3-7320	3-7890	0.264	185.8	-13.2	-3.56	0.784	66.6	0.397	1.600	114.6	326.1	---	2.236	3.05	1.162	80.5	101.2	37.4	0.247
3-7320	3-7900	0.254	187.4	-11.9	-2.77	0.785	67.2	0.387	1.606	113.5	334.6	---	2.228	2.42	1.164	83.0	99.5	36.2	0.216
3-7320	3-7910	0.248	188.5	-11.0	-2.24	0.786	67.4	0.381	1.610	112.7	343.5	---	2.223	2.06	1.167	85.5	94.8	35.9	0.193
3-7320	3-7920	0.245	189.3	-10.1	-1.84	0.787	67.8	0.378	1.613	112.2	352.7	---	2.223	1.83	1.169	88.0	86.9	35.4	0.180
3-7320	3-7930	0.246	189.8	-9.2	-1.51	0.788	67.7	0.379	1.615	112.1	362.4	1.003	2.227	1.69	1.172	90.7	77.3	34.0	0.181
3-7320	3-7940	0.251	189.9	-8.3	-1.22	0.788	67.4	0.385	1.616	112.4	372.5	0.994	2.238	1.62	1.175	93.5	68.8	31.8	0.197
3-7320	3-7950	0.260	189.8	-7.2	-0.94	0.788	66.6	0.397	1.616	113.2	383.1	0.975	2.257	1.59	1.177	96.5	63.2	29.5	0.227
3-7320	3-7960	0.276	189.3	-6.0	-0.67	0.788	65.5	0.415	1.615	114.4	394.3	0.944	2.286	1.62	1.179	99.9	60.7	27.8	0.271
3-7320	3-7960	0.287	66.3	20.9	-0.67	0.567	104.1	0.526	1.090	193.5	833.3	0.516	1.663	1.62	1.045	121.4	14.8	9.0	0.573
3-7320	3-7960	0.581	48.9	18.0	-0.67	0.641	133.7	0.733	1.208	206.9	846.7	0.323	2.092	1.62	1.087	136.3	9.5	5.7	0.841
3-7320	3-7970	0.299	168.4	-4.7	-0.37	0.787	63.7	0.443	1.614	116.3	406.1	0.899	2.329	1.69	1.181	103.7	60.6	26.7	0.328
3-7320	3-7970	0.236	84.8	23.0	-0.37	0.590	94.7	0.517	1.067	194.4	834.2	0.514	1.619	1.69	1.038	120.9	23.5	12.7	0.561
3-7320	3-7980	0.332	187.1	-3.2	-0.03	0.787	61.2	0.482	1.612	118.9	418.8	0.835	2.389	1.84	1.183	108.3	61.9	26.2	0.402
3-7320	3-7990	0.225	106.2	23.1	-3.03	0.538	86.4	0.535	1.053	176.9	836.7	0.490	1.617	1.84	1.035	122.2	31.9	15.8	0.581
3-7320	3-7990	0.380	185.2	-1.6	0.39	0.786	57.5	0.537	1.610	122.6	432.5	0.746	2.475	2.08	1.185	113.8	64.2	25.9	0.496
3-7320	3-7990	0.250	125.9	20.7	0.39	0.580	77.9	0.574	1.043	170.7	840.6	0.444	1.642	2.08	1.033	124.9	39.8	18.5	0.626
3-7320	3-8000	0.448	182.6	0.3	0.96	0.786	52.3	0.611	1.609	127.9	441.9	0.626	2.593	2.48	1.186	120.9	66.6	25.8	0.619
3-7320	3-8020	0.309	140.2	13.5	0.96	0.523	68.2	0.637	1.036	166.2	840.2	0.375	1.696	2.48	1.031	129.5	47.2	20.6	0.702
3-7320	3-8010	0.545	178.8	2.6	1.86	0.786	44.7	0.711	1.609	135.5	461.6	0.465	2.752	3.20	1.187	130.3	66.5	25.7	0.783
3-7320	3-8010	0.404	148.6	15.2	1.04	0.519	56.8	0.727	1.031	164.0	854.2	0.281	1.780	3.20	1.030	136.6	53.6	22.1	0.817
3-7320	3-8020	0.539	151.7	14.3	3.51	0.516	41.2	0.841	1.028	165.3	865.6	0.165	1.893	4.73	1.030	147.2	58.4	23.0	0.985
3-7320	3-8060	0.594	128.9	17.4	-5.06	0.298	40.7	0.943	0.868	175.8	916.9	0.056	1.680	-4.42	0.937	19.7	349.4	-5.9	1.133
3-7320	3-8060	0.549	72.6	20.0	-5.06	0.423	130.2	0.844	0.943	189.7	930.9	0.147	1.738	-4.42	0.985	32.5	342.4	-10.1	0.971
3-7320	3-8070	0.485	125.1	17.8	-3.56	0.332	50.7	0.868	0.886	175.0	926.2	0.117	1.655	-3.07	0.948	30.0	354.1	-4.2	0.991
3-7320	3-8070	0.421	83.0	20.1	-3.56	0.410	109.2	0.762	0.934	186.4	937.6	0.222	1.646	-3.07	0.978	40.4	348.6	-7.4	0.846
3-7320	3-8080	0.525	37.8	10.2	-2.75	0.765	125.9	0.689	1.530	229.8	631.1	0.630	2.431	-2.41	1.170	59.8	333.6	-15.2	0.602
3-7320	3-8090	0.459	32.3	1.0	-2.21	0.765	120.8	0.514	1.528	233.9	645.3	0.743	2.313	-2.04	1.168	66.4	336.5	-14.6	0.487
3-7320	3-8100	0.582	160.0	7.4	-1.81	0.617	57.5	0.827	1.165	159.0	580.4	0.201	2.129	-1.81	1.075	34.6	13.2	4.4	0.984
3-7320	3-8100	0.411	30.6	9.6	-1.51	0.768	117.0	0.457	1.526	236.5	657.9	0.828	2.224	-1.81	1.165	71.6	339.4	-14.1	0.398
3-7320	3-8110	0.526	161.8	6.6	-1.48	0.627	42.8	0.775	1.182	155.9	587.3	0.266	2.097	-1.68	1.078	39.8	19.4	6.8	0.901
3-7320	3-8110	0.376	29.3	9.4	-1.48	0.745	114.3	0.416	1.523	238.2	669.6	0.890	2.156	-1.68	1.162	75.8	341.8	-14.0	0.328
3-7320	3-8120	0.471	163.4	5.9	-1.19	0.637	47.9	0.718	1.199	153.1	594.3	0.338	2.060	-1.61	1.081	44.9	25.5	9.0	0.818
3-7320	3-8120	0.350	28.5	9.4	-1.19	0.763	112.4	0.385	1.521	239.2	680.5	0.936	2.106	-1.61	1.159	79.3	343.4	-14.4	0.272
3-7330	3-7450	0.821	17.2	7.5	0.01	1.142	132.1	1.066	14.135	278.9	395.1	0.915	---	-1.85	1.432	108.1	270.1	-27.9	0.571
3-7330	3-7440	0.760	19.1	8.7	0.29	1.077	131.1	0.934	13.686	274.3	400.1	0.897	---	-2.05	1.380	109.3	274.0	-28.3	0.546
3-7330	3-7450	0.704	20.8	10.0	0.80	1.019	129.9	0.828	5.132	269.4	404.9	0.880	---	-2.37	1.333	110.2	280.3	-28.8	0.525
3-7330	3-7460	0.653	22.5	11.6	1.57	0.966	128.5	0.742	3.350	264.4	409.4	0.864	---	-2.90	1.293	110.8	286.6	-29.5	0.508
3-7330	3-7470	0.606	24.0	13.0	2.68	0.919	127.0	0.671	2.583	259.2	413.8	0.849	---	-3.87	1.257	111.2	293.6	-31.0	0.493
3-7330	3-7480	0.564	25.0	17.5	5.01	0.877	125.4	0.613	2.118	253.9	417.9	0.835	---	-6.06	1.226	111.4	301.5	-35.0	0.486
3-7330	3-7490	0.546	26.3	29.6	13.80	0.838	123.5	0.565	1.849	248.5	421.9	0.822	---	-14.71	1.199	111.5	311.5	-51.5	0.532
3-7330	3-7500	0.595	50.7	-15.4	-28.35	0.804	121.7	0.527	1.705	242.8	426.3	0.806	---	27.59	1.175	111.7	287.7	27.0	0.670

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7330	3-7510	0.452	38.7	2.7	-8.13	0.772	119.6	0.494	1.571	237.1	430.0	0.795	---	7.50	1.155	111.7	313.6	1.0	0.462
3-7330	3-7520	0.408	39.3	7.5	-4.86	0.743	117.3	0.468	1.470	231.3	433.7	0.781	---	4.37	1.137	111.7	323.3	-3.4	0.442
3-7330	3-7530	0.372	41.5	10.0	-3.48	0.717	115.0	0.448	1.391	225.4	437.3	0.768	---	3.14	1.121	111.7	331.5	-7.6	0.433
3-7330	3-7540	0.338	44.5	12.0	-2.69	0.693	112.4	0.458	1.328	219.3	440.9	0.753	---	2.51	1.108	111.0	339.2	-2.3	0.429
3-7330	3-7550	0.306	48.2	13.8	-2.15	0.670	109.7	0.423	1.277	213.2	444.5	0.737	---	2.13	1.096	112.0	346.7	-0.2	0.428
3-7330	3-7560	0.275	53.1	15.5	-1.73	0.650	106.8	0.418	1.235	207.1	448.0	0.719	---	1.90	1.086	112.4	354.1	2.3	0.431
3-7330	3-7570	0.247	59.3	17.4	-1.39	0.631	103.7	0.417	1.199	200.9	451.6	0.699	---	1.76	1.078	112.9	1.5	5.0	0.437
3-7330	3-7580	0.222	67.5	19.4	-1.09	0.614	100.2	0.422	1.169	194.6	455.2	0.676	---	1.69	1.070	113.6	8.9	7.9	0.447
3-7330	3-7590	0.201	78.5	21.2	-0.80	0.598	96.4	0.432	1.143	188.5	459.0	0.649	---	1.66	1.064	114.6	16.4	10.8	0.462
3-7330	3-7600	0.189	92.8	22.4	-0.50	0.583	92.1	0.450	1.120	182.6	463.0	0.616	---	1.69	1.058	116.0	23.9	13.6	0.484
3-7330	3-7610	0.190	109.7	22.2	-0.19	0.569	87.1	0.477	1.101	176.9	467.3	0.576	1.625	1.78	1.053	117.4	31.5	16.2	0.515
3-7330	3-7620	0.210	126.6	20.1	0.17	0.556	81.3	0.514	1.084	171.6	472.1	0.526	1.641	1.93	1.049	120.6	39.1	18.6	0.558
3-7330	3-7630	0.252	140.5	17.1	0.62	0.545	74.3	0.567	1.070	167.2	477.8	0.463	1.676	2.19	1.045	126.3	46.5	20.6	0.618
3-7330	3-7640	0.319	150.4	14.4	1.22	0.536	65.5	0.639	1.058	164.0	484.8	0.382	1.734	2.63	1.042	129.5	53.4	22.3	0.704
3-7330	3-7650	0.419	156.1	12.6	2.18	0.529	54.2	0.734	1.050	162.9	493.8	0.279	1.820	3.42	1.039	147.1	59.5	23.5	0.828
3-7330	3-7660	0.557	157.8	12.1	4.04	0.526	39.1	0.850	1.046	165.0	506.1	0.156	1.956	5.12	1.038	148.2	63.9	24.1	1.004
3-7330	3-7760	0.584	172.8	2.3	-1.05	0.701	39.2	0.786	1.350	150.2	232.0	---	2.410	-1.68	1.122	39.8	31.1	11.2	0.922
3-7330	3-7770	0.547	174.9	1.5	-0.76	0.711	42.6	0.746	1.376	146.7	238.4	---	2.402	-1.66	1.125	43.8	37.8	13.3	0.857
3-7330	3-7780	0.511	177.0	0.8	-0.47	0.720	45.8	0.706	1.402	143.4	244.8	---	2.392	-1.70	1.129	47.6	44.4	15.0	0.794
3-7330	3-7790	0.478	179.1	0.2	-0.17	0.729	48.8	0.667	1.427	140.1	251.2	---	2.379	-1.78	1.132	51.2	51.2	16.4	0.732
3-7330	3-7800	0.446	181.1	-0.2	0.18	0.737	51.5	0.630	1.451	137.0	257.7	---	2.365	-1.94	1.135	54.6	57.9	17.5	0.674
3-7330	3-7810	0.417	183.2	-0.5	0.61	0.744	54.0	0.594	1.474	134.0	264.3	---	2.349	-2.18	1.138	57.9	64.6	17.9	0.617
3-7330	3-7820	0.390	185.3	-0.3	1.17	0.751	56.2	0.561	1.495	131.1	271.0	---	2.333	-2.59	1.141	61.0	71.3	17.7	0.564
3-7330	3-7830	0.366	187.6	0.5	2.02	0.756	58.3	0.530	1.514	128.4	277.9	---	2.316	-3.28	1.140	63.9	77.7	16.4	0.513
3-7330	3-7840	0.346	190.3	2.8	3.54	0.761	60.1	0.501	1.532	125.8	284.8	---	2.299	-4.65	1.147	66.8	84.0	12.8	0.468
3-7330	3-7850	0.335	194.4	10.0	7.41	0.766	61.7	0.475	1.547	123.4	292.0	---	2.283	-8.38	1.149	69.5	90.5	2.6	0.440
3-7330	3-7860	0.595	194.8	49.7	41.46	0.769	63.1	0.454	1.561	121.4	298.9	---	2.270	-42.30	1.152	71.9	118.4	-43.0	0.836
3-7330	3-7870	0.331	176.2	-29.3	-12.90	0.772	64.5	0.431	1.573	119.3	307.2	---	2.251	12.21	1.155	74.8	108.6	59.4	0.394
3-7330	3-7880	0.285	185.8	-19.4	-6.14	0.775	65.6	0.414	1.583	117.6	314.9	---	2.239	5.58	1.157	77.2	105.0	44.0	0.304
3-7330	3-7890	0.269	189.1	-16.0	-4.09	0.777	66.5	0.400	1.591	116.1	323.1	---	2.228	3.68	1.160	79.7	105.6	39.1	0.269
3-7330	3-7900	0.258	191.1	-14.2	-3.06	0.779	67.1	0.389	1.598	115.0	331.5	---	2.219	2.80	1.163	82.1	104.7	37.3	0.226
3-7330	3-7910	0.251	192.4	-13.0	-2.41	0.780	67.6	0.381	1.603	114.1	340.3	---	2.213	2.31	1.166	84.6	101.0	36.7	0.199
3-7330	3-7920	0.247	193.3	-12.1	-1.94	0.781	67.9	0.376	1.607	113.5	349.4	---	2.211	2.01	1.168	87.1	94.0	36.3	0.183
3-7330	3-7930	0.246	193.9	-11.1	-1.56	0.782	67.9	0.376	1.609	113.3	358.9	---	2.214	1.83	1.171	89.7	84.6	35.4	0.178
3-7330	3-7940	0.249	194.2	-10.2	-1.24	0.782	67.6	0.380	1.610	113.5	368.9	0.998	2.223	1.72	1.174	92.4	75.3	33.6	0.189
3-7330	3-7950	0.257	194.2	-9.1	-0.93	0.782	67.0	0.390	1.610	114.0	379.3	0.982	2.238	1.67	1.176	95.4	68.6	31.3	0.214
3-7330	3-7960	0.270	193.8	-8.0	-0.66	0.782	66.3	0.406	1.610	115.0	390.2	0.956	2.263	1.67	1.178	98.6	65.7	29.3	0.252
3-7330	3-7960	0.388	59.7	20.1	-0.66	0.586	116.4	0.596	1.125	201.8	837.0	0.455	1.795	1.67	1.059	120.0	13.3	8.1	0.657
3-7330	3-7960	0.448	56.6	19.6	-0.66	0.601	122.3	0.639	1.148	204.5	839.7	0.415	1.882	1.67	1.067	120.1	72.2	7.4	0.711
3-7330	3-7970	0.290	193.1	-8.7	-0.36	0.781	64.5	0.430	1.608	116.6	401.7	0.917	2.300	1.72	1.181	102.2	64.2	28.0	0.304
3-7330	3-7970	0.264	79.1	22.9	-0.36	0.550	100.6	0.532	1.076	189.6	834.8	0.503	1.649	1.72	1.042	121.9	23.3	12.6	0.579
3-7330	3-7980	0.318	192.6	-5.3	-0.03	0.781	62.3	0.464	1.607	118.8	414.0	0.861	2.352	1.84	1.182	106.4	65.3	27.2	0.371
3-7330	3-7980	0.231	99.8	23.6	-0.03	0.535	91.4	0.535	1.057	181.2	836.4	0.491	1.623	1.84	1.037	122.2	32.0	15.9	0.582
3-7330	3-7990	0.359	190.4	-3.8	0.37	0.780	59.2	0.512	1.605	121.9	427.2	0.783	2.426	2.04	1.184	114.5	67.4	26.8	0.456
3-7330	3-7990	0.237	121.2	21.7	0.37	0.525	82.7	0.563	1.045	174.3	839.6	0.456	1.633	2.04	1.033	124.2	40.3	18.7	0.613
3-7330	3-8000	0.417	188.1	-2.1	0.88	0.780	54.7	0.577	1.603	126.3	441.7	0.677	2.529	2.37	1.189	117.8	70.0	26.6	0.565
3-7330	3-8000	0.280	138.3	18.1	0.88	0.517	73.4	0.614	1.036	168.9	844.2	0.400	1.672	2.37	1.031	127.8	48.2	20.9	0.672
3-7330	3-8010	0.500	184.8	-0.1	1.61	0.780	48.3	0.656	1.602	132.6	458.1	0.536	2.668	2.94	1.186	126.0	72.3	26.5	0.708
3-7330	3-8010	0.357	149.4	14.9	1.61	0.511	62.4	0.690	1.029	165.4	851.0	0.319	1.739	2.94	1.029	133.6	55.2	22.5	0.766
3-7330	3-8020	0.472	154.9	13.2	2.88	0.507	48.7	0.792	1.025	164.9	860.6	0.213	1.837	4.04	1.029	142.4	61.0	23.6	0.907
3-7330	3-8070	0.523	130.2	16.7	-4.12	0.302	95.5	0.902	0.876	175.6	922.3	0.086	1.667	-3.71	0.941	25.8	356.1	-3.3	1.050
3-7330	3-8070	0.466	84.8	20.6	-4.12	0.398	117.0	0.803	0.931	187.4	934.1	0.183	1.679	-3.71	0.976	36.6	350.3	-6.8	0.904
3-7330	3-8080	0.557	41.2	13.0	-3.04	0.758	129.1	0.633	1.522	226.2	623.0	0.558	2.485	-2.78	1.169	55.7	337.4	-13.8	0.674
3-7330	3-8090	0.480	38.2	12.1	-2.37	0.758	123.0	0.547	1.520	231.1	637.9	0.689	2.351	-2.28	1.166	63.3	340.1	-13.1	0.542
3-7330	3-8100	0.424	36.2	11.6	-1.90	0.757	118.6	0.482	1.517	234.2	651.0	0.786	2.249	-1.99	1.164	69.0	343.2	-12.5	0.441
3-7330	3-8110	0.545	165.3	5.2	-1.52	0.615	41.0	0.796	1.171	157.5	584.3	0.239	2.104	-1.81	1.074	37.7	20.7	7.3	0.933
3-7330	3-8110	0.383	34.7	11.2	-1.52	0.756	115.4	0.433	1.515	236.1	662.8	0.858	2.171	-1.81	1.161	73.6	346.0	-12.0	0.363
3-7330	3-8120	0.489	167.0	4.5	-1.20	0.625	46.2	0.740	1.182	154.7	591.3	0.308	2.068	-1.71	1.077	42.9	26.9	9.5	0.849
3-7330	3-8120	0.352	33.6	11.3	-1.20	0.756	113.0	0.397	1.512	237.2	673.8	0.912	2.112	-1.71	1.158	77.3	348.3	-12.0	0.301
3-7330	3-8130	0.435	168.5	3.9	-0.91	0.635	51.2	0.682	1.206	152.1	598.6	0.384	2.028	-1.67	1.080	47.9	33.0	11.4	0.766
3-7330	3-8130	0.330	32.7	11.5	-0.91	0.755	111.3	0.370	1.509	237.8	684.3	0.951	2.063	-1.67	1.155	80.4	349.6	-12.7	0.252
3-7340	3-7460	0.735	25.3	12.4	1.41	1.036	131.7	0.870	6.566	268.5	409.0	0.853	---	-2.76	1.348	112.7	287.0	-28.4	0.577
3-7340	3-7470	0.679	27.0	14.1	2.31	0.979	130.2	0.775	3.727	263.4	413.4	0.837	---	-3.44	1.304	113.0	293.7	-29.2	0.554
3-7340	3-7480	0.627	28.4	16.8	3.93	0.927	128.6	0.699	2.729	258.1	417.6	0.823	---	-4.92	1.265	113.2	301.2	-31.3	0.542
3-7340	3-7490	0.586	29.0	22.7	8.17	0.881	126.8	0.636	2.223	252.7	421.7	0.808	---	-9.01	1.232	113.3	310.0	-38.4	0.557
3-7340	3-7510	0.512	43.5	-0.3	-12.51	0.802	122.9	0.544	1.715	241.4	429.8	0.781	---	11.96	1.178	113.3	310.1	7.0	0.452
3-7340	3-7520	0.453	42.2	7.4	-6.04	0.768	120.6	0.511	1.571	235.7	433.5	0.769	---	5.64	1.156	113.1	322.5	-1.5	0.453
3-7340	3-7530	0.412	43.9	10.5	-4.00	0.737	118.3	0.484	1.464	229.8	437.1	0.755	---	3.75	1.137	113.1	331.8	-2.0	0.460
3-7340	3-7540	0.374	46.6	12.6	-2.96	0.709	115.7	0.463	1.382	223.8	440.8	0.742	---	2.86	1.121	113.1	339.0	-1.9	0.467
3-7340	3-7550	0.338	50.0	14.4	-2.30	0.683	113.0	0.448	1.317	217.7	444.3	0.727	---	2.37	1.107	113.1	346.6	0.0	0.452
3-7340	3-7560	0.305	54.3	16.0	-1.82	0.660	110.1	0.438	1.264	211.5	447.9	0.710	---	2.07	1.095	113.3	354.1	2.5	0.451
3-7340	3-7570	0.273	59.7	17.7	-1.44	0.638	106.9	0.434	1.221	205.2	451.4	0.691	---	1.88	1.085	113.7	1.5	5.2	0.453
3-7340	3-7580	0.244	66.9	19.5	-1.10	0.618	103.5	0.434	1.185	199.0	455.0	0.670	---	1.78	1.076	114.2	9.0	8.0	0.460
3-7340	3-7590	0.219	76.4	21.2	-0.80	0.600	99.7	0.441	1.154	192.8	458.7	0.645	---	1.73	1.068	115.0	16.5	10.9	0.471
3-7340	3-7600	0.201	89.0	22.5	-0.50	0.583	95.5	0.454	1.128	186.7	462.6	0.616	---	1.73	1.067	116.2	24.1	13.7	0.488
3-7340	3-7610	0.194	104.8	22.7	-0.18	0.567	90.7	0.475	1.106	180.8	466.7	0.580	---	1.79	1.055	117.8	31.8	16.3	0.513
3-7340	3-7620	0.202	122.1	21.1	0.16	0.553	85.2	0.507	1.087	175.3	471.2	0.536	1.637	1.92	1.050	120.0	39.5	18.8	0.549
3-7340	3-7630	0.232	137.8	18.0	0.58	0.540	78.6	0.551	1.070	170.3	476.3	0.481	1.660	2.13	1.045	123.2	47.2	20.9	0.599
3-7340	3-7640	0.287	149.7	14.7	1.12	0.529	70.4	0.612	1.057	166.4	482.5	0.410	1.703	2.49	1.041	127.6	54.5	22.6	0.671
3-7340	3-7650	0.370	157.5	12.2	1.91	0.520	60.1	0.695	1.046	164.1	490.4	0.319	1.774	3.11	1.038	133.9	61.2	23.9	0.775

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7340	3-7660	0.489	161.2	10.9	3.28	0.514	46.6	0.801	1.040	164.4	500.9	0.206	1.873	4.32	1.035	143.2	66.6	24.6	0.923
3-7340	3-7760	0.597	176.1	0.9	-1.06	0.689	37.9	0.801	1.332	152.0	229.3	---	2.398	-1.77	1.117	38.2	52.4	11.7	0.947
3-7340	3-7770	0.559	178.2	0.1	-0.76	0.700	41.5	0.760	1.358	148.6	235.5	---	2.391	-1.72	1.121	42.3	39.0	13.7	0.860
3-7340	3-7780	0.523	180.4	-0.7	-0.47	0.710	44.8	0.720	1.385	145.2	242.0	---	2.382	-1.73	1.125	46.2	45.7	15.4	0.816
3-7340	3-7790	0.488	182.5	-1.3	-0.16	0.719	47.9	0.681	1.410	141.9	248.5	---	2.370	-1.80	1.129	49.8	52.4	16.9	0.754
3-7340	3-7800	0.456	184.5	-1.8	0.17	0.727	50.7	0.642	1.435	138.8	255.0	---	2.357	-1.92	1.132	53.3	59.2	17.9	0.694
3-7340	3-7810	0.427	186.6	-2.1	0.57	0.735	53.2	0.606	1.458	135.8	261.6	---	2.342	-2.12	1.135	56.7	66.0	18.4	0.636
3-7340	3-7820	0.399	188.7	-2.1	1.07	0.742	55.6	0.571	1.480	132.9	268.3	---	2.326	-2.45	1.138	59.8	72.6	18.3	0.582
3-7340	3-7830	0.374	190.9	-1.5	1.78	0.748	57.7	0.539	1.501	130.1	275.1	---	2.310	-3.00	1.141	62.9	79.2	17.3	0.530
3-7340	3-7840	0.352	193.4	0.0	2.94	0.753	59.6	0.510	1.519	127.6	282.0	---	2.293	-4.00	1.144	65.7	85.4	14.7	0.482
3-7340	3-7850	0.336	196.6	4.3	5.33	0.758	61.3	0.483	1.536	125.2	289.1	---	2.277	-6.25	1.147	68.5	91.4	8.2	0.443
3-7340	3-7860	0.358	202.4	20.7	14.32	0.762	62.8	0.459	1.550	123.0	296.4	---	2.261	-15.03	1.150	71.1	99.2	-14.0	0.470
3-7340	3-7870	0.469	158.1	-41.9	-29.41	0.766	64.3	0.436	1.563	120.9	304.5	---	2.243	28.78	1.153	73.9	170.8	73.5	0.619
3-7340	3-7880	0.298	187.1	-24.7	-8.27	0.768	65.4	0.418	1.576	119.2	312.0	---	2.231	7.79	1.156	76.4	110.7	49.8	0.331
3-7340	3-7890	0.279	192.1	-19.1	-4.87	0.771	66.3	0.403	1.583	117.7	320.0	---	2.220	4.53	1.159	78.8	110.2	41.4	0.274
3-7340	3-7900	0.262	194.6	-16.6	-3.44	0.773	67.1	0.390	1.590	116.5	328.4	---	2.210	3.26	1.161	81.3	109.7	38.4	0.236
3-7340	3-7910	0.254	196.2	-15.1	-2.62	0.774	67.6	0.381	1.595	115.5	337.1	---	2.204	2.60	1.164	83.7	106.9	37.3	0.207
3-7340	3-7920	0.249	197.3	-14.0	-2.06	0.775	68.0	0.376	1.599	114.9	346.2	---	2.200	2.21	1.167	86.2	100.9	37.0	0.186
3-7340	3-7930	0.247	198.0	-13.0	-1.63	0.776	68.1	0.374	1.602	114.5	355.6	---	2.201	1.97	1.170	88.8	92.0	36.5	0.178
3-7340	3-7940	0.249	198.4	-12.0	-1.27	0.776	67.9	0.377	1.604	114.5	365.4	1.000	2.208	1.82	1.173	91.5	82.2	35.1	0.183
3-7340	3-7950	0.255	198.5	-11.0	-0.96	0.776	67.4	0.384	1.604	114.9	375.6	0.988	2.220	1.75	1.175	94.3	74.4	32.9	0.202
3-7340	3-7960	0.266	198.3	-9.9	-0.66	0.776	66.6	0.398	1.604	115.7	386.3	0.966	2.242	1.72	1.177	97.4	69.8	30.8	0.236
3-7340	3-7970	0.283	197.7	-8.7	-0.35	0.776	65.3	0.419	1.602	117.0	397.6	0.932	2.273	1.75	1.180	100.9	68.1	29.2	0.283
3-7340	3-7970	0.317	73.4	22.5	-0.35	0.558	108.5	0.565	1.093	195.7	836.3	0.475	1.710	1.75	1.049	124.1	22.7	12.2	0.619
3-7340	3-7970	0.531	60.2	20.9	-0.35	0.614	130.7	0.714	1.178	205.2	845.8	0.337	2.020	1.75	1.060	134.8	18.9	9.8	0.814
3-7340	3-7980	0.307	196.9	-7.4	-0.03	0.775	63.4	0.449	1.601	118.8	409.4	0.883	2.319	1.84	1.181	104.8	68.7	28.2	0.343
3-7340	3-7980	0.249	93.4	23.9	-0.03	0.535	97.0	0.543	1.064	185.9	836.6	0.486	1.642	1.84	1.039	122.7	32.0	15.8	0.592
3-7340	3-7990	0.343	195.3	-6.0	0.35	0.775	60.7	0.490	1.599	121.4	422.1	0.815	2.383	2.00	1.183	109.4	70.6	27.6	0.420
3-7340	3-7990	0.234	115.3	22.7	0.35	0.521	87.7	0.558	1.048	178.2	838.9	0.463	1.632	2.00	1.034	123.8	40.6	18.7	0.607
3-7340	3-8000	0.392	193.3	-4.4	0.81	0.774	56.8	0.548	1.597	125.1	435.9	0.722	2.472	2.28	1.184	115.1	73.2	27.3	0.517
3-7340	3-8000	0.259	135.1	19.1	0.81	0.511	78.5	0.597	1.036	172.0	842.8	0.418	1.655	2.28	1.031	126.5	48.9	21.1	0.651
3-7340	3-8010	0.463	190.6	-2.6	1.45	0.774	51.3	0.626	1.595	130.3	451.3	0.597	2.594	2.74	1.185	122.4	75.9	27.1	0.644
3-7340	3-8010	0.320	149.0	15.2	1.45	0.504	68.1	0.660	1.028	167.5	848.4	0.350	1.707	2.74	1.029	131.2	56.5	22.9	0.727
3-7340	3-8020	0.563	186.6	-0.4	2.45	0.774	43.3	0.728	1.595	137.9	469.0	0.434	2.756	3.57	1.186	132.1	78.0	26.9	0.812
3-7340	3-8020	0.416	157.0	12.5	2.45	0.499	55.5	0.749	1.023	165.4	856.5	0.257	1.789	3.57	1.027	138.4	63.1	24.1	0.844
3-7340	3-8030	0.553	159.8	11.5	4.42	0.496	39.6	0.860	1.021	166.7	868.0	0.143	1.898	5.37	1.027	149.3	67.9	24.7	1.014
3-7340	3-8070	0.561	134.7	15.7	-4.92	0.271	50.3	0.931	0.867	176.4	918.5	0.060	1.675	-4.58	0.935	21.6	358.0	-2.4	1.106
3-7340	3-8070	0.517	88.2	21.0	-4.92	0.384	129.3	0.848	0.927	187.7	929.8	0.141	1.713	-4.58	0.574	32.1	352.4	-5.9	0.973
3-7340	3-8080	0.594	47.9	15.0	-3.41	0.752	132.8	0.682	1.513	222.3	614.5	0.481	2.545	-5.23	1.167	51.2	341.1	-12.2	0.752
3-7340	3-8080	0.430	122.3	18.0	-3.41	0.329	80.6	0.828	0.895	178.0	930.2	0.154	1.636	-3.23	0.952	34.3	1.5	-1.4	0.930
3-7340	3-8080	0.409	110.0	19.7	-3.41	0.354	94.9	0.797	0.900	181.2	933.4	0.184	1.633	-3.23	0.960	37.3	360.0	-2.3	0.889
3-7340	3-8090	0.504	44.4	14.0	-2.57	0.751	125.5	0.585	1.512	228.1	630.4	0.628	2.396	-2.56	1.165	59.8	343.6	-11.6	0.602
3-7340	3-8100	0.439	41.9	13.4	-2.01	0.751	120.4	0.510	1.509	231.8	636.0	0.739	2.279	-2.18	1.162	66.2	346.6	-10.9	0.489
3-7340	3-8110	0.564	168.7	3.8	-1.58	0.604	39.1	0.818	1.161	159.2	581.4	0.212	2.109	-1.95	1.071	35.6	22.0	7.9	0.966
3-7340	3-8110	0.391	40.2	13.2	-1.58	0.750	116.6	0.454	1.506	234.0	656.2	0.822	2.190	-1.95	1.159	71.2	349.7	-10.2	0.402
3-7340	3-8120	0.508	170.5	3.1	-1.23	0.614	44.5	0.763	1.178	156.2	588.3	0.279	2.076	-1.81	1.074	40.9	28.2	10.0	0.881
3-7340	3-8120	0.356	38.9	13.1	-1.23	0.749	113.8	0.412	1.503	235.3	667.3	0.884	2.122	-1.81	1.156	75.3	352.5	-9.9	0.333
3-7340	3-8130	0.453	172.0	2.5	-0.92	0.624	49.7	0.704	1.195	153.6	595.5	0.353	2.037	-1.74	1.077	46.0	34.4	12.0	0.797
3-7340	3-8130	0.329	38.0	13.3	-0.92	0.748	111.8	0.380	1.500	235.9	677.6	0.931	2.070	-1.74	1.153	78.7	354.6	-10.1	0.278
3-7340	3-8140	0.399	173.4	2.0	-0.62	0.634	54.6	0.644	1.213	151.2	603.0	0.432	1.995	-1.72	1.080	51.0	40.4	13.6	0.714
3-7340	3-8140	0.310	37.3	13.6	-0.62	0.747	110.3	0.356	1.498	236.2	687.9	0.964	2.032	-1.72	1.150	81.7	355.5	-13.5	0.233
3-7350	3-7480	0.702	31.6	16.8	3.25	0.989	131.8	0.804	4.127	262.2	417.1	0.809	---	-4.18	1.313	115.2	361.2	-28.9	0.599
3-7350	3-7490	0.647	32.9	20.4	5.84	0.933	130.1	0.722	2.862	256.8	421.3	0.795	---	-6.61	1.272	115.2	309.3	-32.2	0.581
3-7350	3-7520	0.505	45.6	6.6	-8.04	0.799	124.0	0.560	1.717	239.9	433.2	0.755	---	7.71	1.179	114.8	321.2	1.4	0.529
3-7350	3-7530	0.456	46.6	10.9	-4.74	0.763	123.6	0.526	1.565	234.0	436.9	0.742	---	4.56	1.156	114.6	330.8	-1.8	0.503
3-7350	3-7540	0.413	47.9	13.2	-3.32	0.730	119.1	0.498	1.454	228.1	440.5	0.729	---	3.30	1.137	114.4	338.9	-1.4	0.489
3-7350	3-7550	0.374	52.0	15.0	-2.49	0.700	116.4	0.478	1.369	222.0	444.1	0.715	---	2.64	1.120	114.4	346.5	0.3	0.480
3-7350	3-7560	0.337	55.8	16.6	-1.93	0.673	113.4	0.463	1.303	215.8	447.7	0.700	---	2.25	1.106	114.4	354.1	2.6	0.475
3-7350	3-7570	0.302	60.7	18.1	-1.49	0.648	110.3	0.454	1.249	209.4	451.2	0.683	---	2.01	1.093	114.6	1.5	5.3	0.473
3-7350	3-7580	0.270	66.9	19.7	-1.13	0.625	106.9	0.450	1.200	203.3	454.8	0.663	---	1.87	1.083	115.0	9.0	8.1	0.476
3-7350	3-7590	0.241	75.2	21.3	-0.80	0.604	103.1	0.452	1.169	197.0	458.4	0.641	---	1.79	1.073	115.6	16.6	11.0	0.482
3-7350	3-7600	0.217	86.1	22.3	-0.50	0.585	99.0	0.461	1.139	190.8	462.2	0.614	---	1.77	1.065	116.5	24.3	13.8	0.495
3-7350	3-7610	0.203	100.3	23.1	-0.18	0.567	94.2	0.477	1.113	184.8	466.1	0.582	---	1.81	1.058	117.9	32.1	16.4	0.515
3-7350	3-7620	0.201	117.2	22.0	0.16	0.551	89.0	0.502	1.091	179.0	470.4	0.543	1.639	1.90	1.052	119.7	39.9	18.9	0.548
3-7350	3-7630	0.220	134.0	19.1	0.55	0.536	82.7	0.539	1.072	173.7	475.2	0.494	1.650	2.08	1.046	122.4	47.7	21.0	0.586
3-7350	3-7640	0.261	148.0	15.4	1.04	0.523	75.2	0.591	1.056	169.2	480.0	0.452	1.681	2.37	1.041	126.1	55.4	22.8	0.646
3-7350	3-7650	0.330	157.8	12.1	1.71	0.512	69.7	0.663	1.044	165.9	487.7	0.352	1.736	2.86	1.037	131.4	62.5	24.1	0.732
3-7350	3-7660	0.431	163.5	10.0	2.79	0.504	53.5	0.757	1.035	164.8	496.7	0.251	1.819	3.77	1.033	139.2	68.7	25.0	0.857
3-7350	3-7670	0.570	165.1	9.4	4.95	0.501	37.6	0.870	1.031	166.8	508.9	0.134	1.928	5.77	1.032	150.4	73.3	25.4	1.033
3-7350	3-7770	0.571	181.5	-1.3	-0.77	0.689	72.4	0.776	1.340	150.4	232.9	---	2.380	-1.79	1.117	40.7	40.2	14.1	0.904
3-7350	3-7780	0.534	183.7	-2.1	-0.47	0.699	43.8	0.735	1.367	147.0	239.3	---	2.372	-1.77	1.121	44.7	47.0	15.9	0.839
3-7350	3-7790	0.500	185.8	-2.8	-0.16	0.709	47.0	0.695	1.393	143.7	245.7	---	2.361	-1.81	1.125	48.5	53.7	17.2	0.775
3-7350	3-7800	0.467	187.9	-3.3	0.17	0.718	49.9	0.656	1.418	140.6	252.2	---	2.348	-1.91	1.128	52.0	60.5	18.3	0.714
3-7350	3-7810	0.437	190.9	-3.7	0.54	0.726	52.5	0.618	1.443	137.5	258.8	---	2.334	-2.07	1.132	55.4	67.3	18.8	0.656
3-7350	3-7820	0.408	192.1	-3.7	1.00	0.733	54.9	0.582	1.465	134.6	265.3	---	2.319	-2.34	1.135	58.7	74.0	18.8	0.600
3-7350	3-7830	0.383	194.3	-3.4	1.61	0.740	57.2	0.549	1.486	131.9	272.3	---	2.303	-2.78	1.139	61.8	80.6	18.0	0.547
3-7350	3-7840	0.360	196.6	-2.4	2.53	0.746	59.1	0.518	1.506	129.3	279.2	---	2.286	-3.54	1.142	64.7	86.9	16.0	0.497
3-7350	3-7850	0.341	199.4	0.4	4.19	0.751	60.9	0.490	1.523	126.9	286.5	---	2.270	-5.05	1.145	67.5	92.8	11.6	0.453
3-7350	3-7860	0.335	203.5	8.7	8.55	0.755	62.5	0.465	1.539	124.6	293.6	---	2.254	-9.25	1.148	70.2	98.6	-0.6	0.431
3-7350	3-7880	0.326	185.1	-32.9	-12.69	0.762	65.2	0.422	1.564	120.8	309.1	---	2.224	12.28	1.154	75.5	121.8	59.6	0.383

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7350	3-7890	0.283	194.7	-22.9	-6.05	0.765	66.2	0.406	1.573	119.2	317.1	---	2.212	5.79	1.157	78.0	115.2	44.7	0.293
3-7350	3-7900	0.267	198.0	-19.2	-3.95	0.767	67.0	0.392	1.581	117.9	325.3	---	2.202	3.85	1.160	80.4	114.3	39.8	0.248
3-7350	3-7910	0.257	199.9	-17.3	-2.88	0.768	67.6	0.382	1.587	116.9	334.0	---	2.194	2.94	1.163	82.9	112.5	48.0	0.216
3-7350	3-7920	0.251	201.2	-15.9	-2.20	0.770	68.0	0.375	1.592	116.2	342.9	---	2.190	2.43	1.166	85.4	107.6	37.5	0.192
3-7350	3-7930	0.248	202.1	-14.8	-1.71	0.770	68.2	0.372	1.595	115.7	352.2	---	2.189	2.12	1.169	87.9	99.5	27.2	0.178
3-7350	3-7940	0.249	202.6	-13.8	-1.31	0.771	68.1	0.373	1.597	115.6	361.9	1.001	2.193	1.93	1.171	90.5	89.5	36.3	0.178
3-7350	3-7950	0.253	202.8	-12.7	-0.97	0.771	67.8	0.379	1.598	115.8	372.0	0.992	2.204	1.82	1.174	93.3	80.7	34.3	0.193
3-7350	3-7960	0.262	202.7	-11.7	-0.66	0.771	67.1	0.390	1.598	116.4	382.5	0.974	2.221	1.77	1.176	96.2	74.9	32.2	0.222
3-7350	3-7970	0.277	202.3	-10.5	-0.35	0.771	65.9	0.408	1.597	117.5	393.0	0.945	2.248	1.78	1.179	99.6	72.3	30.4	0.263
3-7350	3-7980	0.298	201.5	-9.3	-0.03	0.770	64.3	0.435	1.595	119.0	405.1	0.902	2.288	1.84	1.180	103.3	72.3	29.2	0.318
3-7350	3-7980	0.283	87.2	23.9	-0.03	0.538	103.7	0.563	1.075	191.2	837.3	0.470	1.679	1.84	1.044	124.0	31.7	15.6	0.615
3-7350	3-7980	0.580	65.5	22.0	-0.03	0.619	135.8	0.762	1.195	204.3	850.4	0.284	2.105	1.84	1.088	130.9	26.4	12.5	0.685
3-7350	3-7990	0.329	200.2	-8.0	0.33	0.770	61.9	0.471	1.593	121.2	417.3	0.842	2.364	1.97	1.182	107.6	73.9	28.4	0.387
3-7350	3-7990	0.262	108.9	23.6	0.33	0.519	93.2	0.560	1.052	182.5	830.7	0.463	1.641	1.97	1.036	123.9	40.8	18.7	0.609
3-7350	3-8000	0.372	198.5	-6.6	0.76	0.769	58.6	0.522	1.591	124.2	430.5	0.761	2.421	2.20	1.183	112.7	76.4	27.9	0.475
3-7350	3-8000	0.247	130.5	20.3	0.76	0.507	83.6	0.586	1.038	175.5	841.8	0.430	1.646	2.20	1.032	125.7	49.4	21.2	0.638
3-7350	3-8010	0.432	196.1	-4.9	1.33	0.769	53.8	0.591	1.589	128.6	445.0	0.651	2.527	2.57	1.184	119.2	79.3	27.6	0.587
3-7350	3-8010	0.290	147.3	15.6	1.33	0.498	73.6	0.636	1.028	170.0	840.5	0.375	1.682	2.57	1.029	129.4	57.5	23.1	0.697
3-7350	3-8020	0.518	192.7	-3.0	2.10	0.769	47.0	0.682	1.588	134.9	461.5	0.505	2.671	3.22	1.185	127.7	81.8	27.3	0.735
3-7350	3-8020	0.370	158.0	12.2	2.15	0.491	61.9	0.712	1.021	166.6	853.2	0.295	1.748	3.22	1.027	135.3	66.7	24.4	0.792
3-7350	3-8030	0.487	163.1	10.3	3.59	0.487	47.4	0.813	1.017	166.2	863.0	0.191	1.844	4.49	1.025	144.3	70.6	25.1	0.935
3-7350	3-8070	0.597	138.5	14.6	6.13	0.239	44.7	0.955	0.860	177.2	914.8	0.039	9.680	5.87	0.929	17.5	359.9	-1.6	1.160
3-7350	3-8070	0.573	92.8	21.1	6.13	0.368	134.4	0.895	0.922	187.1	924.7	0.098	1.745	5.87	0.971	26.8	354.8	-4.9	1.051
3-7350	3-8080	0.480	132.3	15.9	3.92	0.289	71.0	0.878	0.880	177.2	924.9	0.107	1.652	3.82	0.942	28.8	4.1	-0.1	1.007
3-7350	3-8080	0.442	105.7	20.2	3.92	0.350	107.5	0.819	0.911	184.0	931.7	0.165	1.657	3.82	0.962	35.1	0.8	-2.1	0.922
3-7350	3-8090	0.534	50.1	15.8	2.83	0.745	128.5	0.627	1.503	225.0	622.7	0.560	2.446	2.90	1.363	55.9	347.0	-10.1	0.669
3-7350	3-8100	0.458	47.9	15.2	2.15	0.744	122.5	0.542	1.501	229.3	637.0	0.687	2.315	2.39	1.161	63.2	349.9	-9.3	0.541
3-7350	3-8110	0.568	172.0	2.4	1.66	0.592	37.0	0.838	1.150	160.7	578.4	0.186	2.114	2.10	1.007	33.4	23.4	8.4	0.999
3-7350	3-8110	0.403	45.8	14.9	1.66	0.744	118.1	0.478	1.498	231.9	649.6	0.782	2.214	2.10	1.158	68.8	353.1	-8.5	0.443
3-7350	3-8120	0.528	173.9	1.6	1.27	0.603	42.7	0.785	1.167	157.8	585.3	0.251	2.082	1.92	1.070	38.8	29.6	10.6	0.913
3-7350	3-8120	0.362	44.4	14.8	1.27	0.743	114.8	0.429	1.495	233.4	661.0	0.853	2.836	1.92	1.155	73.2	356.2	-7.9	0.367
3-7350	3-8130	0.472	175.5	1.0	0.93	0.613	48.0	0.727	1.384	155.1	592.5	0.323	2.045	1.81	1.073	44.0	35.7	12.5	0.828
3-7350	3-8130	0.331	43.3	15.0	0.93	0.742	112.4	0.392	1.492	234.1	671.5	0.907	2.076	1.81	1.151	76.9	358.9	-7.7	0.306
3-7350	3-8140	0.417	177.0	0.5	0.62	0.624	53.1	0.666	1.203	152.7	599.9	0.401	2.004	1.77	1.077	49.1	41.9	14.1	0.744
3-7350	3-8140	0.307	42.6	15.3	0.62	0.741	110.6	0.364	1.489	234.4	681.6	0.947	2.031	1.77	1.148	80.0	0.8	-8.2	0.257
3-7350	3-8150	0.364	178.3	0.3	0.32	0.634	58.0	0.604	1.221	150.7	607.6	0.483	1.960	1.78	1.080	54.8	47.9	15.4	0.661
3-7350	3-8150	0.290	42.0	15.8	0.32	0.740	109.2	0.343	1.486	234.4	691.3	0.976	1.997	1.78	1.146	82.8	1.3	-9.7	0.217
3-7360	3-7520	0.570	50.0	4.2	12.03	0.837	127.4	0.619	1.943	284.0	432.9	0.741	---	11.77	1.207	116.6	318.3	6.7	0.596
3-7360	3-7530	0.506	49.5	10.9	5.84	0.795	129.0	0.574	1.712	238.2	436.6	0.429	---	5.73	1.180	116.2	330.2	-0.3	0.547
3-7360	3-7540	0.458	51.5	13.7	3.80	0.756	122.5	0.539	1.554	232.2	440.3	0.716	---	3.85	1.156	116.0	338.7	-0.7	0.526
3-7360	3-7550	0.414	54.3	15.6	2.74	0.722	119.8	0.512	1.440	229.2	443.9	0.703	---	2.96	1.136	115.8	346.5	0.6	0.512
3-7360	3-7560	0.373	57.7	17.1	2.06	0.690	116.9	0.491	1.353	220.1	447.5	0.689	---	2.46	1.119	115.7	354.1	2.8	0.502
3-7360	3-7570	0.334	62.1	18.6	1.56	0.662	113.7	0.477	1.286	213.9	451.0	0.673	---	2.15	1.104	115.7	1.6	5.4	0.496
3-7360	3-7580	0.299	67.6	20.0	1.16	0.636	110.4	0.469	1.233	207.6	454.6	0.655	---	1.96	1.091	115.9	9.1	8.2	0.495
3-7360	3-7590	0.266	74.7	21.4	0.82	0.612	106.7	0.466	1.189	201.3	458.2	0.634	---	1.86	1.080	116.3	16.7	11.0	0.497
3-7360	3-7600	0.238	84.2	22.7	0.50	0.590	102.6	0.471	1.153	195.0	461.9	0.610	---	1.81	1.070	117.0	24.4	13.8	0.505
3-7360	3-7610	0.216	96.7	23.4	0.10	0.570	98.0	0.482	1.123	188.8	465.7	0.582	---	1.82	1.062	118.1	32.3	16.5	0.520
3-7360	3-7620	0.206	112.4	22.8	0.15	0.551	92.9	0.502	1.097	182.9	469.8	0.547	---	1.89	1.054	119.6	40.2	19.0	0.543
3-7360	3-7630	0.213	129.5	20.3	0.52	0.534	86.9	0.532	1.076	177.2	474.2	0.503	1.648	2.03	1.047	121.8	48.2	21.2	0.577
3-7360	3-7640	0.243	145.2	16.4	0.97	0.519	79.7	0.575	1.057	172.2	479.4	0.449	1.666	2.27	1.041	124.9	56.1	23.0	0.627
3-7360	3-7650	0.298	157.1	12.5	1.56	0.506	71.0	0.636	1.043	168.2	485.5	0.379	1.706	2.66	1.036	129.4	63.7	24.3	0.698
3-7360	3-7660	0.383	164.8	9.6	2.44	0.496	59.9	0.719	1.031	165.9	493.3	0.290	1.773	3.36	1.032	135.9	70.5	25.3	0.803
3-7360	3-7670	0.503	168.4	8.1	4.00	0.489	45.5	0.823	1.025	166.2	503.8	0.181	1.868	4.75	1.029	145.4	76.0	25.7	0.952
3-7360	3-7770	0.584	184.8	-2.7	0.78	0.677	39.2	0.791	1.322	352.1	230.2	---	2.367	1.85	1.112	39.1	81.5	14.6	0.928
3-7360	3-7780	0.547	187.0	-3.5	0.47	0.689	42.7	0.750	1.349	148.9	236.6	---	2.360	1.81	1.114	43.2	48.2	16.3	0.861
3-7360	3-7790	0.511	189.2	-4.2	0.16	0.699	46.0	0.709	1.376	145.5	243.0	---	2.351	1.82	1.121	47.0	55.8	17.6	0.797
3-7360	3-7800	0.478	191.3	-4.8	0.16	0.708	49.0	0.669	1.401	142.3	249.5	---	2.339	1.89	1.125	50.7	61.8	18.6	0.735
3-7360	3-7810	0.447	193.4	-5.2	0.52	0.717	51.8	0.631	1.426	139.3	256.1	---	2.326	2.02	1.128	54.2	68.7	19.2	0.675
3-7360	3-7820	0.418	195.5	-5.4	0.94	0.725	54.3	0.594	1.450	136.4	262.7	---	2.311	2.24	1.132	57.5	75.4	19.3	0.618
3-7360	3-7830	0.392	197.7	-5.2	1.47	0.732	56.6	0.560	1.472	133.6	269.5	---	2.295	2.60	1.136	60.6	82.0	18.7	0.564
3-7360	3-7840	0.368	199.9	-4.5	2.23	0.738	58.6	0.528	1.492	130.9	276.4	---	2.279	3.19	1.139	63.7	88.3	17.1	0.513
3-7360	3-7850	0.347	202.4	-2.6	3.48	0.744	60.5	0.498	1.510	128.5	283.5	---	2.263	4.27	1.142	66.5	94.3	13.7	0.466
3-7360	3-7860	0.333	205.6	2.3	6.12	0.749	62.2	0.472	1.526	126.2	290.7	---	2.247	6.76	1.146	69.3	99.8	6.0	0.430
3-7360	3-7870	0.369	210.8	21.0	16.61	0.753	63.6	0.449	1.541	124.2	298.0	---	2.232	17.10	1.149	71.9	106.8	-19.8	0.480
3-7360	3-7880	0.438	169.1	-44.9	-26.56	0.756	65.0	0.426	1.553	122.3	306.4	---	2.215	26.22	1.152	74.7	174.4	71.2	0.574
3-7360	3-7890	0.295	196.2	-27.9	-8.02	0.759	66.0	0.409	1.564	120.7	314.1	---	2.203	7.83	1.155	77.1	121.6	49.8	0.318
3-7360	3-7900	0.273	201.2	-22.2	-4.67	0.761	66.9	0.395	1.572	119.3	322.3	---	2.193	4.64	1.158	79.6	119.5	41.7	0.263
3-7360	3-7910	0.261	203.6	-19.5	-3.23	0.763	67.6	0.383	1.579	118.3	330.8	---	2.184	3.36	1.162	82.0	117.9	38.7	0.226
3-7360	3-7920	0.254	205.1	-17.9	-2.38	0.764	68.1	0.375	1.584	117.4	339.7	---	2.179	2.69	1.165	84.5	113.9	37.8	0.198
3-7360	3-7930	0.250	206.1	-16.6	-1.81	0.765	68.3	0.371	1.588	116.9	348.9	---	2.177	2.29	1.167	87.0	106.8	37.6	0.181
3-7360	3-7940	0.250	206.8	-15.5	-1.36	0.766	68.3	0.371	1.590	116.7	358.5	---	2.179	2.05	1.170	89.6	97.1	37.1	0.176
3-7360	3-7950	0.253	207.1	-14.5	-0.99	0.766	68.1	0.375	1.591	116.8	368.5	0.995	2.187	1.90	1.173	92.3	87.5	35.6	0.185
3-7360	3-7960	0.260	207.1	-13.4	-0.66	0.766	67.5	0.384	1.591	117.2	378.8	0.980	2.202	1.83	1.175	96.2	80.5	33.5	0.209
3-7360	3-7970	0.272	206.8	-12.3	-0.35	0.766	66.5	0.399	1.590	118.0	389.6	0.955	2.225	1.81	1.178	98.3	76.9	31.5	0.246
3-7360	3-7980	0.291	206.1	-11.1	-0.02	0.766	65.1	0.422	1.589	119.3	400.9	0.918	2.259	1.84	1.179	101.8	76.1	30.1	0.295
3-7360	3-7980	0.363	79.8	23.6	-0.02	0.555	114.9	0.614	1.102	198.3	840.0	0.425	1.778	1.84	1.055	127.5	30.7	14.9	0.679
3-7360	3-7980	0.467	73.1	23.0	-0.02	0.584	125.9	0.686	1.183	202.8	844.5	0.360	1.927	1.84	1.070	132.7	28.8	13.8	0.773
3-7360	3-7990	0.317	205.0	-9.9	0.32	0.765	63.0	0.454	1.587	121.1	412.8	0.866	2.308	1.94	1.181	105.8	77.3	29.1	0.358
3-7360	3-7990	0.262	102.3	24.1	0.32	0.521	99.3	0.569	1.060	187.2	838.9	0.456	1.663	1.94	1.040	124.6	40.7	18.6	0.621
3-7360	3-8000	0.355	203.5	-8.6	0.72	0.764	60.1	0.499	1.585	123.7	425.5	0.794	2.375	2.13	1.182	110.6	79.6	28.5	0.437

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7360	3-8000	0.248	124.8	21.6	0.72	0.505	89.0	0.58	1.041	179.3	841.1	0.437	1.646	2.13	1.033	125.4	49.7	21.2	0.632
3-7360	3-8010	0.407	201.4	-7.1	1.23	0.784	56.0	0.560	1.583	127.3	439.3	0.697	2.468	2.43	1.183	116.5	82.6	28.1	0.538
3-7360	3-8010	0.269	184.3	16.9	1.23	0.494	79.0	0.618	1.029	173.0	845.0	0.393	1.665	2.43	1.029	128.1	58.3	23.2	0.675
3-7360	3-8020	0.480	198.4	-5.5	1.93	0.764	56.2	0.691	1.581	132.6	454.7	0.568	2.594	2.94	1.184	124.0	85.4	27.7	0.668
3-7360	3-8020	0.332	157.7	12.4	1.93	0.485	67.9	0.681	1.021	168.5	850.7	0.326	1.715	2.94	1.026	132.9	66.1	24.6	0.752
3-7360	3-8030	0.584	194.3	-3.4	3.05	0.763	41.8	0.745	1.581	140.2	472.5	0.402	2.759	3.89	1.184	123.9	87.5	27.4	0.841
3-7360	3-8030	0.432	165.3	9.5	3.05	0.480	54.5	0.770	1.015	166.6	858.8	0.234	1.796	3.89	1.024	140.3	72.7	25.4	0.870
3-7360	3-8040	0.570	167.7	8.4	5.32	0.477	37.8	0.878	1.013	168.1	870.5	0.123	1.902	6.00	1.023	151.4	77.6	25.8	1.042
3-7360	3-8080	0.523	138.5	14.3	-4.62	0.254	64.7	0.914	0.869	177.4	920.6	0.075	3.663	-4.59	0.934	24.1	6.3	0.9	1.071
3-7360	3-8080	0.487	106.3	20.3	-4.62	0.339	117.4	0.854	0.909	185.2	928.4	0.133	1.685	-4.59	0.961	31.5	2.4	-1.5	0.977
3-7360	3-8090	0.568	57.5	17.4	-3.16	0.736	132.1	0.674	1.494	221.5	614.8	0.487	2.501	-3.30	1.162	51.7	350.4	-8.6	0.743
3-7360	3-8100	0.481	54.0	16.8	-2.32	0.739	124.9	0.579	1.493	226.7	630.0	0.629	2.356	-2.64	1.159	59.9	353.0	-7.8	0.598
3-7360	3-8110	0.417	51.7	16.5	-1.75	0.738	119.8	0.505	1.490	229.9	643.0	0.737	2.243	-2.26	1.156	66.2	356.3	-7.0	0.488
3-7360	3-8120	0.548	177.2	0.2	-1.31	0.592	40.7	0.807	1.156	159.3	582.4	0.224	2.088	-2.03	1.066	36.6	0.9	11.1	0.946
3-7360	3-8120	0.370	50.0	16.4	-1.31	0.737	116.0	0.449	1.487	231.6	654.7	0.819	2.155	-2.03	1.153	71.0	359.6	-6.2	0.403
3-7360	3-8130	0.492	179.6	-0.5	-0.95	0.603	46.3	0.750	1.173	156.5	589.5	0.293	2.053	-1.89	1.070	42.0	37.1	13.0	0.860
3-7360	3-8130	0.334	48.8	16.5	-0.95	0.736	113.2	0.407	1.483	232.5	665.4	0.880	2.086	-1.89	1.150	75.0	2.7	-5.7	0.336
3-7360	3-8140	0.436	180.6	-1.0	-0.65	0.613	51.6	0.690	1.192	154.1	596.8	0.370	2.013	-1.82	1.073	47.2	43.2	14.6	0.775
3-7360	3-8140	0.306	48.0	16.8	-0.63	0.735	111.1	0.374	1.480	232.7	675.4	0.926	2.034	-1.82	1.147	78.3	5.2	-5.7	0.282
3-7360	3-8150	0.382	181.9	-1.3	-0.32	0.624	56.6	0.627	1.211	152.0	604.4	0.451	1.970	-1.81	1.077	52.2	49.4	15.9	0.690
3-7360	3-8150	0.286	47.3	17.3	-0.32	0.734	109.4	0.350	1.487	232.6	685.1	0.960	1.993	-1.81	1.144	81.7	6.8	-6.5	0.238
3-7360	3-8160	0.329	182.9	-1.3	-0.01	0.634	61.3	0.564	1.230	150.4	612.5	0.536	1.923	-1.85	1.080	57.1	55.3	16.8	0.607
3-7360	3-8160	0.270	46.8	18.0	-0.01	0.733	100.2	0.332	1.475	232.6	694.5	0.985	1.964	-1.85	1.141	83.7	6.8	-8.4	0.203
3-7370	3-7550	0.564	52.8	10.4	-7.64	0.834	128.4	0.632	1.938	242.2	836.2	0.714	---	7.61	1.208	118.1	329.2	2.0	0.601
3-7370	3-7560	0.507	54.2	14.1	-4.46	0.789	125.9	0.587	1.699	236.3	439.9	0.702	---	4.59	1.180	117.6	338.5	0.1	0.569
3-7370	3-7550	0.458	56.7	16.1	-3.05	0.749	123.2	0.551	1.538	230.3	443.6	0.690	---	3.35	1.155	117.3	346.5	1.0	0.549
3-7370	3-7560	0.413	59.9	17.7	-2.22	0.713	120.4	0.524	1.422	224.2	447.2	0.676	---	2.69	1.134	117.0	354.1	3.0	0.534
3-7370	3-7570	0.370	63.8	19.0	-1.65	0.680	117.3	0.504	1.335	218.0	450.8	0.662	---	2.30	1.117	116.9	1.7	5.5	0.523
3-7370	3-7580	0.331	68.7	20.3	-1.21	0.650	113.9	0.491	1.268	211.8	454.3	0.646	---	2.06	1.103	116.9	9.2	8.2	0.517
3-7370	3-7590	0.294	75.0	21.6	-0.83	0.623	110.3	0.484	1.214	205.5	457.9	0.627	---	1.92	1.088	117.2	16.9	11.1	0.516
3-7370	3-7600	0.262	83.2	22.7	-0.50	0.598	106.3	0.483	1.171	199.2	461.6	0.605	---	1.85	1.076	117.7	24.6	13.9	0.519
3-7370	3-7610	0.235	94.3	23.5	-0.18	0.575	101.8	0.490	1.135	192.9	465.3	0.579	---	1.83	1.066	118.5	32.5	16.6	0.529
3-7370	3-7620	0.217	106.2	23.3	0.15	0.554	96.8	0.504	1.106	186.8	469.2	0.548	---	1.88	1.058	119.7	40.5	19.0	0.546
3-7370	3-7630	0.214	124.8	21.4	0.51	0.535	91.0	0.528	1.081	180.9	473.5	0.510	---	1.98	1.050	121.5	48.6	21.2	0.584
3-7370	3-7640	0.231	141.4	17.7	0.92	0.517	84.3	0.564	1.060	175.5	478.2	0.462	1.658	2.18	1.042	124.1	56.7	23.1	0.613
3-7370	3-7650	0.273	155.3	13.3	1.44	0.502	76.1	0.616	1.042	170.9	483.8	0.401	1.684	2.50	1.036	127.9	64.6	24.5	0.672
3-7370	3-7660	0.343	165.1	9.6	2.18	0.489	65.9	0.687	1.029	167.6	490.6	0.322	1.735	3.05	1.030	133.3	71.9	25.4	0.759
3-7370	3-7670	0.446	170.7	7.3	3.37	0.480	52.9	0.780	1.019	166.4	499.6	0.224	1.815	4.06	1.026	141.2	78.2	26.0	0.885
3-7370	3-7680	0.586	172.2	6.5	5.88	0.476	36.0	0.889	1.016	168.5	511.8	0.113	1.930	6.80	1.024	152.7	82.8	26.1	1.061
3-7370	3-7770	0.598	188.0	-4.1	-0.79	0.666	57.9	0.806	1.303	153.9	227.5	---	2.353	-1.91	1.107	37.5	42.8	15.0	0.952
3-7370	3-7780	0.560	190.2	-4.9	-0.47	0.678	41.6	0.765	1.330	150.5	233.8	---	2.348	-1.84	1.112	41.6	49.5	16.7	0.885
3-7370	3-7790	0.524	192.4	-5.6	-0.16	0.689	45.0	0.724	1.358	147.2	240.3	---	2.340	-1.83	1.116	45.6	56.3	18.0	0.819
3-7370	3-7800	0.490	194.6	-6.2	0.16	0.699	48.1	0.683	1.384	144.0	246.8	---	2.329	-1.88	1.121	49.3	63.2	19.0	0.756
3-7370	3-7810	0.458	196.8	-6.7	0.50	0.708	51.0	0.644	1.409	141.0	253.3	---	2.317	-1.98	1.125	52.9	70.0	19.6	0.695
3-7370	3-7820	0.429	198.9	-6.9	0.89	0.717	53.6	0.606	1.434	138.0	259.9	---	2.302	-2.16	1.129	56.3	76.8	19.7	0.637
3-7370	3-7830	0.401	201.0	-6.9	1.37	0.724	56.0	0.570	1.456	135.2	266.7	---	2.287	-2.45	1.132	59.5	83.4	19.2	0.582
3-7370	3-7840	0.377	203.2	-6.4	2.01	0.731	58.1	0.537	1.477	132.6	273.6	---	2.271	-2.91	1.136	62.6	89.8	17.9	0.529
3-7370	3-7850	0.355	205.6	-5.1	2.99	0.737	60.1	0.507	1.497	130.1	280.6	---	2.255	-3.73	1.140	65.5	95.9	15.3	0.480
3-7370	3-7860	0.337	208.3	-1.9	4.80	0.742	61.8	0.479	1.514	127.8	287.8	---	2.239	-5.37	1.143	68.3	101.3	9.9	0.434
3-7370	3-7870	0.336	212.2	7.5	9.68	0.746	63.3	0.455	1.529	125.7	295.2	---	2.224	-10.10	1.147	71.0	106.3	-4.3	0.423
3-7370	3-7890	0.320	195.0	-35.5	-11.93	0.753	65.9	0.413	1.553	122.1	311.1	---	2.195	11.81	1.153	76.3	133.1	58.1	0.366
3-7370	3-7900	0.281	204.0	-25.7	-5.74	0.756	66.8	0.398	1.563	120.7	319.2	---	2.184	5.78	1.157	78.7	124.9	44.4	0.280
3-7370	3-7910	0.266	207.1	-21.9	-3.68	0.758	67.5	0.385	1.570	119.6	327.7	---	2.175	3.89	1.160	81.2	123.1	39.6	0.237
3-7370	3-7920	0.258	208.9	-19.8	-2.62	0.759	68.1	0.376	1.576	118.7	336.5	---	2.168	2.99	1.163	83.6	120.0	38.0	0.206
3-7370	3-7930	0.253	210.1	-18.4	-1.93	0.760	68.4	0.370	1.580	118.1	345.6	---	2.165	2.48	1.166	86.1	119.9	37.7	0.184
3-7370	3-7940	0.251	210.9	-17.2	-1.43	0.761	68.5	0.368	1.583	117.7	355.4	---	2.166	2.18	1.169	88.7	104.8	37.5	0.175
3-7370	3-7950	0.253	211.3	-16.1	-1.02	0.762	68.4	0.371	1.584	117.7	365.0	0.997	2.172	1.99	1.172	91.3	98.8	36.5	0.179
3-7370	3-7960	0.259	211.4	-15.0	-0.67	0.762	67.9	0.378	1.585	118.0	375.2	0.986	2.184	1.88	1.174	94.1	86.6	34.6	0.198
3-7370	3-7970	0.269	211.2	-13.9	-0.35	0.762	67.1	0.391	1.584	118.6	385.8	0.965	2.203	1.83	1.176	97.2	81.8	32.6	0.230
3-7370	3-7980	0.285	210.7	-12.8	-0.02	0.761	65.9	0.411	1.583	119.7	396.8	0.932	2.233	1.85	1.178	100.5	80.2	31.0	0.275
3-7370	3-7990	0.308	209.7	-11.7	0.31	0.761	64.1	0.439	1.581	121.2	408.4	0.886	2.275	1.92	1.180	104.3	80.8	29.8	0.332
3-7370	3-7990	0.304	95.5	24.4	0.31	0.529	107.2	0.593	1.073	192.7	839.9	0.437	1.710	1.92	1.046	126.1	40.3	18.3	0.651
3-7370	3-7990	0.542	77.1	23.7	0.31	0.597	153.7	0.752	1.170	203.0	850.2	0.290	2.050	1.92	1.092	138.2	36.1	16.0	0.868
3-7370	3-8000	0.340	208.4	-10.5	0.69	0.760	61.5	0.479	1.579	123.3	420.7	0.823	2.334	2.06	1.181	108.7	82.9	29.0	0.403
3-7370	3-8000	0.252	118.3	22.8	0.69	0.505	94.9	0.582	1.046	183.5	840.9	0.437	1.656	2.06	1.036	125.5	49.9	21.2	0.635
3-7370	3-8010	0.386	206.5	-9.2	1.15	0.759	58.0	0.532	1.576	126.4	433.8	0.738	2.415	2.31	1.182	114.0	85.2	28.4	0.493
3-7370	3-8010	0.256	139.9	18.3	1.15	0.491	84.5	0.607	1.031	176.4	843.9	0.405	1.656	2.31	1.030	127.3	58.8	23.3	0.661
3-7370	3-8020	0.449	204.0	-7.7	1.76	0.759	52.9	0.604	1.574	130.8	448.4	0.624	2.525	2.72	1.182	120.7	88.9	28.0	0.609
3-7370	3-8020	0.302	156.3	13.0	1.76	0.481	73.7	0.657	1.020	171.0	848.6	0.350	1.690	2.72	1.026	131.0	67.1	24.7	0.720
3-7370	3-8030	0.538	200.4	-5.9	2.66	0.759	45.8	0.698	1.573	137.1	465.0	0.475	2.672	3.44	1.183	129.5	91.4	27.6	0.762
3-7370	3-8030	0.385	166.4	9.1	2.66	0.473	61.2	0.733	1.013	167.7	855.5	0.271	1.755	3.44	1.023	137.1	74.5	25.6	0.817
3-7370	3-8040	0.505	171.0	7.1	4.29	0.469	45.9	0.833	1.009	167.4	865.4	0.169	1.849	4.89	1.021	146.4	80.3	26.0	0.963
3-7370	3-8080	0.564	143.3	12.9	-5.66	0.219	58.8	0.943	0.860	177.9	916.6	0.049	1.670	-5.71	0.927	19.7	8.3	1.9	1.129
3-7370	3-8080	0.538	109.0	20.1	-5.66	0.326	123.3	0.898	0.905	185.4	924.2	0.097	1.713	-5.71	0.958	26.9	4.4	-0.7	1.044
3-7370	3-8100	0.508	60.5	18.2	-2.54	0.733	127.8	0.619	1.484	224.0	622.7	0.566	2.403	-2.93	1.157	56.3	356.2	-6.3	0.660
3-7370	3-8110	0.435	57.7	17.9	-1.86	0.732	121.8	0.536	1.482	227.8	636.5	0.686	2.276	-2.44	1.154	63.3	359.2	-5.4	0.537
3-7370	3-8120	0.569	180.6	-1.2	-1.37	0.581	38.7	0.828	1.145	160.8	579.4	0.197	2.093	-2.15	1.062	34.4	32.3	11.7	0.979
3-7370	3-8120	0.380	55.8	17.8	-1.37	0.731	117.4	0.472	1.479	229.9	648.5	0.780	2.177	-2.15	1.151	68.7	2.7	-4.5	0.442
3-7370	3-8130	0.512	182.4	-1.9	-0.98	0.592	44.4	0.773	1.162	158.0	586.9	0.264	2.069	-1.97	1.066	39.9	38.5	13.5	0.892
3-7370	3-8130	0.339	54.4	17.9	-0.98	0.730	114.2	0.424	1.475	230.9	659.4	0.850	2.100	-1.97	1.148	73.0	6.0	-3.8	0.368

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7370	3-8140	0.456	184.0	-2.5	-0.64	0.603	49.9	0.713	1.180	155.5	593.7	0.339	2.022	-1.87	1.069	45.2	44.8	15.1	0.806
3-7370	3-8140	0.308	53.5	18.2	-0.64	0.729	111.7	0.366	1.471	231.2	669.5	0.903	2.040	-1.87	1.145	76.5	9.1	-3.4	0.308
3-7370	3-8150	0.401	185.5	-2.9	-0.32	0.614	55.1	0.650	1.199	153.3	601.2	0.419	1.979	-1.83	1.073	50.3	50.9	16.4	0.720
3-7370	3-8150	0.283	52.8	18.7	-0.32	0.728	109.8	0.398	1.466	231.1	679.0	0.942	1.993	-1.83	1.142	79.5	11.4	-3.7	0.260
3-7370	3-8160	0.347	186.6	-3.0	-0.01	0.622	60.0	0.586	1.219	151.6	609.2	0.504	1.934	-1.85	1.077	55.3	56.9	17.3	0.636
3-7370	3-8160	0.265	52.4	19.4	-0.01	0.727	108.3	0.336	1.465	230.7	688.3	0.972	1.958	-1.85	1.139	82.2	12.7	-4.9	0.221
3-7370	3-8170	0.395	187.4	-2.6	0.32	0.635	64.7	0.523	1.234	150.5	617.8	0.591	1.886	-1.92	1.081	60.1	62.6	17.8	0.554
3-7370	3-8170	0.251	52.0	20.2	0.32	0.726	107.2	0.521	1.463	230.2	697.5	0.993	1.932	-1.92	1.137	84.6	12.2	-7.3	0.190
3-7380	3-7540	0.564	57.2	14.2	-5.44	0.829	129.3	0.643	1.923	240.3	439.5	0.687	---	5.64	1.208	159.5	338.1	1.2	0.619
3-7380	3-7550	0.508	59.4	16.6	-3.47	0.782	126.7	0.598	1.679	234.4	443.2	0.676	---	3.84	1.179	119.0	340.4	1.5	0.591
3-7380	3-7560	0.457	62.3	18.2	-2.43	0.740	123.9	0.563	1.516	228.3	446.8	0.663	---	2.97	1.154	118.6	354.2	3.2	0.570
3-7380	3-7570	0.410	65.9	19.5	-1.76	0.702	120.8	0.536	1.400	222.1	450.4	0.650	---	2.47	1.132	118.3	1.8	5.6	0.555
3-7380	3-7580	0.366	70.3	20.7	-1.26	0.668	117.5	0.517	1.314	215.9	454.0	0.635	---	2.17	1.111	118.1	9.4	8.3	0.548
3-7380	3-7590	0.326	75.8	21.8	-0.86	0.637	113.9	0.504	1.247	209.6	457.6	0.618	---	1.99	1.098	118.2	17.0	11.1	0.537
3-7380	3-7600	0.289	83.0	22.8	-0.51	0.609	110.0	0.499	1.194	203.3	461.2	0.598	---	1.89	1.084	118.5	24.8	13.9	0.536
3-7380	3-7610	0.257	92.4	23.6	-0.18	0.583	105.7	0.501	1.152	197.0	464.9	0.575	---	1.83	1.072	119.0	32.7	16.6	0.540
3-7380	3-7620	0.233	104.8	23.6	0.15	0.559	100.8	0.510	1.117	190.7	468.8	0.548	---	1.80	1.062	120.0	40.7	19.1	0.552
3-7380	3-7630	0.220	120.2	22.3	0.49	0.537	95.2	0.528	1.088	184.7	472.8	0.534	---	1.94	1.052	121.5	48.9	21.3	0.572
3-7380	3-7640	0.226	137.0	19.0	0.88	0.517	88.8	0.557	1.064	179.0	477.3	0.471	1.656	2.10	1.044	123.6	57.2	23.1	0.605
3-7380	3-7650	0.254	152.5	14.4	1.35	0.500	81.1	0.600	1.044	174.0	482.4	0.418	1.670	2.36	1.037	126.7	65.3	24.5	0.653
3-7380	3-7660	0.310	164.3	10.1	1.98	0.484	71.7	0.660	1.028	169.9	488.5	0.349	1.706	2.75	1.030	131.3	73.1	25.5	0.725
3-7380	3-7670	0.397	172.0	6.9	2.93	0.472	59.7	0.742	1.016	167.5	496.2	0.262	1.769	3.56	1.024	137.9	80.0	26.1	0.829
3-7380	3-7680	0.519	175.5	5.2	4.08	0.465	44.4	0.844	1.009	167.8	506.7	0.157	1.860	5.14	1.021	147.6	85.5	26.2	0.980
3-7380	3-7780	0.573	193.4	-6.3	-0.47	0.667	40.4	0.780	1.312	152.2	231.1	---	2.335	-1.88	1.107	40.0	50.8	17.0	0.908
3-7380	3-7790	0.537	195.7	-7.0	-0.16	0.679	43.9	0.738	1.339	148.9	237.5	---	2.328	-1.85	1.112	44.1	57.6	18.4	0.842
3-7380	3-7800	0.502	197.9	-7.6	0.16	0.690	47.2	0.697	1.366	145.7	244.0	---	2.318	-1.87	1.116	47.9	64.5	19.4	0.778
3-7380	3-7810	0.470	200.1	-8.1	0.48	0.700	50.2	0.657	1.392	142.6	250.5	---	2.307	-1.94	1.121	51.6	71.4	19.9	0.716
3-7380	3-7820	0.440	202.3	-8.4	0.85	0.709	52.9	0.618	1.417	139.7	257.2	---	2.293	-2.08	1.125	55.1	78.2	20.1	0.657
3-7380	3-7830	0.412	204.4	-8.4	1.28	0.717	55.3	0.582	1.441	136.9	263.9	---	2.279	-2.31	1.129	58.3	84.9	19.0	0.600
3-7380	3-7840	0.386	206.6	-8.1	1.84	0.724	57.6	0.548	1.462	134.2	270.8	---	2.263	-2.69	1.133	61.5	91.3	18.5	0.546
3-7380	3-7850	0.363	208.8	-7.2	2.64	0.730	59.6	0.516	1.483	131.7	277.8	---	2.247	-3.31	1.137	64.5	97.4	16.9	0.496
3-7380	3-7860	0.344	211.3	-5.8	3.97	0.736	61.4	0.487	1.501	129.4	285.0	---	2.232	-4.48	1.141	67.3	103.0	12	0.450
3-7380	3-7870	0.332	214.4	0.5	6.85	0.740	63.0	0.461	1.517	127.2	292.3	---	2.216	-7.20	1.144	70.0	107.8	3.4	0.416
3-7380	3-7880	0.386	218.5	21.5	19.32	0.745	64.4	0.439	1.531	125.3	299.8	---	2.202	-19.52	1.148	72.6	114.1	-26.5	0.498
3-7380	3-7890	0.405	182.3	-47.1	-22.96	0.748	65.7	0.417	1.543	123.5	308.3	---	2.186	22.94	1.152	75.4	174.2	68.4	0.519
3-7380	3-7900	0.292	205.9	-30.3	-7.48	0.751	66.7	0.401	1.553	122.1	316.2	---	2.175	7.60	1.155	77.9	131.6	48.6	0.304
3-7380	3-7910	0.272	210.5	-24.6	-4.32	0.753	67.5	0.387	1.561	120.9	324.6	---	2.165	4.60	1.158	80.3	128.4	40.9	0.250
3-7380	3-7920	0.262	212.7	-21.8	-2.91	0.755	68.1	0.377	1.567	119.9	333.3	---	2.157	3.36	1.162	82.8	125.7	38.2	0.215
3-7380	3-7930	0.256	214.1	-20.1	-2.08	0.756	68.5	0.370	1.572	119.2	342.4	---	2.153	2.70	1.165	85.3	120.6	37.6	0.190
3-7380	3-7940	0.253	215.0	-18.8	-1.51	0.757	68.7	0.366	1.575	118.8	351.7	---	2.152	2.31	1.168	87.8	112.5	37.6	0.176
3-7380	3-7950	0.254	215.6	-17.6	-1.06	0.757	68.6	0.367	1.577	118.7	361.5	0.998	2.156	2.08	1.171	90.4	102.4	37.0	0.175
3-7380	3-7960	0.258	215.8	-16.6	-0.69	0.758	68.3	0.373	1.578	118.8	371.5	0.990	2.166	1.93	1.173	93.1	93.3	35.5	0.188
3-7380	3-7970	0.266	215.7	-15.5	-0.35	0.757	67.6	0.384	1.577	119.3	382.0	0.972	2.183	1.86	1.175	96.6	87.2	33.6	0.216
3-7380	3-7980	0.280	215.2	-14.5	-0.02	0.757	66.5	0.401	1.576	120.1	392.8	0.945	2.208	1.85	1.177	99.2	84.5	31.8	0.256
3-7380	3-7990	0.300	214.4	-13.4	0.31	0.757	65.0	0.426	1.575	121.4	404.2	0.904	2.245	1.89	1.179	102.8	84.5	30.5	0.307
3-7380	3-8000	0.328	213.3	-12.3	0.67	0.756	62.8	0.460	1.572	123.2	416.1	0.849	2.296	2.00	1.180	106.9	86.2	29.5	0.372
3-7380	3-8000	0.275	111.5	23.7	0.67	0.510	101.7	0.594	1.055	186.3	841.2	0.428	1.681	2.00	1.039	126.3	49.8	21.0	0.649
3-7380	3-8000	0.592	82.5	24.3	0.67	0.604	139.0	0.798	1.186	202.0	854.9	0.239	2.132	2.00	1.089	142.3	44.0	18.2	0.938
3-7380	3-8010	0.368	211.6	-11.1	1.09	0.755	59.7	0.507	1.570	125.7	428.8	0.773	2.366	2.20	1.181	111.8	89.0	28.8	0.454
3-7380	3-8010	0.253	134.4	19.8	1.09	0.491	90.3	0.602	1.034	180.2	843.2	0.412	1.656	2.20	1.032	126.9	59.2	23.3	0.655
3-7380	3-8020	0.423	209.4	-9.8	1.62	0.755	55.3	0.371	1.568	129.4	442.6	0.672	2.463	2.53	1.181	117.8	92.1	26.2	0.558
3-7380	3-8020	0.280	153.5	14.2	1.62	0.478	79.4	0.636	1.021	173.9	847.1	0.369	1.673	2.53	1.027	129.6	68.0	24.8	0.697
3-7380	3-8030	0.499	206.3	-8.2	2.38	0.754	49.1	0.656	1.566	134.2	458.1	0.539	2.593	3.10	1.181	125.6	95.0	27.7	0.692
3-7380	3-8030	0.346	166.4	9.2	2.38	0.469	67.5	0.701	1.012	169.5	852.9	0.302	1.722	3.10	1.023	134.5	75.9	25.7	0.775
3-7380	3-8040	0.449	173.4	6.2	3.61	0.463	53.4	0.790	1.006	167.6	861.2	0.211	1.801	4.15	1.020	142.2	82.6	26.2	0.896
3-7380	3-8050	0.589	175.4	5.1	6.22	0.460	35.8	0.896	1.004	169.3	873.0	0.105	1.903	6.60	1.018	153.6	87.4	26.2	1.070
3-7380	3-8080	0.594	113.4	19.6	-7.35	0.310	137.8	0.931	0.900	184.9	919.2	0.062	1.738	-7.47	0.955	21.4	6.8	0.4	1.121
3-7380	3-8100	0.541	67.2	19.4	-2.82	0.728	131.1	0.664	1.476	220.9	615.3	0.497	2.455	-3.27	1.156	52.3	359.3	-4.8	0.730
3-7380	3-8110	0.456	63.9	19.1	-2.01	0.727	124.1	0.570	1.374	225.5	629.8	0.633	2.314	-2.64	1.153	60.3	2.2	-4.0	0.590
3-7380	3-8120	0.591	183.8	-2.6	-1.45	0.571	36.6	0.849	1.134	162.3	576.5	0.172	2.096	-2.28	1.058	32.2	33.7	12.2	1.012
3-7380	3-8120	0.394	61.7	19.0	-1.45	0.726	119.1	0.498	1.471	228.1	642.0	0.738	2.204	-2.28	1.150	66.2	5.6	-3.0	0.484
3-7380	3-8130	0.534	185.8	-3.4	-1.01	0.582	42.5	0.795	1.151	159.4	583.4	0.236	2.066	-2.05	1.062	37.7	40.0	14.1	0.925
3-7380	3-8130	0.347	60.2	19.1	-1.01	0.725	115.3	0.443	1.467	229.4	653.5	0.817	2.117	-2.05	1.147	70.9	9.1	-2.1	0.402
3-7380	3-8140	0.477	187.5	-4.6	-0.65	0.593	48.1	0.736	1.169	156.8	590.6	0.308	2.029	-1.92	1.065	43.1	46.2	15.6	0.838
3-7380	3-8140	0.311	59.1	19.5	-0.65	0.724	112.5	0.401	1.463	229.8	663.7	0.877	2.050	-1.92	1.143	74.7	12.5	-1.5	0.337
3-7380	3-8150	0.421	189.0	-4.4	-0.32	0.605	53.5	0.674	1.188	154.5	598.1	0.387	1.988	-1.86	1.069	48.4	52.4	16.9	0.751
3-7380	3-8150	0.283	58.5	20.0	-0.32	0.723	110.2	0.368	1.459	229.7	673.2	0.922	1.997	-1.86	1.140	77.9	15.4	-1.3	0.284
3-7380	3-8160	0.366	190.3	-4.6	-0.01	0.616	58.6	0.610	1.208	152.7	605.9	0.472	1.944	-1.85	1.074	53.5	58.5	17.6	0.665
3-7380	3-8160	0.261	58.0	20.6	-0.01	0.722	108.5	0.343	1.456	229.1	682.4	0.956	1.955	-1.85	1.137	80.6	17.6	-1.9	0.241
3-7380	3-8170	0.312	191.2	-4.4	0.31	0.627	63.5	0.545	1.226	151.5	614.3	0.559	1.896	-1.89	1.078	58.4	64.9	18.3	0.581
3-7380	3-8170	0.244	57.7	21.5	0.31	0.721	107.2	0.324	1.453	228.5	691.3	0.982	1.924	-1.89	1.135	83.1	18.4	-3.5	0.206
3-7380	3-8180	0.261	191.7	-3.5	0.65	0.637	68.1	0.482	1.248	151.0	623.5	0.647	1.849	-2.00	1.082	63.2	69.7	18.2	0.500
3-7380	3-8180	0.232	57.4	22.5	0.65	0.720	106.2	0.311	1.451	227.8	700.3	1.000	1.901	-2.00	1.133	85.4	17.5	-6.3	0.179
3-7390	3-7550	0.564	62.2	16.9	-4.05	0.823	130.2	0.652	1.897	238.3	442.7	0.661	---	4.48	1.207	120.8	346.4	2.0	0.640
3-7390	3-7560	0.507	64.9	18.6	-2.70	0.774	127.4	0.607	1.663	232.3	446.4	0.649	---	3.30	1.177	120.3	354.3	3.5	0.612
3-7390	3-7570	0.454	68.2	19.9	-1.89	0.731	124.4	0.573	1.490	226.2	450.1	0.637	---	2.67	1.151	119.8	1.9	5.7	0.591
3-7390	3-7580	0.406	72.2	21.0	-1.33	0.691	121.2	0.547	1.376	220.0	454.7	0.623	---	2.29	1.129	119.6	9.5	8.4	0.574
3-7390	3-7590	0.361	77.2	22.0	-0.89	0.656	117.6	0.529	1.290	213.7	459.3	0.608	---	2.06	1.110	119.5	17.2	11.1	0.563
3-7390	3-7600	0.320	83.4	22.9	-0.52	0.623	113.8	0.518	1.225	207.4	464.0	0.590	---	1.93	1.094	119.4	24.9	13.9	0.556
3-7390	3-7610	0.284	91.6	23.6	-0.18	0.594	109.6	0.515	1.173	201.0	464.6	0.570	---	1.86	1.080	119.8	32.9	16.6	0.556

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7390	3-7620	0.253	102.4	23.8	0.15	0.567	104.8	0.519	1.132	194.7	468.3	0.545	---	1.85	1.067	120.5	41.0	19.1	0.562
3-7390	3-7630	0.233	116.1	22.9	0.46	0.542	99.5	0.531	1.098	188.6	472.3	0.515	---	1.90	1.056	121.6	49.3	21.3	0.576
3-7390	3-7640	0.227	132.4	20.2	0.85	0.520	93.3	0.554	1.070	182.7	476.5	0.477	---	2.02	1.047	123.4	57.6	23.1	0.601
3-7390	3-7650	0.243	148.7	15.8	1.28	0.499	86.0	0.589	1.047	177.2	481.2	0.431	1.663	2.23	1.038	125.9	65.9	24.6	0.640
3-7390	3-7660	0.285	182.4	10.9	1.83	0.482	77.2	0.639	1.028	172.5	486.7	0.371	1.685	2.58	1.030	129.7	74.0	25.6	0.698
3-7390	3-7670	0.356	172.2	6.9	2.61	0.487	68.2	0.710	1.013	169.2	493.5	0.294	1.732	3.37	1.023	135.2	81.5	26.1	0.785
3-7390	3-7680	0.462	177.7	4.4	3.92	0.456	53.2	0.802	1.003	168.0	502.5	0.199	1.808	4.30	1.018	143.3	87.8	26.3	0.912
3-7390	3-7700	0.587	196.6	-7.6	-0.48	0.457	39.2	0.796	1.293	153.9	228.4	---	2.321	-1.92	1.502	38.4	52.1	17.4	0.932
3-7390	3-7790	0.550	198.9	-8.4	-0.16	0.469	42.9	0.754	1.320	150.6	234.8	---	2.315	-1.86	1.107	42.6	58.9	18.7	0.865
3-7390	3-7800	0.515	201.2	-9.0	0.18	0.480	46.2	0.712	1.348	147.4	241.3	---	2.307	-1.85	1.112	46.5	65.8	19.7	0.799
3-7390	3-7810	0.482	203.4	-9.5	0.47	0.691	49.3	0.677	1.374	144.3	247.8	---	2.296	-1.90	1.117	50.2	72.7	20.3	0.737
3-7390	3-7820	0.451	205.6	-9.8	0.82	0.700	52.1	0.831	1.400	141.3	254.4	---	2.284	-2.01	1.121	53.8	79.6	20.4	0.676
3-7390	3-7830	0.422	207.8	-9.9	1.22	0.709	54.7	0.594	1.424	138.5	261.1	---	2.270	-2.20	1.126	57.1	86.3	20.0	0.618
3-7390	3-7840	0.396	209.9	-9.8	1.71	0.717	57.0	0.558	1.447	135.8	267.9	---	2.255	-2.50	1.130	60.3	92.3	19.1	0.563
3-7390	3-7850	0.372	212.1	-9.1	2.37	0.724	59.1	0.525	1.468	133.2	274.9	---	2.239	-2.99	1.134	63.4	99.0	17.2	0.512
3-7390	3-7860	0.352	214.4	-7.6	3.40	0.730	61.0	0.495	1.487	130.9	282.1	---	2.223	-3.84	1.138	66.3	104.7	14.0	0.463
3-7390	3-7870	0.336	217.1	-4.0	5.33	0.735	62.7	0.468	1.504	128.7	289.4	---	2.208	-5.61	1.142	69.1	109.7	7.8	0.423
3-7390	3-7880	0.339	220.6	-6.6	10.81	0.739	64.1	0.444	1.519	126.7	296.9	---	2.193	-10.93	1.146	71.8	113.7	-8.6	0.415
3-7390	3-7900	0.313	205.8	-37.1	-10.80	0.746	66.6	0.404	1.542	123.4	313.2	---	2.165	10.98	1.153	77.0	142.6	55.4	0.346
3-7390	3-7910	0.280	213.6	-27.8	-5.25	0.748	67.4	0.389	1.551	122.1	321.5	---	2.155	5.60	1.157	79.5	134.0	43.0	0.266
3-7390	3-7920	0.267	216.5	-24.0	-3.31	0.750	68.1	0.378	1.558	121.1	330.1	---	2.147	3.82	1.160	81.9	131.2	38.6	0.225
3-7390	3-7930	0.259	218.1	-21.9	-2.28	0.752	68.6	0.370	1.564	120.3	339.1	---	2.141	2.96	1.163	84.4	127.1	37.3	0.196
3-7390	3-7940	0.255	219.2	-20.3	-1.60	0.753	68.9	0.365	1.567	119.8	348.9	---	2.139	2.47	1.166	86.9	120.0	37.3	0.178
3-7390	3-7950	0.255	219.8	-19.1	-1.11	0.753	68.9	0.364	1.570	119.6	358.8	---	2.142	2.17	1.169	89.5	110.3	37.2	0.172
3-7390	3-7960	0.258	220.1	-18.0	-0.71	0.754	68.6	0.368	1.571	119.6	367.9	0.993	2.149	1.99	1.172	92.1	100.5	36.1	0.181
3-7390	3-7970	0.265	220.1	-17.0	-0.35	0.754	68.1	0.377	1.571	120.0	378.2	0.979	2.163	1.89	1.174	95.0	93.2	34.4	0.203
3-7390	3-7980	0.276	219.7	-15.9	-0.02	0.754	67.2	0.391	1.570	120.6	388.9	0.955	2.184	1.85	1.176	98.0	89.3	32.5	0.238
3-7390	3-7990	0.294	219.1	-14.9	0.30	0.753	65.8	0.413	1.568	121.6	400.0	0.920	2.216	1.87	1.178	101.4	88.5	31.0	0.285
3-7390	3-8000	0.318	218.1	-13.9	0.65	0.752	63.9	0.444	1.566	123.1	411.6	0.871	2.261	1.95	1.179	105.3	89.7	29.9	0.344
3-7390	3-8000	0.327	303.7	24.3	0.65	0.522	131.1	0.625	1.073	194.1	842.6	0.403	1.743	1.95	1.047	128.4	49.3	20.6	0.688
3-7390	3-8000	0.504	89.5	24.5	0.65	0.575	131.2	0.741	1.144	201.5	850.0	0.296	1.992	1.95	1.074	137.3	46.1	19.1	0.849
3-7390	3-8010	0.353	216.6	-17.8	1.04	0.752	61.2	0.485	1.563	125.2	423.9	0.804	2.322	2.11	1.180	109.8	92.2	29.0	0.418
3-7390	3-8010	0.262	127.9	21.3	1.04	0.493	96.6	0.604	1.040	184.4	843.0	0.412	1.667	2.11	1.034	127.0	59.4	23.2	0.658
3-7390	3-8020	0.400	214.6	-11.6	1.52	0.751	57.4	0.542	1.561	128.3	437.1	0.715	2.407	2.37	1.180	115.2	95.3	28.3	0.511
3-7390	3-8020	0.267	149.4	15.7	1.52	0.477	85.3	0.626	1.023	177.2	848.0	0.382	1.663	2.37	1.027	128.7	68.6	24.8	0.682
3-7390	3-8030	0.467	211.9	-10.3	2.16	0.751	52.0	0.617	1.559	132.7	451.7	0.597	2.521	2.82	1.180	122.1	98.5	27.7	0.631
3-7390	3-8030	0.315	165.2	9.8	2.16	0.465	73.7	0.676	1.012	171.8	850.8	0.328	1.096	2.82	1.023	132.5	77.0	25.8	0.742
3-7390	3-8040	0.559	208.1	-8.7	3.13	0.750	44.5	0.715	1.558	139.2	468.4	0.444	2.672	3.61	1.180	131.2	101.0	27.1	0.788
3-7390	3-8040	0.401	174.7	5.7	3.13	0.457	60.4	0.752	1.004	168.6	857.8	0.249	1.760	3.61	1.019	138.8	84.4	26.2	0.841
3-7390	3-8050	0.524	178.9	3.7	4.94	0.453	44.2	0.852	1.000	166.5	867.8	0.148	1.852	5.25	1.016	148.4	90.2	26.3	0.989
3-7390	3-8090	0.526	144.7	12.2	-5.07	0.217	82.2	0.923	0.864	179.3	919.3	0.066	1.661	-5.42	0.928	22.9	16.2	5.0	1.086
3-7390	3-8090	0.510	129.0	16.5	-5.07	0.272	113.7	0.898	0.884	182.9	922.8	0.090	1.679	-5.42	0.942	26.2	14.4	3.8	1.045
3-7390	3-8100	0.579	74.2	20.3	-3.18	0.723	134.9	0.712	1.467	217.6	607.5	0.422	2.512	-3.71	1.154	47.9	2.5	-3.2	0.806
3-7390	3-8110	0.482	70.4	20.1	-2.18	0.723	126.8	0.609	1.466	223.1	623.0	0.573	2.358	-2.89	1.151	56.9	5.1	-2.5	0.649
3-7390	3-8120	0.410	67.7	20.0	-1.54	0.722	121.0	0.528	1.463	226.4	636.1	0.691	2.235	-2.42	1.148	63.6	8.3	-1.5	0.530
3-7390	3-8130	0.556	189.1	-4.8	-1.05	0.572	40.4	0.817	1.140	160.8	580.5	0.209	2.070	-2.14	1.058	35.5	41.4	14.6	0.958
3-7390	3-8130	0.357	66.0	20.2	-1.05	0.721	116.7	0.465	1.459	228.0	647.6	0.780	2.138	-2.14	1.145	68.8	12.0	-0.5	0.439
3-7390	3-8140	0.499	190.9	-5.4	-0.67	0.584	66.2	0.760	1.157	158.2	587.6	0.278	2.036	-1.98	1.061	41.0	47.7	16.1	0.870
3-7390	3-8140	0.316	64.9	20.5	-0.67	0.719	113.4	0.417	1.455	228.6	658.0	0.848	2.063	-1.98	1.142	72.9	15.6	0.3	0.367
3-7390	3-8150	0.442	192.6	-5.9	-0.33	0.596	51.8	0.698	1.176	155.8	594.9	0.355	1.997	-1.88	1.065	46.4	53.9	17.4	0.783
3-7390	3-8150	0.284	64.2	21.0	-0.33	0.718	110.8	0.386	1.451	228.4	667.6	0.899	2.003	-1.88	1.139	76.2	19.0	0.7	0.309
3-7390	3-8160	0.486	194.0	-6.1	-0.01	0.607	57.1	0.633	1.196	153.9	602.7	0.438	1.953	-1.85	1.070	51.6	60.0	18.3	0.696
3-7390	3-8160	0.259	63.7	21.7	-0.01	0.717	108.8	0.352	1.447	227.8	676.6	0.938	1.956	-1.85	1.136	79.1	21.8	0.6	0.262
3-7390	3-8170	0.331	195.0	-6.6	0.30	0.619	62.2	0.568	1.216	152.5	610.9	0.526	1.907	-1.87	1.074	56.6	65.9	18.8	0.610
3-7390	3-8170	0.239	63.5	22.6	0.30	0.716	107.3	0.330	1.443	227.0	685.4	0.968	1.919	-1.87	1.133	81.6	23.7	-0.2	0.224
3-7390	3-8180	0.278	195.6	-5.4	0.63	0.630	66.9	0.503	1.237	151.8	614.9	0.615	1.858	-1.95	1.079	61.5	71.5	18.8	0.526
3-7390	3-8180	0.224	63.4	23.7	0.63	0.715	106.1	0.313	1.440	226.0	694.7	0.990	1.891	-1.95	1.131	83.9	24.1	-2.2	0.193
3-7390	3-8190	0.228	195.6	-3.9	1.00	0.640	71.4	0.440	1.257	152.2	629.8	0.704	1.811	-2.09	1.084	66.2	76.4	18.2	0.446
3-7390	3-8190	0.214	63.2	24.9	1.00	0.714	105.2	0.301	1.438	225.3	702.9	1.005	1.872	-2.09	1.129	86.1	22.7	-5.6	0.169
3-7400	3-7620	0.278	100.9	23.9	0.15	0.576	108.9	0.538	1.161	198.7	467.9	0.540	---	1.84	1.074	121.1	41.2	19.0	0.576
3-7400	3-7630	0.251	113.0	23.3	0.47	0.550	103.7	0.538	1.111	192.5	471.2	0.514	---	1.87	1.062	121.9	49.5	21.2	0.584
3-7400	3-7640	0.235	127.9	21.2	0.82	0.525	97.8	0.554	1.078	186.4	475.8	0.481	---	1.95	1.050	123.3	58.0	23.1	0.602
3-7400	3-7650	0.239	144.3	17.3	1.22	0.502	90.9	0.582	1.051	180.6	480.3	0.440	---	2.12	1.040	125.4	66.4	24.6	0.632
3-7400	3-7660	0.267	159.5	12.1	1.71	0.481	82.6	0.624	1.029	175.5	485.3	0.388	1.671	2.40	1.031	128.5	74.8	25.6	0.679
3-7400	3-7910	0.290	216.2	-31.8	-6.74	0.744	67.3	0.392	1.541	123.4	318.3	---	2.145	7.15	1.155	78.6	140.6	46.3	0.286
3-7400	3-7920	0.273	220.1	-26.3	-3.85	0.746	68.1	0.379	1.549	122.3	326.9	---	2.136	4.42	1.158	81.1	136.7	39.4	0.238
3-7400	3-7930	0.264	222.1	-23.6	-2.52	0.748	68.6	0.370	1.555	121.4	335.8	---	2.130	3.27	1.162	83.5	133.1	37.1	0.205
3-7400	3-7940	0.258	223.3	-21.9	-1.73	0.749	69.0	0.364	1.559	120.8	345.0	---	2.126	2.64	1.165	86.0	127.1	36.7	0.182
3-7400	3-7950	0.257	224.0	-20.5	-1.17	0.750	69.1	0.362	1.562	120.5	354.5	---	2.127	2.28	1.168	88.5	118.2	36.9	0.172
3-7400	3-7960	0.258	224.4	-19.4	-0.73	0.750	69.0	0.364	1.563	120.4	364.4	0.994	2.132	2.05	1.171	91.2	108.0	36.4	0.175
3-7400	3-7970	0.264	224.5	-19.3	-0.36	0.750	68.5	0.371	1.564	120.6	374.5	0.984	2.143	1.92	1.173	93.9	99.6	34.9	0.192
3-7400	3-7980	0.274	224.3	-17.3	-0.02	0.750	67.8	0.383	1.563	121.1	385.1	0.984	2.162	1.85	1.175	96.9	94.5	33.1	0.222
3-7400	3-7990	0.288	223.7	-16.3	0.30	0.750	66.6	0.402	1.561	121.9	396.0	0.934	2.189	1.85	1.177	100.1	92.7	31.5	0.265
3-7400	3-8010	0.288	120.8	22.6	1.00	0.500	104.1	0.617	1.060	189.1	843.4	0.402	1.697	2.02	1.039	127.9	59.3	22.9	0.675
3-7400	3-8020	0.263	144.0	17.4	1.43	0.478	91.4	0.621	1.026	180.9	845.3	0.309	1.663	2.73	1.029	128.5	69.0	24.7	0.676
3-7400	3-8030	0.292	162.6	10.9	1.99	0.464	79.8	0.657	1.012	174.5	849.2	0.347	1.677	2.59	1.023	131.0	77.9	25.8	0.717
3-7400	3-8150	0.287	69.9	21.9	-0.33	0.714	111.6	0.394	1.443	227.4	662.1	0.874	2.013	-1.91	1.187	74.6	22.1	2.6	0.336
3-7400	3-8160	0.259	69.6	22.6	-0.01	0.713	109.8	0.362	1.439	226.7	671.2	0.918	1.960	-1.85	1.134	77.6	25.4	2.8	0.285
3-7400	3-8170	0.236	69.4	23.5	0.30	0.711	107.5	0.337	1.435	225.7	679.8	0.952	1.918	-1.85	1.131	80.2	28.1	2.5	0.243
3-7400	3-8180	0.297	199.6	-7.2	0.62	0.622	65.7	0.525	1.225	152.6	616.3	0.582	1.869	-1.90	1.076	59.8	73.3	19.4	0.554

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7400	3-8180	0.218	69.5	24.6	0.62	0.710	106.0	0.317	1.431	224.5	688.2	0.977	1.885	-1.90	1.129	82.5	29.7	1.2	0.208
3-7400	3-8190	0.245	199.7	-6.0	0.94	0.633	70.4	0.460	1.247	152.8	626.0	0.673	1.820	-2.08	1.081	64.6	78.3	18.8	0.471
3-7400	3-8190	0.204	69.6	-25.9	0.90	0.709	104.9	0.303	1.428	223.4	696.6	0.996	1.840	-2.00	1.127	84.6	29.8	-1.2	0.181
3-7400	3-8200	0.196	199.0	-3.6	1.36	0.643	74.9	0.400	1.267	154.1	636.9	0.761	1.774	-2.19	1.086	69.3	82.5	17.6	0.392
3-7400	3-8200	0.195	69.6	27.5	1.36	0.708	104.2	0.293	1.426	222.5	705.3	1.009	1.843	-2.19	1.126	86.7	27.9	-5.1	0.161
3-7450	3-7660	0.289	339.5	18.6	1.38	0.522	108.7	0.610	1.074	193.0	481.0	0.419	---	1.73	1.050	127.3	77.3	25.1	0.665
3-7450	3-7670	0.276	154.0	14.2	1.73	0.486	101.5	0.627	1.035	187.0	485.2	0.386	---	1.87	1.033	128.7	86.1	25.6	0.680
3-7450	3-7680	0.286	169.2	8.5	2.15	0.455	92.7	0.657	1.004	181.4	489.7	0.364	---	2.10	1.018	131.1	94.7	25.6	0.711
3-7450	3-7930	0.299	240.7	-36.7	-6.56	0.733	68.6	0.377	1.504	126.5	319.0	---	2.071	7.59	1.152	79.1	163.5	42.2	0.281
3-7450	3-7940	0.282	244.0	-29.7	-3.17	0.736	69.3	0.365	1.512	126.5	327.8	---	2.063	4.34	1.156	81.6	157.2	33.9	0.226
3-7450	3-7950	0.274	245.5	-26.6	-1.77	0.737	69.8	0.356	1.517	124.8	337.0	---	2.058	3.09	1.160	84.0	152.9	31.3	0.193
3-7450	3-7960	0.270	246.3	-24.7	-0.98	0.739	70.1	0.351	1.521	124.3	346.4	---	2.055	2.46	1.163	86.5	146.6	31.3	0.172
3-7450	3-7970	0.269	246.8	-23.4	-0.44	0.739	70.2	0.349	1.524	124.0	356.0	---	2.056	2.09	1.166	89.0	137.8	32.0	0.163
3-7450	3-7980	0.271	247.0	-22.3	-0.03	0.740	70.0	0.352	1.525	123.9	366.0	0.989	2.062	1.86	1.168	91.6	128.2	32.3	0.168
3-7450	3-7990	0.277	246.9	-21.5	0.31	0.740	69.6	0.359	1.525	124.0	376.2	0.977	2.073	1.73	1.170	94.3	120.4	31.6	0.186
3-7450	3-8000	0.287	246.5	-20.7	0.62	0.739	68.8	0.372	1.524	124.4	386.7	0.958	2.091	1.66	1.172	97.1	115.9	30.4	0.217
3-7450	3-8010	0.302	245.9	-20.0	0.91	0.739	67.6	0.391	1.522	125.0	397.4	0.928	2.137	1.65	1.172	100.5	114.4	29.0	0.258
3-7450	3-8040	0.291	156.8	13.2	1.91	0.466	100.8	0.655	1.015	185.8	848.8	0.351	1.679	1.96	1.024	130.9	89.4	25.6	0.711
3-7450	3-8050	0.299	177.4	5.8	2.39	0.444	86.9	0.673	0.995	178.5	851.6	0.325	1.664	2.26	1.013	132.3	98.9	25.5	0.728
3-7450	3-8160	0.287	99.1	23.7	-0.01	0.700	113.9	0.439	1.403	223.4	646.0	0.787	2.019	-1.85	1.126	69.4	39.4	10.4	0.417
3-7450	3-8170	0.247	99.3	24.5	0.32	0.698	110.7	0.395	1.398	222.7	654.9	0.846	1.950	-1.73	1.123	72.9	43.8	11.2	0.353
3-7450	3-8180	0.215	100.1	25.5	0.61	0.696	108.0	0.360	1.392	221.1	663.0	0.891	1.893	-1.66	1.120	75.8	48.2	11.7	0.302
3-7450	3-8190	0.188	101.6	26.7	0.86	0.694	105.7	0.332	1.387	219.8	670.4	0.926	1.847	-1.65	1.118	78.2	52.3	11.8	0.260
3-7450	3-8200	0.296	220.9	-13.9	1.16	0.612	68.2	0.511	1.207	155.2	616.1	0.590	1.823	-1.68	1.067	60.5	93.5	20.5	0.533
3-7450	3-8200	0.165	103.8	28.1	1.16	0.692	103.8	0.310	1.381	216.5	677.4	0.953	1.809	-1.68	1.115	80.3	56.1	11.4	0.226
3-7450	3-8210	0.238	220.6	-12.3	1.46	0.625	73.5	0.440	1.231	156.4	626.8	0.689	1.772	-1.76	1.075	65.7	97.9	19.4	0.444
3-7450	3-8210	0.146	106.9	29.9	1.46	0.690	102.1	0.293	1.375	213.6	684.0	0.973	1.777	-1.76	1.114	82.1	59.3	10.4	0.198
3-7450	3-8220	0.182	218.4	-8.9	1.80	0.637	78.7	0.3[illegible]	1.256	159.6	639.6	0.787	1.725	-1.90	1.082	70.9	100.7	17.6	0.357
3-7450	3-8220	0.129	111.1	32.1	1.80	0.687	100.5	0.279	1.369	210.3	690.3	0.988	1.751	-1.90	1.112	83.7	61.9	8.7	0.176
3-7450	3-8230	0.129	212.2	-1.5	2.20	0.650	83.8	0.315	1.282	166.1	655.6	0.878	1.685	-2.13	1.090	76.0	100.6	14.8	0.273
3-7450	3-8230	0.115	117.0	34.9	2.20	0.685	99.0	0.268	1.363	206.7	696.3	0.998	1.728	-2.13	1.111	85.1	63.8	5.9	0.156
3-7450	3-8240	0.088	196.0	16.0	2.74	0.663	86.8	0.271	1.409	176.9	676.0	0.955	1.664	-2.51	1.098	81.0	94.4	9.5	0.198
3-7450	3-8240	0.103	325.8	38.8	2.74	0.682	97.5	0.259	1.356	202.6	701.7	1.005	1.707	-2.51	1.110	86.3	65.4	3.9	0.147
3-7500	3-7950	0.308	267.2	-36.2	-5.43	0.732	69.8	0.363	1.481	128.4	318.4	---	1.991	6.94	1.149	79.3	182.2	32.8	0.267
3-7500	3-7960	0.293	268.8	-28.5	-1.93	0.735	70.6	0.350	1.469	127.5	327.4	---	1.983	3.54	1.153	81.7	175.8	22.9	0.213
3-7500	3-7970	0.286	269.5	-25.7	-0.69	0.737	71.1	0.341	1.475	126.8	336.7	---	1.970	2.42	1.156	84.1	172.0	20.3	0.182
3-7500	3-7980	0.282	269.9	-24.1	-0.04	0.738	71.4	0.335	1.479	126.3	346.2	---	1.975	1.88	1.159	86.6	166.4	20.6	0.162
3-7500	3-7990	0.281	270.1	-23.0	0.39	0.739	71.4	0.334	1.482	126.0	356.0	---	1.976	1.57	1.162	89.0	158.5	22.0	0.153
3-7500	3-8000	0.284	270.1	-22.2	0.71	0.739	71.3	0.336	1.483	125.9	366.0	0.985	1.981	1.39	1.164	91.5	149.7	23.4	0.157
3-7500	3-8010	0.289	269.9	-21.6	0.97	0.739	70.8	0.343	1.483	125.9	376.2	0.975	1.991	1.28	1.165	94.1	142.5	23.9	0.174
3-7500	3-8020	0.299	269.5	-21.2	1.28	0.739	70.1	0.354	1.482	126.2	386.6	0.957	2.007	1.22	1.165	96.9	138.1	23.5	0.202
3-7500	3-8030	0.313	268.9	-20.9	1.42	0.738	69.0	0.372	1.480	126.6	397.2	0.929	2.031	1.21	1.165	99.8	136.7	22.6	0.241
3-7500	3-8040	0.333	268.1	-20.6	1.63	0.738	67.4	0.397	1.478	127.2	408.0	0.891	2.064	1.23	1.165	103.1	137.5	21.4	0.289
3-7500	3-8180	0.261	128.2	21.6	0.70	0.698	113.4	0.439	1.363	221.6	641.2	0.765	1.961	-1.40	1.113	68.4	60.3	17.2	0.423
3-7500	3-8190	0.218	129.8	21.8	0.95	0.696	109.9	0.392	1.358	220.4	649.6	0.825	1.890	-1.29	1.111	71.9	65.3	17.7	0.360
3-7500	3-8200	0.184	132.4	22.5	1.16	0.694	107.0	0.356	1.352	218.3	657.0	0.871	1.833	-1.23	1.108	74.7	70.4	17.9	0.309
3-7500	3-8210	0.155	136.5	23.2	1.37	0.691	104.5	0.327	1.345	215.4	663.7	0.905	1.785	-1.21	1.106	77.0	75.6	17.9	0.268
3-7500	3-8220	0.131	142.4	23.7	1.57	0.688	102.2	0.305	1.338	211.8	669.6	0.931	1.746	-1.22	1.105	78.9	80.8	17.6	0.235
3-7500	3-8230	0.252	243.6	-17.4	1.78	0.626	74.9	0.433	1.207	158.0	625.4	0.485	1.729	-1.26	1.067	65.9	118.7	17.9	0.432
3-7500	3-8230	0.110	151.3	23.8	1.78	0.685	100.0	0.287	1.330	207.3	674.6	0.949	1.711	-1.26	1.103	80.4	86.1	16.8	0.209
3-7500	3-8240	0.186	240.2	-16.1	2.02	0.642	81.0	0.358	1.236	163.0	639.9	0.794	1.678	-1.35	1.077	71.6	120.4	16.3	0.336
3-7500	3-8240	0.093	165.8	22.4	2.02	0.681	97.6	0.273	1.320	201.3	678.2	0.960	1.680	-1.35	1.101	81.4	92.3	15.7	0.191
3-7500	3-8250	0.109	223.4	-2.4	2.29	0.661	88.8	0.284	1.276	177.0	663.5	0.913	1.639	-1.50	1.090	78.4	114.5	14.4	0.227
3-7500	3-8250	0.084	198.7	12.0	2.29	0.672	93.3	0.266	1.300	189.2	675.7	0.953	1.646	-1.50	1.097	81.1	104.2	14.2	0.190
3-7550	3-7970	0.317	292.9	-26.9	-2.96	0.740	70.9	0.349	1.413	129.2	315.9	---	1.907	4.76	1.144	79.0	197.7	16.3	0.249
3-7550	3-7980	0.305	292.7	-22.5	-0.08	0.743	71.6	0.335	1.422	128.3	325.0	---	1.898	1.93	1.148	81.4	193.7	5.8	0.204
3-7550	3-7990	0.298	293.0	-20.7	0.66	0.745	72.2	0.325	1.428	127.5	334.3	---	1.892	1.23	1.151	83.8	191.7	3.8	0.175
3-7550	3-8000	0.294	293.2	-19.7	1.02	0.747	72.5	0.318	1.433	127.0	343.9	---	1.889	0.93	1.153	86.1	187.6	4.2	0.154
3-7550	3-8010	0.292	293.3	-19.1	1.25	0.748	72.7	0.315	1.436	126.6	353.7	---	1.888	0.76	1.155	88.5	181.1	6.2	0.142
3-7550	3-8020	0.293	293.4	-18.7	1.41	0.748	72.6	0.316	1.437	126.4	363.7	0.983	1.891	0.66	1.156	90.9	173.2	8.8	0.142
3-7550	3-8030	0.297	293.2	-18.5	1.53	0.749	72.3	0.321	1.438	126.4	373.8	0.976	1.899	0.60	1.157	93.3	166.0	10.9	0.154
3-7550	3-8040	0.305	293.0	-18.4	1.64	0.748	71.7	0.330	1.437	126.4	384.1	0.962	1.912	0.57	1.157	95.9	161.3	11.9	0.178
3-7550	3-8050	0.317	292.6	-18.4	1.74	0.748	70.8	0.345	1.435	126.6	394.5	0.940	1.931	0.56	1.156	98.7	159.3	11.9	0.211
3-7550	3-8060	0.335	292.0	-18.5	1.84	0.747	69.4	0.367	1.433	127.1	405.1	0.908	1.959	0.56	1.154	101.7	159.6	11.3	0.254
3-7550	3-8200	0.250	155.9	14.2	1.38	0.709	113.4	0.437	1.329	221.9	637.5	0.747	1.910	-0.67	1.103	67.7	81.9	21.6	0.424
3-7550	3-8210	0.206	158.5	14.6	1.51	0.707	109.7	0.380	1.324	220.7	645.9	0.810	1.837	-0.61	1.101	71.4	87.2	21.6	0.359
3-7550	3-8220	0.171	162.5	14.6	1.61	0.705	106.7	0.350	1.318	218.5	653.2	0.857	1.779	-0.58	1.099	74.2	92.6	21.4	0.307
3-7550	3-8230	0.142	168.2	14.2	1.71	0.703	104.1	0.320	1.312	215.5	659.7	0.892	1.732	-0.56	1.098	76.5	98.2	21.0	0.266
3-7550	3-8240	0.120	176.1	13.1	1.80	0.700	101.8	0.297	1.305	211.6	665.4	0.918	1.692	-0.56	1.097	78.3	103.8	20.3	0.233
3-7550	3-8250	0.296	269.6	-20.1	1.90	0.634	73.3	0.448	1.172	156.9	620.2	0.647	1.697	-0.57	1.058	64.5	141.2	13.9	0.448
3-7550	3-8250	0.102	187.3	10.8	1.90	0.696	99.5	0.279	1.297	206.8	670.1	0.935	1.659	-0.57	1.096	79.8	109.8	19.2	0.208
3-7550	3-8260	0.236	267.2	-18.3	2.00	0.650	79.6	0.368	1.201	161.0	633.9	0.758	1.643	-0.60	1.069	70.3	143.5	12.6	0.350
3-7550	3-8260	0.091	203.9	6.3	2.00	0.692	97.0	0.265	1.287	200.4	673.7	0.946	1.628	-0.60	1.095	80.7	116.7	17.7	0.190
3-7550	3-8270	0.139	255.0	-12.9	2.12	0.671	87.7	0.286	1.241	174.1	656.7	0.886	1.596	-0.66	1.084	77.2	139.4	12.7	0.236
3-7550	3-8270	0.099	234.3	-4.6	2.12	0.683	92.6	0.261	1.266	187.5	670.0	0.936	1.597	-0.66	1.091	80.3	129.2	14.7	0.192
3-7550	3-8340	0.082	209.2	-21.1	-0.98	0.694	95.7	0.249	1.291	195.8	747.3	0.969	1.612	2.80	1.115	95.3	81.7	42.6	0.164
3-7550	3-8340	0.202	150.3	8.9	-0.98	0.726	109.7	0.369	1.374	226.3	777.8	.67	1.880	2.80	1.136	104.6	55.1	29.5	0.318
3-7550	3-8350	0.089	231.4	-16.3	0.35	0.689	92.8	0.248	1.280	188.5	750.0	.53	1.598	1.52	1.114	95.8	91.1	33.9	0.162
3-7550	3-8350	0.271	148.5	14.0	0.35	0.739	115.2	0.442	1.408	229.2	790.7	0.786	2.029	1.52	1.146	110.0	59.5	24.5	0.410
3-7600	3-7980	0.339	314.7	-17.2	0.17	0.751	74.5	0.357	1.350	130.3	302.3	---	1.832	1.68	1.131	75.8	210.7	-5.5	0.280

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7600	3-7990	0.344	309.3	-0.5	8.46	0.756	71.6	0.337	1.362	129.0	311.0	---	1.821	-6.63	1.136	78.2	201.7	-39.8	0.271
3-7600	3-8000	0.316	314.2	-10.7	2.93	0.759	72.4	0.322	1.371	127.9	320.1	---	1.812	-1.12	1.140	80.6	212.4	-19.5	0.210
3-7600	3-8010	0.307	315.1	-11.5	2.41	0.762	73.1	0.309	1.379	127.0	329.3	---	1.805	-0.62	1.143	82.9	213.8	-17.7	0.180
3-7600	3-8020	0.300	315.6	-11.7	2.20	0.763	73.6	0.300	1.384	126.4	338.8	---	1.800	-0.44	1.145	85.2	212.3	-16.5	0.155
3-7600	3-8030	0.296	316.0	-11.8	2.09	0.765	73.9	0.295	1.388	125.9	346.6	---	1.797	-0.35	1.146	87.4	207.8	-14.5	0.138
3-7600	3-8040	0.295	316.2	-11.9	2.01	0.766	74.0	0.293	1.390	125.6	353.4	---	1.797	-0.30	1.147	89.6	200.8	-11.5	0.130
3-7600	3-8050	0.297	316.3	-12.0	1.95	0.766	73.8	0.295	1.392	125.4	368.4	0.982	1.801	-0.26	1.146	91.9	193.1	-8.1	0.134
3-7600	3-8060	0.302	316.3	-12.2	1.91	0.766	73.5	0.301	1.392	125.3	378.5	0.973	1.810	-0.25	1.145	94.3	187.1	-5.1	0.149
3-7600	3-8070	0.311	316.2	-12.5	1.86	0.766	72.8	0.311	1.391	125.4	388.7	0.958	1.824	-0.24	1.144	96.7	183.7	-3.3	0.174
3-7600	3-8080	0.324	316.1	-12.9	1.82	0.765	71.8	0.328	1.389	125.6	399.0	0.934	1.844	-0.24	1.142	99.3	182.9	-2.6	0.208
3-7600	3-8090	0.343	315.6	-13.3	1.78	0.764	70.3	0.351	1.387	126.0	409.5	0.901	1.873	-0.24	1.139	102.2	183.9	-2.8	0.250
3-7600	3-8220	0.262	181.4	5.0	2.03	0.732	114.1	0.440	1.299	224.1	634.0	0.727	1.872	0.31	1.094	66.9	104.6	23.5	0.429
3-7600	3-8230	0.213	184.2	5.1	1.97	0.730	110.2	0.385	1.295	223.4	642.8	0.796	1.794	0.27	1.094	70.9	109.6	23.0	0.357
3-7600	3-8240	0.176	188.3	4.7	1.93	0.728	107.1	0.344	1.291	221.6	650.6	0.847	1.735	0.25	1.093	74.0	115.0	22.4	0.303
3-7600	3-8250	0.148	193.8	3.7	1.88	0.726	104.5	0.312	1.285	219.0	657.5	0.884	1.687	0.24	1.093	76.4	120.3	21.5	0.260
3-7600	3-8260	0.126	200.9	2.2	1.84	0.724	102.3	0.288	1.280	215.6	663.8	0.912	1.648	0.24	1.093	78.4	125.7	20.5	0.225
3-7600	3-8270	0.110	210.1	-0.0	1.80	0.721	100.3	0.268	1.274	211.6	669.4	0.932	1.615	0.24	1.093	80.0	131.1	19.4	0.198
3-7600	3-8280	0.298	296.2	-17.9	1.76	0.662	74.9	0.411	1.153	155.7	623.1	0.679	1.627	0.25	1.057	66.8	168.3	5.7	0.403
3-7600	3-8280	0.099	222.8	-3.2	1.76	0.718	98.4	0.253	1.267	206.7	674.2	0.946	1.587	0.25	1.093	81.2	136.8	18.1	0.176
3-7600	3-8290	0.226	293.0	-17.1	1.71	0.678	81.0	0.332	1.182	160.8	638.0	0.789	1.575	0.26	1.070	72.5	170.2	5.2	0.306
3-7600	3-8290	0.095	238.0	-7.4	1.71	0.714	96.1	0.242	1.258	200.1	677.3	0.953	1.562	0.26	1.093	82.1	143.7	16.3	0.161
3-7600	3-8300	0.130	275.5	-14.9	1.66	0.700	89.8	0.249	1.227	179.4	666.4	0.921	1.532	0.29	1.086	80.1	162.7	9.2	0.185
3-7600	3-8300	0.118	269.8	-14.1	1.66	0.703	91.2	0.243	1.233	183.6	670.6	0.934	1.533	0.29	1.088	80.9	159.4	10.6	0.173
3-7600	3-8360	0.103	249.7	5.0	3.80	0.716	94.9	0.230	1.262	196.8	743.7	0.971	1.552	-1.98	1.111	94.4	107.4	6.5	0.139
3-7600	3-8360	0.187	185.7	13.4	3.80	0.746	107.9	0.339	1.335	227.5	774.3	0.883	1.787	-1.98	1.130	102.9	81.6	15.4	0.280
3-7600	3-8370	0.105	262.2	-5.9	2.61	0.712	92.8	0.229	1.252	189.6	746.6	0.966	1.538	-0.81	1.110	94.9	115.9	14.7	0.137
3-7600	3-8370	0.251	177.2	9.2	2.61	0.758	113.3	0.411	1.368	231.1	788.1	0.805	1.931	-0.81	1.140	108.3	87.5	21.0	0.372
3-7600	3-8380	0.115	271.0	-9.7	2.29	0.709	91.2	0.231	1.245	183.9	751.0	0.958	1.533	-0.52	1.109	95.7	122.2	16.1	0.145
3-7600	3-8390	0.128	277.7	-11.8	2.14	0.706	89.7	0.236	1.240	178.9	756.2	0.947	1.532	-0.39	1.108	96.7	128.0	16.0	0.156
3-7600	3-8400	0.495	326.0	-10.6	2.05	0.878	61.6	0.502	1.870	100.0	327.4	---	2.809	-0.32	1.225	79.3	242.7	-22.4	0.295
3-7600	3-8400	0.142	283.1	-13.1	2.05	0.704	88.1	0.243	1.235	174.2	761.7	0.935	1.535	-0.32	1.106	97.8	133.9	15.2	0.169
3-7650	3-8020	0.355	327.1	-14.4	12.14	0.778	73.0	0.311	1.320	127.2	312.8	---	1.730	-10.66	1.129	79.3	233.7	-64.1	0.300
3-7650	3-8030	0.311	334.8	2.9	5.22	0.781	73.8	0.296	1.328	126.0	321.8	---	1.722	-3.83	1.132	81.6	241.7	-42.5	0.207
3-7650	3-8040	0.298	336.7	0.1	3.67	0.784	74.5	0.284	1.335	125.1	331.1	---	1.715	-2.38	1.134	83.7	243.8	-37.2	0.173
3-7650	3-8050	0.290	337.8	-1.2	2.96	0.785	75.0	0.275	1.341	124.4	340.6	---	1.709	-1.77	1.134	85.8	242.3	-34.8	0.148
3-7650	3-8060	0.285	338.4	-2.0	2.52	0.787	75.3	0.269	1.344	123.9	350.2	---	1.707	-1.44	1.134	87.9	237.1	-32.9	0.131
3-7650	3-8070	0.283	338.9	-2.6	2.22	0.788	75.3	0.267	1.347	123.6	360.0	---	1.707	-1.25	1.133	90.0	229.2	-30.2	0.123
3-7650	3-8080	0.285	339.2	-3.2	1.98	0.788	75.2	0.269	1.348	123.4	369.9	0.986	1.711	-1.13	1.132	92.1	220.7	-26.6	0.125
3-7650	3-8090	0.289	339.5	-3.8	1.78	0.788	74.9	0.274	1.348	123.3	379.8	0.978	1.718	-1.07	1.130	94.2	214.2	-23.0	0.130
3-7650	3-8100	0.297	339.7	-4.4	1.59	0.788	74.3	0.284	1.348	123.3	389.9	0.964	1.731	-1.04	1.127	96.5	210.7	-20.2	0.161
3-7650	3-8110	0.310	339.9	-5.0	1.41	0.787	73.3	0.300	1.346	123.4	400.0	0.943	1.750	-1.05	1.125	98.9	209.8	-18.7	0.192
3-7650	3-8120	0.329	340.0	-5.7	1.22	0.787	71.9	0.322	1.345	123.7	410.2	0.912	1.778	-1.09	1.122	101.6	211.0	-18.1	0.231
3-7650	3-8130	0.355	339.9	-6.4	1.02	0.786	70.0	0.353	1.342	124.4	420.7	0.869	1.816	-1.16	1.119	104.7	213.3	-18.1	0.281
3-7650	3-8250	0.246	208.2	-4.6	2.35	0.759	111.5	0.393	1.271	227.1	638.7	0.771	1.771	1.33	1.089	69.8	133.0	21.4	0.369
3-7650	3-8260	0.203	211.5	-5.1	2.10	0.757	108.1	0.345	1.267	226.1	647.3	0.830	1.705	1.19	1.089	73.4	137.9	20.4	0.307
3-7650	3-8270	0.171	215.7	-6.0	1.89	0.756	105.5	0.309	1.263	224.2	655.1	0.873	1.654	1.10	1.090	76.1	142.9	19.4	0.259
3-7650	3-8280	0.147	221.0	-7.3	1.70	0.754	103.4	0.282	1.259	221.7	662.3	0.905	1.614	1.06	1.091	78.3	147.9	18.4	0.221
3-7650	3-8290	0.129	227.3	-9.0	1.52	0.752	101.5	0.260	1.255	218.7	669.0	0.928	1.581	1.04	1.092	80.1	152.7	17.5	0.190
3-7650	3-8300	0.116	234.7	-11.1	1.34	0.750	99.9	0.243	1.250	215.2	675.3	0.946	1.554	1.06	1.093	81.7	157.4	16.9	0.166
3-7650	3-8310	0.106	243.4	-13.5	1.15	0.748	98.5	0.230	1.245	211.3	681.2	0.958	1.531	1.11	1.095	83.0	161.9	16.6	0.146
3-7650	3-8320	0.245	320.6	-13.0	0.93	0.704	79.7	0.322	1.153	156.7	636.5	0.781	1.524	1.20	1.067	72.8	200.1	-4.1	0.300
3-7650	3-8320	0.100	253.8	-16.2	0.93	0.745	97.0	0.220	1.239	206.7	686.4	0.967	1.512	1.20	1.095	84.1	166.7	16.6	0.131
3-7650	3-8330	0.177	313.7	-15.0	0.66	0.719	85.5	0.254	1.181	166.5	656.2	0.881	1.481	1.35	1.080	78.4	200.0	-1.0	0.209
3-7650	3-8330	0.099	267.5	-19.0	0.66	0.742	95.3	0.212	1.231	200.4	690.1	0.971	1.492	1.35	1.096	84.9	173.1	16.4	0.121
3-7650	3-8370	0.113	255.4	-53.5	-4.37	0.747	96.2	0.211	1.242	204.7	734.7	0.980	1.503	5.99	1.107	92.5	157.9	62.9	0.154
3-7650	3-8370	0.126	222.0	-44.8	-4.37	0.755	99.9	0.236	1.262	217.2	747.1	0.965	1.560	5.99	1.112	95.1	127.2	60.5	0.180
3-7650	3-8390	0.146	283.5	16.0	7.20	0.738	92.3	0.204	1.223	189.2	739.7	0.974	1.472	-5.76	1.103	93.3	129.9	-30.9	0.151
3-7650	3-8390	0.255	209.9	-10.6	7.20	0.781	111.1	0.373	1.328	233.7	784.1	0.833	1.824	-5.76	1.132	106.1	104.7	4.0	0.341
3-7650	3-8400	0.131	292.0	2.9	4.30	0.736	91.1	0.206	1.218	184.4	744.9	0.968	1.469	-2.96	1.101	94.2	142.1	-13.3	0.127
3-7650	3-8410	0.134	298.4	-2.8	3.28	0.734	90.0	0.209	1.214	179.8	750.6	0.960	1.468	-2.04	1.100	95.2	149.2	-6.2	0.129
3-7650	3-8420	0.142	303.8	-5.7	2.73	0.732	88.8	0.214	1.210	175.5	756.4	0.951	1.469	-1.59	1.098	96.2	155.3	-3.3	0.138
3-7650	3-8430	0.488	350.4	0.0	2.37	0.904	62.8	0.491	1.834	96.0	327.1	---	2.734	-1.34	1.218	74.3	277.7	-28.6	0.299
3-7650	3-8430	0.153	308.4	-7.5	2.37	0.730	87.5	0.221	1.206	171.2	762.3	0.939	1.472	-1.34	1.095	97.3	161.1	-2.5	0.151
3-7650	3-8440	0.475	351.2	0.0	2.10	0.905	63.7	0.479	1.840	94.1	335.3	---	2.721	-1.19	1.217	82.1	278.7	-28.6	0.265
3-7650	3-8440	0.166	312.4	-8.5	2.10	0.729	86.2	0.230	1.202	167.1	768.3	0.926	1.479	-1.19	1.092	96.5	166.9	-2.8	0.166
3-7650	3-8450	0.465	351.9	0.0	1.88	0.906	64.4	0.470	1.844	92.6	343.9	---	2.711	-1.10	1.216	84.9	277.0	-28.9	0.236
3-7650	3-8450	0.181	316.0	-9.3	1.88	0.727	84.8	0.241	1.199	163.1	774.3	0.909	1.488	-1.10	1.089	99.8	172.9	-3.9	0.184
3-7700	3-8060	0.287	355.6	16.7	6.22	0.800	75.2	0.271	1.290	124.7	321.8	---	1.640	-5.64	1.120	82.1	285.7	-53.5	0.214
3-7700	3-8070	0.270	358.6	12.3	4.05	0.803	75.9	0.259	1.297	123.7	330.9	---	1.633	-3.62	1.121	84.1	285.3	-46.7	0.174
3-7700	3-8080	0.260	0.2	10.0	3.00	0.805	76.4	0.250	1.302	122.9	340.2	---	1.628	-2.73	1.123	86.1	283.3	-44.1	0.148
3-7700	3-8090	0.254	1.2	8.5	2.35	0.806	76.7	0.244	1.306	122.4	349.7	---	1.625	-2.25	1.119	88.0	278.0	-43.2	0.129
3-7700	3-8100	0.251	1.9	7.3	1.89	0.807	76.8	0.241	1.309	122.0	359.3	---	1.624	-1.97	1.118	89.5	269.2	-42.3	0.118
3-7700	3-8110	0.252	2.6	6.3	1.52	0.807	76.8	0.241	1.310	121.7	369.0	0.994	1.627	-1.79	1.116	91.7	258.7	-40.4	0.118
3-7700	3-8120	0.255	3.3	5.4	1.20	0.808	76.5	0.246	1.311	121.5	378.7	0.989	1.633	-1.70	1.113	93.7	248.9	-37.4	0.127
3-7700	3-8130	0.262	3.7	4.6	0.91	0.808	76.0	0.254	1.310	121.5	388.5	0.977	1.643	-1.66	1.110	95.7	240.6	-34.3	0.145
3-7700	3-8140	0.274	4.2	3.8	0.63	0.807	75.1	0.260	1.309	121.5	398.3	0.959	1.660	-1.67	1.108	97.8	242.7	-32.0	0.172
3-7700	3-8150	0.290	4.6	3.0	0.33	0.807	73.9	0.287	1.308	121.7	408.2	0.932	1.683	-1.73	1.105	100.2	243.3	-30.5	0.206
3-7700	3-8160	0.314	5.0	2.3	0.01	0.806	72.2	0.315	1.306	122.1	418.3	0.895	1.717	-1.85	1.102	103.0	245.5	-29.6	0.251
3-7700	3-8280	0.258	235.4	-13.8	2.15	0.782	110.1	0.367	1.245	229.7	641.0	0.789	1.702	2.12	1.087	71.4	161.8	14.8	0.336
3-7700	3-8290	0.217	238.3	-14.6	1.74	0.781	107.0	0.321	1.242	228.7	649.8	0.843	1.641	1.89	1.089	74.8	166.5	13.6	0.278

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7700	3-8300	0.187	241.9	-15.6	1.40	0.780	104.6	0.287	1.239	227.0	657.8	0.883	1.594	1.75	1.090	77.4	171.3	12.5	0.234
3-7700	3-8310	0.164	246.1	-17.0	1.10	0.778	102.7	0.261	1.235	224.7	665.3	0.912	1.558	1.68	1.092	79.5	176.1	11.6	0.199
3-7700	3-8320	0.147	251.0	-18.6	0.81	0.777	101.1	0.242	1.231	222.0	672.5	0.934	1.529	1.66	1.093	81.3	180.6	11.2	0.171
3-7700	3-8330	0.133	256.4	-20.4	0.52	0.775	99.8	0.226	1.227	219.0	679.4	0.950	1.505	1.68	1.094	82.8	185.0	11.4	0.148
3-7700	3-8340	0.123	262.5	-22.5	0.21	0.773	98.6	0.214	1.224	215.7	686.1	0.962	1.485	1.77	1.096	84.2	188.9	12.5	0.130
3-7700	3-8350	0.253	346.8	-6.2	-0.15	0.725	78.5	0.321	1.125	153.1	633.6	0.763	1.486	1.92	1.065	72.6	231.8	-12.3	0.308
3-7700	3-8350	0.116	269.1	-25.0	-0.15	0.772	97.5	0.204	1.220	212.2	692.7	0.970	1.469	1.92	1.097	85.5	192.6	14.7	0.116
3-7700	3-8360	0.190	341.5	-10.5	-0.59	0.739	83.7	0.253	1.150	160.4	651.0	0.859	1.441	2.18	1.076	77.8	233.8	-8.7	0.224
3-7700	3-8360	0.141	276.6	-28.0	-0.59	0.770	96.5	0.197	1.216	208.4	699.0	0.976	1.455	2.18	1.097	36.6	196.1	18.2	0.107
3-7700	3-8370	0.137	328.8	-20.1	-1.20	0.752	88.8	0.202	1.177	175.3	676.1	0.939	1.414	2.62	1.086	83.0	229.8	1.9	0.147
3-7700	3-8370	0.109	285.5	-31.7	-1.20	0.768	95.4	0.191	1.211	204.1	704.8	0.980	1.442	2.62	1.097	87.6	200.4	23.3	0.102
3-7700	3-8390	0.120	295.1	-48.7	-4.00	0.767	94.7	0.187	1.209	201.4	722.4	0.983	1.435	5.10	1.099	90.4	204.0	46.9	0.125
3-7700	3-8390	0.127	269.0	-48.9	-4.00	0.774	97.5	0.201	1.224	212.9	733.9	0.979	1.470	5.10	1.103	92.3	180.7	51.6	0.136
3-7700	3-8400	0.176	321.8	-67.0	-9.87	0.764	93.4	0.184	1.204	195.5	726.6	0.982	1.425	10.82	1.097	91.0	231.1	62.2	0.215
3-7700	3-8400	0.211	234.4	-59.7	-9.87	0.786	102.6	0.251	1.254	227.8	759.0	0.940	1.568	10.82	1.112	97.5	162.2	66.5	0.261
3-7700	3-8420	0.168	299.5	23.7	8.79	0.761	91.6	0.184	1.196	187.3	739.1	0.976	1.416	-8.13	1.093	92.9	141.5	-53.2	0.175
3-7700	3-8430	0.137	309.0	10.5	4.95	0.759	90.7	0.185	1.192	183.2	745.1	0.971	1.414	-4.45	1.091	93.9	162.7	-38.2	0.128
3-7700	3-8440	0.134	316.1	4.0	3.48	0.758	89.8	0.188	1.189	179.1	751.1	0.965	1.413	-3.13	1.088	94.8	173.0	-28.9	0.122
3-7700	3-8450	0.137	322.2	0.4	2.66	0.756	88.8	0.193	1.186	175.0	757.1	0.957	1.414	-2.47	1.085	95.8	180.5	-23.9	0.126
3-7700	3-8460	0.144	327.6	-1.5	2.12	0.755	87.8	0.198	1.183	170.9	763.0	0.948	1.417	-2.10	1.082	96.7	187.1	-21.4	0.136
3-7700	3-8470	0.449	17.7	11.2	1.70	0.928	64.8	0.469	1.807	90.4	332.5	---	2.655	-1.87	1.207	81.3	316.4	-25.1	0.276
3-7700	3-8470	0.153	332.4	-2.7	1.70	0.753	86.6	0.206	1.180	166.8	768.9	0.937	1.423	-1.87	1.078	97.8	193.6	-20.6	0.149
3-7700	3-8480	0.437	18.6	10.9	1.36	0.929	65.6	0.459	1.812	88.6	340.5	---	2.644	-1.74	1.205	83.9	316.2	-25.6	0.246
3-7700	3-8480	0.165	336.8	-3.3	1.36	0.752	85.4	0.216	1.177	162.7	774.7	0.923	1.431	-1.74	1.075	98.9	200.0	-20.7	0.164
3-7700	3-8490	0.428	19.3	10.7	1.06	0.930	66.2	0.452	1.816	87.2	349.1	---	2.637	-1.67	1.204	86.6	313.3	-26.9	0.223
3-7700	3-8490	0.180	340.8	-3.5	1.06	0.751	84.0	0.228	1.174	158.7	780.6	0.906	1.442	-1.67	1.071	100.1	206.5	-21.3	0.183
3-7700	3-8500	0.423	19.8	10.3	0.78	0.930	66.5	0.448	1.819	86.4	358.1	---	2.630	-1.66	1.202	89.4	307.2	-28.9	0.209
3-7700	3-8500	0.197	344.4	-3.6	0.78	0.749	82.4	0.244	1.171	154.7	786	0.885	1.457	-1.66	1.068	101.5	213.1	-22.3	0.205
3-7750	3-8050	0.292	28.6	0.3	-4.23	0.787	72.6	0.320	1.212	131.8	287.4	---	1.610	4.48	1.099	74.1	292.0	-6.8	0.320
3-7750	3-8060	0.287	31.7	-8.4	-7.45	0.794	73.9	0.303	1.227	129.9	295.7	---	1.599	7.53	1.103	76.4	296.2	6.7	0.305
3-7750	3-8090	0.241	16.8	29.7	6.17	0.807	76.9	0.246	1.261	125.9	322.2	---	1.571	-6.58	1.107	82.8	329.5	-51.1	0.214
3-7750	3-8100	0.220	21.0	23.1	3.59	0.810	77.5	0.235	1.268	125.0	331.2	---	1.565	-4.17	1.106	84.7	325.1	-43.7	0.170
3-7750	3-8110	0.210	22.9	19.5	2.37	0.812	77.9	0.226	1.273	124.2	340.5	---	1.560	-3.12	1.105	86.4	322.2	-41.2	0.143
3-7750	3-8120	0.204	24.1	17.1	1.63	0.814	78.2	0.220	1.277	123.7	349.8	---	1.557	-2.96	1.104	88.2	317.1	-41.0	0.124
3-7750	3-8130	0.201	25.0	15.3	1.10	0.815	78.4	0.217	1.279	123.3	359.2	---	1.556	-2.23	1.102	89.9	308.7	-41.6	0.113
3-7750	3-8140	0.201	25.9	13.9	0.68	0.815	78.3	0.217	1.281	123.0	368.7	1.003	1.559	-2.02	1.100	91.6	298.1	-41.7	0.112
3-7750	3-8150	0.204	26.7	12.7	0.33	0.815	78.1	0.221	1.281	122.7	378.2	0.998	1.564	-1.90	1.098	93.3	288.2	-40.4	0.119
3-7750	3-8160	0.211	27.5	11.7	0.01	0.815	77.6	0.228	1.281	122.5	387.6	0.989	1.573	-1.85	1.095	95.0	281.7	-38.2	0.135
3-7750	3-8170	0.221	28.4	10.8	-0.30	0.815	76.9	0.240	1.280	122.3	397.1	0.972	1.587	-1.85	1.093	96.9	278.9	-36.0	0.158
3-7750	3-8180	0.237	29.4	10.1	-0.62	0.814	75.8	0.258	1.278	122.2	406.6	0.949	1.608	-1.90	1.091	99.0	278.9	-34.1	0.189
3-7750	3-8190	0.258	30.3	9.5	-0.97	0.814	74.3	0.283	1.277	122.3	416.3	0.916	1.638	-2.02	1.089	101.5	280.7	-32.6	0.229
3-7750	3-8200	0.289	31.1	9.0	-1.37	0.813	72.1	0.317	1.275	122.7	426.2	0.870	1.679	-2.21	1.088	104.4	283.7	-31.3	0.279
3-7750	3-8310	0.294	265.0	-20.3	1.42	0.790	109.9	0.364	1.219	229.6	639.1	0.775	1.662	2.42	1.087	71.2	190.9	3.4	0.337
3-7750	3-8320	0.250	267.4	-21.1	0.94	0.789	106.7	0.316	1.215	228.5	648.0	0.831	1.600	2.14	1.086	74.7	195.8	2.0	0.278
3-7750	3-8330	0.218	270.6	-22.1	0.55	0.787	104.2	0.281	1.212	226.5	655.9	0.871	1.553	1.97	1.090	77.3	201.1	0.8	0.234
3-7750	3-8340	0.193	274.4	-23.1	0.20	0.786	102.2	0.255	1.208	223.9	663.2	0.900	1.516	1.88	1.091	79.4	206.4	-0.1	0.200
3-7750	3-8350	0.173	278.9	-24.3	-0.13	0.784	100.5	0.234	1.204	220.6	670.0	0.922	1.486	1.84	1.092	81.1	211.9	-0.6	0.173
3-7750	3-8360	0.158	284.2	-25.6	-0.46	0.782	99.0	0.218	1.199	216.8	676.3	0.938	1.461	1.87	1.092	82.6	217.5	-0.6	0.152
3-7750	3-8370	0.293	13.1	3.7	-0.81	0.721	73.7	0.389	1.081	150.1	619.8	0.661	1.501	1.96	1.651	67.7	259.3	-18.2	0.395
3-7750	3-8370	0.145	290.6	-27.0	-0.81	0.780	97.5	0.205	1.194	212.4	682.0	0.950	1.439	1.96	1.092	83.8	223.4	0.0	0.136
3-7750	3-8380	0.222	8.7	-0.5	-1.21	0.736	79.5	0.305	1.107	154.0	633.8	0.769	1.446	2.13	1.063	73.4	263.2	-16.1	0.301
3-7750	3-8380	0.134	299.2	-28.3	-1.21	0.777	96.0	0.194	1.188	206.7	686.5	0.958	1.419	2.13	1.091	84.7	230.1	1.1	0.125
3-7750	3-8390	0.155	356.3	-10.6	-1.70	0.753	85.9	0.227	1.138	165.6	655.6	0.880	1.396	2.41	1.075	79.5	262.6	-10.6	0.203
3-7750	3-8390	0.125	313.6	-28.8	-1.70	0.773	93.9	0.186	1.179	197.5	687.5	0.959	1.398	2.41	1.089	85.1	240.2	1.7	0.122
3-7750	3-8450	0.180	300.2	24.2	9.31	0.775	93.8	0.180	1.185	197.6	748.6	0.971	1.398	-9.64	1.085	94.3	148.7	-60.4	0.201
3-7750	3-8460	0.135	311.1	10.2	4.65	0.773	92.5	0.179	1.179	191.6	752.5	0.969	1.390	-5.14	1.081	94.8	180.6	-49.8	0.138
3-7750	3-8470	0.125	320.5	3.5	2.92	0.771	91.3	0.179	1.175	186.1	757.1	0.964	1.385	-3.58	1.077	95.4	195.6	-41.6	0.126
3-7750	3-8480	0.123	328.8	0.2	1.98	0.769	90.2	0.182	1.171	181.1	762.0	0.958	1.384	-2.82	1.073	96.1	205.6	-36.7	0.128
3-7750	3-8490	0.125	336.5	-1.1	1.36	0.767	89.1	0.186	1.167	176.3	767.1	0.951	1.384	-2.38	1.069	96.9	214.0	-33.9	0.134
3-7750	3-8500	0.406	47.9	20.2	0.89	0.940	65.5	0.461	1.779	88.5	329.1	---	2.600	-2.12	1.196	80.4	349.1	-14.2	0.286
3-7750	3-8500	0.130	343.6	-1.5	0.89	0.746	88.0	0.192	1.164	171.5	772.1	0.941	1.387	-2.12	1.065	97.7	221.7	-32.5	0.145
3-7750	3-8510	0.393	48.9	19.7	0.51	0.941	66.4	0.450	1.784	86.4	336.8	---	2.588	-1.96	1.195	82.8	349.7	-14.4	0.255
3-7750	3-8510	0.138	350.1	-1.3	0.51	0.764	86.8	0.200	1.161	166.8	777.2	0.929	1.393	-1.96	1.062	98.6	229.2	-31.8	0.158
3-7750	3-8520	0.383	49.7	19.2	0.17	0.941	67.1	0.442	1.789	84.8	344.9	---	2.579	-1.87	1.193	85.4	348.3	-15.6	0.229
3-7750	3-8520	0.149	356.2	-0.7	0.17	0.763	85.4	0.210	1.158	162.2	782.3	0.915	1.401	-1.87	1.058	99.6	236.6	-31.5	0.174
3-7750	3-8530	0.376	50.4	18.6	-0.14	0.942	67.5	0.437	1.792	83.7	353.5	---	2.575	-1.84	1.192	88.0	344.3	-18.0	0.212
3-7750	3-8530	0.162	1.9	0.1	-0.14	0.761	83.9	0.223	1.155	157.7	787.4	0.897	1.413	-1.84	1.055	100.8	244.1	-31.4	0.193
3-7750	3-8540	0.375	50.7	17.9	-0.45	0.942	67.6	0.436	1.795	83.3	362.7	1.013	2.577	-1.87	1.191	90.8	337.6	-21.1	0.206
3-7750	3-8540	0.180	7.1	1.1	-0.45	0.760	82.1	0.241	1.153	153.3	792.7	0.875	1.430	-1.87	1.052	102.1	251.7	-31.3	0.217
3-7750	3-8550	0.379	50.8	17.2	-0.78	0.943	67.4	0.439	1.797	83.6	372.7	1.007	2.586	-1.95	1.189	93.9	329.2	-24.0	0.217
3-7750	3-8550	0.203	11.8	2.0	-0.78	0.759	80.1	0.264	1.150	149.2	798.1	0.846	1.454	-1.95	1.050	103.8	259.2	-31.2	0.247
3-7800	3-8050	0.286	46.8	12.6	-2.10	0.747	70.7	0.393	1.133	142.1	266.1	---	1.579	1.80	1.072	68.0	303.9	-15.3	0.408
3-7800	3-8060	0.261	47.9	10.9	-2.56	0.759	72.5	0.356	1.157	139.9	274.1	---	1.569	2.08	1.080	70.9	309.9	-12.3	0.363
3-7800	3-8070	0.239	49.0	8.3	-3.18	0.769	74.1	0.323	1.178	138.0	282.4	---	1.559	2.56	1.086	73.5	315.1	-8.4	0.322
3-7800	3-8080	0.223	50.1	3.9	-4.22	0.777	75.3	0.295	1.196	136.3	290.8	---	1.549	3.46	1.090	76.0	319.3	-2.3	0.287
3-7800	3-8090	0.218	51.8	-4.8	-6.47	0.784	76.7	0.271	1.212	134.9	299.4	---	1.540	5.58	1.092	78.2	321.3	9.3	0.265
3-7800	3-8100	0.298	54.5	-28.8	-16.38	0.790	77.6	0.251	1.225	133.8	308.1	---	1.532	15.36	1.094	80.3	317.5	42.2	0.350
3-7800	3-8110	0.300	7.9	60.2	17.14	0.794	78.5	0.233	1.235	133.0	317.7	---	1.523	-14.30	1.095	82.4	34.6	-58.7	0.378
3-7800	3-8120	0.178	36.7	37.8	4.69	0.797	79.2	0.220	1.243	132.2	326.7	---	1.517	-5.97	1.094	84.2	356.4	42.2	0.189
3-7800	3-8130	0.156	41.0	28.0	2.27	0.800	79.7	0.210	1.250	131.7	336.0	---	1.512	-3.63	1.094	85.9	349.9	-34.7	0.148

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7800	3-8140	0.149	42.6	22.9	1.11	0.802	80.0	0.203	1.254	131.3	345.4	---	1.509	-2.66	1.092	87.5	345.0	-32.5	0.125
3-7800	3-8150	0.145	43.6	19.7	0.46	0.803	80.2	0.199	1.257	130.9	354.7	---	1.508	-2.16	1.091	89.1	338.2	-32.7	0.110
3-7800	3-8160	0.145	44.6	17.4	0.01	0.804	80.2	0.198	1.259	130.5	364.0	1.010	1.509	-1.86	1.089	90.7	329.1	-33.6	0.105
3-7800	3-8170	0.147	45.7	15.8	-0.34	0.804	80.0	0.200	1.260	130.1	373.3	1.008	1.512	-1.67	1.088	92.2	319.6	-33.7	0.108
3-7800	3-8180	0.151	47.0	14.6	-0.63	0.804	79.7	0.205	1.260	129.7	382.4	1.001	1.519	-1.58	1.086	93.8	312.2	-32.8	0.119
3-7800	3-8190	0.159	48.5	13.8	-0.89	0.804	79.1	0.214	1.259	129.1	391.4	0.989	1.529	-1.51	1.084	95.4	308.0	-31.2	0.137
3-7800	3-8200	0.169	50.3	13.4	-1.14	0.803	78.3	0.227	1.257	128.5	400.3	0.971	1.543	-1.49	1.083	97.1	306.9	-29.4	0.161
3-7800	3-8210	0.185	52.1	13.3	-1.39	0.802	77.1	0.245	1.255	127.8	409.2	0.947	1.563	-1.52	1.082	99.1	307.9	-27.7	0.192
3-7800	3-8220	0.206	54.1	13.3	-1.66	0.801	75.6	0.270	1.253	127.3	418.2	0.914	1.591	-1.60	1.081	101.4	310.4	-25.9	0.229
3-7800	3-8230	0.235	56.0	13.6	-1.97	0.800	73.4	0.304	1.250	127.0	427.4	0.870	1.630	-1.73	1.081	104.1	313.8	-24.2	0.277
3-7800	3-8240	0.277	57.6	14.0	-2.35	0.799	70.5	0.351	1.248	127.2	437.2	0.810	1.685	-1.95	1.081	107.6	317.5	-22.5	0.338
3-7800	3-8250	0.289	300.0	-21.5	-0.15	0.771	106.8	0.333	1.183	223.2	643.0	0.789	1.577	1.76	1.085	72.9	227.7	-11.6	0.309
3-7800	3-8260	0.250	303.3	-21.9	-0.49	0.769	103.7	0.294	1.178	220.1	647.9	0.832	1.524	1.61	1.085	75.6	234.4	-12.8	0.264
3-7800	3-8270	0.220	307.7	-22.1	-0.78	0.766	101.1	0.265	1.173	215.8	653.8	0.862	1.483	1.53	1.085	77.7	241.6	-13.7	0.230
3-7800	3-8280	0.194	313.5	-22.1	-1.05	0.763	98.8	0.243	1.166	210.2	658.3	0.883	1.449	1.49	1.084	79.2	249.6	-14.3	0.206
3-7800	3-8290	0.296	36.5	11.7	-1.31	0.697	71.6	0.441	1.047	152.8	611.2	0.585	1.510	1.51	1.039	64.0	285.2	-19.6	0.461
3-7800	3-8300	0.171	321.7	-21.5	-1.31	0.759	96.3	0.227	1.158	202.6	661.0	0.895	1.420	1.51	1.082	80.1	258.8	-14.6	0.191
3-7800	3-8310	0.211	28.0	6.1	-1.59	0.717	79.2	0.337	1.080	157.0	625.6	0.716	1.445	1.57	1.053	71.0	288.6	-17.8	0.346
3-7800	3-8400	0.151	336.2	-18.8	-1.59	0.753	93.0	0.220	1.144	190.8	659.4	0.893	1.396	1.57	1.077	80.2	270.6	-14.7	0.191
3-7800	3-8490	0.204	304.0	-7.8	-3.21	0.777	99.8	0.233	1.195	217.1	776.2	0.917	1.474	-4.55	1.078	99.7	201.8	-36.8	0.195
3-7800	3-8490	0.300	293.3	-14.0	-3.21	0.795	107.7	0.325	1.239	231.5	790.7	0.837	1.641	-4.55	1.092	105.5	196.4	-25.1	0.291
3-7800	3-8500	0.164	315.7	-9.6	-1.60	0.769	96.1	0.208	1.178	204.7	773.7	0.933	1.422	-3.08	1.070	98.5	218.0	-36.4	0.164
3-7800	3-8510	0.146	325.3	-10.0	-0.77	0.764	94.0	0.200	1.169	196.3	775.0	0.935	1.403	-2.39	1.064	98.4	230.0	-35.1	0.157
3-7800	3-8520	0.136	334.2	-9.5	0.23	0.761	92.2	0.199	1.162	189.1	777.5	0.931	1.393	-1.99	1.059	98.6	240.1	-34.1	0.159
3-7800	3-8530	0.358	81.6	23.3	-0.16	0.933	65.8	0.453	1.756	89.3	327.4	---	2.551	-1.76	1.187	80.0	15.9	-1.0	0.285
3-7800	3-8530	0.131	343.6	-9.2	-0.16	0.759	90.7	0.201	1.157	182.6	780.7	0.925	1.389	-1.76	1.056	99.1	249.4	-33.3	0.165
3-7800	3-8540	0.345	87.0	22.6	-0.48	0.934	66.6	0.442	1.762	87.3	334.9	---	2.539	-1.61	1.186	82.4	16.6	-1.0	0.254
3-7800	3-8540	0.129	352.8	-6.3	-0.48	0.757	89.1	0.206	1.152	176.5	784.2	0.915	1.389	-1.61	1.052	99.6	258.1	-32.6	0.175
3-7800	3-8550	0.335	92.8	21.9	-0.76	0.935	67.3	0.433	1.766	89.6	342.9	---	2.531	-1.53	1.185	84.9	15.3	-2.1	0.228
3-7800	3-8550	0.132	7.9	-3.9	-0.76	0.755	87.5	0.214	1.148	170.7	787.9	0.903	1.394	-1.53	1.049	180.4	266.6	-31.8	0.189
3-7800	3-8560	0.329	83.4	21.2	-1.01	0.935	67.7	0.428	1.769	84.5	351.4	---	2.527	-1.49	1.185	87.4	11.5	-4.2	0.210
3-7800	3-8560	0.132	10.9	-1.2	-1.01	0.753	85.8	0.225	1.145	165.1	791.9	0.887	1.402	-1.49	1.047	101.3	274.8	-30.9	0.206
3-7800	3-8570	0.327	83.6	20.5	-1.26	0.936	67.9	0.426	1.772	84.1	360.4	1.016	2.528	-1.50	1.185	90.1	5.3	-7.3	0.203
3-7800	3-8570	0.150	19.5	1.6	-1.26	0.751	83.9	0.241	1.141	159.7	796.1	0.867	1.416	-1.50	1.045	102.5	282.8	-29.7	0.227
3-7800	3-8580	0.331	85.5	19.9	-1.52	0.936	67.7	0.430	1.774	84.4	370.3	1.012	2.536	-1.55	1.185	93.1	357.6	-10.5	0.212
3-7800	3-8580	0.167	27.5	4.4	-1.52	0.749	81.7	0.262	1.138	154.7	800.6	0.840	1.436	-1.55	1.043	103.9	290.5	-28.4	0.254
3-7800	3-8590	0.342	82.9	19.3	-1.80	0.936	67.0	0.439	1.775	85.9	381.3	0.995	2.555	-1.65	1.185	96.5	350.2	-13.1	0.239
3-7800	3-8590	0.192	34.7	6.9	-1.80	0.748	79.0	0.290	1.135	150.0	805.5	0.806	1.465	-1.65	1.042	105.8	297.9	-26.8	0.288
3-7800	3-8600	0.363	81.6	18.7	-2.14	0.937	65.6	0.458	1.776	88.7	393.7	0.962	2.590	-1.82	1.186	100.4	344.5	-14.7	0.287
3-7800	3-8600	0.227	41.0	9.1	-2.14	0.747	75.8	0.329	1.133	146.0	811.0	0.760	1.505	-1.82	1.042	108.3	304.9	-25.1	0.334
3-7850	3-8050	0.285	62.2	17.5	-1.75	0.670	70.4	0.477	1.049	154.9	248.3	---	1.549	0.73	1.039	61.7	313.2	-16.2	0.507
3-7850	3-8060	0.251	62.8	16.6	-1.68	0.692	72.7	0.425	1.082	152.9	256.4	---	1.542	0.75	1.052	65.3	319.3	-14.1	0.457
3-7850	3-8070	0.221	63.0	15.2	-2.02	0.710	74.7	0.379	1.113	151.1	264.8	---	1.535	0.79	1.062	68.6	325.1	-11.9	0.392
3-7850	3-8080	0.195	62.6	13.5	-2.19	0.725	76.4	0.339	1.140	149.6	273.4	---	1.527	0.87	1.070	71.6	330.5	-9.4	0.350
3-7850	3-8090	0.174	61.9	11.3	-2.40	0.737	77.8	0.305	1.164	148.5	282.4	---	1.519	1.01	1.077	74.4	335.5	-6.5	0.306
3-7850	3-8100	0.157	60.8	8.3	-2.70	0.747	79.1	0.276	1.184	147.6	291.5	---	1.511	1.23	1.081	76.9	339.7	-3.3	0.266
3-7850	3-8110	0.144	59.7	4.0	-3.18	0.755	80.2	0.252	1.201	147.1	300.9	---	1.503	1.64	1.084	79.2	342.9	1.0	0.230
3-7850	3-8120	0.138	59.8	-3.1	-4.19	0.761	81.0	0.232	1.215	146.8	310.5	---	1.497	2.59	1.086	81.3	343.9	8.3	0.201
3-7850	3-8130	0.163	60.7	-21.0	-8.13	0.766	81.7	0.216	1.226	146.6	320.2	---	1.491	6.46	1.087	83.2	337.4	30.6	0.203
3-7850	3-8140	0.183	19.5	63.1	10.39	0.769	82.3	0.204	1.234	146.6	330.1	---	1.487	-12.12	1.087	85.1	35.3	-53.4	0.260
3-7850	3-8150	0.106	44.7	28.1	1.41	0.772	82.6	0.196	1.240	146.6	339.7	---	1.484	-3.19	1.086	86.7	2.5	-28.6	0.133
3-7850	3-8160	0.101	47.0	18.2	0.02	0.774	82.9	0.191	1.245	146.5	349.3	---	1.482	-1.87	1.085	88.3	354.0	-23.1	0.110
3-7850	3-8170	0.100	48.1	13.8	-0.56	0.775	82.9	0.188	1.247	146.2	358.7	---	1.482	-1.35	1.084	89.8	345.5	-22.3	0.100
3-7850	3-8180	0.101	49.6	11.6	-0.90	0.775	82.8	0.189	1.248	145.7	367.8	1.012	1.484	-1.08	1.082	91.2	336.5	-22.6	0.099
3-7850	3-8190	0.103	51.6	10.5	-1.13	0.775	82.6	0.192	1.248	145.0	376.6	1.008	1.488	-0.92	1.081	92.7	329.1	-22.7	0.106
3-7850	3-8200	0.107	54.4	10.2	-1.30	0.775	82.1	0.198	1.247	144.0	385.2	1.000	1.493	-0.83	1.080	94.1	324.4	-22.1	0.119
3-7850	3-8210	0.113	57.7	10.5	-1.45	0.774	81.5	0.206	1.245	142.8	393.5	0.988	1.502	-0.77	1.079	95.6	322.6	-21.1	0.138
3-7850	3-8220	0.121	61.6	11.2	-1.58	0.773	80.6	0.219	1.242	141.3	401.6	0.971	1.514	-0.74	1.078	97.1	323.2	-19.8	0.160
3-7850	3-8230	0.133	65.8	12.2	-1.70	0.772	79.5	0.235	1.239	139.7	409.5	0.949	1.530	-0.72	1.078	98.8	325.3	-18.2	0.188
3-7850	3-8240	0.149	70.2	13.4	-1.82	0.770	78.1	0.256	1.236	138.1	417.4	0.920	1.552	-0.73	1.077	100.7	328.6	-16.5	0.220
3-7850	3-8250	0.172	74.5	14.6	-1.95	0.768	76.2	0.283	1.232	136.5	425.4	0.883	1.581	-0.77	1.077	103.0	332.6	-14.6	0.259
3-7850	3-8260	0.202	78.6	15.9	-2.10	0.767	73.8	0.319	1.228	135.2	433.7	0.836	1.621	-0.82	1.079	105.7	336.9	-12.6	0.308
3-7850	3-8270	0.244	82.0	17.0	-2.27	0.765	70.5	0.369	1.225	134.4	442.6	0.775	1.676	-0.92	1.079	109.2	341.3	-10.6	0.370
3-7850	3-8390	0.261	338.4	-13.4	-1.40	0.720	101.9	0.328	1.132	207.1	634.8	0.761	1.503	0.78	1.073	72.4	273.1	-20.9	0.323
3-7850	3-8400	0.221	345.8	-11.6	-1.55	0.714	97.9	0.302	1.121	199.0	636.9	0.783	1.460	0.74	1.069	73.9	283.0	-20.3	0.298
3-7850	3-8410	0.258	53.4	15.9	-1.66	0.656	74.5	0.458	1.029	159.8	607.8	0.558	1.501	0.73	1.030	62.0	308.2	-17.4	0.484
3-7850	3-8410	0.185	0.1	-7.0	-1.68	0.705	92.8	0.295	1.104	186.8	634.8	0.778	1.430	0.73	1.062	74.0	294.9	-18.9	0.297
3-7850	3-8540	0.292	328.0	-15.2	-0.74	0.756	105.4	0.319	1.204	220.8	797.8	0.820	1.589	-1.20	1.070	106.3	248.7	-26.3	0.293
3-7850	3-8550	0.214	338.2	-13.1	-1.02	0.741	98.7	0.262	1.172	206.5	793.1	0.865	1.479	-1.00	1.058	103.1	262.1	-27.6	0.237
3-7850	3-8560	0.316	113.2	19.0	-1.22	0.909	65.8	0.441	1.737	92.5	328.7	---	2.503	-0.87	1.180	80.5	39.1	11.3	0.269
3-7850	3-8560	0.184	346.5	-11.2	-1.22	0.735	95.5	0.248	1.160	197.1	793.3	0.872	1.447	-0.87	1.052	102.5	273.6	-27.4	0.227
3-7850	3-8570	0.305	114.0	18.3	-1.37	0.910	66.6	0.431	1.742	90.8	336.5	---	2.493	-0.80	1.184	83.0	38.9	11.1	0.239
3-7850	3-8570	0.164	355.2	-8.8	-1.37	0.730	92.9	0.244	1.151	189.0	794.7	0.870	1.432	-0.80	1.048	102.5	283.4	-26.5	0.228
3-7850	3-8580	0.297	114.6	17.7	-1.51	0.911	67.1	0.424	1.746	89.4	344.7	---	2.486	-0.75	1.181	85.5	36.3	10.1	0.216
3-7850	3-8580	0.151	4.8	-5.8	-1.51	0.727	90.5	0.247	1.144	181.6	796.8	0.861	1.426	-0.75	1.045	102.8	292.4	-25.1	0.235
3-7850	3-8590	0.293	115.0	17.2	-1.64	0.911	67.4	0.420	1.749	88.6	353.4	---	2.484	-0.73	1.181	88.0	33.1	8.1	0.201
3-7850	3-8590	0.145	15.5	-2.1	-1.64	0.724	88.2	0.255	1.138	174.6	799.4	0.848	1.428	-0.73	1.044	103.5	301.0	-23.4	0.248
3-7850	3-8600	0.293	115.0	16.8	-1.76	0.912	67.4	0.420	1.752	88.5	362.8	1.016	2.488	-0.73	1.182	90.8	43.9	5.3	0.200
3-7850	3-8600	0.146	27.1	2.0	-1.76	0.721	85.7	0.268	1.133	168.2	802.5	0.829	1.437	-0.73	1.042	104.4	309.0	-21.5	0.266
3-7850	3-8610	0.298	114.6	16.6	-1.88	0.912	67.1	0.426	1.753	89.1	373.0	1.007	2.499	-0.75	1.183	93.9	16.2	2.5	0.215

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL			PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7950	3-8610	0.153	[illegible]	[illegible]			83.1	298	1.129	142.1	806.0	0.804	1.454	-0.75	1.042	105.7	316.7	-19.2	0.291
3-7850	3-8620	0.311	[illegible]	-2.0[illegible]			96.[illegible]	438	1.754	90.8	384.2	0.986	2.522	-0.79	1.185	97.3	9.8	0.2	0.248
3-7850	3-8620	0.172	[illegible]	[illegible]	[illegible]	[illegible]		0316	1.125	156.6	610.1	0.770	1.480	-0.79	1.042	107.5	324.0	-16.9	0.324
3-7850	3-8630	0.201	65.5	[illegible]	[illegible]	[illegible]		0.354	1.121	151.8	814.9	0.724	1.519	-0.87	1.042	110.0	330.8	-14.4	0.369
3-7850	3-8640	0.250	48.8	17.0	[illegible]	[illegible]	[illegible]	0.409	1.118	148.1	820.8	0.661	1.575	-0.99	1.043	113.5	337.0	-12.0	0.431
3-7900	3-8050	0.29[illegible]	[illegible]	[illegible]	-1.43	0.[illegible]59	75.3	0.577	0.967	168.6	233.4	---	1.525	-0.20	0.999	54.8	321.1	-15.5	0.615
3-7900	3-8060	0.251	[illegible]	[illegible]	-1.89	0.598	77.5	0.596	[illegible]	167.2	242.1	---	1.523	-0.19	1.020	59.6	326.6	-13.7	0.541
3-7900	3-8070	0.214	66.7	16.[illegible]	-1.86	0.630	79.4	0.444	1.053	166.1	251.2	---	1.520	-0.18	1.038	63.9	332.0	-11.9	0.474
3-7900	3-8080	0.183	64.2	15.2	-1.82	0.656	81.1	0.389	1.091	165.5	260.6	---	1.515	-0.18	1.052	67.7	337.3	-10.0	0.413
3-7900	3-8090	0.159	60.6	13.4	-1.79	0.677	82.6	0.342	1.126	165.2	270.5	---	1.511	-0.19	1.063	71.2	342.3	-8.1	0.357
3-7900	3-8100	0.140	56.1	11.[illegible]	-1.78	0.694	83.8	0.303	1.156	165.[illegible]	280.7	---	1.506	-0.20	1.071	74.3	346.9	-6.3	0.307
3-7900	3-8110	0.126	51.0	[illegible]	-1.71	0.707	84.9	0.271	1.181	166.0	291.2	---	1.501	-0.22	1.077	77.0	351.0	-4.8	0.262
3-7900	3-8120	0.116	45.9	[illegible]	-1.66	0.717	85.8	0.246	1.202	166.9	302.0	---	1.498	-0.25	1.082	79.5	354.5	-3.7	0.222
3-7900	3-8130	0.110	41.1	[illegible]	-1.59	0.725	86.5	0.226	1.219	167.8	312.8	---	1.495	-0.31	1.084	81.8	357.1	-3.2	0.187
3-7900	3-8140	0.106	36.9	4.2	-1.40	0.731	87.0	0.212	1.232	168.8	323.6	---	1.493	-0.42	1.086	83.9	358.5	-3.8	0.157
3-7900	3-8150	0.103	33.3	[illegible]	-1.20	0.735	87.4	0.202	1.241	169.6	334.1	---	1.491	-0.67	1.086	85.7	358.5	-6.6	0.132
3-7900	3-8160	0.100	28.6	11.[illegible]	-0.08	0.738	87.6	0.195	1.247	170.0	344.2	---	1.490	-1.77	1.086	87.4	359.8	-18.2	0.117
3-7900	3-8170	0.117	58.9	-16.[illegible]	-4.52	0.740	87.7	0.192	1.251	170.1	353.9	---	1.490	2.69	1.085	89.0	336.5	19.3	0.112
3-7900	3-8180	0.104	34.8	-5.7	-2.59	0.740	87.6	0.190	1.252	169.6	363.1	1.014	1.491	0.77	1.084	90.5	336.[illegible]	-0.5	0.098
3-7900	3-8190	0.102	35.5	-3.2	-2.26	0.740	87.4	0.192	1.252	168.7	371.7	1.012	1.492	0.46	1.082	91.9	337.6	-6.4	0.101
3-7900	3-8200	0.100	37.7	-[illegible]	-2.12	0.739	87.0	0.195	1.250	167.4	379.9	1.006	1.494	0.33	1.081	93.2	327.9	-9.5	0.111
3-7900	3-8210	0.099	41.3	0.3	-2.04	0.738	86.5	0.200	1.247	165.6	387.7	0.997	1.497	0.27	1.080	94.5	326.4	-11.0	0.125
3-7900	3-8220	0.099	46.2	2.3	-1.98	0.736	85.8	0.208	1.243	163.4	395.0	0.985	1.501	0.23	1.078	95.8	327.1	-11.4	0.142
3-7900	3-8230	0.100	52.3	4.6	-1.94	0.734	84.9	0.217	1.239	160.9	402.1	0.970	1.508	0.20	1.077	97.1	329.4	-11.0	0.162
3-7900	3-8240	0.103	59.6	7.1	-1.90	0.732	83.8	0.230	1.234	158.2	408.9	0.950	1.517	0.19	1.077	97.6	332.8	-10.0	0.185
3-7900	3-8250	0.109	67.9	9.7	-1.87	0.730	82.5	0.245	1.228	155.3	415.6	0.927	1.529	0.18	1.076	100.1	337.0	-8.6	0.211
3-7900	3-8260	0.119	76.6	12.2	-1.84	0.727	80.9	0.265	1.222	152.4	422.3	0.899	1.546	0.18	1.076	103.8	341.8	-6.9	0.240
3-7900	3-8270	0.135	85.3	14.0	-1.81	0.724	78.9	0.289	1.217	149.5	429.0	0.865	1.569	0.18	1.076	108.8	346.8	-4.9	0.275
3-7900	3-8280	0.159	93.4	16.1	-1.78	0.722	76.5	0.321	1.211	146.8	436.0	0.822	1.600	0.19	1.077	106.1	352.1	-2.7	0.317
3-7900	3-8290	0.192	100.3	17.4	-1.74	0.719	73.4	0.363	1.205	144.5	443.4	0.768	1.642	0.20	1.077	109.1	357.4	-0.5	0.369
3-7900	3-8300	0.239	105.4	18.4	-1.70	0.717	69.3	0.418	1.200	142.8	451.5	0.699	1.701	0.23	1.078	112.9	2.5	1.7	0.436
3-7900	3-8410	0.284	10.4	-0.1	-1.95	0.648	101.8	0.421	1.080	197.3	616.7	0.625	1.534	-0.21	1.052	65.6	304.2	-20.2	0.442
3-7900	3-8420	0.296	74.9	19.7	-1.91	0.576	72.6	0.569	0.985	165.7	595.3	0.424	1.546	-0.19	1.008	55.3	328.7	-14.3	0.610
3-7900	3-8420	0.229	259.[illegible]	5.2	-1.91	0.634	93.9	0.408	1.059	185.7	615.3	0.627	1.490	-0.19	1.043	66.3	315.2	-17.4	0.431
3-7900	3-8580	0.297	140.3	10.2	-2.01	0.873	65.1	0.438	1.713	98.9	325.6	---	2.463	0.25	1.176	79.7	59.6	21.6	0.273
3-7900	3-8590	0.286	141.2	9.8	-1.96	0.875	65.9	0.427	1.718	97.3	333.4	---	2.453	0.22	1.177	82.1	59.7	21.6	0.242
3-7900	3-8600	0.278	[illegible]	9.5	-1.92	0.875	66.4	0.419	1.723	96.0	341.7	---	2.445	0.20	1.178	84.6	57.2	21.1	0.216
3-7900	3-8600	0.238	6.1	-3.5	-1.92	0.695	99.[illegible]	0.320	1.158	200.3	806.0	0.787	1.528	0.20	1.051	107.4	304.1	-18.7	0.319
3-7900	3-8610	0.273	142.3	9.3	-1.89	0.876	66.8	0.415	1.727	95.2	350.4	---	2.442	0.19	1.180	87.2	51.9	20.0	0.199
3-7900	3-8610	0.197	144.9	-0.6	-1.89	0.687	94.9	0.309	1.144	191.2	806.4	0.790	1.498	0.19	1.047	106.9	315.5	-16.3	0.312
3-7900	3-8620	0.272	142.5	9.3	-1.86	0.877	66.8	0.414	1.729	94.9	359.7	---	2.445	0.18	1.181	89.9	44.4	18.0	0.195
3-7900	3-8620	0.174	25.4	3.0	-1.86	0.682	91.4	0.310	1.134	183.1	807.9	0.782	1.486	0.18	1.045	107.1	324.1	-13.7	0.317
3-7900	3-8630	0.276	142.4	9.6	-1.83	0.877	66.6	0.418	1.731	95.3	369.7	1.007	2.454	0.18	1.183	92.9	36.3	15.5	0.206
3-7900	3-8630	0.161	38.1	7.2	-1.83	0.677	88.0	0.320	1.126	175.7	810.1	0.765	1.487	0.18	1.044	107.8	332.1	-10.9	0.331
3-7900	3-8640	0.286	141.8	10.1	-1.80	0.877	65.9	0.428	1.732	96.4	380.5	0.990	2.473	0.18	1.185	96.1	29.6	13.1	0.234
3-7900	3-8640	0.159	52.7	11.7	-1.80	0.674	84.4	0.339	1.120	168.9	813.0	0.740	1.499	0.18	1.044	109.0	339.7	-8.0	0.354
3-7900	3-8650	0.304	140.9	10.8	-1.76	0.877	64.7	0.447	1.732	98.6	392.4	0.958	2.506	0.20	1.187	99.9	25.3	11.4	0.281
3-7900	3-8650	0.172	68.0	15.5	-1.76	0.670	80.5	0.367	1.114	162.8	816.6	0.705	1.524	0.20	1.044	110.9	346.9	-5.1	0.388
3-7900	3-8660	0.201	82.0	18.2	-1.72	0.667	78.9	0.408	1.110	157.6	821.1	0.657	1.563	0.22	1.045	113.5	353.7	-2.2	0.435
3-7900	3-8670	0.251	93.1	19.8	-1.67	0.665	76.4	0.466	1.106	153.5	826.9	0.590	1.621	0.25	1.046	117.8	0.0	0.5	0.501
3-7950	3-8070	0.260	56.7	15.6	-2.16	0.559	93.7	0.518	1.023	183.4	242.2	---	---	-1.14	1.024	58.9	336.7	-11.7	0.557
3-7950	3-8080	0.224	51.6	13.8	-1.95	0.601	93.7	0.444	1.076	184.7	253.6	---	---	-1.05	1.046	64.1	341.0	-10.3	0.476
3-7950	3-8090	0.200	45.6	11.8	-1.76	0.634	94.0	0.382	1.126	186.6	265.6	---	---	-1.00	1.063	68.6	345.2	-9.0	0.404
3-7950	3-8100	0.185	39.5	9.8	-1.59	0.660	94.5	0.33[illegible]	[illegible].170	189.1	278.1	---	---	-0.98	1.076	72.5	349.0	-8.0	0.340
3-7950	3-8110	0.176	33.7	8.1	-1.42	0.680	94.9	0.29[illegible]	[illegible].207	192.0	290.9	---	---	-0.99	1.086	76.0	352.2	-7.3	0.[illegible]85
3-7950	3-8120	0.172	28.9	6.8	-1.24	0.694	95.3	0.268	1.237	195.0	303.8	---	---	-1.03	1.093	79.0	354.8	-7.4	0.[illegible]37
3-7950	3-8130	0.170	25.1	6.1	-1.04	0.705	95.7	0.249	1.261	197.7	316.4	---	---	-1.11	1.097	81.7	356.2	-8.4	0.[illegible]96
3-7950	3-8140	0.169	22.3	6.0	-0.80	0.712	95.9	0.236	1.277	199.9	328.4	---	---	-1.25	1.099	84.1	356.3	-10.7	0.163
3-7950	3-8150	0.168	20.3	6.6	-0.48	0.717	96.0	0.227	1.288	201.3	339.5	---	---	-1.46	1.100	86.2	354.7	-15.0	0.139
3-7950	3-8160	0.167	18.8	8.1	-0.02	0.720	96.0	0.222	1.294	201.9	349.8	---	---	-1.84	1.099	88.1	351.5	-21.7	0.124
3-7950	3-8170	0.165	17.5	11.3	0.79	0.720	95.8	0.219	1.296	201.6	359.1	---	---	-2.55	1.098	89.8	348.2	-31.4	0.120
3-7950	3-8180	0.165	16.9	19.3	2.70	0.720	95.5	0.218	1.295	200.6	367.7	1.012	---	-[illegible].38	1.096	91.4	349.4	-46.5	0.136
3-7950	3-8190	0.251	0.7	53.[illegible]	14.92	0.718	95.1	0.219	1.291	198.9	375.4	1.009	---	-16.52	1.093	92.7	54.1	-74.2	0.320
3-7950	3-8200	0.205	40.5	-25.3	-10.41	0.716	94.6	0.221	1.285	196.7	383.1	1.002	---	8.89	1.091	94.1	302.3	37.0	0.205
3-7950	3-8210	0.161	33.9	-10.3	-5.02	0.713	93.9	0.223	1.278	193.9	389.7	0.992	---	3.58	1.088	95.3	315.8	10.5	0.155
3-7950	3-8220	0.148	34.6	-4.6	-3.63	0.709	93.1	0.227	1.269	190.7	396.1	0.981	---	2.28	1.086	96.5	321.3	1.1	0.161
3-7950	3-8230	0.139	37.5	-1.0	-2.97	0.704	92.2	0.233	1.260	187.2	402.1	0.967	---	1.71	1.084	97.6	326.1	-2.4	0.175
3-7950	3-8240	0.131	41.9	2.0	-2.57	0.701	91.1	0.240	1.251	183.4	407.9	0.951	---	1.40	1.082	98.7	331.1	-3.5	0.192
3-7950	3-8250	0.124	47.9	4.8	-2.28	0.696	89.8	0.249	1.241	179.5	413.5	0.932	1.550	1.21	1.080	99.9	336.4	-3.3	0.211
3-7950	3-8260	0.118	55.8	7.7	-2.06	0.692	88.4	0.260	1.231	175.3	418.9	0.911	1.552	1.09	1.079	101.1	342.0	-2.2	0.231
3-7950	3-8270	0.115	65.6	10.7	-1.87	0.687	86.7	0.274	1.222	171.1	424.4	0.887	1.557	1.02	1.078	102.5	347.9	-0.6	0.254
3-7950	3-8280	0.116	77.4	13.5	-1.69	0.682	84.7	0.292	1.212	166.9	429.8	0.858	1.566	0.98	1.077	104.0	353.8	1.3	0.281
3-7950	3-8290	0.124	90.4	15.7	-1.53	0.678	82.4	0.314	1.203	162.8	435.3	0.825	1.581	0.98	1.077	105.7	360.0	3.5	0.311
3-7950	3-8300	0.140	103.1	17.0	-1.36	0.673	79.7	0.343	1.195	158.9	441.3	0.785	1.604	1.00	1.076	107.9	6.1	5.9	0.348
3-7950	3-8310	0.166	114.4	17.4	-1.17	0.669	76.4	0.379	1.186	155.3	447.6	0.736	1.636	1.04	1.076	110.5	12.3	8.2	0.393
3-7950	3-8320	0.206	123.4	17.3	-0.96	0.665	72.3	0.427	[illegible].170	152.3	454.5	0.675	1.682	1.15	1.076	113.6	18.4	[illegible].5	0.451
3-7950	3-8330	0.261	130.0	17.2	-0.69	0.661	67.0	0.491	[illegible].173	150.2	462.3	0.597	1.747	1.32	1.077	118.2	24.2	12.[illegible]	0.528
3-7950	3-8430	0.285	54.1	15.3	-2.29	0.544	96.[illegible]	0.508	[illegible].006	185.0	598.5	0.454	1.557	-[illegible].22	1.017	56.8	333.4	-12.[illegible]	0.590
3-7950	3-8600	0.287	163.6	-0.8	-2.76	0.836	64.[illegible]	0.432	[illegible].688	105.3	324.7	---	2.417	1.54	1.173	79.5	80.1	29.7	0.270
3-7950	3-8610	0.277	164.7	-0.6	-2.42	0.837	65.[illegible]	0.421	[illegible].694	103.8	332.8	---	2.407	1.29	1.175	82.0	79.9	29.5	0.238

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7950	3-8620	0.269	165.6	-0.4	-2.17	0.838	66.1	0.413	1.699	102.7	341.2	---	2.400	1.14	1.177	84.5	76.9	29.3	0.212
3-7950	3-8630	0.265	166.2	-0.1	-1.96	0.839	66.4	0.408	1.702	102.0	350.1	---	2.398	1.05	1.179	87.1	70.8	28.7	0.196
3-7950	3-8640	0.264	166.5	0.3	-1.78	0.839	66.4	0.408	1.705	101.8	359.6	---	2.401	1.00	1.181	89.9	62.3	27.3	0.192
3-7950	3-8640	0.253	31.0	8.1	-1.78	0.647	101.6	0.394	1.147	197.9	815.8	0.695	1.599	1.00	1.054	112.2	347.7	-6.2	0.413
3-7950	3-8650	0.268	166.8	0.9	-1.61	0.839	66.2	0.413	1.706	102.1	369.6	1.002	2.410	0.98	1.184	92.8	53.7	25.1	0.203
3-7950	3-8650	0.207	42.2	11.5	-1.61	0.637	95.3	0.382	1.130	188.7	816.2	0.699	1.561	0.98	1.050	111.6	346.3	-3.3	0.402
3-7950	3-8660	0.277	166.8	1.7	-1.45	0.839	65.5	0.423	1.707	103.1	380.3	0.985	2.429	0.98	1.186	96.0	47.1	22.8	0.232
3-7950	3-8660	0.182	56.5	15.2	-1.45	0.629	90.4	0.386	1.118	180.6	817.8	0.686	1.550	0.98	1.048	112.0	354.4	0.1	0.410
3-7950	3-8670	0.293	165.6	2.8	-1.27	0.839	64.4	0.441	1.707	104.8	391.9	0.955	2.459	1.02	1.188	99.6	43.2	21.1	0.277
3-7950	3-8670	0.174	73.9	18.4	-1.27	0.623	85.5	0.404	1.109	173.4	820.4	0.661	1.557	1.02	1.047	113.2	2.1	3.4	0.431
3-7950	3-8680	0.186	92.3	20.4	-1.07	0.618	80.4	0.435	1.101	167.0	824.0	0.623	1.580	1.10	1.047	115.2	9.5	6.5	0.467
3-7950	3-8690	0.221	108.3	20.6	-0.84	0.614	74.5	0.481	1.095	161.8	828.6	0.569	1.622	1.22	1.047	118.3	16.5	9.4	0.519
3-7950	3-8700	0.280	120.0	20.0	-0.53	0.611	67.5	0.546	1.090	159.0	834.8	0.495	1.686	1.43	1.048	122.7	23.1	11.9	0.598
3-7960	3-8040	0.510	61.4	18.7	-4.06	0.355	113.7	0.838	0.866	185.0	208.3	---	---	-2.80	0.938	33.4	324.9	-15.6	0.932
3-7960	3-8050	0.412	60.5	17.9	-2.16	0.431	104.5	0.731	0.914	185.5	219.0	---	---	-2.01	0.969	43.1	328.9	-14.4	0.795
3-7960	3-8060	0.338	58.0	16.8	-2.64	0.498	100.3	0.628	0.969	186.3	229.9	---	---	-1.61	0.999	51.1	333.0	-13.1	0.679
3-7960	3-8070	0.284	54.0	15.2	-2.29	0.554	98.4	0.536	1.027	187.5	241.3	---	---	-1.38	1.026	57.7	337.2	-11.8	0.578
3-7960	3-8080	0.247	48.7	13.4	-2.02	0.598	97.7	0.457	1.085	189.3	253.2	---	---	-1.24	1.049	63.3	341.3	-10.5	0.490
3-7960	3-8090	0.222	42.8	11.5	-1.80	0.634	97.5	0.392	1.138	191.9	265.9	---	---	-1.15	1.068	68.1	345.1	-9.4	0.414
3-7960	3-8100	0.207	38.9	9.6	-1.60	0.661	97.6	0.342	1.185	195.1	279.1	---	---	-1.12	1.083	72.3	348.6	-8.5	0.347
3-7960	3-8110	0.198	31.6	8.0	-1.40	0.681	97.8	0.304	1.226	198.7	292.6	---	---	-1.11	1.092	75.9	351.6	-8.1	0.288
3-7960	3-8120	0.194	27.3	7.0	-1.21	0.697	98.0	0.277	1.258	202.1	306.0	---	---	-1.14	1.099	79.1	353.7	-8.4	0.239
3-7960	3-8130	0.192	24.1	6.4	-0.99	0.707	98.2	0.258	1.282	205.2	318.8	---	---	-1.21	1.103	81.9	354.6	-9.6	0.197
3-7960	3-8140	0.191	21.7	6.4	-0.75	0.715	98.3	0.246	1.300	207.4	330.9	---	---	-1.33	1.105	84.4	354.0	-12.3	0.164
3-7960	3-8150	0.190	20.1	6.9	-0.44	0.719	98.3	0.238	1.310	208.8	342.0	---	---	-1.52	1.106	86.6	351.6	-16.7	0.140
3-7960	3-8160	0.188	19.0	8.2	-0.01	0.721	98.1	0.234	1.315	209.2	352.1	---	---	-1.84	1.105	88.5	347.6	-23.0	0.126
3-7960	3-8170	0.185	18.2	10.6	0.65	0.721	97.9	0.231	1.316	208.7	361.2	1.012	---	-2.40	1.107	90.2	343.3	-31.1	0.123
3-7960	3-8180	0.183	16.9	15.7	1.96	0.720	97.6	0.230	1.313	207.4	369.5	1.011	---	-3.61	1.101	91.8	341.6	-41.8	0.134
3-7960	3-8190	0.193	12.3	30.6	6.09	0.718	97.1	0.230	1.307	205.4	377.1	1.007	---	-7.65	1.098	93.2	353.7	-61.6	0.186
3-7960	3-8200	0.574	69.4	-35.8	-42.97	0.715	96.6	0.232	1.299	203.2	384.9	0.999	---	41.50	1.095	94.6	244.5	58.0	0.747
3-7960	3-8210	0.189	36.8	-15.1	-7.28	0.711	95.8	0.233	1.290	200.0	390.8	0.990	---	5.91	1.092	95.7	309.9	20.9	0.183
3-7960	3-8220	0.167	35.2	-6.1	-4.47	0.706	95.0	0.236	1.280	196.6	396.9	0.978	---	3.19	1.089	96.8	318.7	5.4	0.173
3-7960	3-8230	0.154	37.1	-1.6	-3.41	0.702	94.0	0.240	1.269	192.8	402.7	0.964	---	2.23	1.086	97.9	324.6	-0.1	0.183
3-7960	3-8240	0.144	40.7	1.7	-2.83	0.697	92.9	0.246	1.258	188.8	408.2	0.948	---	1.75	1.084	99.0	330.1	-2.1	0.198
3-7960	3-8250	0.135	45.9	4.5	-2.45	0.692	91.6	0.254	1.247	184.6	413.6	0.930	---	1.47	1.082	100.1	335.8	-2.2	0.215
3-7960	3-8260	0.127	52.7	7.3	-2.16	0.687	90.1	0.264	1.236	180.3	418.9	0.910	---	1.30	1.080	101.2	341.7	-1.4	0.234
3-7960	3-8270	0.120	61.6	10.2	-1.92	0.681	88.4	0.276	1.225	175.9	424.1	0.887	1.564	1.20	1.079	102.5	347.7	0.1	0.256
3-7960	3-8280	0.118	72.7	13.1	-1.72	0.676	86.5	0.292	1.215	171.4	429.4	0.860	1.569	1.14	1.078	103.9	353.9	2.0	0.280
3-7960	3-8290	0.121	95.7	15.5	-1.53	0.671	84.3	0.312	1.205	167.1	434.7	0.829	1.580	1.11	1.077	105.5	0.1	4.1	0.308
3-7960	3-8300	0.131	99.5	17.0	-1.34	0.666	81.7	0.337	1.195	162.8	440.3	0.793	1.597	1.12	1.076	107.4	6.4	6.5	0.341
3-7960	3-8310	0.152	112.3	17.5	-1.14	0.661	78.5	0.369	1.186	158.9	446.1	0.748	1.624	1.16	1.076	109.8	12.8	8.8	0.381
3-7960	3-8320	0.185	123.0	17.3	-0.91	0.656	74.7	0.411	1.177	155.4	452.5	0.693	1.661	1.25	1.076	112.7	19.1	11.2	0.432
3-7960	3-8330	0.232	131.1	16.8	-0.64	0.652	69.9	0.466	1.169	152.7	459.7	0.624	1.715	1.35	1.076	116.5	25.2	13.3	0.498
3-7960	3-8340	0.298	136.7	16.4	-0.29	0.648	63.7	0.540	1.163	151.1	468.2	0.535	1.790	1.62	1.076	121.7	30.9	15.3	0.567
3-7960	3-8350	0.392	139.7	16.4	0.24	0.645	58.3	0.638	1.158	151.5	478.6	0.419	1.896	2.05	1.076	128.9	35.9	16.8	0.710
3-7960	3-8360	0.524	139.8	17.1	1.17	0.644	53.5	0.765	1.155	155.0	492.2	0.272	2.039	2.87	1.078	139.3	39.6	17.8	0.886
3-7960	3-8410	0.568	108.5	21.3	-3.56	0.362	44.2	0.907	0.870	173.5	561.7	0.081	1.659	-2.35	0.940	35.2	332.5	-12.3	1.054
3-7960	3-8410	0.520	36.3	11.5	-3.56	0.560	125.8	0.716	1.035	198.9	587.1	0.294	1.775	-2.35	1.033	44.3	319.1	-10.1	0.799
3-7960	3-8420	0.471	107.0	21.0	-2.88	0.402	57.5	0.828	0.894	172.0	570.4	0.154	1.635	-1.79	0.956	34.3	337.6	-10.5	0.928
3-7960	3-8420	0.403	40.7	12.4	-2.88	0.551	113.2	0.623	1.024	196.0	594.3	0.386	1.662	-1.79	1.027	51.5	325.7	-16.0	0.680
3-7960	3-8430	0.362	98.8	20.8	-2.46	0.453	72.5	0.715	0.930	172.6	581.1	0.265	1.595	-1.48	0.976	44.5	341.7	-9.3	0.779
3-7960	3-8430	0.312	54.5	15.7	-2.46	0.531	100.1	0.578	1.002	187.6	596.1	0.423	1.581	-1.48	1.015	54.7	334.6	-12.6	0.624
3-7960	3-8480	0.590	251.3	10.9	-1.31	0.778	40.6	0.760	1.482	142.0	240.7	---	2.608	-1.12	1.153	43.5	17.5	6.3	0.879
3-7960	3-8490	0.554	153.3	10.1	-1.19	0.785	43.7	0.724	1.505	138.4	246.9	---	2.595	-1.17	1.155	47.1	24.0	8.7	0.818
3-7960	3-8500	0.520	155.2	9.5	-0.88	0.791	46.5	0.689	1.528	134.9	253.2	---	2.581	-1.26	1.157	50.5	30.6	10.9	0.759
3-7960	3-8510	0.487	157.2	9.0	-0.61	0.797	49.1	0.655	1.550	131.4	259.5	---	2.565	-1.41	1.159	53.8	37.2	12.7	0.702
3-7960	3-8520	0.456	159.1	8.6	-0.26	0.802	51.5	0.622	1.571	128.1	265.8	---	2.547	-1.65	1.160	57.0	43.9	14.1	0.647
3-7960	3-8530	0.428	161.2	8.6	0.26	0.807	53.8	0.591	1.590	124.8	272.3	---	2.529	-2.06	1.162	60.0	50.5	14.9	0.594
3-7960	3-8540	0.402	162.4	9.3	1.14	0.811	55.9	0.562	1.608	121.8	278.8	---	2.511	-2.85	1.163	62.9	57.2	14.5	0.544
3-7960	3-8550	0.379	166.4	12.3	3.19	0.815	57.7	0.535	1.624	118.8	285.5	---	2.492	-4.80	1.164	65.7	64.3	11.0	0.500
3-7960	3-8560	0.404	174.2	32.0	14.93	0.818	59.4	0.510	1.638	116.1	292.2	---	2.475	-16.44	1.166	68.4	77.6	-12.2	0.535
3-7960	3-8570	0.371	155.0	-15.1	-12.31	0.821	61.0	0.487	1.651	113.5	299.3	---	2.456	10.89	1.167	71.1	72.0	50.5	0.446
3-7960	3-8580	0.325	163.0	-6.2	-5.53	0.824	62.3	0.467	1.662	111.1	306.5	---	2.440	4.20	1.169	73.6	77.0	35.9	0.366
3-7960	3-8590	0.306	165.7	-4.0	-3.68	0.826	63.5	0.450	1.672	109.0	313.9	---	2.425	2.64	1.170	76.1	81.2	32.6	0.321
3-7960	3-8600	0.291	167.4	-3.1	-3.10	0.828	64.5	0.435	1.680	107.1	321.6	---	2.411	1.96	1.172	78.6	87.9	31.3	0.283
3-7960	3-8610	0.280	168.7	-2.8	-2.63	0.829	65.3	0.423	1.687	105.6	329.5	---	2.401	1.60	1.174	81.1	84.4	30.8	0.249
3-7960	3-8620	0.271	169.7	-2.5	-2.30	0.830	65.9	0.414	1.692	104.3	337.9	---	2.393	1.38	1.176	83.6	82.6	30.6	0.220
3-7960	3-8630	0.266	170.4	-2.2	-2.04	0.831	66.3	0.408	1.696	103.5	346.7	---	2.388	1.24	1.178	86.1	77.4	30.3	0.200
3-7960	3-8640	0.264	170.9	-1.8	-1.82	0.832	66.4	0.406	1.699	103.1	355.9	---	2.387	1.16	1.181	88.8	69.4	29.4	0.191
3-7960	3-8640	0.324	28.2	8.1	-1.82	0.653	108.3	0.447	1.171	206.4	819.2	0.648	1.694	1.16	1.062	115.4	336.0	-7.5	0.471
3-7960	3-8650	0.473	22.2	7.1	-1.82	0.685	121.4	0.568	1.232	214.9	827.7	0.582	1.933	1.16	1.082	123.2	332.3	-9.6	0.613
3-7960	3-8650	0.266	171.1	-1.2	-1.63	0.832	66.3	0.409	1.701	103.2	365.7	1.005	2.396	1.12	1.183	91.7	60.5	27.6	0.197
3-7960	3-8650	0.240	39.1	11.2	-1.63	0.634	99.6	0.403	1.139	194.9	817.4	0.600	1.598	1.12	1.053	112.9	345.7	-3.4	0.425
3-7960	3-8650	0.598	21.8	7.8	-1.63	0.710	131.5	0.681	1.287	215.0	837.5	0.411	2.164	1.12	1.100	131.4	337.2	-8.2	0.762
3-7960	3-8660	0.272	171.0	-0.4	-1.44	0.832	65.8	0.417	1.702	103.9	376.2	0.992	2.411	1.11	1.185	94.7	52.9	25.3	0.219
3-7960	3-8660	0.200	51.8	14.7	-1.44	0.624	93.9	0.396	1.123	186.0	818.3	0.678	1.568	1.11	1.050	112.6	354.1	0.2	0.421
3-7960	3-8670	0.285	170.5	0.6	-1.24	0.832	64.8	0.432	1.702	105.3	387.3	0.767	2.436	1.14	1.188	98.2	47.9	23.2	0.257
3-7960	3-8670	0.180	68.0	18.1	-1.24	0.617	88.8	0.406	1.112	178.2	820.3	0.660	1.563	1.14	1.048	113.3	2.1	3.7	0.433
3-7960	3-8680	0.306	169.5	1.9	-1.03	0.832	63.3	0.455	1.701	107.5	399.4	0.927	2.475	1.20	1.190	102.1	45.7	21.9	0.312
3-7960	3-8680	0.180	86.9	20.5	-1.03	0.611	88.6	0.429	1.103	171.3	823.2	0.630	1.576	1.20	1.047	114.8	9.7	6.9	0.460

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7960	3-8690	0.338	168.1	3.4	-0.79	0.838	61.	0.490	1.700	110.7	412.5	0.867	2.534	1.31	1.192	106.7	45.3	21.2	0.395
3-7960	3-8690	0.202	104.9	20.9	-0.79	0.306	77.9	0.466	1.096	165.4	827.2	0.585	1.606	1.31	1.047	117.3	17.1	-2.9	0.503
3-7960	3-8700	0.385	166.0	5.2	-0.49	0.832	57.5	0.541	1.700	115.2	427.1	0.780	2.619	1.49	1.194	112.4	46.2	20.9	0.480
3-7960	3-8700	0.248	119.2	20.1	-0.49	0.602	71.3	0.521	1.090	160.7	832.5	0.522	1.657	1.49	1.048	121.0	24.	12.5	0.566
3-7960	3-8710	0.455	162.9	7.3	-0.07	0.832	52.4	0.614	1.699	121.7	443.5	0.656	2.732	1.00	1.196	119.7	47.4	20.9	0.608
3-7960	3-8710	0.322	128.7	19.0	-0.07	0.599	65.1	0.598	1.085	157.8	839.7	0.436	1.735	1.80	1.048	126.4	30.3	14.8	0.358
3-7960	3-8720	0.560	158.6	9.9	0.60	0.832	44.6	0.715	1.699	130.9	462.8	0.485	2.914	2.36	1.198	129.6	48.3	20.8	0.782
3-7960	3-8720	0.429	153.7	18.5	0.60	0.597	52.4	0.704	1.082	157.5	849.5	0.320	1.844	2.36	1.047	134.5	35.4	16.5	0.794
3-7960	3-8730	0.467	77.1	23.9	0.60	0.326	91.2	0.834	0.852	180.2	1232.2	0.141	1.562	2.36	0.922	146.0	23.1	11.1	0.922
3-7960	3-8730	0.582	134.3	18.9	1.95	0.596	37.7	0.836	1.081	161.2	863.3	0.177	1.986	3.60	1.051	146.6	38.8	17.4	0.989
3-7960	3-8730	0.531	97.4	24.8	1.95	0.304	59.7	0.895	0.842	176.0	1238.0	0.089	1.595	3.60	0.917	152.0	29.6	13.6	1.021
3-7970	3-8040	0.581	59.6	18.4	-5.09	0.371	129.2	0.877	0.883	186.9	205.3	---	---	-3.91	0.949	29.0	326.2	-15.5	1.003
3-7970	3-8050	0.462	58.4	17.6	-3.64	0.483	114.8	0.765	0.923	188.4	217.0	---	---	-2.58	0.974	40.2	329.9	-14.3	0.844
3-7970	3-8060	0.377	55.7	16.4	-2.92	0.498	107.6	0.655	0.978	189.9	228.7	---	---	-1.97	1.004	49.1	333.7	-13.1	0.713
3-7970	3-8070	0.317	51.4	14.9	-2.46	0.555	104.0	0.555	1.039	191.9	240.7	---	---	-1.64	1.032	56.4	337.5	-11.9	0.602
3-7970	3-8080	0.276	46.2	13.1	-2.12	0.601	102.2	0.471	1.100	194.5	253.4	---	---	-1.44	1.056	62.4	341.3	-10.8	0.507
3-7970	3-8090	0.250	40.4	11.2	-1.85	0.638	101.4	0.404	1.158	197.8	266.9	---	---	-1.32	1.075	67.6	344.8	-9.8	0.425
3-7970	3-8100	0.234	34.9	9.5	-1.62	0.666	101.0	0.352	1.209	201.8	280.8	---	---	-1.26	1.089	72.0	347.9	-9.2	0.354
3-7970	3-8110	0.225	30.2	8.1	-1.40	0.687	100.9	0.315	1.253	206.0	295.0	---	---	-1.23	1.100	75.9	350.4	-9.0	0.293
3-7970	3-8120	0.221	26.4	7.2	-1.19	0.703	100.9	0.289	1.287	209.9	308.8	---	---	-1.25	1.107	79.2	352.0	-9.6	0.241
3-7970	3-8130	0.219	23.6	6.8	-0.96	0.713	100.9	0.272	1.313	213.1	321.8	---	---	-1.30	1.111	82.1	352.4	-11.2	0.199
3-7970	3-8140	0.217	21.7	6.8	-0.71	0.720	100.8	0.260	1.330	215.3	333.9	---	---	-1.40	1.113	84.7	351.0	-14.1	0.166
3-7970	3-8150	0.215	20.4	7.4	-0.43	0.724	100.7	0.253	1.340	216.5	344.8	---	---	-1.57	1.113	86.9	347.8	-18.6	0.143
3-7970	3-8160	0.212	19.7	8.5	-0.01	0.725	100.5	0.249	1.343	217.7	354.6	---	---	-1.84	1.112	88.9	343.0	-24.4	0.131
3-7970	3-8170	0.208	19.2	10.4	0.56	0.725	100.2	0.246	1.342	215.9	363.5	1.012	---	-2.30	1.110	90.7	338.1	-31.1	0.128
3-7970	3-8180	0.204	18.7	14.0	1.55	0.723	99.8	0.244	1.336	214.3	371.5	1.010	---	-3.18	1.107	92.2	335.3	-39.0	0.137
3-7970	3-8190	0.203	16.8	22.1	3.85	0.719	99.3	0.243	1.328	212.1	378.8	1.005	---	-5.38	1.103	93.6	338.7	-51.5	0.164
3-7970	3-8200	0.292	6.2	54.2	17.17	0.715	98.6	0.243	1.318	209.2	385.3	0.997	---	-18.59	1.100	94.9	47.3	-78.2	0.365
3-7970	3-8210	0.250	44.8	-24.8	-13.20	0.711	97.9	0.245	1.306	206.1	392.1	0.986	---	11.89	1.096	96.2	21.4	38.1	0.266
3-7970	3-8220	0.189	36.9	-8.5	-5.85	0.705	97.0	0.247	1.294	202.4	397.9	0.974	---	4.63	1.093	97.2	315.2	11.6	0.191
3-7970	3-8230	0.172	37.5	-2.3	-4.03	0.700	95.9	0.250	1.281	198.5	403.4	0.961	---	2.92	1.090	98.3	322.8	4.7	0.194
3-7970	3-8240	0.159	40.4	1.4	-3.17	0.694	94.8	0.255	1.268	194.2	408.8	0.945	---	2.18	1.087	99.3	329.1	-0.4	0.206
3-7970	3-8250	0.148	44.7	4.4	-2.65	0.688	93.4	0.261	1.255	189.9	413.9	0.928	---	1.77	1.084	100.4	335.1	-1.2	0.222
3-7970	3-8260	0.138	50.6	7.2	-2.29	0.682	92.0	0.269	1.242	185.3	419.0	0.908	---	1.53	1.082	101.5	341.2	-0.6	0.239
3-7970	3-8270	0.129	58.4	10.0	-2.00	0.676	90.3	0.280	1.230	180.7	424.0	0.886	---	1.38	1.080	102.6	347.5	0.7	0.259
3-7970	3-8280	0.123	68.5	12.0	-1.76	0.671	88.4	0.293	1.218	176.1	429.0	0.861	1.576	1.29	1.079	103.9	353.8	2.0	0.281
3-7970	3-8290	0.121	80.9	15.3	-1.54	0.665	86.2	0.311	1.207	171.4	434.1	0.832	1.582	1.24	1.078	105.4	0.2	4.7	0.306
3-7970	3-8300	0.127	95.0	17.0	-1.33	0.659	83.6	0.333	1.196	166.9	439.4	0.798	1.595	1.23	1.077	107.3	6.6	7.0	0.336
3-7970	3-8310	0.141	109.1	17.7	-1.11	0.654	80.7	0.361	1.186	162.7	445.0	0.757	1.615	1.26	1.076	108.3	13.2	9.4	0.372
3-7970	3-8320	0.168	121.6	17.4	-0.88	0.648	77.1	0.398	1.176	158.7	451.0	0.708	1.645	1.33	1.076	111.6	19.7	11.7	0.417
3-7970	3-8330	0.207	131.4	16.6	-0.60	0.644	72.6	0.446	1.168	155.4	457.6	0.646	1.689	1.46	1.075	115.2	26.1	14.0	0.475
3-7970	3-8340	0.264	138.4	15.8	-0.26	0.639	67.0	0.510	1.160	153.1	465.2	0.568	1.752	1.66	1.075	119.6	32.2	16.0	0.551
3-7970	3-8350	0.343	142.8	15.4	0.21	0.635	59.6	0.595	1.154	152.2	474.5	0.467	1.840	2.01	1.075	125.7	37.8	17.7	0.656
3-7970	3-8360	0.455	144.4	15.6	0.97	0.633	49.5	0.707	1.150	153.9	486.2	0.337	1.963	2.65	1.076	134.4	42.3	18.9	0.802
3-7970	3-8410	0.596	111.7	20.9	-4.25	0.326	40.7	0.933	0.859	174.9	558.1	0.058	1.660	-3.13	0.952	21.4	334.4	-11.6	1.104
3-7970	3-8410	0.579	42.4	13.6	-4.25	0.542	132.4	0.782	1.023	197.1	580.4	0.223	1.825	-3.13	1.028	38.6	322.4	-17.2	0.892
3-7970	3-8420	0.501	110.8	20.6	-3.25	0.369	54.9	0.862	0.882	173.3	566.7	0.121	1.642	-2.24	0.967	30.6	339.5	-9.8	0.979
3-7970	3-8420	0.446	45.2	13.9	-3.25	0.535	118.0	0.676	1.016	196.1	589.5	0.329	1.702	-2.24	1.023	47.5	328.1	-15.3	0.745
3-7970	3-8430	0.394	104.6	20.6	-2.68	0.420	70.1	0.760	0.914	173.3	576.8	0.219	1.608	-1.79	0.967	40.7	343.9	-8.3	0.836
3-7970	3-8430	0.343	56.3	16.3	-2.68	0.517	104.3	0.613	0.997	189.5	593.0	0.386	1.608	-1.79	1.013	52.2	336.1	-12.3	0.656
3-7970	3-8490	0.565	157.1	8.8	-1.08	0.774	42.5	0.738	1.480	140.5	244.1	---	2.589	-1.27	1.152	45.6	25.3	9.2	0.842
3-7970	3-8500	0.530	159.7	8.1	-0.85	0.781	45.4	0.702	1.513	136.9	250.3	---	2.575	-1.34	1.150	49.3	31.9	11.3	0.782
3-7970	3-8510	0.496	161.0	7.5	-0.57	0.787	48.1	0.668	1.535	133.5	256.6	---	2.560	-1.47	1.156	53.7	38.5	13.2	0.728
3-7970	3-8520	0.465	163.0	7.1	-0.24	0.792	50.7	0.634	1.556	130.1	263.0	---	2.543	-1.68	1.158	55.7	45.2	14.6	0.668
3-7970	3-8530	0.436	165.0	6.9	0.23	0.798	53.0	0.602	1.576	126.9	269.4	---	2.525	-2.03	1.159	58.8	51.9	15.5	0.614
3-7970	3-8540	0.409	167.1	7.3	0.95	0.802	55.1	0.572	1.595	123.8	276.0	---	2.507	-2.64	1.161	61.8	58.6	15.4	0.563
3-7970	3-8550	0.385	169.7	9.1	2.35	0.806	57.1	0.544	1.612	120.9	282.6	---	2.489	-3.93	1.162	64.6	65.4	13.4	0.516
3-7970	3-8560	0.371	174.1	16.2	6.64	0.810	58.8	0.518	1.627	118.1	289.3	---	2.471	-8.11	1.164	67.5	73.4	4.2	0.465
3-7970	3-8580	0.339	164.3	-12.0	-8.07	0.816	61.9	0.473	1.653	113.0	303.5	---	2.435	6.80	1.167	72.6	79.8	42.8	0.393
3-7970	3-8590	0.312	168.7	-7.3	-4.78	0.818	63.1	0.455	1.663	110.9	310.8	---	2.420	3.61	1.169	75.1	84.1	35.5	0.350
3-7970	3-8600	0.296	171.0	-5.7	-3.56	0.820	64.2	0.439	1.672	109.0	318.4	---	2.406	2.51	1.171	77.6	87.3	33.1	0.296
3-7970	3-8610	0.283	172.5	-5.0	-2.90	0.822	65.0	0.426	1.679	107.3	326.4	---	2.394	1.96	1.173	80.1	88.7	32.2	0.260
3-7970	3-8620	0.274	173.7	-4.6	-2.47	0.823	65.7	0.416	1.685	106.0	334.6	---	2.385	1.64	1.175	82.6	87.7	31.8	0.229
3-7970	3-8630	0.267	174.6	-4.2	-2.14	0.824	66.2	0.409	1.689	105.0	343.3	---	2.380	1.45	1.177	85.2	83.7	31.6	0.206
3-7970	3-8640	0.264	175.2	-3.8	-1.88	0.824	66.4	0.405	1.693	104.5	352.4	---	2.379	1.33	1.180	87.6	76.5	31.1	0.192
3-7970	3-8650	0.264	175.6	-3.2	-1.65	0.825	66.4	0.406	1.695	104.4	362.0	1.006	2.383	1.26	1.182	90.6	67.5	29.7	0.192
3-7970	3-8650	0.295	36.2	11.1	-1.65	0.637	105.8	0.442	1.156	202.3	819.9	0.645	1.667	1.26	1.059	115.2	344.6	-3.8	0.469
3-7970	3-8650	0.513	26.9	9.5	-1.65	0.684	125.1	0.614	1.240	214.3	831.9	0.480	2.011	1.26	1.088	126.5	339.5	-6.9	0.673
3-7970	3-8660	0.269	175.6	-2.4	-1.44	0.825	66.0	0.412	1.696	104.8	372.2	0.997	2.395	1.23	1.184	93.6	59.0	27.0	0.208
3-7970	3-8660	0.228	48.0	14.3	-1.44	0.621	98.1	0.413	1.131	191.8	819.2	0.663	1.598	1.23	1.055	113.6	353.6	0.2	0.439
3-7970	3-8670	0.279	175.2	-1.5	-1.22	0.825	65.2	0.424	1.696	105.9	383.1	0.987	2.415	1.24	1.187	96.8	53.1	25.4	0.240
3-7970	3-8670	0.194	62.6	17.6	-1.22	0.612	92.3	0.413	1.116	183.3	820.5	0.656	1.576	1.24	1.050	113.7	1.9	3.8	0.440
3-7970	3-8680	0.297	174.5	-0.3	-1.00	0.825	64.0	0.444	1.696	107.7	394.7	0.944	2.440	1.29	1.189	100.5	49.9	23.8	0.288
3-7970	3-8680	0.181	80.8	20.4	-1.00	0.605	86.9	0.427	1.105	175.8	822.8	0.633	1.577	1.29	1.048	111.7	9.8	7.1	0.458
3-7970	3-8690	0.323	173.3	1.1	-0.72	0.825	62.0	0.474	1.695	110.3	407.3	0.892	2.498	1.38	1.192	164.8	49.1	22.8	0.353
3-7970	3-8690	0.190	100.2	21.3	-0.75	0.599	81.3	0.456	1.097	169.3	826.2	0.596	1.591	1.36	1.048	114.7	17.4	10.2	0.392
3-7970	3-8700	0.363	171.5	2.8	-0.45	0.825	59.1	0.517	1.694	114.2	421.1	0.818	2.571	1.52	1.194	109.9	49.7	22.4	0.438
3-7970	3-8700	0.224	117.0	20.4	-0.45	0.594	75.0	0.501	1.090	163.9	830.8	0.543	1.636	1.54	1.048	117.7	24.9	13.0	0.544
3-7970	3-8710	0.421	169.0	4.6	-0.06	0.825	54.8	0.580	1.693	119.5	436.5	0.712	2.675	1.81	1.196	110.4	57.0	22.3	0.550
3-7970	3-8710	0.284	129.0	18.9	-0.06	0.590	67.5	0.567	1.084	160.0	836.9	0.470	1.699	1.81	1.048	124.2	31.1	15.4	0.620

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7970	3-8730	0.507	165.4	7.1	0.52	0.925	48.3	0.667	1.693	127.2	64.2	0.564	2.822	2.26	1.197	125.0	52.3	22.2	0.700
3-7970	3-8750	0.373	136.2	17.8	0.52	0.557	57.9	0.657	1.080	158.2	345.2	0.370	1.790	2.26	1.048	130.8	37.4	17.3	0.732
3-7970	3-8760	0.502	139.0	17.6	1.54	0.686	45.2	0.776	1.078	159.6	356.8	0.241	1.915	3.17	1.049	140.8	41.9	18.6	0.895
3-7970	3-8730	0.492	91.6	24.9	1.34	0.715	78.7	0.869	0.845	178.31	235.4	0.111	1.579	3.17	0.919	149.8	30.9	14.2	0.970
3-7970	3-8740	0.598	106.7	24.4	4.07	0.659	45.0	0.941	0.839	176.31	343.5	0.050	1.627	5.59	0.916	159.8	36.4	16.1	1.115
3-7980	3-8050	0.531	66.4	17.3	-4.33	0.457	126.6	0.803	0.950	191.4	215.1	---	---	-3.34	0.990	36.6	330.6	-14.3	0.907
3-7980	3-8060	0.430	53.5	16.1	-3.27	0.512	116.0	0.685	1.001	193.8	227.7	---	---	-2.41	1.035	46.8	334.1	-13.3	0.756
3-7980	3-8070	0.360	49.2	14.5	-2.66	0.586	110.4	0.578	1.063	196.7	240.2	---	---	-1.94	1.042	54.9	337.6	-12.2	0.631
3-7980	3-8080	0.314	46.0	13.8	-2.24	0.612	107.3	0.489	1.128	200.2	254.3	---	---	-1.66	1.066	61.5	341.0	-11.2	0.527
3-7980	3-8090	0.285	38.5	11.4	-1.92	0.649	105.7	0.419	1.190	204.5	268.7	---	---	-1.49	1.085	67.1	344.1	-10.5	0.438
3-7980	3-8100	0.267	33.6	9.8	-1.65	0.677	104.8	0.367	1.246	209.2	283.4	---	---	-1.40	1.100	72.5	346.8	-10.0	0.362
3-7980	3-8110	0.258	29.3	8.2	-1.41	0.698	104.3	0.330	1.293	214.0	298.1	---	---	-1.35	1.111	77.5	348.8	-10.1	0.298
3-7980	3-8120	0.252	26.0	7.4	-1.27	0.713	104.0	0.306	1.329	218.7	312.3	---	---	-1.35	1.118	79.4	349.8	-11.0	0.245
3-7980	3-8130	0.249	23.7	7.3	-0.94	0.723	103.8	0.290	1.355	221.5	325.4	---	---	-1.39	1.122	82.4	349.4	-12.9	0.202
3-7980	3-8140	0.246	22.1	7.4	-0.68	0.729	103.6	0.280	1.371	223.5	337.2	---	---	-1.47	1.123	85.1	347.2	-16.1	0.169
3-7980	3-8150	0.243	21.2	7.9	-0.38	0.732	103.4	0.273	1.379	224.4	347.8	---	---	-1.61	1.123	87.4	343.0	-20.6	0.148
3-7980	3-8160	0.239	20.7	8.9	-0.01	0.733	103.1	0.268	1.380	224.2	357.3	---	---	-1.84	1.121	89.4	337.7	-25.8	0.137
3-7980	3-8170	0.234	20.6	10.5	0.50	0.731	102.7	0.265	1.375	223.1	365.8	1.011	---	-2.22	1.118	91.2	332.5	-31.2	0.136
3-7980	3-8180	0.228	20.4	12.2	1.36	0.728	102.2	0.262	1.367	221.2	373.5	1.008	---	-2.90	1.114	92.8	329.5	-36.9	0.144
3-7980	3-8190	0.224	19.8	13.4	2.84	0.723	101.6	0.261	1.355	218.7	380.5	1.002	---	-4.33	1.110	94.2	330.7	-45.0	0.163
3-7980	3-8200	0.234	16.2	32.9	7.63	0.718	100.8	0.259	1.341	215.6	386.9	0.994	---	-9.00	1.106	95.5	344.1	-62.9	0.225
3-7980	3-8220	0.221	40.6	-13.0	-8.45	0.706	99.1	0.260	1.311	208.3	398.9	0.970	---	7.31	1.098	97.7	309.6	21.1	0.225
3-7980	3-8230	0.193	38.8	-8.4	-4.98	0.700	98.0	0.262	1.296	204.1	404.2	0.957	---	3.91	1.094	98.7	320.5	6.4	0.208
3-7980	3-8240	0.177	40.7	1.2	-3.63	0.693	96.8	0.265	1.280	199.7	409.4	0.941	---	2.72	1.090	99.7	327.8	1.4	0.217
3-7980	3-8250	0.164	44.3	4.4	-2.92	0.686	95.4	0.269	1.265	195.1	414.3	0.924	---	2.13	1.087	100.7	334.3	0.0	0.230
3-7980	3-8260	0.151	49.3	7.2	-2.49	0.679	93.9	0.276	1.250	190.4	419.2	0.905	---	1.79	1.085	101.7	340.7	0.2	0.246
3-7980	3-8270	0.140	56.1	9.9	-2.10	0.673	92.2	0.285	1.236	185.6	424.0	0.884	---	1.58	1.082	102.8	347.2	1.4	0.263
3-7980	3-8280	0.133	65.0	12.6	-1.81	0.666	90.3	0.297	1.223	180.7	428.9	0.860	---	1.45	1.080	104.0	353.6	3.1	0.283
3-7980	3-8290	0.125	76.5	15.1	-1.56	0.660	88.1	0.312	1.210	175.9	433.8	0.833	.588	1.38	1.079	105.4	0.2	5.2	0.307
3-7980	3-8300	0.116	90.2	17.1	-1.33	0.653	85.7	0.331	1.198	171.1	438.8	0.801	1.595	1.35	1.077	107.0	6.8	7.5	0.334
3-7980	3-8310	0.135	105.1	18.0	-1.09	0.647	82.8	0.356	1.187	166.6	444.1	0.764	1.610	1.36	1.076	108.9	13.4	9.9	0.366
3-7980	3-8320	0.154	119.1	17.7	-0.85	0.641	79.4	0.389	1.176	162.4	449.7	0.719	1.633	1.41	1.076	111.2	20.1	12.2	0.406
3-7980	3-8330	0.187	130.6	16.7	-0.58	0.636	75.3	0.431	1.163	158.4	455.8	0.664	1.669	1.51	1.075	113.1	26.7	14.8	0.457
3-7980	3-8340	0.230	139.3	15.5	-0.28	0.631	70.1	0.466	1.150	155.4	462.8	0.595	1.721	1.69	1.074	118.0	33.2	16.6	0.523
3-7980	3-8350	0.303	145.1	14.7	0.19	0.626	63.5	0.560	1.150	153.7	471.1	0.506	1.794	1.99	1.074	123.2	39.3	18.4	0.612
3-7980	3-8360	0.397	148.2	14.4	0.69	0.623	54.7	0.658	1.145	153.8	481.3	0.392	1.898	2.50	1.074	130.5	44.5	19.8	0.736
3-7980	3-8370	0.529	148.4	14.8	1.09	0.621	42.6	0.782	1.142	157.1	494.6	0.249	2.035	3.53	1.074	141.0	48.4	20.7	0.910
3-7980	3-8420	0.530	114.3	20.2	-3.74	0.534	52.3	0.894	0.870	174.5	563.1	0.092	1.647	-2.01	0.939	26.9	341.5	-9.1	1.030
3-7980	3-8420	0.494	90.4	15.5	-3.74	0.517	12367	0.733	1.007	195.5	584.1	0.269	1.744	-2.81	1.019	42.9	330.7	-14.5	0.820
3-7980	3-8430	0.426	109.7	20.2	-2.95	0.386	67.9	0.801	0.899	174.1	572.8	0.179	1.620	-2.15	0.957	36.9	345.9	-7.5	0.890
3-7980	3-8440	0.378	59.0	17.1	-2.95	0.702	108.9	0.654	0.991	190.8	589.5	0.343	1.639	-2.15	1.010	49.2	337.8	-11.8	0.715
3-7980	3-8490	0.576	60.8	7.3	-1.06	0.769	41.3	0.753	1.473	142.5	241.3	---	2.581	-1.36	1.149	44.0	26.5	9.6	0.867
3-7980	3-8500	0.510	62.8	6.6	-0.82	0.770	44.3	0.716	1.456	139.0	247.5	---	2.568	-1.42	1.151	47.6	33.1	11.7	0.806
3-7980	3-8510	0.446	64.3	6.0	-0.55	0.777	47.2	0.681	1.520	136.5	253.8	---	2.554	-1.53	1.153	51.3	39.8	13.6	0.746
3-7980	3-8520	0.475	166.7	5.5	-0.22	0.783	49.8	0.646	1.542	132.2	260.2	---	2.538	-1.71	1.155	54.4	46.5	15.0	0.689
3-7980	3-8530	0.445	168.7	5.3	0.21	0.788	52.2	0.614	1.562	128.9	266.6	---	2.521	-2.00	1.157	57.6	53.2	16.0	0.634
3-7980	3-8540	0.418	170.8	5.5	0.82	0.793	54.4	0.582	1.582	125.8	273.1	---	2.503	-2.49	1.159	60.6	59.9	16.2	0.582
3-7980	3-8550	0.393	173.2	6.5	1.88	0.798	56.4	0.553	1.599	122.9	279.7	---	2.485	-3.42	1.160	63.5	66.6	14.9	0.532
3-7980	3-8560	0.373	176.4	10.2	4.30	0.801	58.2	0.527	1.616	120.1	286.5	---	2.466	-5.73	1.162	66.3	73.6	10.0	0.491
3-7980	3-8570	0.412	184.1	31.5	17.31	0.805	69.9	0.503	1.630	117.5	293.2	---	2.440	-18.62	1.164	68.9	86.6	-15.9	0.548
3-7980	3-8580	0.380	160.6	-22.9	-14.38	0.808	61.4	0.479	1.643	114.9	300.6	---	2.430	13.67	1.166	71.7	86.0	58.1	0.460
3-7980	3-8590	0.322	171.1	-11.5	-6.25	0.810	62.7	0.460	1.654	112.7	307.9	---	2.415	5.16	1.167	74.2	87.3	39.8	0.358
3-7980	3-8600	0.302	174.3	-8.6	-4.20	0.812	63.8	0.443	1.663	110.8	315.4	---	2.400	3.23	1.169	76.7	90.7	35.3	0.311
3-7980	3-8610	0.288	176.2	-7.4	-3.35	0.814	64.8	0.429	1.671	109.1	323.3	---	2.388	2.39	1.172	79.2	92.7	33.6	0.273
3-7980	3-8620	0.277	177.6	-6.6	-2.67	0.816	65.5	0.418	1.678	107.7	331.4	---	2.378	1.94	1.174	81.7	92.6	32.9	0.239
3-7980	3-8630	0.269	178.6	-6.3	-2.27	0.817	66.0	0.409	1.682	106.6	340.0	---	2.371	1.68	1.176	84.2	89.6	32.7	0.213
3-7980	3-8640	0.265	179.4	-5.8	-1.95	0.817	66.4	0.405	1.686	105.9	348.9	---	2.369	1.51	1.179	86.8	83.5	32.5	0.195
3-7980	3-8650	0.264	179.9	-5.2	-1.69	0.816	66.4	0.404	1.689	105.6	358.4	---	2.371	1.41	1.181	89.5	74.7	31.6	0.190
3-7980	3-8660	0.267	180.0	-4.5	-1.45	0.818	66.2	0.408	1.690	105.9	368.4	1.001	2.379	1.36	1.184	92.4	65.6	29.7	0.199
3-7980	3-8660	0.272	44.9	14.1	-1.45	0.622	103.6	0.443	1.144	198.4	820.9	0.637	1.650	1.36	1.058	115.4	352.9	-0.1	0.472
3-7980	3-8660	0.547	37.9	11.7	-1.45	0.664	128.5	0.655	1.257	213.3	835.8	0.433	2.081	1.36	1.094	129.5	346.8	-4.0	0.729
3-7980	3-8670	0.275	179.9	-3.5	-1.22	0.818	65.6	0.417	1.691	106.6	378.9	0.985	2.396	1.35	1.186	95.6	58.6	27.5	0.226
3-7980	3-8670	0.217	58.1	17.2	-1.22	0.608	96.4	0.425	1.122	180.8	821.1	0.645	1.599	1.35	1.052	114.4	1.6	3.8	0.455
3-7980	3-8680	0.289	179.3	-2.4	-0.98	0.818	64.5	0.434	1.691	108.1	390.2	0.957	2.424	1.38	1.188	99.0	54.5	25.7	0.267
3-7980	3-8680	0.190	74.9	20.1	-0.98	0.599	90.4	0.431	1.108	180.6	822.8	0.631	1.586	1.38	1.050	114.9	9.8	7.3	0.462
3-7980	3-8690	0.312	178.3	-1.1	-0.72	0.818	62.9	0.459	1.690	110.3	402.4	0.913	2.466	1.45	1.191	103.0	53.0	24.4	0.325
3-7980	3-8690	0.186	94.6	21.6	-0.72	0.592	84.7	0.491	1.098	173.5	825.6	0.603	1.594	1.45	1.048	116.3	17.6	10.5	0.486
3-7980	3-8700	0.245	176.8	0.4	-0.43	0.818	60.4	0.497	1.689	113.5	415.5	0.849	2.528	1.59	1.193	107.7	53.3	23.8	0.401
3-7980	3-8700	0.207	113.5	21.0	-0.43	0.587	79.6	0.480	1.090	167.4	829.5	0.559	1.622	1.59	1.048	118.8	25.2	13.4	0.528
3-7980	3-8710	0.394	174.7	2.3	-0.06	0.818	56.7	0.551	1.688	118.0	430.1	0.758	2.617	1.81	1.195	113.6	54.6	23.5	0.500
3-7980	3-8710	0.253	128.2	19.1	-0.06	0.582	71.5	0.542	1.084	162.6	834.7	0.497	1.671	1.81	1.048	122.5	32.4	16.0	0.590
3-7980	3-8720	0.465	171.6	4.4	-0.46	0.818	51.4	0.626	1.687	124.3	446.5	0.631	2.743	2.19	1.197	121.0	56.1	23.5	0.630
3-7980	3-8720	0.327	137.7	17.4	0.66	0.578	62.9	0.619	1.079	159.6	841.8	0.411	1.747	2.19	1.048	128.0	38.9	18.0	0.683
3-7980	3-8730	0.571	167.3	7.0	1.29	0.818	48.4	0.708	1.687	133.4	465.7	0.458	2.916	2.89	1.198	131.1	57.2	23.4	0.806
3-7980	3-8730	0.436	142.6	16.5	1.29	0.576	61.7	0.723	1.076	159.3	851.5	0.298	1.854	2.89	1.048	136.1	44.3	19.5	0.818
3-7980	3-8730	0.503	80.2	24.4	1.29	0.363	104.0	0.865	0.835	182.4	1234.6	0.116	1.594	2.89	0.927	149.5	31.5	14.2	0.974
3-7980	3-8740	0.586	143.2	16.8	2.97	0.575	36.7	0.651	1.075	162.8	865.2	0.160	1.989	4.45	1.049	148.2	47.9	20.4	1.012
3-7980	3-8740	0.538	104.0	24.7	2.97	0.365	64.7	0.910	0.840	177.3	1239.7	0.076	1.604	4.45	0.917	155.1	38.4	16.8	1.049
3-7980	3-8780	0.565	49.6	15.6	-4.41	0.416	131.6	0.792	1.005	195.3	938.6	0.209	1.801	-3.41	1.019	37.6	328.2	-15.4	0.903
3-7990	3-8090	0.500	51.6	15.8	-3.45	0.515	125.4	0.721	1.046	198.1	22742	---	---	-2.97	1.037	44.0	334.2	-13.5	0.811

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-7990	3-8070	0.416	47.3	14.3	-2.92	0.590	117.5	0.606	1.106	202.1	241.3	---	---	-2.29	1.060	53.1	337.5	-12.6	0.668
3-7990	3-8080	0.362	42.3	12.6	-2.40	0.633	113.0	0.512	1.174	206.7	256.0	---	---	-1.91	1.082	60.5	340.3	-11.8	0.551
3-7990	3-8090	0.328	37.2	11.0	-2.01	0.668	110.4	0.440	1.241	211.9	271.3	---	---	-1.68	1.101	66.5	343.0	-11.3	0.454
3-7990	3-8100	0.308	32.6	9.6	-1.70	0.696	108.8	0.388	1.301	217.5	286.9	---	---	-1.55	1.116	71.6	345.2	-11.1	0.373
3-7990	3-8110	0.296	28.9	8.6	-1.43	0.716	107.9	0.353	1.351	222.7	302.3	---	---	-1.47	1.126	75.9	346.6	-11.4	0.305
3-7990	3-8120	0.289	26.1	8.0	-1.17	0.730	107.3	0.330	1.389	227.1	316.4	---	---	-1.45	1.132	79.6	346.9	-12.6	0.250
3-7990	3-8130	0.284	24.1	7.8	-0.92	0.739	106.9	0.316	1.415	230.2	329.3	---	---	-1.46	1.136	82.8	345.6	-14.8	0.207
3-7990	3-8140	0.280	22.9	8.0	-0.66	0.744	106.9	0.306	1.429	231.9	340.8	---	---	-1.53	1.136	85.5	342.4	-18.2	0.175
3-7990	3-8150	0.275	22.3	8.5	-0.36	0.745	106.2	0.299	1.438	232.4	351.0	---	---	-1.65	1.135	87.9	337.6	-22.5	0.155
3-7990	3-8160	0.269	22.1	9.5	-0.01	0.744	105.8	0.294	1.430	231.8	360.1	1.010	---	-1.84	1.132	90.0	331.9	-27.0	0.140
3-7990	3-8170	0.263	22.1	10.8	0.45	0.741	105.3	0.289	1.420	230.3	368.2	1.010	---	-2.16	1.128	91.8	326.9	-31.2	0.147
3-7990	3-8180	0.256	22.3	13.0	1.12	0.736	104.7	0.285	1.407	228.0	375.6	1.006	---	-2.70	1.123	93.4	324.3	-35.3	0.155
3-7990	3-8190	0.248	22.4	16.6	2.27	0.730	104.0	0.282	1.390	225.2	382.3	0.999	---	-3.72	1.118	94.8	324.9	-40.6	0.170
3-7990	3-8200	0.245	21.2	24.7	4.94	0.724	103.2	0.279	1.372	221.9	388.5	0.989	---	-6.26	1.113	96.1	331.1	-51.3	0.203
3-7990	3-8210	0.339	13.5	55.7	19.82	0.716	102.3	0.276	1.353	218.1	394.0	0.979	---	-21.02	1.108	97.2	32.2	-80.4	0.420
3-7990	3-8220	0.289	49.0	-22.3	-15.19	0.709	101.4	0.276	1.333	214.1	400.1	0.965	---	14.11	1.103	98.3	297.3	36.6	0.320
3-7990	3-8230	0.218	41.1	-5.5	-6.42	0.701	100.2	0.276	1.314	209.7	405.1	0.952	---	5.46	1.099	99.3	317.4	11.7	0.229
3-7990	3-8240	0.197	41.7	0.7	-4.27	0.693	98.9	0.277	1.296	205.2	410.1	0.937	---	3.44	1.095	100.2	326.2	3.8	0.230
3-7990	3-8250	0.181	44.6	4.5	-3.26	0.686	97.5	0.280	1.278	200.4	414.9	0.920	---	2.56	1.091	101.2	333.4	1.3	0.240
3-7990	3-8260	0.167	48.9	7.4	-2.65	0.678	96.0	0.285	1.261	195.5	419.5	0.902	---	2.08	1.088	102.1	340.1	1.	0.25
3-7990	3-8270	0.154	54.7	10.0	-2.22	0.670	94.3	0.292	1.245	190.5	424.2	0.881	---	1.80	1.085	103.1	346.8	2.0	0.210
3-7990	3-8280	0.142	62.5	12.6	-1.88	0.663	92.4	0.301	1.229	185.5	428.8	0.859	---	1.62	1.082	104.2	353.4	3.6	0.208
3-7990	3-8290	0.133	72.7	15.1	-1.59	0.655	90.2	0.314	1.215	180.4	433.5	0.833	---	1.51	1.080	105.5	0.1	5.6	0.305
3-7990	3-8300	0.128	85.5	17.2	-1.33	0.648	87.8	0.331	1.201	175.5	438.3	0.803	1.599	1.46	1.078	106.9	6.8	7.9	0.333
3-7990	3-8310	0.132	100.4	18.7	-1.09	0.641	85.0	0.353	1.189	170.6	443.3	0.769	1.608	1.45	1.077	108.6	13.6	10.3	0.362
3-7990	3-8320	0.145	115.6	18.2	-0.83	0.635	81.7	0.381	1.177	166.0	448.6	0.728	1.626	1.48	1.076	110.7	20.5	12.7	0.398
3-7990	3-8330	0.171	128.9	17.0	-0.55	0.628	77.8	0.418	1.166	161.9	454.4	0.678	1.654	1.57	1.075	113.3	27.3	15.3	0.442
3-7990	3-8340	0.211	139.2	15.5	-0.23	0.623	73.0	0.467	1.156	158.3	460.8	0.617	1.696	1.72	1.074	116.7	34.0	17.1	0.500
3-7990	3-8350	0.269	146.6	14.2	0.18	0.617	67.1	0.531	1.148	155.7	468.3	0.538	1.757	1.96	1.073	121.2	40.5	19.0	0.576
3-7990	3-8360	0.350	151.1	13.3	0.74	0.613	59.2	0.616	1.141	154.6	477.3	0.438	1.843	2.39	1.072	127.3	46.4	20.5	0.681
3-7990	3-8370	0.462	152.8	13.3	1.66	0.610	48.7	0.727	1.136	156.1	488.9	0.310	1.962	3.17	1.072	136.1	51.1	21.6	0.829
3-7990	3-8420	0.561	117.5	19.7	-4.44	0.296	49.5	0.922	0.858	175.7	559.5	0.067	1.649	-3.59	0.931	23.1	343.4	-8.4	1.081
3-7990	3-8420	0.548	56.2	17.1	-4.44	0.499	130.2	0.793	0.996	194.3	578.1	0.207	1.786	-3.59	1.014	37.6	333.6	-13.5	0.904
3-7990	3-8430	0.458	114.1	19.8	-3.30	0.351	65.9	0.839	0.885	175.0	568.9	0.382	1.628	-2.59	0.948	33.2	347.9	-6.7	0.944
3-7990	3-8430	0.418	62.6	18.0	-3.30	0.485	114.0	0.700	0.983	191.5	585.4	0.295	1.672	-2.59	1.006	45.4	339.8	-11.1	0.773
3-7990	3-8490	0.587	164.4	5.9	-1.05	0.752	40.1	0.767	1.456	144.5	238.5	---	2.573	-1.45	1.146	42.5	27.7	10.1	0.891
3-7990	3-8500	0.551	166.4	5.2	-0.80	0.760	43.3	0.730	1.480	141.0	244.7	---	2.561	-1.49	1.140	46.2	34.4	12.2	0.829
3-7990	3-8510	0.517	168.4	4.5	-0.52	0.767	46.2	0.694	1.504	137.5	251.0	---	2.548	-1.58	1.150	49.7	41.1	14.0	0.769
3-7990	3-8520	0.485	170.4	4.0	-0.21	0.773	48.8	0.659	1.526	134.2	257.4	---	2.532	-1.73	1.152	53.1	47.8	15.5	0.710
3-7990	3-8530	0.454	172.4	3.7	0.19	0.779	51.3	0.625	1.548	130.9	263.8	---	2.516	-1.97	1.154	56.3	54.5	16.5	0.654
3-7990	3-8540	0.426	174.4	3.7	0.73	0.784	53.6	0.593	1.568	127.8	270.3	---	2.498	-2.38	1.156	59.4	61.3	16.8	0.601
3-7990	3-8550	0.401	176.7	4.3	1.58	0.789	55.7	0.563	1.586	124.8	276.9	---	2.480	-3.09	1.158	62.4	67.9	16.1	0.550
3-7990	3-8560	0.378	179.4	6.5	3.20	0.793	57.6	0.535	1.603	122.0	283.6	---	2.462	-4.59	1.160	65.2	74.6	13.0	0.504
3-7990	3-8570	0.369	184.1	14.9	8.13	0.797	59.3	0.510	1.619	119.3	290.4	---	2.444	-9.39	1.162	67.9	82.4	1.8	0.480
3-7990	3-8590	0.330	171.9	-17.7	-9.07	0.803	62.3	0.466	1.644	114.6	304.9	---	2.410	8.05	1.166	73.2	91.3	47.2	0.388
3-7990	3-8600	0.309	177.2	-12.0	-5.16	0.805	63.5	0.448	1.654	112.6	312.4	---	2.395	4.26	1.168	75.8	94.1	38.2	0.328
3-7990	3-8610	0.293	179.7	-10.0	-3.72	0.807	64.5	0.432	1.663	110.8	320.2	---	2.382	2.95	1.170	78.3	96.5	35.2	0.286
3-7990	3-8620	0.281	181.3	-9.0	-2.94	0.809	65.3	0.420	1.670	109.3	328.3	---	2.371	2.30	1.173	80.8	97.2	34.0	0.250
3-7990	3-8630	0.272	182.6	-8.4	-2.43	0.810	65.9	0.411	1.675	108.1	336.7	---	2.363	1.93	1.175	83.3	95.3	33.6	0.221
3-7990	3-8640	0.267	183.5	-7.8	-2.05	0.811	66.3	0.405	1.679	107.3	345.6	---	2.359	1.70	1.178	85.9	90.2	33.5	0.199
3-7990	3-8650	0.265	184.1	-7.2	-1.7	0.811	66.4	0.402	1.682	106.9	354.9	---	2.359	1.56	1.180	88.5	82.1	33.0	0.189
3-7990	3-8660	0.266	184.4	-6.4	-1.47	0.812	66.3	0.405	1.684	106.9	364.7	1.003	2.365	1.48	1.183	91.3	72.7	31.6	0.193
3-7990	3-8670	0.272	184.4	-5.6	-1.22	0.812	65.9	0.412	1.685	107.5	375.0	0.991	2.379	1.45	1.185	94.4	64.6	29.5	0.214
3-7990	3-8670	0.252	54.4	16.9	-1.22	0.608	101.4	0.448	1.332	194.8	822.3	0.625	1.640	1.45	1.056	135.8	1.0	5.6	0.480
3-7990	3-8670	0.578	37.2	13.9	-1.22	0.681	131.7	0.693	1.267	212.0	839.6	0.389	2.146	1.45	1.100	122.3	354.2	-0.9	0.783
3-7990	3-8680	0.284	184.0	-4.5	-0.97	0.812	65.0	0.426	1.685	108.6	386.0	0.968	2.402	1.46	1.188	97.7	59.4	27.5	0.249
3-7990	3-8680	0.207	69.6	19.8	-0.97	0.595	94.5	0.439	1.114	185.7	823.1	0.624	1.603	1.46	1.052	115.4	9.6	7.3	0.472
3-7990	3-8690	0.302	183.2	-3.3	-0.70	0.812	63.6	0.447	1.684	110.4	397.7	0.931	2.438	1.51	1.196	101.4	57.1	26.0	0.301
3-7990	3-8690	0.189	88.5	21.8	-0.70	0.587	80.3	0.451	1.101	178.0	825.3	0.604	1.597	1.51	1.049	116.3	17.7	10.7	0.486
3-7990	3-8700	0.330	181.9	-1.8	-0.41	0.811	61.5	0.480	1.683	113.1	410.4	0.876	2.491	1.63	1.192	105.8	56.9	25.2	0.369
3-7990	3-8700	0.196	108.8	21.6	-0.41	0.580	82.2	0.479	1.091	171.3	828.5	0.569	1.614	1.63	1.048	118.2	25.6	13.7	0.517
3-7990	3-8710	0.372	180.1	-0.1	-0.05	0.811	58.4	0.520	1.682	116.9	424.2	0.797	2.567	1.82	1.194	111.1	58.0	24.7	0.456
3-7990	3-8710	0.230	126.0	19.7	-0.05	0.574	75.4	0.523	1.084	165.7	833.0	0.517	1.651	1.82	1.048	121.2	33.1	16.4	0.568
3-7990	3-8720	0.432	177.5	1.8	0.42	0.811	53.9	0.591	1.681	122.2	439.6	0.687	2.675	2.14	1.196	117.7	59.8	24.6	0.573
3-7990	3-8720	0.290	138.1	17.3	0.42	0.570	67.4	0.588	1.078	161.7	839.1	0.444	1.712	2.14	1.047	125.7	40.1	18.6	0.645
3-7990	3-8730	0.520	173.8	4.1	1.12	0.811	47.2	0.681	1.681	129.7	457.2	0.536	2.825	2.69	1.197	126.5	61.3	24.5	0.724
3-7990	3-8730	0.381	145.1	15.7	1.12	0.567	57.3	0.678	1.074	159.9	847.4	0.346	1.801	2.69	1.047	132.5	46.3	20.3	0.757
3-7990	3-8740	0.510	147.8	15.3	2.36	0.565	44.2	0.795	1.071	161.3	858.9	0.220	1.923	3.80	1.048	142.5	50.9	21.3	0.920
3-7990	3-8740	0.511	96.9	25.0	2.36	0.262	88.5	0.890	0.845	179.8	1237.4	0.093	1.597	3.80	0.921	152.5	39.7	17.2	1.014
3-7990	3-8790	0.582	128.4	17.6	-3.81	0.382	38.7	0.916	0.905	172.9	921.5	0.076	1.731	-3.02	0.961	23.8	346.2	-7.1	1.087
3-7990	3-8790	0.484	57.4	17.2	-3.81	0.499	122.8	0.742	0.996	194.1	942.7	0.257	1.735	-3.02	1.013	42.1	336.0	-12.7	0.831
3-8000	3-8060	0.596	50.1	15.6	-4.42	0.608	135.3	0.766	1.143	202.8	227.2	---	---	-3.72	1.075	40.5	334.0	-13.9	0.885
3-8000	3-8070	0.490	45.8	14.1	-3.26	0.635	125.1	0.643	1.188	208.2	242.8	---	---	-2.71	1.089	51.0	336.6	-13.2	0.717
3-8000	3-8080	0.424	41.0	12.5	-2.59	0.669	119.0	0.544	1.254	214.1	258.7	---	---	-2.19	1.107	59.2	339.2	-12.6	0.584
3-8000	3-8090	0.382	36.2	11.0	-2.12	0.700	115.4	0.470	1.324	220.4	275.1	---	---	-1.88	1.124	65.8	341.4	-12.3	0.476
3-8000	3-8100	0.357	32.1	9.8	-1.76	0.724	113.1	0.419	1.388	226.6	291.3	---	---	-1.70	1.137	71.3	343.0	-12.3	0.388
3-8000	3-8110	0.342	28.8	9.0	-1.45	0.742	111.8	0.386	1.441	232.1	306.8	---	---	-1.59	1.146	75.9	343.8	-13.0	0.316
3-8000	3-8120	0.332	26.4	8.5	-1.18	0.754	110.8	0.365	1.479	236.3	320.9	---	---	-1.54	1.151	79.8	343.2	-14.5	0.259
3-8000	3-8130	0.325	24.9	8.4	-0.91	0.761	110.2	0.351	1.502	239.0	333.4	---	---	-1.54	1.153	83.2	341.0	-16.9	0.215
3-8000	3-8140	0.318	24.0	8.7	-0.64	0.763	109.6	0.341	1.511	240.3	344.5	---	---	-1.56	1.153	86.1	337.0	-20.3	0.184

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8000	3-8150	0.311	23.6	-9.2	-0.35	0.763	109.1	0.333	1.509	240.3	354.2	---	---	-1.68	1.150	88.5	331.6	-24.2	0.166
3-8000	3-8160	0.304	23.6	-10.1	-0.01	0.760	108.6	0.326	1.498	239.3	362.8	1.010	---	-1.84	1.146	90.7	325.9	-27.8	0.159
3-8000	3-8170	0.295	23.9	-11.3	0.41	0.755	108.0	0.320	1.481	237.4	370.6	1.008	---	-2.11	1.141	92.6	321.5	-31.0	0.161
3-8000	3-8180	0.286	24.4	-13.1	1.00	0.748	107.3	0.313	1.460	234.8	377.6	1.003	---	-2.54	1.135	94.2	319.5	-33.8	0.170
3-8000	3-8190	0.276	24.8	-15.8	1.91	0.740	106.6	0.307	1.436	231.6	384.0	0.995	---	-3.32	1.129	95.6	320.3	-37.4	0.183
3-8000	3-8200	0.268	24.7	-21.0	3.68	0.732	105.7	0.302	1.481	228.0	389.9	0.985	---	-4.95	1.122	96.8	324.7	-43.9	0.204
3-8000	3-8210	0.277	22.0	-35.2	9.15	0.723	104.8	0.298	1.386	224.1	395.4	0.974	---	-10.30	1.116	97.9	330.4	-61.0	0.270
3-8000	3-8230	0.253	44.9	-9.6	-9.20	0.765	102.5	0.293	1.338	215.3	406.0	0.946	---	8.31	1.105	99.9	312.3	19.9	0.267
3-8000	3-8240	0.220	43.5	-0.1	-5.21	0.696	101.2	0.292	1.315	210.6	410.8	0.931	---	4.46	1.100	100.8	324.2	6.9	0.247
3-8000	3-8250	0.201	45.5	4.4	-3.72	0.687	99.8	0.293	1.294	205.7	415.4	0.915	---	3.10	1.095	101.7	332.3	2.8	0.253
3-8000	3-8260	0.185	49.0	7.5	-2.91	0.678	98.2	0.296	1.274	200.6	419.9	0.897	---	2.42	1.091	102.6	339.5	1.9	0.264
3-8000	3-8270	0.169	54.1	10.2	-2.37	0.669	96.4	0.301	1.255	195.4	424.4	0.878	---	2.04	1.088	103.5	346.4	2.6	0.270
3-8000	3-8280	0.155	60.8	12.7	-1.97	0.660	94.5	0.308	1.237	190.2	428.9	0.856	---	1.80	1.085	104.5	353.2	4.1	0.294
3-8000	3-8290	0.143	69.8	15.1	-1.64	0.652	92.3	0.319	1.221	185.0	433.4	0.832	---	1.65	1.082	105.6	360.0	6.0	0.313
3-8000	3-8300	0.135	81.4	17.2	-1.35	0.644	89.9	0.333	1.205	179.9	438.0	0.804	1.607	1.57	1.080	106.9	6.9	8.3	0.334
3-8000	3-8310	0.132	95.6	18.7	-1.08	0.636	87.2	0.352	1.191	174.8	442.6	0.772	1.611	1.54	1.078	108.5	13.8	10.6	0.360
3-8000	3-8320	0.140	111.3	18.8	-0.82	0.629	84.0	0.377	1.178	169.9	447.8	0.734	1.622	1.55	1.076	110.4	20.8	13.0	0.392
3-8000	3-8330	0.159	126.1	17.6	-0.54	0.622	80.3	0.409	1.166	165.4	453.2	0.689	1.643	1.61	1.075	112.7	27.8	15.4	0.431
3-8000	3-8340	0.192	138.3	15.8	-0.22	0.616	75.9	0.451	1.155	161.3	459.2	0.634	1.676	1.74	1.073	115.6	34.7	17.6	0.462
3-8000	3-8350	0.241	147.2	14.0	0.16	0.610	70.8	0.507	1.145	158.1	466.0	0.565	1.726	1.95	1.072	119.5	41.5	19.5	0.548
3-8000	3-8360	0.310	153.2	12.6	0.67	0.604	63.3	0.581	1.137	156.1	474.1	0.476	1.798	2.29	1.071	124.8	47.9	21.1	0.638
3-8000	3-8370	0.406	156.3	12.0	1.44	0.600	54.0	0.679	1.131	156.1	484.2	0.363	1.899	2.91	1.070	132.2	53.4	22.3	0.762
3-8000	3-8380	0.538	156.5	12.3	2.82	0.599	41.4	0.801	1.128	159.1	497.3	0.225	2.032	4.15	1.071	142.9	57.5	23.0	0.937
3-8000	3-8420	0.593	120.4	19.2	-5.48	0.255	46.5	0.946	0.848	176.8	555.9	0.045	1.650	-4.70	0.923	19.1	345.3	-7.6	1.133
3-8000	3-8430	0.490	118.6	19.2	-3.78	0.314	64.1	0.874	0.872	175.9	565.1	0.110	1.635	-3.15	0.940	29.3	349.9	-5.9	0.997
3-8000	3-8430	0.482	67.0	18.9	-3.78	0.468	119.7	0.750	0.975	191.6	580.8	0.244	1.706	-3.15	1.001	41.4	342.0	-10.3	0.839
3-8000	3-8490	0.599	167.9	4.4	-1.05	0.741	38.9	0.782	1.439	146.5	235.7	---	2.563	-1.54	1.142	40.9	28.9	10.5	0.915
3-8000	3-8500	0.562	169.9	3.7	-0.79	0.749	42.1	0.744	1.463	142.9	242.0	---	2.553	-1.56	1.145	48.7	35.6	12.6	0.852
3-8000	3-8510	0.528	172.0	3.0	-0.51	0.757	45.1	0.708	1.488	139.5	248.3	---	2.540	-1.62	1.147	48.3	42.3	14.4	0.791
3-8000	3-8520	0.495	174.0	2.4	-0.20	0.763	47.9	0.672	1.511	136.1	254.6	---	2.526	-1.75	1.149	51.8	49.1	15.9	0.732
3-8000	3-8530	0.464	176.0	2.0	0.11	0.770	50.5	0.637	1.533	132.9	261.0	---	2.510	-1.95	1.152	55.0	55.9	16.9	0.675
3-8000	3-8540	0.435	178.0	1.9	0.66	0.775	52.9	0.604	1.548	129.7	267.5	---	2.493	-2.29	1.154	58.2	62.6	17.4	0.620
3-8000	3-8550	0.409	180.2	2.3	1.37	0.780	55.0	0.573	1.573	126.7	274.1	---	2.475	-2.85	1.156	61.2	69.3	16.9	0.568
3-8000	3-8560	0.386	182.6	3.6	2.58	0.785	57.0	0.544	1.591	123.9	280.8	---	2.457	-3.92	1.158	64.1	75.9	14.9	0.519
3-8000	3-8570	0.368	186.1	8.1	5.34	0.789	58.8	0.518	1.607	121.2	287.6	---	2.439	-6.55	1.160	66.9	82.6	8.6	0.480
3-8000	3-8580	0.426	193.2	31.5	20.11	0.792	60.4	0.494	1.621	118.7	294.5	---	2.423	-21.20	1.162	69.5	95.4	-20.7	0.567
3-8000	3-8590	0.384	167.1	-28.5	-16.41	0.795	61.9	0.471	1.634	116.3	302.1	---	2.404	15.45	1.164	72.3	102.3	62.4	0.467
3-8000	3-8600	0.319	179.4	-16.3	-6.70	0.798	63.1	0.452	1.645	114.3	309.5	---	2.389	5.87	1.167	74.8	97.9	42.6	0.349
3-8000	3-8610	0.299	182.9	-12.9	-4.37	0.800	64.2	0.436	1.654	112.4	317.2	---	2.375	3.68	1.169	77.3	100.3	37.2	0.301
3-8000	3-8620	0.286	185.0	-11.4	-3.29	0.802	65.1	0.423	1.662	110.9	325.2	---	2.364	2.73	1.171	79.8	101.6	35.1	0.262
3-8000	3-8630	0.276	186.4	-10.5	-2.63	0.803	65.7	0.412	1.668	109.6	333.5	---	2.355	2.22	1.174	82.4	100.6	34.4	0.230
3-8000	3-8640	0.269	187.5	-9.8	-2.17	0.804	66.2	0.405	1.672	108.7	342.3	---	2.349	1.91	1.177	84.9	96.6	34.3	0.205
3-8000	3-8650	0.266	188.2	-9.1	-1.81	0.805	66.5	0.401	1.676	108.2	351.4	---	2.348	1.72	1.179	87.5	89.3	34.1	0.191
3-8000	3-8660	0.266	188.7	-8.4	-1.50	0.805	66.4	0.402	1.678	108.0	361.0	1.004	2.352	1.61	1.182	90.3	80.0	33.2	0.186
3-8000	3-8670	0.270	188.8	-7.5	-1.22	0.804	66.1	0.407	1.679	108.4	371.2	0.995	2.362	1.55	1.184	93.2	71.0	31.4	0.204
3-8000	3-8670	0.317	50.6	16.7	-1.22	0.815	109.0	0.494	1.154	202.2	825.0	0.584	1.724	1.55	1.064	118.7	359.9	2.9	0.532
3-8000	3-8670	0.482	42.9	15.4	-1.22	0.853	124.3	0.621	1.222	210.9	833.7	0.464	1.980	1.55	1.086	127.1	356.5	0.6	0.686
3-8000	3-8680	0.280	188.5	-6.5	-0.96	0.806	65.4	0.418	1.679	109.3	381.9	0.977	2.381	1.54	1.187	96.4	64.7	29.3	0.234
3-8000	3-8680	0.235	65.1	19.5	-0.96	0.594	99.1	0.456	1.122	191.2	823.9	0.611	1.633	1.54	1.055	116.4	9.2	7.2	0.490
3-8000	3-8690	0.295	187.9	-5.4	-0.69	0.806	64.2	0.437	1.679	110.7	393.3	0.946	2.412	1.57	1.189	100.0	61.5	27.6	0.279
3-8000	3-8690	0.200	82.6	21.8	-0.69	0.683	92.3	0.456	1.105	182.7	825.3	0.602	1.609	1.57	1.051	116.5	17.7	10.8	0.491
3-8000	3-8700	0.319	186.9	-4.0	-0.39	0.805	62.7	0.465	1.678	113.0	405.5	0.898	2.457	1.66	1.191	104.0	60.7	26.5	0.340
3-8000	3-8700	0.193	103.1	22.3	-0.39	0.515	85.9	0.474	1.098	175.4	827.9	0.575	1.612	1.66	1.049	117.8	25.8	13.9	0.512
3-8000	3-8710	0.354	185.3	-2.5	-0.05	0.805	59.8	0.505	1.676	116.2	418.7	0.830	2.522	1.82	1.193	108.9	61.5	25.9	0.418
3-8000	3-8710	0.213	122.6	20.4	-0.05	0.568	79.2	0.509	1.084	169.2	831.8	0.532	1.637	1.82	1.048	120.2	33.6	16.7	0.552
3-8000	3-8720	0.405	183.1	-0.7	0.39	0.805	55.9	0.561	1.675	120.6	433.3	0.735	2.615	2.09	1.195	114.8	63.3	25.6	0.520
3-8000	3-8720	0.260	137.3	17.6	0.39	0.562	71.6	0.563	1.077	164.3	837.0	0.471	1.684	2.09	1.047	124.0	41.1	19.0	0.615
3-8000	3-8730	0.479	179.9	1.4	0.99	0.805	50.3	0.640	1.674	126.9	449.7	0.604	2.745	2.54	1.196	122.5	65.2	25.5	0.654
3-8000	3-8730	0.336	146.6	15.3	0.99	0.558	62.4	0.640	1.072	161.3	844.0	0.386	1.758	2.54	1.047	129.6	47.8	20.8	0.708
3-8000	3-8740	0.586	175.5	4.0	1.97	0.805	42.0	0.744	1.675	135.9	460.8	0.429	2.920	3.37	1.198	132.8	66.4	25.3	0.834
3-8000	3-8740	0.446	151.3	14.1	1.97	0.556	50.7	0.744	1.069	160.9	853.8	0.274	1.865	3.37	1.047	137.9	53.4	22.1	0.845
3-8000	3-8750	0.596	151.7	14.2	4.02	0.555	35.2	0.867	1.068	164.4	867.4	0.142	1.994	5.27	1.047	150.0	57.2	22.7	1.038
3-8000	3-8750	0.550	110.2	24.3	4.02	0.227	72.0	0.928	0.868	178.5	1241.5	0.062	1.614	5.27	0.916	157.4	47.5	19.5	1.080
3-8000	3-8790	0.539	62.4	18.3	-4.50	0.486	129.7	0.797	0.992	193.5	937.4	0.201	1.782	-3.80	1.011	37.1	338.5	-11.8	0.910
3-8000	3-8800	0.516	131.2	16.6	-3.31	0.382	48.7	0.875	0.910	172.4	926.4	0.114	1.707	-2.75	0.964	29.0	353.2	-4.3	1.013
3-8000	3-8800	0.413	68.3	18.9	-3.31	0.479	113.8	0.704	0.986	191.2	945.2	0.292	1.679	-2.75	1.006	45.2	344.4	-9.4	0.779
3-8010	3-8070	0.590	44.7	14.0	-3.71	0.707	133.0	0.696	1.356	215.4	245.3	---	---	-3.24	1.136	48.3	335.5	-13.9	0.786
3-8010	3-8080	0.503	40.1	12.5	-2.83	0.724	125.3	0.591	1.404	222.6	262.6	---	---	-2.51	1.145	57.6	337.5	-13.6	0.629
3-8010	3-8090	0.450	35.7	11.1	-2.26	0.746	120.6	0.516	1.469	229.8	279.8	---	---	-2.11	1.157	64.9	339.2	-13.5	0.507
3-8010	3-8100	0.418	32.0	10.1	-1.83	0.765	117.6	0.466	1.533	236.4	296.5	---	---	-1.86	1.167	70.9	340.2	-13.8	0.410
3-8010	3-8110	0.397	29.1	9.4	-1.49	0.778	115.7	0.435	1.584	241.8	311.8	---	---	-1.72	1.173	75.9	340.2	-14.7	0.332
3-8010	3-8120	0.383	27.1	9.1	-1.19	0.787	114.5	0.414	1.618	245.6	325.5	---	---	-1.64	1.176	80.1	338.8	-16.5	0.272
3-8010	3-8130	0.372	25.9	9.1	-0.91	0.791	113.6	0.400	1.634	247.8	337.5	---	---	-1.62	1.176	83.6	335.7	-19.0	0.228
3-8010	3-8140	0.362	25.3	9.4	-0.63	0.790	112.9	0.388	1.633	248.5	348.0	---	---	-1.64	1.174	86.7	331.0	-22.3	0.198
3-8010	3-8150	0.353	25.1	9.9	-0.34	0.787	112.2	0.378	1.619	248.0	357.2	---	---	-1.71	1.169	89.2	325.3	-25.5	0.182
3-8010	3-8160	0.343	25.4	10.8	-0.01	0.781	111.6	0.368	1.595	246.5	365.4	1.009	---	-1.85	1.164	91.5	320.1	-28.4	0.177
3-8010	3-8170	0.332	25.8	11.9	0.39	0.774	110.9	0.358	1.565	244.2	372.8	1.005	---	-2.07	1.157	93.4	316.5	-30.6	0.180
3-8010	3-8180	0.320	26.5	13.4	0.90	0.764	110.1	0.348	1.532	241.3	379.5	0.999	---	-2.42	1.149	95.0	311.3	-32.5	0.188
3-8010	3-8190	0.308	27.2	15.6	1.66	0.755	109.3	0.339	1.498	237.9	385.6	0.990	---	-3.03	1.141	96.4	306.5	-34.9	0.200
3-8010	3-8200	0.296	27.6	19.2	2.95	0.744	108.4	0.331	1.463	234.1	391.3	0.979	---	-4.18	1.133	97.6	320.4	-38.9	0.218

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8010	3-8210	0.289	27.1	27.1	5.98	0.739	107.3	0.323	1.430	229.9	396.7	0.968	---	-7.06	1.126	98.7	328.5	-48.5	0.249
3-8010	3-8220	0.393	22.5	58.1	23.12	0.722	106.2	0.316	1.398	225.4	401.5	0.955	---	-24.08	1.119	99.6	14.6	-80.8	0.488
3-8010	3-8230	0.321	52.9	-18.2	-16.11	0.711	105.0	0.313	1.368	220.8	407.0	0.939	---	15.29	1.112	100.7	300.9	33.7	0.364
3-8010	3-8240	0.248	49.9	-1.8	-6.72	0.700	103.6	0.310	1.340	215.9	411.5	0.925	---	6.03	1.106	101.5	321.5	11.2	0.270
3-8010	3-8250	0.223	46.9	4.2	-4.35	0.690	102.1	0.308	1.334	210.9	416.0	0.909	---	3.81	1.101	102.3	331.0	4.7	0.268
3-8010	3-8260	0.204	49.8	7.7	-3.24	0.680	100.5	0.309	1.290	205.7	420.4	0.892	---	2.84	1.090	103.1	338.7	2.9	0.276
3-8010	3-8270	0.187	54.1	10.4	-2.96	0.670	98.7	0.311	1.268	200.4	424.7	0.873	---	2.31	1.093	104.0	345.9	3.2	0.288
3-8010	3-8280	0.170	60.0	12.9	-2.08	0.660	96.7	0.317	1.247	195.0	429.0	0.852	---	2.00	1.088	104.9	352.9	4.5	0.302
3-8010	3-8290	0.155	67.7	15.2	-1.70	0.650	94.6	0.325	1.228	189.7	433.4	0.829	---	1.80	1.084	105.9	359.8	6.4	0.318
3-8010	3-8300	0.144	78.0	17.3	-1.38	0.641	92.2	0.337	1.211	184.3	437.8	0.803	---	1.68	1.082	107.1	6.8	8.6	0.338
3-8010	3-8310	0.137	91.1	18.9	-1.09	0.633	89.5	0.353	1.195	179.0	442.4	0.773	1.617	1.63	1.079	108.5	13.9	10.9	0.360
3-8010	3-8320	0.138	106.6	19.4	-0.81	0.624	86.4	0.374	1.180	173.9	447.1	0.739	1.622	1.62	1.077	110.1	21.0	13.4	0.388
3-8010	3-8330	0.150	122.4	18.4	-0.52	0.617	82.8	0.402	1.167	169.1	452.2	0.698	1.636	1.66	1.075	112.2	28.1	15.7	0.423
3-8010	3-8340	0.176	136.3	16.3	-0.21	0.609	78.6	0.439	1.155	164.6	457.8	0.640	1.662	1.76	1.073	114.8	35.3	17.9	0.467
3-8010	3-8350	0.217	147.0	14.0	0.16	0.602	73.5	0.498	1.144	160.9	464.1	0.586	1.702	1.93	1.072	118.2	42.4	19.9	0.525
3-8010	3-8360	0.276	154.6	12.2	0.62	0.596	67.1	0.552	1.134	158.1	471.4	0.508	1.781	2.22	1.070	122.8	49.1	21.6	0.602
3-8010	3-8370	0.359	159.1	11.0	1.28	0.591	58.8	0.638	1.127	156.9	480.3	0.408	1.846	2.71	1.069	129.1	55.3	22.9	0.708
3-8010	3-8380	0.473	160.7	10.7	2.35	0.580	47.7	0.748	1.122	158.1	491.7	0.283	1.962	3.63	1.068	138.0	60.2	23.7	0.856
3-8010	3-8430	0.523	121.5	10.7	-4.44	0.274	62.6	0.906	0.861	176.9	561.4	0.081	1.640	-3.89	0.931	25.4	351.9	-5.1	1.050
3-8010	3-8430	0.511	72.2	19.8	-4.44	0.448	126.1	0.803	0.965	191.1	575.6	0.190	1.740	-3.89	0.996	36.6	344.5	-9.3	0.913
3-8010	3-8440	0.405	109.4	19.9	-3.24	0.358	85.3	0.794	0.902	178.8	573.5	0.186	1.618	-2.84	0.957	37.6	355.1	-4.2	0.881
3-8010	3-8460	0.389	89.1	20.6	-3.24	0.413	103.3	0.741	0.938	184.8	579.5	0.242	1.633	-2.84	0.979	42.2	352.1	-5.9	0.818
3-8010	3-8500	0.574	173.4	2.2	-0.78	0.739	41.0	0.759	1.446	144.8	239.2	---	2.544	-1.62	1.141	43.2	36.8	13.0	0.876
3-8010	3-8510	0.539	175.5	1.5	-0.50	0.747	44.1	0.722	1.471	141.4	245.5	---	2.532	-1.67	1.144	46.9	43.6	14.9	0.814
3-8010	3-8520	0.506	177.5	0.9	-0.19	0.754	47.0	0.685	1.495	138.0	251.9	---	2.519	-1.77	1.146	50.4	50.4	16.3	0.753
3-8010	3-8530	0.474	179.5	0.4	0.17	0.760	49.6	0.650	1.518	134.8	258.3	---	2.504	-1.94	1.149	53.8	57.2	17.4	0.695
3-8010	3-8540	0.445	181.5	0.2	0.61	0.766	52.1	0.616	1.539	131.6	264.7	---	2.487	-2.21	1.151	57.0	63.9	17.9	0.639
3-8010	3-8550	0.418	183.6	0.4	1.22	0.772	54.3	0.584	1.559	128.6	271.3	---	2.470	-2.67	1.153	60.1	70.7	17.7	0.586
3-8010	3-8560	0.394	186.0	1.3	2.17	0.777	56.4	0.554	1.578	125.7	278.0	---	2.452	-3.47	1.156	63.0	77.3	16.2	0.536
3-8010	3-8570	0.373	188.8	3.9	4.01	0.781	58.3	0.526	1.595	123.0	284.8	---	2.434	-5.17	1.158	65.8	83.7	12.1	0.491
3-8010	3-8580	0.369	193.6	13.6	9.62	0.785	59.9	0.501	1.610	120.5	291.7	---	2.417	-10.64	1.160	68.6	91.0	-1.4	0.475
3-8010	3-8600	0.336	180.0	-22.4	-9.59	0.791	62.8	0.458	1.635	116.0	306.5	---	2.383	8.84	1.165	73.9	103.3	49.8	0.381
3-8010	3-8610	0.307	185.8	-16.2	-5.33	0.793	63.9	0.440	1.645	114.1	314.2	---	2.369	4.71	1.167	76.4	104.3	39.9	0.318
3-8010	3-8620	0.292	188.4	-13.9	-3.74	0.795	64.8	0.426	1.653	112.5	322.1	---	2.357	3.27	1.170	78.9	105.8	36.5	0.279
3-8010	3-8630	0.280	190.2	-12.7	-2.88	0.797	65.6	0.414	1.660	111.1	330.4	---	2.347	2.55	1.173	81.4	105.6	35.2	0.240
3-8010	3-8640	0.272	191.4	-11.8	-2.31	0.798	66.1	0.406	1.665	110.1	339.0	---	2.340	2.14	1.175	84.0	102.6	34.8	0.213
3-8010	3-8650	0.268	192.3	-11.0	-1.89	0.799	66.4	0.401	1.669	109.5	348.0	---	2.337	1.89	1.178	86.6	98.4	34.9	0.194
3-8010	3-8660	0.267	192.8	-10.3	-1.54	0.799	66.5	0.400	1.671	109.2	357.5	---	2.339	1.74	1.181	89.3	97.5	34.4	0.187
3-8010	3-8670	0.269	193.1	-9.4	-1.24	0.800	66.3	0.403	1.673	109.3	367.5	0.999	2.347	1.65	1.183	92.1	78.0	33.0	0.196
3-8010	3-8680	0.277	193.0	-8.5	-0.96	0.800	65.7	0.412	1.673	110.0	378.0	0.984	2.362	1.62	1.186	95.2	70.5	31.0	0.220
3-8010	3-8680	0.281	61.0	19.3	-0.96	0.597	105.3	0.486	1.136	197.6	625.6	0.584	1.688	1.62	1.060	118.3	8.5	6.8	0.524
3-8010	3-8680	0.529	47.7	17.3	-0.96	0.656	128.9	0.672	1.239	210.4	838.4	0.406	2.071	1.62	1.094	131.0	3.5	3.4	0.755
3-8010	3-8690	0.290	192.5	-7.4	-0.68	0.800	64.8	0.428	1.673	111.2	389.1	0.958	2.388	1.63	1.188	98.6	66.2	29.1	0.260
3-8010	3-8690	0.220	77.2	21.7	-0.68	0.581	96.7	0.467	1.111	187.8	825.7	0.593	1.630	1.63	1.053	117.2	17.5	10.7	0.503
3-8010	3-8700	0.310	191.7	-6.1	-0.38	0.799	63.2	0.451	1.672	113.0	400.9	0.917	2.427	1.70	1.190	102.4	64.7	27.8	0.314
3-8010	3-8700	0.197	97.0	22.7	-0.38	0.570	89.8	0.474	1.096	179.8	827.7	0.576	1.617	1.70	1.050	117.8	25.9	14.0	0.513
3-8010	3-8710	0.340	190.3	-4.7	-0.05	0.799	61.0	0.486	1.671	115.7	413.6	0.858	2.483	1.83	1.192	106.9	65.1	27.0	0.385
3-8010	3-8710	0.203	117.9	21.3	-0.05	0.562	83.0	0.500	1.086	172.9	830.8	0.542	1.629	1.83	1.048	119.6	34.0	16.9	0.542
3-8010	3-8720	0.383	188.4	-3.0	0.36	0.799	59.7	0.535	1.669	119.5	427.5	0.775	2.563	2.05	1.194	112.5	66.7	26.5	0.476
3-8010	3-8720	0.237	135.2	18.3	0.36	0.556	75.7	0.544	1.077	167.3	835.3	0.491	1.664	2.05	1.047	122.7	41.8	19.3	0.593
3-8010	3-8730	0.445	185.7	-1.1	0.90	0.799	52.9	0.604	1.668	124.8	442.9	0.661	2.675	2.42	1.195	119.1	68.8	26.3	0.594
3-8010	3-8730	0.299	147.0	15.2	0.90	0.551	67.2	0.609	1.071	163.3	841.4	0.418	1.723	2.42	1.046	127.3	49.1	21.3	0.670
3-0010	3-8740	0.536	182.0	1.1	1.71	0.798	45.9	0.696	1.668	132.3	460.5	0.507	2.829	3.07	1.196	128.1	70.6	26.1	0.750
3-8010	3-8740	0.392	153.8	13.2	1.71	0.547	56.6	0.699	1.066	161.4	849.7	0.321	1.812	3.07	1.046	134.2	55.5	22.7	0.784
3-8010	3-8750	0.522	156.2	12.6	3.18	0.545	42.8	0.814	1.064	162.9	861.3	0.198	1.930	4.39	1.046	144.4	60.3	23.5	0.948
3-8010	3-8750	0.544	99.9	25.0	3.18	0.240	106.1	0.9.5	0.848	181.6	1239.9	0.072	1.623	4.39	0.924	155.8	48.6	19.6	1.061
3-8010	3-8790	0.598	68.2	19.5	-5.53	0.472	137.4	0.854	0.986	192.1	931.4	0.144	1.828	-4.90	1.008	31.4	341.4	-10.7	0.999
3-8010	3-8800	0.549	135.4	15.5	-3.77	0.358	44.4	0.905	0.902	173.4	922.8	0.086	1.718	-3.30	0.958	25.3	355.0	-3.6	1.064
3-8010	3-8800	0.458	71.8	19.5	-3.77	0.468	120.0	0.751	0.982	191.8	941.1	0.245	1.719	-3.30	1.004	41.4	346.3	-8.7	0.841
3-8010	3-8810	0.552	35.6	11.1	-2.87	0.781	127.8	0.613	1.593	231.1	630.6	0.617	2.570	-2.54	1.181	58.6	333.4	-15.4	0.629
3-8010	3-8810	0.440	131.3	16.2	-2.87	0.389	61.3	0.818	0.921	172.8	932.2	0.167	1.675	-2.54	0.968	35.2	359.7	-1.8	0.923
3-8010	3-8810	0.354	85.2	20.3	-2.87	0.455	103.0	0.686	0.971	186.2	945.6	0.305	1.637	-2.54	0.997	46.7	353.5	-5.5	0.753
3-8020	3-8090	0.537	35.5	11.3	-2.43	0.814	125.9	0.590	1.759	240.1	285.5	---	---	-2.36	1.204	63.8	336.4	-14.8	0.551
3-8020	3-8100	0.492	32.1	10.4	-1.93	0.822	122.2	0.540	1.803	246.7	302.1	---	---	-2.04	1.208	70.4	336.7	-15.4	0.442
3-8020	3-8110	0.463	29.6	9.9	-1.54	0.829	119.8	0.507	1.839	251.6	317.0	---	---	-1.85	1.210	75.8	335.9	-16.6	0.357
3-8020	3-8120	0.443	28.0	9.6	-1.21	0.831	118.2	0.485	1.855	254.8	330.1	---	---	-1.74	1.209	80.3	333.7	-18.5	0.293
3-8020	3-8130	0.427	27.1	9.7	-0.91	0.830	117.0	0.467	1.849	256.3	341.4	---	---	-1.69	1.206	84.1	329.9	-21.0	0.248
3-8020	3-8140	0.414	26.7	10.1	-0.63	0.826	116.1	0.451	1.824	256.4	351.3	---	---	-1.69	1.201	87.3	324.8	-23.8	0.219
3-8020	3-8150	0.400	26.8	10.7	-0.33	0.819	115.4	0.436	1.786	255.4	360.0	---	---	-1.74	1.194	90.0	319.3	-26.5	0.205
3-8020	3-8160	0.387	27.2	11.5	-0.01	0.809	114.6	0.421	1.738	253.4	367.7	1.007	---	-1.85	1.185	92.3	314.8	-28.6	0.200
3-8020	3-8170	0.373	27.9	12.5	0.36	0.798	113.8	0.405	1.686	250.8	374.8	1.002	---	-2.03	1.176	94.2	312.1	-30.1	0.203
3-8020	3-8180	0.359	28.7	13.9	0.83	0.786	113.0	0.391	1.633	247.6	381.2	0.995	---	-2.92	1.166	95.9	311.7	-31.3	0.211
3-8020	3-8190	0.343	29.6	15.7	1.47	0.773	112.1	0.377	1.582	244.0	387.1	0.985	---	-2.20	1.157	97.3	313.4	-32.8	0.221
3-8020	3-8200	0.328	30.4	18.4	2.49	0.760	111.3	0.365	1.533	240.0	392.6	0.973	---	-3.66	1.147	98.6	317.2	-35.3	0.234
3-8020	3-8210	0.315	30.8	23.5	4.47	0.747	110.0	0.354	1.487	235.6	397.8	0.961	---	-5.50	1.138	99.6	323.7	-40.9	0.255
3-8020	3-8220	0.322	29.0	37.5	10.71	0.734	108.8	0.344	1.445	231.0	402.6	0.948	---	-11.60	1.129	100.5	337.2	-57.7	0.322
3-8020	3-8240	0.284	49.7	-5.4	-9.47	0.708	106.2	0.331	1.371	221.2	412.2	0.918	---	8.86	1.114	102.2	317.1	18.1	0.309
3-8020	3-8250	0.249	48.8	3.5	-5.28	0.695	104.6	0.326	1.339	216.0	416.5	0.902	---	4.81	1.107	103.0	329.4	7.1	0.287
3-8020	3-8260	0.226	51.1	7.8	-3.68	0.683	102.9	0.324	1.310	210.7	420.8	0.885	---	3.36	1.101	103.7	337.8	4.1	0.291
3-8020	3-8270	0.206	54.8	10.7	-2.80	0.672	101.1	0.324	1.284	205.3	425.0	0.867	---	2.63	1.096	104.5	345.4	3.9	0.300

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8020	3-8280	0.188	59.8	13.2	-2.21	0.661	99.1	0.327	1.260	199.8	429.2	0.848	---	2.22	1.091	105.3	352.6	5.0	0.312
3-8020	3-8290	0.171	66.6	15.4	-1.78	0.650	96.9	0.333	1.238	194.3	433.4	0.826	---	1.96	1.087	100.3	359.7	6.7	0.326
3-8020	3-8300	0.156	75.6	17.5	-1.42	0.640	94.5	0.342	1.218	188.8	437.7	0.801	---	1.80	1.084	107.3	0.8	8.9	0.343
3-8020	3-8310	0.145	87.3	19.1	-1.11	0.630	91.8	0.356	1.200	183.3	442.1	0.774	---	1.72	1.081	108.6	13.9	11.2	0.363
3-8020	3-8320	0.140	101.9	19.9	-0.81	0.621	88.8	0.374	1.184	178.0	446.6	0.741	1.626	1.68	1.078	110.1	21.1	13.6	0.387
3-8020	3-8330	0.146	118.1	19.2	-0.52	0.612	86.4	0.398	1.169	172.9	451.5	0.704	1.634	1.70	1.076	111.9	28.4	16.0	0.418
3-8020	3-8340	0.164	133.4	17.1	-0.20	0.604	81.3	0.430	1.155	168.1	456.7	0.659	1.652	1.77	1.073	114.2	35.8	18.2	0.456
3-8020	3-8350	0.198	145.9	14.5	0.15	0.596	76.5	0.472	1.148	163.9	462.5	0.603	1.683	1.92	1.071	117.2	43.1	20.3	0.506
3-8020	3-8360	0.248	155.1	12.0	0.58	0.589	70.6	0.529	1.132	160.5	469.1	0.534	1.731	2.16	1.069	121.1	50.2	22.0	0.573
3-8020	3-8370	0.319	161.1	10.3	1.15	0.583	63.1	0.603	1.123	158.3	477.1	0.486	1.803	2.56	1.068	126.5	56.6	23.3	0.664
3-8020	3-8380	0.417	164.1	9.4	2.03	0.579	53.2	0.701	1.117	158.1	487.1	0.334	1.900	3.26	1.066	134.1	62.5	24.3	0.790
3-8020	3-8390	0.551	164.3	9.5	3.05	0.577	40.0	0.821	1.114	161.1	500.2	0.199	2.028	4.73	1.066	144.9	66.7	24.8	0.966
3-8020	3-8430	0.557	124.5	18.1	-5.40	0.231	61.6	0.933	0.850	177.8	557.7	0.057	1.643	-4.93	0.923	21.3	353.8	-4.3	1.104
3-8020	3-8430	0.564	78.3	20.6	-5.40	0.426	133.4	0.857	0.953	189.9	569.8	0.136	1.770	-4.93	0.990	31.0	347.3	-8.2	0.996
3-8020	3-8440	0.443	116.0	19.1	-3.68	0.317	83.6	0.839	0.885	178.8	568.8	0.342	1.628	-3.36	0.946	33.2	357.4	-3.1	0.944
3-8020	3-8440	0.428	90.3	20.8	-3.68	0.398	110.4	0.778	0.933	186.2	576.3	0.207	1.659	-3.36	0.976	39.0	353.7	-5.3	0.868
3-8020	3-8500	0.587	176.0	0.7	-0.78	0.728	39.8	0.773	1.429	146.7	236.5	---	2.534	-1.68	1.137	41.6	38.0	13.5	0.900
3-8020	3-8510	0.551	178.9	0.0	-0.49	0.737	43.0	0.735	1.454	143.3	242.8	---	2.524	-1.71	1.140	45.4	44.8	15.3	0.836
3-8020	3-8520	0.517	180.9	-0.6	-0.18	0.748	46.0	0.698	1.479	139.9	249.1	---	2.511	-1.78	1.143	49.0	51.6	16.7	0.775
3-8020	3-8530	0.485	183.0	-1.1	0.16	0.751	48.8	0.662	1.502	136.6	255.5	---	2.497	-1.92	1.146	52.5	58.5	17.8	0.716
3-8020	3-8540	0.455	185.0	-1.4	0.57	0.758	51.3	0.627	1.524	133.5	262.0	---	2.481	-2.15	1.148	55.7	65.3	16.4	0.659
3-8020	3-8550	0.428	187.1	-1.4	1.11	0.764	53.6	0.595	1.545	130.4	268.5	---	2.464	-2.52	1.151	58.9	72.0	18.3	0.605
3-8020	3-8560	0.402	189.3	-0.9	1.89	0.769	55.8	0.564	1.564	127.5	275.2	---	2.446	-3.14	1.153	61.9	78.6	17.2	0.553
3-8020	3-8570	0.380	191.9	0.8	3.23	0.773	57.7	0.535	1.582	124.8	282.0	---	2.429	-4.34	1.156	64.8	85.0	14.4	0.505
3-8020	3-8580	0.365	195.4	6.0	6.34	0.778	59.4	0.509	1.598	122.2	288.9	---	2.411	-7.31	1.156	67.5	91.4	6.6	0.470
3-8020	3-8590	0.448	201.4	32.1	23.62	0.781	60.9	0.486	1.612	119.9	295.8	---	2.395	-24.44	1.161	70.2	104.1	-26.6	0.598
3-8020	3-8600	0.383	178.9	-32.7	-16.79	0.784	62.4	0.463	1.625	117.6	303.7	---	2.376	16.11	1.163	73.0	118.3	63.6	0.464
3-8020	3-8610	0.317	188.0	-20.4	-6.85	0.787	63.6	0.445	1.635	115.7	311.2	---	2.362	6.31	1.166	75.5	108.8	44.0	0.339
3-8020	3-8620	0.297	191.7	-16.7	-4.58	0.789	64.6	0.429	1.644	114.0	319.1	---	2.349	3.98	1.169	78.0	110.0	38.2	0.290
3-8020	3-8630	0.285	193.8	-14.9	-3.21	0.790	65.4	0.416	1.651	112.6	323.3	---	2.339	2.96	1.171	80.5	110.3	36.0	0.252
3-8020	3-8640	0.276	195.2	-13.8	-2.50	0.792	66.0	0.407	1.657	111.5	335.8	---	2.331	2.41	1.174	83.1	108.3	35.3	0.221
3-8020	3-8650	0.270	196.3	-12.9	-1.99	0.793	66.4	0.400	1.661	110.7	344.7	---	2.326	2.08	1.177	85.6	103.3	35.3	0.199
3-8020	3-8660	0.268	197.0	-12.1	-1.60	0.793	66.6	0.398	1.664	110.3	354.0	---	2.327	1.88	1.180	88.3	95.1	35.3	0.187
3-8020	3-8670	0.269	197.4	-11.3	-1.27	0.794	66.5	0.400	1.666	110.3	363.8	1.000	2.332	1.75	1.182	91.1	85.3	34.3	0.190
3-8020	3-8680	0.275	197.4	-10.3	-0.96	0.794	66.1	0.407	1.667	110.7	374.1	0.989	2.345	1.69	1.185	94.1	76.8	32.6	0.209
3-8020	3-8690	0.285	197.1	-9.3	-0.67	0.794	65.2	0.419	1.667	111.7	385.0	0.968	2.366	1.69	1.187	97.3	71.4	30.6	0.243
3-8020	3-8690	0.254	72.5	21.5	-0.67	0.582	102.2	0.487	1.122	193.5	826.8	0.575	1.668	1.69	1.057	118.5	17.1	10.5	0.527
3-8020	3-8690	0.567	53.0	19.0	-0.67	0.657	132.9	0.715	1.252	209.3	842.6	0.357	2.146	1.69	1.100	134.4	10.8	6.4	0.816
3-8020	3-8700	0.302	196.4	-8.1	-0.37	0.794	63.9	0.440	1.666	113.2	396.5	0.933	2.399	1.73	1.190	100.9	48.9	29.1	0.291
3-8020	3-8700	0.210	91.0	23.0	-0.37	0.568	94.1	0.480	1.101	184.5	827.8	0.572	1.630	1.73	1.052	118.2	25.9	14.0	0.519
3-8020	3-8710	0.328	195.2	-6.8	-0.04	0.794	62.0	0.470	1.665	115.5	408.8	0.882	2.448	1.83	1.191	105.1	68.8	28.0	0.355
3-8020	3-8710	0.200	212.2	22.3	-0.04	0.558	87.0	0.496	1.088	177.0	830.3	0.548	1.628	1.83	1.049	119.4	34.3	17.0	0.537
3-8020	3-8720	0.369	193.6	-5.3	0.34	0.793	59.2	0.513	1.663	118.7	422.0	0.810	2.517	2.01	1.193	110.1	70.2	27.4	0.436
3-8020	3-8720	0.220	131.9	19.2	0.34	0.550	79.7	0.531	1.078	170.7	834.0	0.506	1.650	2.01	1.047	121.7	42.4	19.6	0.576
3-8020	3-8730	0.418	191.2	-3.5	0.83	0.793	55.1	0.573	1.662	123.1	436.6	0.710	2.614	2.32	1.194	116.2	72.3	27.1	0.541
3-8020	3-8730	0.269	146.3	15.5	0.83	0.544	71.6	0.585	1.070	165.7	839.2	0.445	1.696	2.32	1.046	125.5	50.1	21.6	0.639
3-8020	3-8740	0.495	188.0	-1.5	1.52	0.793	49.2	0.654	1.661	129.4	453.0	0.575	24747	2.84	1.195	124.1	74.4	26.8	0.679
3-8020	3-8740	0.347	155.4	12.7	1.52	0.540	61.9	0.602	1.065	162.7	846.3	0.360	1.769	2.84	1.045	131.2	57.1	23.1	0.734
3-8020	3-8750	0.459	159.7	11.3	2.65	0.537	49.6	0.764	1.061	162.4	856.2	0.250	1.872	3.81	1.044	139.7	62.8	24.1	0.872
3-8020	3-8760	0.568	115.5	23.6	5.09	0.191	84.5	0.941	0.838	179.7	1243.6	0.049	1.626	6.09	0.917	160.0	56.8	21.7	1.114
3-8020	3-8800	0.582	139.3	14.5	-4.42	0.334	39.8	0.930	0.894	174.5	919.3	0.062	1.725	-4.02	0.953	21.6	356.7	-2.8	1.115
3-8020	3-8800	0.509	76.1	20.2	-4.42	0.455	126.8	0.801	0.978	191.7	936.4	0.195	1.760	-4.02	1.002	36.8	348.5	-7.8	0.913
3-8020	3-8810	0.586	42.1	13.3	-3.13	0.774	131.1	0.658	1.585	227.2	622.0	0.542	2.627	-2.94	1.180	54.3	337.3	-13.8	0.704
3-8020	3-8810	0.478	136.8	14.8	-3.19	0.363	56.5	0.857	0.911	173.4	928.2	0.131	1.690	-2.94	0.962	31.2	1.6	-0.9	0.981
3-8020	3-8810	0.390	85.8	20.5	-3.19	0.446	109.3	0.719	0.969	188.1	942.9	0.272	1.667	-2.94	0.996	44.0	354.8	-5.0	0.797
3-8020	3-8820	0.505	38.7	12.3	-2.46	0.774	124.7	0.570	1.583	233.1	638.0	0.681	2.486	-2.38	1.178	62.4	339.6	-13.4	0.562
3-8030	3-8100	0.586	32.5	10.7	-2.05	0.902	126.8	0.654	2.434	256.9	307.8	---	---	-2.24	1.266	69.7	332.6	-17.1	0.491
3-8030	3-8110	0.545	30.3	10.3	-1.60	0.896	123.9	0.615	2.378	261.1	321.9	---	---	-1.99	1.260	75.7	331.1	-18.4	0.395
3-8030	3-8120	0.516	29.0	10.2	-1.24	0.890	121.9	0.585	2.319	263.5	334.2	---	---	-1.84	1.253	80.5	328.2	-20.3	0.326
3-8030	3-8130	0.493	28.3	10.4	-0.92	0.882	120.5	0.559	2.244	264.3	344.8	---	---	-1.76	1.245	84.6	324.0	-22.6	0.279
3-8030	3-8140	0.473	28.2	10.8	-0.62	0.872	119.4	0.535	2.156	263.8	354.1	---	---	-1.74	1.236	88.0	318.9	-25.0	0.249
3-8030	3-8150	0.455	28.6	11.4	-0.32	0.860	118.5	0.511	2.060	262.3	362.4	1.007	---	-1.77	1.225	90.8	313.9	-27.0	0.235
3-8030	3-8160	0.438	29.2	12.2	-0.01	0.845	117.7	0.488	1.963	260.0	369.8	1.005	---	-1.85	1.213	93.2	310.2	-28.4	0.230
3-8030	3-8170	0.420	30.0	13.2	0.35	0.830	116.9	0.466	1.869	257.1	376.5	0.999	---	-2.00	1.201	95.2	308.4	-29.4	0.232
3-8030	3-8180	0.402	31.0	14.4	0.77	0.814	116.0	0.444	1.781	253.7	382.6	0.990	---	-2.24	1.188	96.9	308.7	-30.2	0.239
3-8030	3-8190	0.384	32.1	16.0	1.34	0.798	115.0	0.424	1.701	249.8	388.4	0.979	---	-2.63	1.176	98.4	310.9	-31.1	0.247
3-8030	3-8200	0.365	33.1	18.2	2.16	0.781	114.0	0.406	1.628	245.6	393.7	0.967	---	-3.29	1.164	99.6	314.8	-32.6	0.257
3-8030	3-8210	0.348	34.0	21.7	3.59	0.765	112.8	0.390	1.564	241.1	398.7	0.954	---	-4.57	1.152	100.6	320.6	-35.8	0.271
3-8030	3-8220	0.337	34.0	29.4	6.98	0.749	111.6	0.376	1.507	236.4	403.5	0.940	---	-7.81	1.142	101.5	329.6	-44.8	0.302
3-8030	3-8230	0.457	33.7	61.4	27.45	0.733	110.2	0.368	1.456	231.5	407.8	0.927	---	-28.14	1.132	102.2	2.2	-80.1	0.576
3-8030	3-8240	0.348	56.7	-93.1	-16.30	0.718	108.8	0.355	1.411	226.4	412.9	0.910	---	15.46	1.123	103.1	307.2	30.0	0.398
3-8030	3-8250	0.278	51.4	2.2	6.72	0.704	107.2	0.348	1.371	221.1	417.1	0.895	---	8.33	1.115	103.8	327.2	10.7	0.313
3-8030	3-8260	0.251	52.8	7.7	-4.28	0.690	105.5	0.342	1.336	215.7	421.2	0.878	---	4.04	1.108	104.4	336.8	5.6	0.309
3-8030	3-8270	0.228	55.9	11.0	-3.10	0.676	103.6	0.340	1.304	210.2	425.3	0.861	---	3.02	1.102	105.1	344.8	4.6	0.314
3-8030	3-8280	0.207	60.3	13.5	-2.38	0.664	101.6	0.340	1.276	204.6	429.4	0.842	---	2.47	1.096	105.9	352.2	5.4	0.324
3-8030	3-8290	0.188	66.2	15.6	-1.87	0.652	99.4	0.343	1.251	199.0	433.6	0.821	---	2.43	1.091	106.7	359.5	7.0	0.335
3-8030	3-8300	0.170	74.0	17.6	-1.47	0.640	97.0	0.350	1.228	193.3	437.6	0.798	---	1.93	1.087	107.6	6.7	9.1	0.350
3-8030	3-8310	0.156	84.3	19.3	-1.13	0.629	94.3	0.360	1.207	187.7	441.9	0.772	---	1.81	1.083	108.7	13.9	11.4	0.367
3-8030	3-8320	0.146	97.6	20.3	-0.81	0.619	91.3	0.375	1.188	182.2	446.2	0.743	---	1.75	1.080	110.1	21.2	13.8	0.388
3-8030	3-8330	0.146	113.4	20.0	-0.51	0.609	87.9	0.396	1.172	176.9	450.8	0.708	1.630	1.74	1.077	111.7	28.7	16.2	0.415

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8030	3-8340	0.157	129.6	18.1	-0.20	0.600	84.1	0.423	1.156	171.8	455.8	0.667	1.646	1.79	1.074	113.8	36.1	18.5	0.449
3-8030	3-8350	0.183	143.8	15.2	0.14	0.591	79.5	0.400	1.143	167.1	461.2	0.617	1.669	1.90	1.071	116.4	43.6	20.5	0.492
3-8030	3-8360	0.225	154.7	12.2	0.55	0.583	74.9	0.509	1.131	163.2	467.5	0.555	1.706	2.10	1.069	119.8	51.0	22.3	0.550
3-8030	3-8370	0.286	162.3	9.8	1.06	0.576	67.1	0.574	1.120	160.2	474.5	0.477	1.764	2.43	1.066	124.4	58.1	23.7	0.627
3-8030	3-8380	0.370	166.8	8.4	1.80	0.570	58.2	0.660	1.112	158.9	483.3	0.378	1.847	2.99	1.065	130.9	64.4	24.7	0.735
3-8030	3-8390	0.486	168.4	7.9	3.03	0.567	46.5	0.770	1.107	160.1	494.7	0.255	1.960	4.05	1.063	140.0	69.6	25.3	0.885
3-8030	3-8430	0.593	127.1	17.6	-6.94	0.185	61.6	0.957	0.840	178.6	554.0	0.036	1.645	-6.54	0.916	17.1	359.8	-3.5	1.158
3-8030	3-8440	0.480	120.9	18.4	-4.28	0.275	83.7	0.878	0.871	179.3	564.6	0.104	1.635	-4.04	0.936	28.9	359.6	-2.2	1.004
3-8030	3-8440	0.472	93.5	20.9	-4.28	0.379	117.4	0.821	0.925	186.7	572.2	0.166	1.685	-4.04	0.972	34.9	355.7	-4.5	0.930
3-8030	3-8500	0.599	180.2	-0.7	-0.78	0.718	38.6	0.788	1.412	148.5	233.8	---	2.523	-1.74	1.134	40.1	39.3	13.9	0.924
3-8030	3-8510	0.563	182.3	-1.5	-0.48	0.727	41.9	0.750	1.437	145.1	240.0	---	2.514	-1.74	1.137	43.9	46.1	15.7	0.859
3-8030	3-8520	0.529	184.4	-2.1	-0.18	0.735	45.0	0.712	1.462	141.7	246.4	---	2.503	-1.80	1.140	47.6	52.9	17.1	0.797
3-8030	3-8530	0.496	186.4	-2.7	0.15	0.742	47.8	0.675	1.486	138.4	252.8	---	2.489	-1.91	1.143	51.1	59.8	18.2	0.737
3-8030	3-8540	0.466	188.5	-3.0	0.54	0.749	50.5	0.640	1.509	135.3	259.2	---	2.474	-2.10	1.145	54.5	66.6	18.8	0.679
3-8030	3-8550	0.438	190.5	-3.1	1.02	0.756	52.9	0.606	1.530	132.2	265.7	---	2.457	-2.40	1.148	57.7	73.4	18.8	0.623
3-8030	3-8560	0.412	192.7	-2.8	1.68	0.761	55.1	0.574	1.550	129.3	272.4	---	2.440	-2.89	1.151	60.8	80.1	18.0	0.570
3-8030	3-8570	0.388	195.1	-1.7	2.72	0.766	57.1	0.544	1.569	126.5	279.2	---	2.423	-3.78	1.153	63.7	86.5	15.9	0.521
3-8030	3-8580	0.370	198.0	1.4	4.76	0.770	58.9	0.517	1.586	123.9	286.1	---	2.405	-5.67	1.156	66.5	92.6	10.8	0.478
3-8030	3-8590	0.372	202.6	12.5	11.16	0.774	60.5	0.492	1.601	121.6	293.1	---	2.388	-11.92	1.159	69.2	99.2	-5.2	0.472
3-8030	3-8610	0.334	188.7	-26.3	-9.44	0.780	63.3	0.449	1.625	117.3	308.3	---	2.355	9.17	1.164	74.6	115.2	50.6	0.372
3-8030	3-8620	0.305	194.7	-19.8	-5.29	0.783	64.4	0.433	1.635	115.6	316.0	---	2.342	4.97	1.167	77.1	114.4	40.6	0.306
3-8030	3-8630	0.290	197.3	-17.3	-3.64	0.785	65.2	0.419	1.643	114.1	324.2	---	2.331	3.47	1.170	79.6	114.9	37.0	0.264
3-8030	3-8640	0.280	199.0	-15.8	-2.73	0.786	65.9	0.408	1.649	112.9	332.6	---	2.322	2.72	1.173	82.2	113.7	35.7	0.231
3-8030	3-8650	0.274	200.2	-14.8	-2.12	0.787	66.4	0.400	1.654	112.0	341.4	---	2.316	2.29	1.176	84.7	109.8	35.5	0.205
3-8030	3-8660	0.270	201.1	-13.9	-1.67	0.788	66.6	0.397	1.657	111.5	350.6	---	2.315	2.02	1.179	87.3	102.5	35.7	0.189
3-8030	3-8670	0.270	201.6	-13.1	-1.30	0.788	66.6	0.397	1.659	111.3	360.3	1.001	2.318	1.86	1.181	90.1	92.9	35.3	0.187
3-8030	3-8680	0.274	201.7	-12.1	-0.98	0.789	66.3	0.402	1.661	111.6	370.4	0.993	2.328	1.77	1.184	93.0	83.6	33.9	0.200
3-8030	3-8690	0.282	201.6	-11.1	-0.67	0.789	65.7	0.412	1.661	112.3	381.0	0.976	2.346	1.74	1.186	96.1	77.0	32.0	0.228
3-8030	3-8690	0.320	67.6	21.2	-0.67	0.592	110.5	0.532	1.144	200.6	829.3	0.535	1.753	1.74	1.066	121.4	16.0	9.8	0.579
3-8030	3-8690	0.470	59.3	20.2	-0.67	0.628	125.0	0.644	1.205	208.1	836.8	0.430	1.981	1.74	1.086	129.0	13.1	7.8	0.718
3-8030	3-8700	0.297	201.0	-10.0	-0.37	0.789	64.6	0.430	1.660	113.5	392.2	0.947	2.374	1.76	1.189	99.5	73.5	30.3	0.271
3-8030	3-8700	0.234	85.5	23.0	-0.37	0.568	99.1	0.494	1.109	180.6	828.3	0.561	1.656	1.76	1.055	119.0	25.6	13.9	0.534
3-8030	3-8710	0.319	200.0	-8.8	-0.04	0.788	62.9	0.456	1.659	115.4	404.2	0.902	2.415	1.84	1.191	103.5	72.7	29.0	0.328
3-8030	3-8710	0.206	106.1	23.0	-0.04	0.555	91.3	0.497	1.091	181.3	830.0	0.549	1.634	1.84	1.051	119.4	34.4	17.1	0.538
3-8030	3-8720	0.350	198.6	-7.4	0.32	0.788	60.4	0.493	1.657	118.1	416.9	0.840	2.475	1.98	1.192	108.0	73.7	28.2	0.402
3-8030	3-8720	0.210	127.3	20.3	0.32	0.546	83.9	0.522	1.079	174.3	833.1	0.516	1.642	1.98	1.048	121.1	42.8	19.7	0.566
3-8030	3-8730	0.396	196.5	-5.8	0.77	0.788	56.9	0.586	1.656	121.9	430.8	0.752	2.559	2.23	1.193	113.6	75.8	27.3	0.495
3-8030	3-8730	0.246	144.5	16.2	0.77	0.538	76.6	0.565	1.070	168.6	837.6	0.485	1.675	2.23	1.046	124.2	50.9	21.9	0.616
3-8030	3-8740	0.461	193.7	-4.0	1.37	0.787	51.9	0.617	1.654	127.2	446.2	0.634	2.675	2.65	1.194	120.6	78.1	27.4	0.617
3-8030	3-8740	0.310	155.9	12.6	1.37	0.533	66.9	0.631	1.063	164.6	843.7	0.393	1.734	2.65	1.044	128.9	58.5	23.5	0.694
3-8030	3-8750	0.554	189.8	-1.8	2.29	0.787	44.6	0.712	1.654	134.7	464.0	0.476	2.832	3.40	1.195	129.9	80.0	27.1	0.778
3-8030	3-8750	0.406	162.3	10.4	2.29	0.529	55.7	0.721	1.059	162.8	852.1	0.296	1.822	3.40	1.043	136.0	65.0	24.5	0.810
3-8030	3-8760	0.537	164.3	9.7	4.00	0.527	41.3	0.834	1.056	164.4	863.7	0.176	1.937	4.94	1.043	146.4	69.8	25.1	0.976
3-8030	3-8800	0.564	81.4	20.7	-5.36	0.443	134.5	0.852	0.972	190.8	931.0	0.144	1.801	-5.03	0.999	31.6	351.1	-6.7	0.994
3-8030	3-8810	0.515	141.5	13.5	-3.61	0.338	51.7	0.890	0.901	174.1	924.4	0.099	1.702	-3.45	0.956	27.3	3.5	-0.1	1.035
3-8030	3-8810	0.431	87.8	20.7	-3.61	0.435	115.9	0.759	0.966	189.2	939.5	0.233	1.700	-3.45	0.994	40.6	356.4	-4.4	0.850
3-8030	3-8820	0.532	44.9	14.2	-2.68	0.768	127.4	0.608	1.575	229.8	030.2	0.617	2.533	-2.69	1.176	58.7	343.2	-11.8	0.626
3-8030	3-8820	0.383	124.8	16.2	-2.68	0.384	76.2	0.775	0.929	175.9	936.2	0.209	1.648	-2.69	0.971	39.3	7.1	1.0	0.861
3-8030	3-8820	0.348	112.6	19.1	-2.68	0.410	91.8	0.725	0.947	180.7	941.0	0.260	1.634	-2.69	0.981	43.6	4.8	-0.4	0.799
3-8030	3-8830	0.464	42.1	13.5	-2.07	0.767	122.1	0.532	1.573	234.4	644.8	0.736	2.410	-2.26	1.174	65.6	345.7	-11.3	0.505
3-8040	3-8100	0.709	33.0	11.1	-2.20	1.013	131.3	0.837	5.216	266.6	313.0	---	---	-2.46	1.350	68.7	328.0	-18.8	0.567
3-8040	3-8110	0.648	31.1	10.8	-1.68	0.988	127.9	0.777	4.134	269.9	326.2	---	---	-2.14	1.329	75.3	326.0	-20.1	0.454
3-8040	3-8120	0.605	30.1	10.8	-1.28	0.969	125.5	0.729	3.366	271.5	337.7	---	---	-1.95	1.312	80.6	322.8	-21.8	0.375
3-8040	3-8130	0.572	29.7	11.1	-0.94	0.950	123.9	0.686	3.166	271.7	347.7	---	---	-1.84	1.296	85.0	318.4	-23.8	0.323
3-8040	3-8140	0.544	29.9	11.5	-0.62	0.931	122.7	0.647	2.846	270.7	356.5	---	---	-1.79	1.280	88.6	313.6	-25.6	0.291
3-8040	3-8150	0.520	30.4	12.2	-0.32	0.912	121.7	0.610	2.580	268.8	364.4	1.006	---	-1.79	1.264	91.7	309.3	-27.1	0.274
3-8040	3-8160	0.496	31.2	13.0	-0.01	0.891	120.8	0.575	2.357	266.2	371.4	1.003	---	-1.85	1.248	94.2	306.5	-28.1	0.268
3-8040	3-8170	0.474	32.2	13.9	0.33	0.870	119.9	0.541	2.169	263.0	377.9	0.995	---	-1.96	1.231	96.3	305.5	-28.7	0.268
3-8040	3-8180	0.451	33.4	15.0	0.73	0.849	119.0	0.510	2.011	259.4	383.9	0.985	---	-2.16	1.215	98.0	306.4	-29.1	0.272
3-8040	3-8190	0.429	34.6	16.4	1.23	0.828	118.0	0.482	1.878	256.4	389.4	0.973	---	-2.48	1.199	99.5	308.9	-29.6	0.278
3-8040	3-8200	0.407	35.8	18.2	1.92	0.808	116.9	0.457	1.766	251.1	394.7	0.960	---	-3.00	1.184	100.7	312.9	-30.4	0.286
3-8040	3-8210	0.389	37.0	20.9	3.02	0.788	115.7	0.434	1.671	246.5	399.6	0.946	---	-3.94	1.170	101.7	318.4	-32.3	0.295
3-8040	3-8220	0.367	37.8	25.8	5.21	0.768	114.4	0.414	1.591	241.7	404.3	0.932	---	-5.97	1.157	102.6	325.9	-37.2	0.312
3-8040	3-8230	0.371	37.1	39.9	12.34	0.750	113.0	0.397	1.523	236.6	408.7	0.918	---	-12.96	1.145	103.3	339.1	-53.9	0.380
3-8040	3-8250	0.315	54.9	-0.8	-9.30	0.715	109.9	0.373	1.413	226.1	417.6	0.886	---	8.99	1.125	104.7	323.5	16.3	0.351
3-8040	3-8260	0.278	54.9	7.3	-5.14	0.699	108.1	0.364	1.369	220.6	421.6	0.871	---	4.97	1.116	105.3	335.6	7.5	0.330
3-8040	3-8270	0.252	57.4	11.2	-3.51	0.683	106.2	0.358	1.330	215.0	425.6	0.854	---	3.50	1.108	105.9	344.1	5.5	0.331
3-8040	3-8280	0.229	61.2	13.8	-2.60	0.669	104.3	0.355	1.296	209.3	429.6	0.835	---	2.76	1.101	106.5	351.8	5.9	0.338
3-8040	3-8290	0.207	66.4	15.9	-1.99	0.655	101.9	0.356	1.266	203.6	433.6	0.816	---	2.33	1.096	107.2	359.2	7.3	0.347
3-8040	3-8300	0.187	73.2	17.8	-1.53	0.642	99.5	0.359	1.240	197.8	437.6	0.794	---	2.06	1.090	108.1	6.6	9.3	0.359
3-8040	3-8310	0.169	82.2	19.5	-1.16	0.630	96.8	0.367	1.216	192.1	441.7	0.770	---	1.90	1.086	109.0	13.9	11.6	0.373
3-8040	3-8320	0.156	94.1	20.7	-0.82	0.618	93.9	0.379	1.195	186.4	445.9	0.742	---	1.81	1.082	110.2	21.3	14.0	0.391
3-8040	3-8330	0.150	108.8	20.7	-0.51	0.607	90.6	0.396	1.176	180.9	450.4	0.710	---	1.78	1.078	111.6	28.8	16.4	0.414
3-8040	3-8340	0.154	125.2	19.2	-0.20	0.596	86.8	0.419	1.159	175.6	455.0	0.673	1.644	1.81	1.075	113.5	36.5	18.7	0.444
3-8040	3-8350	0.172	140.8	16.2	0.74	0.587	82.4	0.451	1.143	170.6	460.1	0.627	1.659	1.89	1.071	115.8	44.1	20.8	0.481
3-8040	3-8360	0.205	153.5	12.8	0.52	0.578	77.2	0.494	1.130	166.2	465.8	0.572	1.687	2.05	1.068	118.7	51.7	22.5	0.531
3-8040	3-8370	0.257	162.7	9.8	0.99	0.570	70.9	0.550	1.118	162.6	472.3	0.503	1.733	2.32	1.066	122.8	59.1	24.0	0.598
3-8040	3-8380	0.330	168.7	7.7	1.62	0.563	63.8	0.625	1.108	160.3	480.2	0.415	1.802	2.77	1.063	128.3	66.0	25.0	0.689
3-8040	3-8390	0.431	171.7	6.6	2.60	0.558	52.4	0.723	1.102	160.1	490.1	0.305	1.898	3.37	1.061	136.0	71.9	25.6	0.817
3-8040	3-8400	0.566	171.8	6.6	4.47	0.556	38.4	0.841	1.099	163.0	503.2	0.174	2.023	5.28	1.060	147.1	76.2	25.9	0.995

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8040	3-8440	0.519	124.4	17.7	-5.14	0.233	85.9	0.912	0.859	179.6	560.6	0.076	1.641	-4.98	0.928	24.5	1.7	-1.2	1.062
3-8040	3-8440	0.520	98.2	20.9	-5.14	0.354	124.8	0.867	0.915	186.4	567.4	0.122	1.707	-4.98	0.965	30.0	358.0	-3.5	1.000
3-8040	3-8510	0.576	185.6	-2.9	-0.48	0.717	40.8	0.764	1.419	146.9	237.3	---	2.504	-1.78	1.133	42.4	47.3	16.1	0.883
3-8040	3-8520	0.541	187.7	-3.6	-0.18	0.726	44.0	0.726	1.445	143.5	243.6	---	2.493	-1.81	1.136	46.2	54.2	17.5	0.820
3-8040	3-8530	0.508	189.8	-4.2	0.15	0.734	46.9	0.688	1.469	140.2	250.0	---	2.480	-1.89	1.139	49.8	61.1	18.6	0.758
3-8040	3-8540	0.477	191.9	-4.6	0.51	0.741	49.6	0.652	1.493	137.0	256.5	---	2.466	-2.05	1.142	53.2	68.0	19.2	0.699
3-8040	3-8550	0.448	194.0	-4.8	0.95	0.748	52.1	0.617	1.515	134.0	263.0	---	2.450	-2.29	1.145	56.5	74.8	19.3	0.643
3-8040	3-8560	0.422	196.1	-4.6	1.33	0.754	54.4	0.584	1.536	131.0	269.6	---	2.433	-2.69	1.148	59.6	81.5	18.7	0.589
3-8040	3-8570	0.397	198.3	-4.9	2.37	0.759	56.5	0.554	1.555	128.2	276.3	---	2.416	-3.37	1.151	62.6	87.9	17.0	0.537
3-8040	3-8580	0.376	200.9	-5.8	3.84	0.764	58.4	0.525	1.573	125.6	283.2	---	2.399	-4.68	1.154	65.5	94.0	13.3	0.491
3-8040	3-8590	0.364	204.4	4.1	7.31	0.768	60.1	0.493	1.589	123.2	290.3	---	2.382	-8.00	1.157	68.2	99.8	4.1	0.459
3-8040	3-8600	0.483	208.3	33.4	28.26	0.771	61.5	0.477	1.603	121.0	297.3	---	2.367	-28.80	1.160	70.8	313.2	-33.8	0.648
3-8040	3-8610	0.376	184.3	-35.9	-16.20	0.774	63.0	0.454	1.615	118.8	305.4	---	2.348	15.80	1.163	73.7	131.6	62.5	0.449
3-8040	3-8620	0.315	197.0	-23.8	-6.73	0.777	64.1	0.437	1.625	117.0	313.0	---	2.335	6.48	1.166	76.2	119.4	44.1	0.327
3-8040	3-8630	0.297	200.7	-19.9	-4.22	0.779	65.1	0.422	1.634	115.5	321.1	---	2.322	4.13	1.169	78.7	119.4	38.3	0.278
3-8040	3-8640	0.285	202.8	-17.9	-3.02	0.781	65.8	0.410	1.641	114.2	329.4	---	2.313	3.09	1.172	81.2	118.8	36.1	0.241
3-8040	3-8650	0.277	204.2	-16.7	-2.26	0.782	66.4	0.401	1.646	113.2	338.2	---	2.306	2.53	1.175	83.8	115.9	35.6	0.212
3-8040	3-8660	0.273	205.1	-15.7	-1.76	0.783	66.7	0.396	1.650	112.6	347.3	---	2.303	2.19	1.177	86.4	109.7	35.8	0.193
3-8040	3-8670	0.271	205.8	-14.8	-1.35	0.783	66.8	0.395	1.652	112.3	356.8	---	2.304	1.98	1.180	89.1	100.7	35.8	0.185
3-8040	3-8680	0.274	206.0	-13.9	-1.00	0.784	66.6	0.398	1.654	112.4	366.7	0.996	2.312	1.85	1.183	91.9	90.9	34.9	0.192
3-8040	3-8690	0.281	206.0	-12.9	-0.67	0.784	66.0	0.406	1.654	112.9	377.1	0.982	2.326	1.79	1.185	94.9	83.1	33.2	0.215
3-8040	3-8700	0.293	205.6	-11.8	-0.36	0.784	65.1	0.421	1.654	113.9	388.1	0.958	2.350	1.79	1.188	98.2	78.5	31.4	0.252
3-8040	3-8700	0.276	80.3	23.0	-0.36	0.572	105.5	0.520	1.122	195.5	829.7	0.539	1.705	1.79	1.060	120.7	25.1	13.5	0.565
3-8040	3-8700	0.527	64.1	21.5	-0.36	0.635	130.7	0.701	1.226	207.8	842.0	0.367	2.084	1.79	1.095	133.4	20.2	10.4	0.796
3-8040	3-8710	0.311	204.8	-10.7	-0.04	0.783	63.7	0.443	1.653	115.5	399.7	0.920	2.386	1.84	1.190	101.9	76.9	30.0	0.304
3-8040	3-8710	0.221	100.0	23.6	-0.04	0.554	96.0	0.504	1.097	186.0	830.2	0.544	1.650	1.84	1.053	119.8	34.4	17.0	0.547
3-8040	3-8720	0.338	203.5	-9.4	0.31	0.783	61.6	0.476	1.651	117.8	412.1	0.865	2.437	1.96	1.191	106.2	77.4	29.0	0.370
3-8040	3-8720	0.208	121.8	21.5	0.31	0.542	88.7	0.518	1.082	178.3	832.6	0.522	1.642	1.96	1.049	120.8	43.1	19.8	0.561
3-8040	3-8730	0.378	201.7	-8.0	0.73	0.783	58.5	0.522	1.650	121.0	425.4	0.789	2.510	2.16	1.193	111.3	79.2	28.4	0.455
3-8040	3-8730	0.229	141.3	17.3	0.73	0.634	80.3	0.551	1.071	171.9	836.3	0.480	1.661	2.16	1.046	123.2	51.6	22.0	0.599
3-8040	3-8740	0.433	199.2	-6.3	1.26	0.782	54.2	0.585	1.648	125.4	440.0	0.685	2.611	2.50	1.193	117.6	81.6	27.9	0.563
3-8040	3-8740	0.280	155.4	12.9	1.26	0.527	71.6	0.805	1.063	166.9	841.5	0.419	1.706	2.50	1.044	127.1	59.5	23.7	0.663
3-8040	3-8750	0.512	195.8	-4.4	2.03	0.782	48.0	0.669	1.647	131.8	456.5	0.545	2.749	3.09	1.194	125.7	83.9	27.6	0.705
3-8040	3-8750	0.361	163.9	9.8	2.03	0.522	61.2	0.663	1.057	164.0	848.7	0.335	1.778	3.09	1.042	132.9	66.7	24.9	0.759
3-8040	3-8760	0.475	167.9	8.3	3.31	0.519	48.3	0.785	1.053	163.8	858.7	0.226	1.880	4.20	1.041	141.7	72.5	25.5	0.900
3-8040	3-8770	0.599	118.0	23.1	6.19	0.172	111.5	0.958	0.841	181.0	1246.0	0.035	1.647	6.92	0.919	163.1	66.3	23.3	1.155
3-8040	3-8810	0.550	145.8	12.2	-4.19	0.313	46.8	0.918	0.892	175.0	920.8	0.073	1.711	-4.10	0.950	23.5	5.3	0.7	1.088
3-8040	3-8810	0.478	91.0	20.9	-4.19	0.425	122.9	0.803	0.963	189.7	935.5	0.190	1.736	-4.10	0.992	36.6	358.3	-3.6	0.913
3-8040	3-8820	0.563	51.5	16.0	-2.96	0.762	130.6	0.651	1.566	226.3	622.1	0.546	2.587	-3.05	1.175	54.7	346.8	-10.2	0.697
3-8040	3-8820	0.434	139.8	93.7	-2.96	0.352	67.8	0.829	0.914	175.1	930.9	0.157	1.670	-3.05	0.961	34.2	9.6	2.2	0.936
3-8040	3-8820	0.372	107.2	19.8	-2.96	0.408	101.7	0.741	0.950	184.2	940.0	0.247	1.658	-3.05	0.983	42.3	5.3	-0.4	0.820
3-8040	3-8830	0.484	48.1	15.3	-2.23	0.761	124.3	0.584	1.565	231.7	637.5	0.682	2.448	-2.49	1.172	62.5	349.2	-9.7	0.560
3-8040	3-8840	0.428	45.7	14.9	-1.71	0.761	119.8	0.499	1.563	235.2	651.0	0.783	2.342	-2.16	1.170	68.4	351.9	-9.1	0.456
3-8050	3-8110	0.781	32.0	11.2	-1.78	1.114	131.7	1.025	36.841	277.8	329.7	---	---	-2.31	1.426	74.6	321.2	-21.4	0.544
3-8050	3-8120	0.716	31.2	11.3	-1.33	1.073	129.1	0.939	15.865	278.8	340.5	---	---	-2.06	1.392	80.6	317.8	-22.9	0.448
3-8050	3-8130	0.668	31.1	11.7	-0.96	1.039	127.2	0.865	7.377	278.4	350.0	---	---	-1.91	1.364	85.3	313.6	-24.5	0.385
3-8050	3-8140	0.629	31.5	12.2	-0.63	1.008	125.9	0.800	5.024	277.0	358.4	---	---	-1.84	1.339	89.3	309.4	-25.9	0.347
3-8050	3-8150	0.593	32.2	12.9	-0.32	0.978	124.8	0.741	3.880	274.8	365.9	1.005	---	-1.82	1.314	92.5	305.8	-26.9	0.325
3-8050	3-8160	0.565	33.2	13.7	-0.01	0.949	123.8	0.687	3.193	272.0	372.7	1.000	---	-1.85	1.291	95.2	303.7	-27.6	0.315
3-8050	3-8170	0.536	34.4	14.6	0.32	0.921	122.9	0.638	2.734	268.6	379.0	0.991	---	-1.94	1.269	97.4	303.3	-27.9	0.312
3-8050	3-8180	0.508	35.7	15.7	0.69	0.894	122.0	0.593	2.406	264.8	384.8	0.979	---	-2.10	1.248	99.2	304.6	-28.1	0.313
3-8050	3-8190	0.481	37.1	16.9	1.15	0.867	120.9	0.553	2.162	260.7	390.3	0.966	---	-2.36	1.228	100.7	307.4	-28.3	0.316
3-8050	3-8200	0.454	38.6	18.5	1.74	0.841	119.8	0.518	1.975	256.3	395.4	0.952	---	-2.77	1.209	101.9	311.5	-28.7	0.320
3-8050	3-8210	0.428	39.9	20.6	2.63	0.817	118.6	0.487	1.827	251.6	400.2	0.938	---	-3.49	1.192	102.9	316.9	-29.6	0.326
3-8050	3-8220	0.404	41.2	24.0	4.18	0.793	117.3	0.460	1.709	246.7	404.9	0.924	---	-4.88	1.176	103.7	323.6	-32.3	0.335
3-8050	3-8230	0.387	41.7	31.6	7.95	0.771	115.8	0.436	1.613	241.6	409.2	0.909	---	-8.49	1.161	104.4	333.0	-40.6	0.361
3-8050	3-8240	0.539	48.8	65.1	33.49	0.750	114.2	0.416	1.534	236.4	413.2	0.896	---	-33.89	1.148	104.9	353.8	-79.6	0.691
3-8050	3-8250	0.374	60.8	-7.3	-15.10	0.730	112.7	0.402	1.467	230.9	418.0	0.877	---	14.85	1.136	105.7	315.4	26.0	0.429
3-8050	3-8260	0.310	57.5	6.2	-6.47	0.711	110.9	0.389	1.411	225.4	422.0	0.862	---	6.38	1.126	106.2	333.8	10.3	0.357
3-8050	3-8270	0.279	59.3	11.2	-4.05	0.693	108.9	0.380	1.363	219.8	425.9	0.846	---	4.12	1.116	106.7	343.4	6.6	0.351
3-8050	3-8280	0.253	62.6	14.1	-2.87	0.676	106.8	0.373	1.322	214.0	429.8	0.828	---	3.10	1.108	107.3	351.4	6.4	0.354
3-8050	3-8290	0.229	67.2	16.2	-2.14	0.661	104.6	0.371	1.286	208.2	433.8	0.809	---	2.54	1.101	107.9	359.0	7.6	0.361
3-8050	3-8300	0.206	73.1	18.1	-1.61	0.646	102.1	0.371	1.255	202.4	437.7	0.789	---	2.21	1.095	108.6	6.4	9.5	0.370
3-8050	3-8310	0.186	81.0	19.7	-1.19	0.632	99.5	0.376	1.227	196.5	441.7	0.766	---	2.00	1.089	109.4	13.9	11.8	0.381
3-8050	3-8320	0.169	91.4	20.9	-0.84	0.619	96.5	0.384	1.203	190.7	445.7	0.740	---	1.88	1.084	110.4	21.4	14.2	0.397
3-8050	3-8330	0.157	104.8	21.3	-0.61	0.606	93.3	0.398	1.181	185.0	450.0	0.711	---	1.82	1.080	111.7	29.0	16.6	0.416
3-8050	3-8340	0.155	120.6	20.2	-0.20	0.595	89.6	0.418	1.162	179.5	454.1	0.677	1.647	1.82	1.076	113.3	36.7	18.8	0.441
3-8050	3-8350	0.165	137.0	17.4	0.13	0.584	85.4	0.445	1.145	174.2	459.2	0.636	1.654	1.88	1.072	115.3	44.5	20.9	0.474
3-8050	3-8360	0.191	151.3	13.6	0.50	0.573	80.4	0.481	1.130	169.4	464.5	0.586	1.674	2.01	1.068	117.9	52.3	22.7	0.517
3-8050	3-8370	0.234	162.3	10.1	0.93	0.564	74.5	0.541	1.116	165.2	470.5	0.524	1.709	2.22	1.065	121.4	60.0	24.2	0.574
3-8050	3-8380	0.296	169.9	7.3	1.49	0.556	67.1	0.596	1.105	162.2	477.6	0.446	1.764	2.59	1.062	126.1	67.3	25.3	0.652
3-8050	3-8390	0.384	174.3	5.6	2.30	0.550	57.7	0.683	1.097	160.8	486.4	0.348	1.845	3.21	1.059	132.7	73.8	25.9	0.761
3-8050	3-8400	0.502	175.8	5.0	3.68	0.546	45.2	0.791	1.092	161.9	497.7	0.228	1.955	4.43	1.057	142.1	79.0	26.2	0.913
3-8050	3-8440	0.559	127.5	17.2	-6.47	0.190	92.4	0.941	0.849	180.2	556.7	0.050	1.647	-6.38	0.921	20.1	3.7	-0.4	1.120
3-8050	3-8440	0.570	104.5	20.6	-6.47	0.322	132.6	0.911	0.901	185.4	561.9	0.080	1.722	-6.38	0.957	24.4	0.7	-2.2	1.079
3-8050	3-8510	0.589	188.9	-4.4	-0.48	0.708	39.6	0.778	1.402	148.6	234.6	---	2.492	-1.82	1.129	40.9	48.6	16.5	0.906
3-8050	3-8520	0.554	191.1	-5.1	-0.17	0.717	42.9	0.740	1.427	145.2	240.9	---	2.483	-1.82	1.132	44.7	55.4	17.9	0.842
3-8050	3-8530	0.520	193.2	-5.6	0.14	0.725	46.0	0.702	1.452	141.9	247.3	---	2.471	-1.88	1.136	48.4	62.4	18.9	0.780
3-8050	3-8540	0.489	195.3	-6.1	0.49	0.733	48.8	0.665	1.476	138.8	253.7	---	2.458	-2.00	1.139	51.9	69.3	19.6	0.720
3-8050	3-8550	0.459	197.4	-6.3	0.90	0.740	51.4	0.629	1.499	135.7	260.2	---	2.443	-2.20	1.142	55.2	76.2	19.7	0.662

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8050	3-8560	0.432	199.5	-6.3	1.41	0.746	53.7	0.595	1.521	132.7	266.8	---	2.426	-2.53	1.145	56.4	82.9	19.2	0.607
3-8050	3-8570	0.407	201.7	-5.8	2.11	0.752	55.9	0.568	1.541	129.9	273.5	---	2.409	-3.06	1.148	61.5	89.4	17.9	0.555
3-8050	3-8580	0.385	204.0	-4.5	3.24	0.757	57.9	0.534	1.559	127.3	280.4	---	2.392	-4.02	1.151	64.4	95.6	15.1	0.506
3-8050	3-8590	0.368	206.9	-0.9	5.47	0.761	59.6	0.507	1.576	124.8	287.4	---	2.375	-6.10	1.155	67.2	101.2	8.9	0.465
3-8050	3-8600	0.377	211.3	11.8	12.79	0.765	61.2	0.483	1.591	122.5	294.6	---	2.359	-13.27	1.158	69.9	107.0	-9.7	0.471
3-8050	3-8620	0.331	198.1	-28.3	-9.27	0.771	63.9	0.441	1.615	118.5	310.1	---	2.327	9.10	1.164	75.3	126.4	49.9	0.359
3-8050	3-8630	0.304	203.8	-22.8	-5.06	0.774	64.9	0.425	1.624	116.9	318.0	---	2.314	5.05	1.167	77.8	124.1	40.2	0.295
3-8050	3-8640	0.291	206.4	-20.1	-3.41	0.775	65.7	0.412	1.632	115.5	326.3	---	2.304	3.55	1.170	80.3	123.7	36.7	0.253
3-8050	3-8650	0.282	208.0	-18.6	-2.49	0.777	66.3	0.402	1.638	114.5	334.9	---	2.296	2.80	1.173	82.9	121.6	34.5	0.221
3-8050	3-8660	0.276	209.2	-17.4	-1.87	0.778	66.7	0.395	1.642	113.7	343.9	---	2.291	2.36	1.176	85.5	119.6	35.6	0.198
3-8050	3-8670	0.273	209.9	-16.4	-1.40	0.779	66.9	0.393	1.645	113.3	353.3	---	2.291	2.10	1.179	88.1	108.5	35.9	0.185
3-8050	3-8680	0.275	210.3	-15.5	-1.02	0.779	66.8	0.394	1.647	113.2	363.1	0.998	2.296	1.93	1.182	90.9	98.6	35.6	0.187
3-8050	3-8690	0.280	210.4	-14.5	-0.68	0.779	66.4	0.401	1.648	113.6	373.3	0.988	2.308	1.85	1.184	93.8	89.7	34.2	0.204
3-8050	3-8700	0.289	210.1	-13.5	-0.36	0.779	65.6	0.413	1.648	114.4	384.1	0.967	2.328	1.82	1.187	97.0	83.9	32.4	0.236
3-8050	3-8710	0.305	209.4	-12.4	-0.04	0.779	64.4	0.432	1.647	115.7	395.4	0.935	2.358	1.84	1.189	100.5	81.3	30.9	0.282
3-8050	3-8710	0.249	94.2	23.6	-0.04	0.557	101.6	0.520	1.106	191.1	830.9	0.531	1.681	1.84	1.056	120.8	34.1	16.8	0.565
3-8050	3-8710	0.570	69.5	22.6	-0.04	0.639	135.1	0.746	1.240	206.8	846.5	0.315	2.165	1.84	1.102	137.1	27.7	13.1	0.862
3-8050	3-8720	0.329	208.3	-11.2	0.30	0.779	62.6	0.481	1.645	117.6	407.4	0.887	2.403	1.93	1.190	104.5	81.2	29.7	0.342
3-8050	3-8720	0.214	115.7	22.6	0.30	0.541	92.7	0.519	1.085	182.5	832.3	0.522	1.649	1.93	1.050	120.9	43.3	19.8	0.563
3-8050	3-8730	0.362	206.8	-9.9	0.69	0.778	60.0	0.501	1.643	120.3	420.2	0.821	2.466	2.10	1.192	109.2	82.7	28.9	0.418
3-8050	3-8730	0.218	137.0	18.6	0.69	0.531	84.6	0.542	1.072	175.4	835.4	0.491	1.654	2.10	1.047	122.5	52.0	22.1	0.588
3-8050	3-8740	0.410	204.6	-8.5	1.17	0.778	56.2	0.556	1.642	124.1	434.1	0.729	2.554	2.37	1.192	114.9	85.1	28.4	0.515
3-8050	3-8740	0.256	153.7	13.7	1.17	0.522	76.1	0.586	1.063	169.7	839.8	0.440	1.685	2.37	1.044	125.6	60.4	23.9	0.638
3-8050	3-8750	0.478	201.6	-6.8	1.83	0.777	50.9	0.631	1.640	129.4	449.7	0.606	2.675	2.84	1.193	122.1	87.6	27.9	0.641
3-8050	3-8750	0.323	168.6	9.6	1.83	0.516	66.4	0.651	1.055	185.7	845.9	0.368	1.743	2.84	1.042	130.5	68.1	25.1	0.718
3-8050	3-8760	0.574	197.5	-4.8	2.85	0.777	43.2	0.729	1.640	137.1	467.5	0.444	2.836	3.68	1.193	131.7	89.6	27.5	0.807
3-8050	3-8760	0.421	170.5	7.3	2.85	0.512	54.6	0.742	1.050	164.0	854.5	0.271	1.830	3.68	1.040	137.8	74.7	25.8	0.858
3-8050	3-8770	0.555	172.2	6.5	4.80	0.510	39.5	0.853	1.048	165.7	866.3	0.154	1.942	5.47	1.039	148.5	79.5	26.1	1.005
3-8050	3-8810	0.585	149.6	10.9	-5.01	0.287	41.5	0.943	0.884	175.9	917.2	0.051	1.717	-5.00	0.944	19.6	7.1	1.6	1.139
3-8050	3-8810	0.530	95.3	20.9	-5.01	0.413	130.6	0.850	0.958	189.4	930.7	0.144	1.773	-5.00	0.990	31.9	0.5	-2.7	0.985
3-8050	3-8820	0.599	58.4	17.7	-3.33	0.756	134.2	0.699	1.558	222.4	613.7	0.469	2.646	-3.49	1.173	50.2	350.8	-8.6	0.775
3-8050	3-8820	0.477	146.2	11.8	-3.33	0.324	61.6	0.869	0.902	175.2	926.6	0.118	1.685	-3.49	0.954	29.8	11.7	3.2	0.998
3-8050	3-8820	0.407	106.2	20.0	-3.33	0.401	109.7	0.770	0.949	186.3	937.6	0.218	1.680	-3.49	0.983	39.7	6.5	0.0	0.861
3-8050	3-8830	0.508	54.4	16.9	-2.42	0.756	126.8	0.601	1.557	228.7	630.1	0.621	2.492	-2.75	1.171	59.0	352.5	-8.1	0.620
3-8050	3-8840	0.443	51.5	16.5	-1.81	0.756	121.6	0.526	1.555	232.9	644.2	0.737	2.372	-2.33	1.168	65.7	355.2	-7.4	0.503
3-8050	3-8850	0.587	179.6	-0.7	-1.35	0.608	37.3	0.830	1.185	159.3	580.5	0.201	2.168	-2.07	1.076	34.4	31.2	11.3	0.987
3-8050	3-8850	0.395	49.5	16.3	-1.35	0.755	117.8	0.469	1.552	235.6	656.8	0.824	2.281	-2.07	1.165	70.9	358.0	-6.9	0.412
3-8060	3-8120	0.861	32.5	11.8	-1.39	1.213	132.4	1.255	-3.814	285.1	342.4	---	---	-2.18	1.505	80.2	313.7	-23.5	0.556
3-8060	3-8130	0.789	32.5	12.3	-0.99	1.154	130.4	1.122	-85171	284.4	351.5	---	---	-1.99	1.456	85.5	309.9	-24.7	0.473
3-8060	3-8140	0.733	33.1	12.9	-0.64	1.105	128.9	1.01	187.488	282.7	359.6	---	---	-1.89	1.415	89.8	306.3	-25.8	0.422
3-8060	3-8150	0.687	34.1	13.6	-0.32	1.062	127.8	0.917	12.154	280.3	367.0	1.004	---	-1.84	1.380	93.3	303.4	-26.6	0.392
3-8060	3-8160	0.646	35.3	14.4	-0.01	1.022	126.8	0.835	6.031	277.3	373.6	0.997	---	-1.85	1.347	96.2	301.8	-27.0	0.375
3-8060	3-8170	0.608	36.6	15.3	0.31	0.984	125.9	0.762	4.143	273.9	379.8	0.986	---	-1.91	1.317	98.5	301.9	-27.2	0.366
3-8060	3-8180	0.573	38.1	16.3	0.67	0.949	124.9	0.698	3.222	270.0	385.5	0.973	---	-2.04	1.289	100.5	303.5	-27.2	0.362
3-8060	3-8190	0.540	39.7	17.5	1.08	0.915	123.9	0.642	2.678	265.8	390.9	0.959	---	-2.25	1.264	102.0	306.4	-27.2	0.361
3-8060	3-8200	0.508	41.3	18.8	1.61	0.883	122.8	0.593	2.320	261.3	395.9	0.944	---	-2.58	1.240	103.2	310.6	-27.2	0.351
3-8060	3-8210	0.477	42.8	20.6	2.34	0.852	121.6	0.551	2.069	256.5	400.7	0.929	---	-3.14	1.218	104.2	315.8	-27.6	0.362
3-8060	3-8220	0.447	44.3	23.1	3.51	0.824	120.2	0.514	1.883	251.6	405.3	0.914	---	-4.15	1.198	105.0	322.0	-28.9	0.365
3-8060	3-8230	0.422	45.6	27.8	5.89	0.797	118.8	0.483	1.740	246.5	409.7	0.899	---	-6.37	1.180	105.7	330.0	-33.2	0.376
3-8060	3-8240	0.424	46.0	42.1	14.12	0.772	117.2	0.457	1.629	241.2	413.8	0.885	---	-14.44	1.164	106.2	342.9	-50.1	0.444
3-8060	3-8250	0.580	78.5	-21.7	-37.45	0.749	115.6	0.437	1.539	235.6	418.7	0.866	---	37.28	1.150	106.9	286.5	39.6	0.758
3-8060	3-8260	0.348	60.8	3.9	-8.78	0.727	113.7	0.418	1.466	230.1	422.3	0.853	---	8.76	1.137	107.2	330.9	14.6	0.395
3-8060	3-8270	0.309	61.5	10.9	-4.83	0.706	111.7	0.405	1.405	224.4	426.2	0.837	---	4.97	1.126	107.6	342.1	8.1	0.375
3-8060	3-8280	0.280	64.4	14.3	-3.23	0.687	109.6	0.395	1.354	218.6	430.0	0.820	---	3.53	1.116	108.1	351.0	7.1	0.373
3-8060	3-8290	0.253	68.4	16.5	-2.32	0.669	107.3	0.388	1.311	212.8	433.9	0.802	---	2.80	1.108	108.6	358.8	8.0	0.377
3-8060	3-8300	0.228	73.7	18.4	-1.71	0.652	104.9	0.385	1.274	206.9	437.7	0.783	---	2.37	1.100	109.2	6.3	9.7	0.383
3-8060	3-8310	0.205	80.5	19.9	-1.24	0.636	102.2	0.387	1.241	200.9	441.6	0.761	---	2.11	1.093	109.9	13.8	11.9	0.392
3-8060	3-8320	0.184	89.6	21.1	-0.86	0.621	99.3	0.392	1.213	195.0	445.6	0.737	---	1.95	1.088	110.8	21.4	14.3	0.404
3-8060	3-8330	0.168	101.5	21.7	-0.52	0.607	96.1	0.402	1.189	189.1	449.7	0.710	---	1.80	1.082	111.9	29.1	16.7	0.420
3-8060	3-8340	0.160	116.2	21.0	-0.19	0.594	92.5	0.418	1.167	183.4	454.0	0.679	---	1.84	1.077	113.3	36.9	19.0	0.441
3-8060	3-8350	0.162	132.6	18.6	0.13	0.582	88.4	0.441	1.148	177.9	458.5	0.641	1.654	1.87	1.073	115.0	44.9	21.0	0.469
3-8060	3-8360	0.180	148.2	14.8	0.48	0.571	83.6	0.472	1.131	172.8	463.5	0.597	1.665	1.96	1.069	117.3	52.8	22.9	0.506
3-8060	3-8370	0.214	161.0	10.7	0.88	0.560	78.0	0.515	1.116	168.2	469.0	0.541	1.690	2.14	1.065	120.3	60.8	24.3	0.555
3-8060	3-8380	0.268	170.2	7.3	1.38	0.551	71.2	0.572	1.103	164.5	475.4	0.473	1.733	2.43	1.061	124.4	68.4	25.4	0.622
3-8060	3-8390	0.343	176.2	4.9	2.07	0.543	62.8	0.647	1.093	162.1	483.2	0.385	1.800	2.93	1.058	130.0	75.5	26.1	0.714
3-8060	3-8400	0.446	179.1	3.6	3.15	0.537	51.4	0.746	1.085	161.8	493.1	0.276	1.888	3.83	1.055	138.0	81.4	26.4	0.844
3-8060	3-8410	0.584	179.0	3.6	5.28	0.535	36.7	0.861	1.083	164.7	506.2	0.150	2.015	5.79	1.053	149.3	85.7	26.4	1.024
3-8060	3-0520	0.567	194.4	-6.5	-0.17	0.707	41.8	0.754	1.409	147.0	238.2	---	2.472	-1.84	1.128	43.2	56.7	18.2	0.865
3-8060	3-8530	0.533	196.5	-7.1	0.14	0.716	45.0	0.716	1.435	143.7	244.5	---	2.462	-1.87	1.132	47.0	63.7	19.3	0.802
3-8060	3-8540	0.501	198.7	-7.6	0.48	0.724	47.9	0.678	1.460	140.5	251.0	---	2.449	-1.96	1.136	50.6	70.6	19.9	0.741
3-8060	3-8550	0.471	200.8	-7.9	0.85	0.732	50.6	0.641	1.483	137.4	257.4	---	2.434	-2.12	1.139	54.0	77.5	20.1	0.682
3-8060	3-8560	0.443	202.9	-7.9	1.31	0.739	53.0	0.607	1.505	134.4	264.0	---	2.419	-2.39	1.142	57.2	84.3	19.7	0.626
3-8060	3-8570	0.417	205.0	-7.6	1.92	0.745	55.3	0.574	1.526	131.5	270.7	---	2.402	-2.81	1.146	60.3	90.9	18.5	0.572
3-8060	3-8580	0.394	207.3	-6.7	2.81	0.750	57.3	0.543	1.546	128.9	277.6	---	2.385	-3.54	1.149	63.3	97.1	16.3	0.522
3-8060	3-8590	0.374	209.8	-4.3	4.39	0.755	59.1	0.515	1.563	126.3	284.6	---	2.368	-4.96	1.152	66.2	102.8	11.9	0.476
3-8060	3-8600	0.365	213.2	2.4	8.24	0.759	60.8	0.490	1.579	124.0	291.7	---	2.352	-8.65	1.156	68.9	107.9	1.1	0.449
3-8060	3-8610	0.540	213.4	35.6	34.83	0.763	62.2	0.468	1.592	122.0	298.8	---	2.338	-35.08	1.159	71.5	123.3	-42.2	0.732
3-8060	3-8620	0.367	195.0	-38.1	-14.92	0.766	63.6	0.446	1.604	119.9	307.1	---	2.319	14.82	1.162	74.4	142.0	59.8	0.428
3-8060	3-8630	0.314	206.5	-26.5	-6.36	0.768	64.7	0.429	1.614	118.2	314.9	---	2.306	6.41	1.165	76.9	129.4	43.1	0.315
3-8060	3-8640	0.297	209.9	-22.5	-3.93	0.770	65.5	0.414	1.622	116.8	323.1	---	2.295	4.15	1.169	79.4	134.4	37.5	0.267

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8060	3-8650	0.287	211.9	-20.4	-2.74	0.772	66.2	0.403	1.629	115.7	331.7	---	2.206	3.13	1.172	82.0	127.0	35.5	0.231
3-8060	3-8660	0.280	213.2	-19.1	-2.00	0.773	66.7	0.396	1.634	114.8	340.6	---	2.280	2.57	1.175	84.5	123.1	35.2	0.204
3-8060	3-8670	0.276	214.0	-18.0	-1.47	0.774	67.0	0.391	1.637	114.3	349.8	---	2.278	2.23	1.178	87.0	116.0	35.7	0.187
3-8060	3-8680	0.276	214.6	-17.1	-1.05	0.775	67.0	0.391	1.640	114.1	359.5	---	2.281	2.02	1.181	89.9	106.5	35.8	0.183
3-8060	3-8690	0.279	214.7	-16.1	-0.69	0.775	66.7	0.396	1.641	114.3	369.6	0.991	2.290	1.90	1.183	92.7	96.9	34.9	0.195
3-8060	3-8700	0.287	214.6	-15.1	-0.36	0.775	66.1	0.406	1.641	114.9	380.2	0.975	2.307	1.84	1.186	95.8	89.9	33.3	0.221
3-8060	3-8710	0.301	214.0	-14.1	-0.04	0.775	65.0	0.422	1.640	115.9	391.2	0.948	2.333	1.85	1.188	99.5	86.2	31.7	0.262
3-8060	3-8710	0.303	88.2	23.9	-0.04	0.566	109.5	0.555	1.124	197.4	832.7	0.500	1.748	1.85	1.063	123.1	33.4	16.3	0.607
3-8060	3-8710	0.483	75.9	23.3	-0.04	0.613	128.0	0.684	1.198	206.1	841.4	0.378	2.010	1.85	1.089	132.2	29.8	14.2	0.773
3-8060	3-8720	0.321	213.1	-13.0	0.29	0.775	63.5	0.447	1.639	117.1	402.9	0.906	2.371	1.91	1.189	102.9	85.3	30.4	0.316
3-8060	3-8720	0.231	109.4	23.5	0.29	0.542	97.9	0.527	1.092	187.2	832.5	0.516	1.667	1.91	1.053	121.4	43.2	19.7	0.572
3-8060	3-8730	0.350	211.7	-11.8	0.66	0.774	61.2	0.482	1.637	119.8	415.3	0.858	2.426	2.04	1.191	107.3	86.3	29.4	0.385
3-8060	3-8730	0.216	131.6	20.1	0.66	0.529	89.2	0.538	1.075	179.3	834.8	0.497	1.653	2.04	1.048	122.2	52.3	22.1	0.583
3-8060	3-8740	0.391	209.8	-10.5	1.11	0.774	58.0	0.531	1.635	123.0	423.7	0.768	2.503	2.26	1.191	112.5	88.5	28.7	0.472
3-8060	3-8740	0.238	150.8	14.8	1.11	0.519	80.7	0.571	1.063	172.9	838.5	0.456	1.670	2.26	1.044	124.6	61.1	24.0	0.621
3-8060	3-8750	0.450	207.2	-9.0	1.68	0.773	53.4	0.597	1.633	127.5	443.3	0.659	2.608	2.64	1.192	119.0	91.1	28.1	0.584
3-8060	3-8750	0.298	164.3	9.9	1.68	0.512	71.4	0.625	1.054	167.9	843.7	0.395	1.714	2.64	1.042	128.5	69.2	25.2	0.685
3-8060	3-8760	0.532	203.6	-7.2	2.51	0.773	46.8	0.685	1.633	134.0	459.9	0.515	2.750	3.28	1.192	127.4	93.5	27.7	0.731
3-8060	3-8760	0.376	172.4	6.6	2.51	0.506	60.4	0.704	1.048	165.0	851.0	0.311	1.786	3.28	1.039	134.6	76.5	26.0	0.783
3-8060	3-8770	0.493	175.9	5.0	3.95	0.503	46.8	0.806	1.045	165.0	861.1	0.203	1.886	4.55	1.038	143.6	82.3	26.3	0.927
3-8060	3-8810	0.587	100.5	20.8	-6.27	0.401	139.1	0.896	0.953	188.4	925.3	0.099	1.807	-6.33	0.987	26.4	3.1	-1.5	1.066
3-8060	3-8820	0.517	151.4	10.1	-3.83	0.297	55.8	0.903	0.892	175.7	922.6	0.087	1.696	-4.06	0.947	25.7	13.7	4.2	1.055
3-8060	3-8820	0.449	107.5	20.0	-3.83	0.393	117.5	0.806	0.947	187.4	934.4	0.163	1.711	-4.06	0.981	36.3	8.1	0.7	0.913
3-8060	3-8830	0.537	61.0	18.3	-2.66	0.751	129.8	0.642	1.548	225.6	622.5	0.554	2.542	-3.06	1.169	55.2	355.8	-6.5	0.686
3-8060	3-8840	0.461	57.8	17.9	-1.93	0.751	123.6	0.557	1.547	230.5	637.3	0.685	2.408	-2.52	1.167	62.7	358.4	-5.8	0.554
3-8060	3-8850	0.406	55.3	17.7	-1.42	0.750	119.2	0.492	1.544	233.6	650.4	0.784	2.304	-2.20	1.164	68.5	1.3	-5.2	0.453
3-8060	3-8860	0.554	184.8	-2.9	-1.01	0.908	40.7	0.799	1.190	157.8	584.4	0.239	2.142	-2.00	1.075	37.5	38.9	13.8	0.936
3-8060	3-8860	0.365	53.5	17.8	-1.01	0.789	116.0	0.443	1.541	235.6	662.2	0.858	2.225	-2.00	1.161	73.1	4.0	-4.8	0.373
3-8070	3-8130	0.946	83.8	12.8	-1.02	1.310	133.3	1.508	1.960	289.7	352.4	---	---	-2.08	1.583	85.4	307.4	-24.7	0.599
3-8070	3-8140	0.863	34.6	13.5	-0.65	1.233	131.7	1.315	3.186	287.9	360.3	1.005	---	-1.94	1.518	90.2	304.3	-25.5	0.525
3-8070	3-8150	0.798	35.9	14.2	-0.32	1.169	130.6	1.161	6.247	285.3	367.5	1.003	---	-1.87	1.465	94.1	302.0	-26.0	0.478
3-8070	3-8160	0.743	37.3	15.1	-0.01	1.113	129.8	1.032	30.667	282.3	374.1	0.994	---	-1.85	1.419	97.2	300.9	-26.3	0.450
3-8070	3-8170	0.694	38.9	16.0	0.31	1.063	128.9	0.925	13.029	278.7	380.2	0.982	---	-1.89	1.378	99.7	301.1	-26.4	0.433
3-8070	3-8180	0.650	40.5	17.0	0.65	1.017	127.8	0.832	5.772	274.8	385.9	0.967	---	-1.98	1.342	101.8	302.9	-26.3	0.422
3-8070	3-8190	0.608	42.2	18.0	1.03	0.974	126.8	0.754	3.564	270.6	391.2	0.952	---	-2.15	1.308	103.4	305.9	-26.2	0.415
3-8070	3-8200	0.569	44.0	19.2	1.50	0.934	125.7	0.686	2.985	266.0	396.3	0.936	---	-2.42	1.278	104.6	310.0	-26.0	0.409
3-8070	3-8210	0.532	45.7	20.7	2.12	0.896	124.5	0.629	2.481	261.3	401.0	0.920	---	-2.86	1.251	105.6	315.1	-25.9	0.406
3-8070	3-8220	0.497	47.4	22.7	3.04	0.862	123.2	0.580	2.156	256.3	405.6	0.905	---	-3.62	1.226	106.4	321.0	-26.4	0.404
3-8070	3-8230	0.465	49.0	26.0	4.70	0.830	121.7	0.539	1.930	251.2	410.0	0.889	---	-5.12	1.204	107.0	328.2	-28.5	0.405
3-8070	3-8240	0.442	50.2	33.4	8.88	0.800	120.1	0.504	1.764	245.9	414.1	0.874	---	-9.13	1.185	107.5	337.7	-36.3	0.425
3-8070	3-8260	0.402	55.6	-1.4	-13.67	0.747	116.6	0.453	1.540	234.7	422.5	0.842	---	13.73	1.152	108.4	324.7	22.4	0.462
3-8070	3-8270	0.343	64.1	10.1	-6.01	0.723	114.6	0.434	1.461	229.0	426.4	0.827	---	6.22	1.138	108.7	341.1	10.2	0.404
3-8070	3-8280	0.309	66.4	14.3	-3.71	0.700	112.5	0.419	1.396	223.2	430.2	0.811	---	4.08	1.126	109.0	350.4	7.9	0.396
3-8070	3-8290	0.280	70.0	16.8	-2.55	0.680	110.2	0.409	1.343	217.3	434.0	0.794	---	3.10	1.116	109.4	358.5	8.4	0.395
3-8070	3-8300	0.252	74.7	18.6	-1.83	0.660	107.7	0.402	1.298	211.3	437.8	0.776	---	2.55	1.107	109.9	6.2	9.9	0.399
3-8070	3-8310	0.226	80.7	20.1	-1.30	0.642	105.0	0.400	1.260	205.3	441.6	0.756	---	2.22	1.099	110.5	13.8	12.0	0.405
3-8070	3-8320	0.202	88.7	21.3	-0.89	0.626	102.1	0.402	1.227	199.3	445.5	0.733	---	2.02	1.092	111.2	21.4	14.4	0.414
3-8070	3-8330	0.182	99.1	22.0	-0.5	0.610	98.9	0.409	1.198	193.3	449.5	0.708	---	1.90	1.085	112.2	29.2	16.7	0.426
3-8070	3-8340	0.169	112.4	21.7	-0.1	0.595	95.4	0.421	1.173	187.5	453.6	0.679	---	1.85	1.080	113.4	37.1	19.0	0.444
3-8070	3-8350	0.164	128.1	19.8	0.13	0.582	91.4	0.440	1.152	181.8	457.9	0.645	---	1.86	1.074	114.9	45.1	21.1	0.467
3-8070	3-8360	0.174	144.4	16.2	0.47	0.569	86.8	0.466	1.132	176.3	462.6	0.605	1.660	1.93	1.069	116.9	53.3	23.0	0.498
3-8070	3-8370	0.199	158.7	11.7	0.85	0.557	81.5	0.502	1.116	171.4	467.8	0.555	1.676	2.06	1.065	119.5	61.4	24.4	0.540
3-8070	3-8380	0.244	169.7	7.6	1.30	0.547	75.1	0.551	1.101	167.1	473.6	0.494	1.709	2.30	1.060	123.0	69.3	25.5	0.597
3-8070	3-8390	0.308	177.3	4.5	1.89	0.537	67.2	0.617	1.089	163.9	480.6	0.417	1.762	2.70	1.056	127.8	76.8	26.2	0.676
3-8070	3-8400	0.398	181.7	2.6	2.77	0.530	57.1	0.704	1.080	162.4	489.3	0.319	1.841	3.39	1.053	134.6	83.4	26.5	0.787
3-8070	3-8410	0.519	183.1	1.9	4.30	0.526	43.9	0.813	1.075	163.6	500.7	0.201	1.949	4.75	1.050	144.2	88.6	26.5	0.941
3-8070	3-8520	0.581	197.7	-7.8	-0.17	0.698	40.7	0.769	1.391	148.7	235.5	---	2.460	-1.85	1.124	41.7	58.0	18.6	0.888
3-8070	3-8530	0.547	199.9	-8.5	0.14	0.708	43.9	0.730	1.417	145.3	241.8	---	2.451	-1.86	1.128	45.5	65.0	19.6	0.824
3-8070	3-8540	0.514	202.0	-9.0	0.45	0.716	46.9	0.69	1.442	142.1	248.2	---	2.439	-1.92	1.132	49.2	72.0	20.2	0.762
3-8070	3-8550	0.483	204.2	-9.3	0.82	0.724	49.7	0.6	1.466	139.0	254.7	---	2.426	-2.05	1.136	52.7	78.9	20.4	0.705
3-8070	3-8560	0.454	206.3	-9.5	1.24	0.732	52.3	0.618	1.490	136.0	261.2	---	2.410	-2.26	1.139	56.0	85.7	20.1	0.645
3-8070	3-8570	0.428	208.4	-9.3	1.76	0.738	54.6	0.585	1.511	133.2	267.9	---	2.394	-2.60	1.143	59.2	92.4	19.1	0.590
3-8070	3-8580	0.404	210.6	-8.6	2.50	0.744	56.7	0.553	1.531	130.4	274.7	---	2.378	-3.17	1.146	62.2	98.7	17.2	0.538
3-8070	3-8590	0.383	212.9	-7.0	3.69	0.749	58.6	0.524	1.549	127.9	281.7	---	2.361	-4.19	1.150	65.1	104.5	13.8	0.490
3-8070	3-8600	0.367	215.7	-3.0	6.11	0.754	60.4	0.497	1.566	125.5	288.8	---	2.344	-6.45	1.153	67.9	109.6	6.7	0.453
3-8070	3-8610	0.385	219.6	11.5	14.57	0.758	61.9	0.473	1.580	123.3	296.1	---	2.328	-14.75	1.157	70.6	114.4	-15.0	0.473
3-8070	3-8620	0.546	170.4	-49.0	-36.07	0.761	63.4	0.450	1.593	121.2	304.4	---	2.309	36.04	1.160	73.5	203.8	63.5	0.733
3-8070	3-8630	0.328	208.2	-31.5	-8.58	0.764	64.4	0.433	1.604	119.6	311.9	---	2.297	8.71	1.164	76.0	136.5	47.9	0.344
3-8070	3-8640	0.305	213.3	-25.2	-4.68	0.766	65.4	0.417	1.613	118.1	320.0	---	2.286	4.96	1.167	78.5	133.3	38.9	0.282
3-8070	3-8650	0.292	215.7	-22.4	-3.08	0.768	66.1	0.405	1.620	116.9	328.4	---	2.276	3.53	1.170	81.0	132.1	35.6	0.242
3-8070	3-8660	0.284	217.2	-20.8	-2.17	0.769	66.7	0.396	1.625	115.9	337.2	---	2.269	2.80	1.174	83.6	129.1	34.7	0.212
3-8070	3-8670	0.279	218.2	-19.6	-1.56	0.770	67.0	0.394	1.629	115.3	346.4	---	2.266	2.38	1.177	86.2	123.3	35.1	0.191
3-8070	3-8680	0.278	218.8	-18.5	-1.10	0.771	67.1	0.389	1.632	115.0	355.9	---	2.267	2.11	1.180	88.9	114.4	35.6	0.182
3-8070	3-8690	0.280	219.1	-17.6	-0.71	0.771	67.0	0.392	1.634	115.0	365.9	0.994	2.273	1.96	1.182	91.7	104.5	35.2	0.188
3-8070	3-8700	0.286	219.0	-16.6	-0.37	0.771	66.5	0.399	1.634	115.4	376.3	0.981	2.287	1.87	1.185	94.6	96.3	34.0	0.209
3-8070	3-8710	0.297	218.6	-15.6	-0.04	0.771	65.6	0.413	1.634	116.2	387.1	0.958	2.309	1.85	1.187	97.8	91.4	32.4	0.244
3-8070	3-8720	0.315	217.8	-14.6	0.29	0.771	64.2	0.435	1.632	117.6	398.5	0.923	2.342	1.88	1.188	101.4	89.6	31.0	0.293
3-8070	3-8720	0.263	103.2	24.0	0.29	0.547	104.1	0.546	1.102	192.4	833.4	0.501	1.704	1.88	1.057	122.6	42.9	19.4	0.595
3-8070	3-8720	0.540	80.9	24.0	0.29	0.621	133.7	0.739	1.218	205.6	846.6	0.318	2.118	1.88	1.097	136.7	37.3	16.5	0.851
3-8070	3-8730	0.340	216.6	-13.5	0.64	0.770	62.3	0.465	1.631	119.5	410.6	0.872	2.389	1.98	1.190	105.5	90.1	29.9	0.355

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8070	3-8730	0.223	125.5	21.5	0.64	0.529	94.7	0.539	1.079	183.5	834.6	0.497	1.661	1.98	1.050	122.3	52.5	22.1	0.585
3-8070	3-8740	0.376	214.9	-12.3	1.05	0.770	59.5	0.508	1.629	122.2	423.4	0.801	2.456	2.16	1.190	110.3	92.0	29.0	0.434
3-8070	3-8740	0.227	146.7	16.2	1.05	0.517	89.3	0.561	1.064	176.3	837.5	0.467	1.662	2.16	1.045	123.9	61.6	24.0	0.609
3-8070	3-8750	0.426	212.6	-11.0	1.56	0.769	55.5	0.566	1.627	126.0	437.4	0.706	2.548	2.46	1.191	116.2	94.6	28.3	0.534
3-8070	3-8750	0.267	162.9	10.6	1.56	0.508	76.2	0.805	1.054	170.6	842.0	0.417	1.691	2.46	1.041	127.0	70.2	25.3	0.659
3-8070	3-8760	0.497	209.5	-9.5	2.26	0.769	49.9	0.645	1.625	131.5	453.0	0.578	2.673	2.97	1.191	123.7	97.2	27.7	0.664
3-8070	3-8760	0.337	173.2	6.3	2.26	0.501	65.9	0.671	1.047	166.6	848.2	0.344	1.749	2.97	1.039	132.0	78.0	26.1	0.740
3-8070	3-8770	0.597	205.2	-7.6	3.37	0.769	41.8	0.706	1.625	139.2	471.0	0.413	2.838	3.90	1.191	133.5	99.2	27.2	0.835
3-8070	3-8770	0.439	178.7	3.9	3.37	0.497	53.4	0.762	1.042	165.1	856.8	0.248	1.835	3.90	1.036	139.6	84.6	26.4	0.861
3-8070	3-8780	0.576	180.0	3.2	5.59	0.495	37.6	0.872	1.040	167.0	868.9	0.133	1.946	5.95	1.035	150.6	89.3	26.4	1.033
3-8070	3-8820	0.556	155.8	8.5	-4.54	0.271	50.0	0.937	0.882	176.3	918.8	0.061	1.703	-4.83	0.941	21.6	15.6	5.0	1.119
3-8070	3-8820	0.498	110.2	19.8	-4.54	0.383	125.7	0.847	0.944	187.8	930.3	0.144	1.743	-4.83	0.979	32.1	10.0	1.5	0.976
3-8070	3-8830	0.572	67.8	19.5	-2.97	0.747	133.3	0.687	1.540	222.1	614.6	0.481	2.598	-3.44	1.168	91.0	359.1	-4.9	0.760
3-8070	3-8830	0.428	146.5	11.5	-2.97	0.324	77.8	0.834	0.908	177.5	930.0	0.150	1.665	-3.44	0.955	33.6	19.3	6.1	0.942
3-8070	3-8830	0.395	130.1	16.0	-2.97	0.358	97.7	0.792	0.927	182.0	934.5	0.193	1.661	-3.44	0.967	37.7	17.2	4.8	0.885
3-8070	3-8840	0.484	64.0	19.1	-2.09	0.746	126.1	0.592	1.539	227.9	630.3	0.628	2.449	-2.74	1.165	59.5	1.6	-4.3	0.810
3-8070	3-8850	0.420	61.2	19.0	-1.50	0.746	120.9	0.518	1.536	231.6	643.9	0.740	2.332	-2.34	1.162	65.9	4.3	-3.6	0.497
3-8070	3-8860	0.575	188.2	-4.4	-1.04	0.599	98.7	0.820	1.179	159.3	581.5	0.212	2.146	-2.09	1.072	35.4	40.3	14.3	0.968
3-8070	3-8860	0.373	59.3	19.0	-1.04	0.745	117.2	0.463	1.533	233.9	656.1	0.824	2.243	-2.09	1.159	70.9	7.3	-3.0	0.409
3-8070	3-8870	0.522	190.1	-5.0	-0.67	0.609	44.1	0.767	1.196	156.4	588.4	0.279	2.113	-1.94	1.075	40.6	46.7	15.9	0.884
3-8070	3-8870	0.338	57.8	19.3	-0.67	0.744	114.4	0.420	1.530	235.2	667.2	0.887	2.174	-1.94	1.157	75.0	9.8	-2.7	0.339
3-8080	3-8150	0.938	37.6	14.8	-0.33	1.309	138.2	1.509	-1.968	289.9	367.7	1.002	---	-1.89	1.579	94.6	301.6	-25.4	0.594
3-8080	3-8160	0.862	39.2	15.7	-0.01	1.230	132.2	1.306	-3.246	286.8	374.3	0.992	---	-1.85	1.513	98.1	300.7	-25.6	0.547
3-8080	3-8170	0.797	41.0	16.6	0.30	1.162	131.4	1.142	-6.895	283.2	380.4	0.978	---	-1.86	1.457	100.9	301.1	-25.7	0.516
3-8080	3-8180	0.740	42.9	17.6	0.63	1.101	130.5	1.008	25.817	279.3	386.0	0.962	---	-1.93	1.407	103.1	302.8	-25.5	0.495
3-8080	3-8190	0.689	44.8	18.6	0.99	1.046	129.6	0.897	9.154	275.1	391.4	0.945	---	-2.06	1.364	104.8	305.8	-25.2	0.480
3-8080	3-8200	0.641	46.7	19.7	1.41	0.996	128.6	0.804	4.729	270.5	396.4	0.928	---	-2.28	1.325	106.1	309.8	-24.9	0.467
3-8080	3-8210	0.596	48.6	21.0	1.95	0.950	127.4	0.726	3.325	265.8	401.2	0.911	---	-2.63	1.291	107.2	314.7	-24.5	0.457
3-8080	3-8220	0.555	50.4	22.6	2.70	0.908	126.1	0.661	2.639	260.8	405.7	0.895	---	-3.21	1.260	107.9	320.4	-24.5	0.449
3-8080	3-8230	0.516	52.3	25.0	3.94	0.870	124.7	0.607	2.234	255.7	410.1	0.879	---	-4.28	1.233	108.5	327.1	-25.3	0.444
3-8080	3-8240	0.482	53.9	29.5	6.50	0.834	123.1	0.561	1.967	250.4	414.3	0.863	---	-6.69	1.209	108.9	335.1	-29.0	0.447
3-8080	3-8250	0.481	55.8	44.1	16.09	0.801	121.3	0.523	1.780	244.9	418.3	0.849	---	-16.12	1.188	109.2	347.7	-46.3	0.515
3-8080	3-8260	0.545	77.8	-14.6	-29.98	0.771	119.6	0.494	1.641	239.2	422.9	0.830	---	30.10	1.169	109.7	303.9	35.8	0.686
3-8080	3-8270	0.383	67.2	8.3	-7.99	0.743	117.5	0.468	1.535	233.5	426.5	0.817	---	8.27	1.153	109.9	338.9	13.5	0.442
3-8080	3-8280	0.342	68.8	14.1	-4.38	0.718	115.4	0.448	1.451	227.7	430.3	0.801	---	4.82	1.138	110.1	349.8	9.0	0.422
3-8080	3-8290	0.309	71.9	17.0	-2.85	0.694	113.1	0.433	1.384	221.8	434.0	0.785	---	3.46	1.126	110.4	358.2	8.8	0.417
3-8080	3-8300	0.278	76.1	18.9	-1.98	0.672	110.6	0.422	1.329	215.8	437.8	0.768	---	2.76	1.115	110.8	6.1	10.2	0.417
3-8080	3-8310	0.250	81.5	20.3	-1.38	0.651	107.9	0.416	1.283	209.7	441.6	0.749	---	2.35	1.105	111.2	13.8	12.2	0.420
3-8080	3-8320	0.223	88.5	21.5	-0.92	0.633	105.0	0.415	1.244	203.6	445.4	0.728	---	2.10	1.097	111.8	21.5	14.4	0.426
3-8080	3-8330	0.200	97.5	22.2	-0.54	0.615	101.8	0.418	1.211	197.5	449.3	0.705	---	1.95	1.089	112.6	29.3	16.8	0.435
3-8080	3-8340	0.181	109.3	22.1	-0.20	0.598	98.3	0.426	1.182	191.6	453.3	0.678	---	1.87	1.082	113.6	37.3	19.1	0.449
3-8080	3-8350	0.171	123.9	20.7	0.13	0.583	94.4	0.441	1.157	185.7	457.5	0.647	---	1.85	1.076	114.9	45.4	21.2	0.468
3-8080	3-8360	0.172	140.1	17.5	0.46	0.569	90.0	0.463	1.136	180.0	461.9	0.610	---	1.89	1.071	116.6	53.6	23.0	0.494
3-8080	3-8370	0.189	155.6	13.0	0.82	0.556	84.9	0.493	1.117	174.8	466.7	0.566	1.668	1.99	1.065	118.8	61.9	24.5	0.529
3-8080	3-8380	0.224	168.3	8.4	1.23	0.544	78.9	0.535	1.101	170.0	472.2	0.512	1.690	2.18	1.060	121.8	70.1	25.6	0.578
3-8080	3-8390	0.279	177.5	4.6	1.76	0.533	71.6	0.592	1.087	166.2	478.5	0.443	1.731	2.50	1.055	126.0	77.9	26.3	0.645
3-8080	3-8400	0.357	183.5	2.0	2.48	0.524	62.3	0.669	1.076	163.7	486.2	0.356	1.796	3.04	1.051	131.7	85.1	26.6	0.738
3-8080	3-8410	0.463	186.4	0.6	3.65	0.518	50.4	0.767	1.069	163.4	496.1	0.249	1.888	4.03	1.048	139.9	91.1	26.6	0.870
3-8080	3-8520	0.596	201.0	-9.2	-0.17	0.690	39.5	0.783	1.373	150.3	232.7	---	2.448	-1.86	1.120	40.1	39.3	18.9	0.912
3-8080	3-8530	0.561	203.2	-9.8	0.14	0.699	42.9	0.744	1.399	147.0	239.1	---	2.440	-1.85	1.124	44.1	66.3	19.9	0.847
3-8080	3-8540	0.527	205.4	-10.3	0.46	0.709	46.0	0.705	1.424	143.8	245.5	---	2.429	-1.89	1.128	47.8	73.3	20.5	0.784
3-8080	3-8550	0.496	207.6	-10.7	0.79	0.717	48.9	0.667	1.449	140.6	251.9	---	2.416	-1.98	1.132	51.3	80.3	20.7	0.723
3-8080	3-8560	0.466	209.7	-10.9	1.18	0.725	51.5	0.631	1.473	137.6	258.4	---	2.402	-2.15	1.136	54.7	87.2	20.4	0.665
3-8080	3-8570	0.439	211.8	-10.8	1.64	0.732	53.9	0.596	1.495	134.7	265.1	---	2.386	-2.43	1.140	58.0	93.8	19.5	0.609
3-8080	3-8580	0.414	214.0	-10.4	2.27	0.738	56.1	0.563	1.516	132.0	271.9	---	2.370	-2.87	1.143	61.1	100.2	17.9	0.556
3-8080	3-8590	0.392	216.2	-9.3	3.20	0.743	58.1	0.533	1.535	129.4	278.8	---	2.353	-3.63	1.147	64.0	106.2	15.1	0.506
3-8080	3-8600	0.374	218.6	-6.6	4.88	0.748	59.9	0.505	1.552	127.0	285.9	---	2.336	-5.15	1.151	66.9	111.5	10.0	0.462
3-8080	3-8610	0.367	221.8	-0.9	9.13	0.752	61.5	0.480	1.568	124.8	293.2	---	2.320	-9.24	1.155	69.6	115.7	-2.4	0.439
3-8080	3-8630	0.357	206.7	-39.4	-13.25	0.759	64.2	0.437	1.593	120.9	308.8	---	2.289	13.45	1.162	75.0	150.0	56.0	0.402
3-8080	3-8640	0.334	216.4	-28.4	-5.80	0.762	65.2	0.421	1.602	119.3	316.8	---	2.276	6.15	1.165	77.6	138.7	41.1	0.301
3-8080	3-8650	0.298	219.4	-24.5	-3.53	0.764	66.0	0.407	1.610	118.0	325.2	---	2.266	4.05	1.169	80.1	137.0	35.9	0.255
3-8080	3-8660	0.289	221.2	-22.4	-2.39	0.765	66.7	0.397	1.616	117.0	333.9	---	2.258	3.08	1.172	82.7	134.8	34.2	0.221
3-8080	3-8670	0.283	222.3	-21.0	-1.67	0.766	67.1	0.390	1.621	116.3	343.0	---	2.253	2.54	1.175	85.2	130.0	34.2	0.196
3-8080	3-8680	0.281	223.0	-19.9	-1.15	0.767	67.3	0.387	1.624	115.8	352.4	---	2.253	2.22	1.178	87.9	122.2	34.9	0.183
3-8080	3-8690	0.281	223.4	-18.9	-0.73	0.768	67.2	0.388	1.626	115.7	362.2	0.995	2.257	2.02	1.181	90.6	112.4	35.2	0.183
3-8080	3-8700	0.286	223.5	-18.0	-0.37	0.768	66.8	0.394	1.627	116.0	372.4	0.986	2.268	1.90	1.183	93.5	103.3	34.4	0.198
3-8080	3-8710	0.295	223.2	-17.0	-0.04	0.768	66.1	0.405	1.627	116.6	383.1	0.967	2.286	1.89	1.185	96.6	97.2	32.9	0.228
3-8080	3-8720	0.310	222.5	-16.1	0.29	0.767	65.4	0.424	1.626	117.7	394.2	0.937	2.314	1.86	1.187	100.0	94.3	31.4	0.271
3-8080	3-8720	0.341	95.3	24.3	0.29	0.565	114.8	0.598	1.130	199.7	836.3	0.455	1.806	1.86	1.068	126.1	41.7	18.6	0.658
3-8080	3-8720	0.429	89.1	24.3	0.29	0.589	124.0	0.660	1.166	203.8	840.4	0.396	1.936	1.86	1.080	130.5	40.0	17.7	0.739
3-8080	3-8730	0.332	221.5	-15.1	0.63	0.767	63.3	0.450	1.624	119.3	406.0	0.893	2.355	1.93	1.189	103.9	94.1	30.2	0.328
3-8080	3-8730	0.241	119.2	22.6	0.63	0.532	99.6	0.548	1.086	188.1	834.8	0.490	1.681	1.93	1.052	122.9	52.4	21.9	0.506
3-8080	3-8730	0.584	86.9	24.4	0.63	0.627	138.3	0.782	1.233	204.5	851.1	0.269	2.197	1.93	1.103	140.5	45.3	18.7	0.916
3-8080	3-8740	0.363	220.0	-14.0	1.01	0.767	60.8	0.488	1.622	121.6	418.4	0.831	2.413	2.07	1.189	108.3	95.6	29.2	0.399
3-8080	3-8740	0.224	141.6	17.9	1.01	0.517	90.1	0.557	1.067	180.1	836.9	0.473	1.661	2.07	1.046	123.6	61.9	24.0	0.603
3-8080	3-8750	0.406	218.0	-12.8	1.46	0.766	57.4	0.539	1.520	124.9	431.8	0.747	2.493	2.31	1.190	113.7	98.0	28.4	0.489
3-8080	3-8750	0.248	160.3	11.7	1.46	0.506	81.0	0.589	1.015	173.6	840.6	0.434	1.676	2.31	1.042	125.9	70.9	25.4	0.640
3-8080	3-8760	0.467	215.2	-11.5	2.07	0.766	52.5	0.609	1.618	139.4	446.6	0.633	2.603	2.72	1.190	120.4	100.7	27.7	0.605
3-8080	3-8760	0.305	173.2	6.5	2.07	0.498	71.2	0.644	1.000	168.7	845.9	0.372	1.719	2.72	1.038	130.0	79.2	26.2	0.705
3-8080	3-8770	0.553	211.4	-9.9	2.96	0.765	45.6	0.700	1.617	136.0	463.3	0.485	2.750	3.43	1.190	129.1	103.1	27.1	0.756

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8080	3-8770	0.393	180.7	3.2	2.96	0.492	59.5	0.723	1.039	165.9	853.3	0.288	1.791	3.43	1.035	136.2	86.5	26.5	0.806
3-8080	3-8780	0.513	183.8	1.7	4.54	0.430	45.1	0.825	1.036	166.1	863.6	0.181	1.890	4.83	1.033	145.6	92.2	26.4	0.953
3-8080	3-8820	0.594	159.7	7.0	-5.58	0.244	43.7	0.954	0.874	177.0	915.2	0.040	1.707	-5.95	0.935	17.6	17.5	5.9	1.162
3-8080	3-8820	0.551	114.2	19.4	-5.58	0.373	134.4	0.890	0.939	187.5	925.6	0.104	1.774	-5.95	0.977	27.2	12.2	2.5	1.049
3-8080	3-8830	0.480	155.3	8.5	-3.39	0.290	68.1	0.881	0.893	176.9	925.0	0.106	1.680	-3.93	0.945	28.4	21.9	7.3	1.014
3-8080	3-8830	0.426	126.2	17.0	-3.39	0.358	109.4	0.814	0.929	184.7	932.8	0.173	1.685	-3.93	0.968	35.6	18.0	5.0	0.918
3-8080	3-8840	0.511	70.6	20.1	-2.29	0.742	128.9	0.631	1.530	225.1	623.4	0.565	2.496	-3.00	1.164	55.9	4.6	-2.7	0.672
3-8080	3-8850	0.437	67.4	20.0	-1.60	0.741	122.9	0.548	1.528	229.5	637.4	0.691	2.366	-2.49	1.161	63.1	7.3	-2.0	0.545
3-8080	3-8860	0.597	191.5	-5.8	-1.09	0.590	36.7	0.840	1.168	160.7	578.5	0.186	2.150	-2.18	1.068	33.2	41.7	14.7	1.000
3-8080	3-8860	0.383	65.1	20.1	-1.09	0.741	118.6	0.484	1.526	232.2	650.0	0.786	2.265	-2.18	1.158	68.7	10.3	-1.3	0.447
3-8080	3-8870	0.543	193.5	-6.5	-0.69	0.600	42.2	0.788	1.185	157.8	585.4	0.231	2.119	-2.00	1.071	38.5	48.1	16.4	0.916
3-8080	3-8870	0.343	63.5	20.3	-0.69	0.740	115.4	0.436	1.523	233.8	661.3	0.158	2.187	-2.00	1.155	73.1	13.2	-0.8	0.370
3-8080	3-8880	0.400	195.3	-7.1	-0.34	0.610	47.4	0.732	1.202	155.1	592.4	0.322	2.083	-1.89	1.074	43.6	54.6	17.7	0.832
3-8080	3-8880	0.313	62.3	20.7	-0.34	0.739	113.0	0.400	1.520	234.6	671.9	0.912	2.127	-1.89	1.152	76.8	15.6	-0.8	0.309
3-8090	3-8180	0.849	45.2	18.2	0.62	1.206	133.1	1.242	-3.956	283.5	385.9	0.958	---	-1.88	1.492	104.4	303.3	-24.7	0.585
3-8090	3-8190	0.783	47.3	19.2	0.95	1.136	132.3	1.083	11.329	279.3	391.2	0.939	---	-1.98	1.435	106.2	306.1	-24.3	0.558
3-8090	3-8200	0.725	49.3	20.2	1.34	1.073	131.3	0.954	19.838	274.8	396.3	0.920	---	-2.15	1.385	107.7	309.9	-23.9	0.537
3-8090	3-8210	0.671	51.4	21.3	1.81	1.016	130.2	0.848	5.916	270.1	401.1	0.902	---	-2.43	1.341	108.8	314.7	-23.4	0.519
3-8090	3-8220	0.621	53.4	22.7	2.45	0.9[illegible]	129.0	0.760	3.691	265.2	405.7	0.884	---	-2.89	1.302	109.6	320.2	-22.9	0.504
3-8090	3-8230	0.574	55.4	24.6	3.40	0.918	127.6	0.688	2.786	260.0	410.1	0.868	---	-3.68	1.269	110.1	326.4	-23.0	0.491
3-8090	3-8240	0.532	57.4	27.6	5.15	0.876	126.0	0.629	2.297	254.7	414.3	0.852	---	-5.27	1.238	110.5	333.7	-24.5	0.484
3-8090	3-8250	0.501	59.2	34.7	9.76	0.837	124.3	0.580	1.993	249.3	418.4	0.837	---	-8.72	1.213	110.7	343.2	-31.8	0.496
3-8090	3-8270	0.435	71.3	4.3	-11.97	0.769	120.5	0.508	1.637	237.9	426.5	0.805	---	12.32	1.170	111.2	334.5	19.4	0.500
3-8090	3-8280	0.380	90.4	13.5	-5.30	0.739	118.3	0.481	1.525	232.2	430.3	0.791	---	5.89	1.153	111.3	348.9	10.5	0.454
3-8090	3-8290	0.34[illegible]	104.1	17.0	-3.26	0.712	116.0	0.461	1.438	226.1	434.1	0.775	---	3.93	1.138	111.5	357.9	9.4	0.443
3-8090	3-8300	0.308	117.9	19.1	-2.17	0.687	113.5	0.446	1.360	220.1	437.8	0.759	---	3.01	1.125	111.7	6.0	10.2	0.438
3-8090	3-8310	0.276	82.7	20.5	-1.47	0.663	110.9	0.435	1.312	214.0	441.5	0.741	---	2.49	1.113	112.0	13.7	12.3	0.438
3-8090	3-8320	0.247	88.4	21.6	-0.96	0.642	108.0	0.430	1.265	207.9	445.3	0.722	---	2.18	1.103	112.5	21.5	14.5	0.440
3-8090	3-8330	0.220	96.8	22.3	-0.55	0.622	104.8	0.429	1.226	201.8	449.1	0.700	---	1.99	1.094	113.1	29.4	16.8	0.446
3-8090	3-8340	0.197	107.1	22.4	-0.20	0.603	101.4	0.434	1.193	195.7	453.0	0.676	---	1.88	1.086	113.9	37.4	19.1	0.456
3-8090	3-8350	0.181	120.2	21.5	0.13	0.586	97.6	0.444	1.165	189.7	457.1	0.647	---	1.84	1.079	115.0	45.6	21.2	0.471
3-8090	3-8360	0.175	135.7	18.8	0.46	0.570	93.3	0.462	1.140	183.8	461.3	0.614	---	1.85	1.072	116.5	53.9	23.0	0.492
3-8090	3-8370	0.194	151.8	14.5	0.80	0.556	88.4	0.487	1.119	178.3	465.9	0.574	1.664	1.93	1.066	118.4	62.3	24.5	0.522
3-8090	3-8380	0.209	166.0	9.5	1.18	0.542	82.6	0.523	1.101	173.2	470.9	0.526	1.677	2.08	1.060	121.0	70.7	25.6	0.562
3-8090	3-8390	0.254	177.0	5.0	1.65	0.530	75.2	0.572	1.085	168.8	476.7	0.465	1.706	2.33	1.055	124.5	78.8	26.3	0.619
3-8090	3-8400	0.321	184.6	1.7	2.26	0.520	67.3	0.638	1.073	165.5	483.6	0.388	1.757	2.75	1.050	129.4	86.4	26.6	0.698
3-8090	3-8410	0.414	189.0	-0.4	3.19	0.511	56.5	0.725	1.063	164.0	492.3	0.292	1.834	3.50	1.045	136.4	93.1	26.5	0.810
3-8090	3-8420	0.538	190.3	-1.2	4.87	0.507	42.5	0.833	1.058	165.2	503.6	0.177	1.939	5.01	1.042	146.3	96.2	26.2	0.968
3-8090	3-8530	0.575	206.5	-11.1	0.14	0.691	41.7	0.759	1.380	148.7	236.3	---	2.427	-1.84	1.120	42.5	67.7	20.2	0.870
3-8090	3-8540	0.541	208.8	-11.6	0.45	0.701	45.0	0.719	1.406	145.4	242.7	---	2.418	-1.85	1.124	46.4	74.7	20.8	0.806
3-8090	3-8550	0.509	211.0	-12.0	0.77	0.710	47.9	0.681	1.432	142.2	249.1	---	2.406	-1.92	1.128	50.0	81.7	21.0	0.744
3-8090	3-8560	0.479	213.1	-12.3	1.13	0.718	50.7	0.643	1.456	139.2	255.6	---	2.392	-2.05	1.132	53.4	88.6	20.7	0.685
3-8090	3-8570	0.451	215.3	-12.3	1.55	0.725	53.2	0.607	1.479	136.3	262.3	---	2.377	-2.27	1.136	56.8	95.3	19.9	0.628
3-8090	3-8580	0.425	217.4	-12.0	2.09	0.732	55.5	0.574	1.501	133.5	269.0	---	2.361	-2.62	1.140	59.9	101.8	18.5	0.578
3-8090	3-8590	0.402	219.5	-11.2	2.84	0.738	57.6	0.542	1.520	130.9	275.9	---	2.345	-3.21	1.144	62.9	107.8	16.1	0.522
3-8090	3-8600	0.382	221.8	-9.3	4.08	0.743	59.4	0.513	1.538	128.4	283.0	---	2.328	-4.26	1.148	65.8	113.3	12.1	0.475
3-8090	3-8610	0.368	224.4	-4.8	6.67	0.748	61.1	0.487	1.555	126.1	290.2	---	2.312	-6.71	1.152	66.6	117.8	4.1	0.438
3-8090	3-8620	0.397	227.4	11.7	16.55	0.752	62.5	0.464	1.569	124.1	297.6	---	2.297	-16.43	1.156	71.3	121.5	-21.0	0.480
3-8090	3-8630	0.475	188.9	-51.7	-28.33	0.755	64.0	0.441	1.581	122.1	306.0	---	2.279	28.60	1.160	74.2	196.1	63.2	0.615
3-8090	3-8640	0.326	218.7	-32.8	-7.67	0.758	65.0	0.424	1.592	120.5	313.7	---	2.267	8.10	1.164	76.6	145.4	44.9	0.327
3-8090	3-8650	0.306	223.1	-26.8	-4.16	0.760	65.9	0.410	1.600	119.2	322.0	---	2.256	4.75	1.167	79.2	142.0	36.7	0.270
3-8090	3-8660	0.295	225.1	-24.1	-2.67	0.762	66.6	0.398	1.607	118.0	330.6	---	2.247	3.42	1.171	81.7	140.1	33.9	0.231
3-8090	3-8670	0.288	226.4	-22.5	-1.80	0.763	67.1	0.390	1.612	117.2	339.5	---	2.241	2.73	1.174	84.3	136.4	33.3	0.203
3-8090	3-8680	0.284	227.3	-21.2	-1.21	0.764	67.4	0.386	1.616	116.7	348.9	---	2.239	2.33	1.177	86.9	129.7	33.9	0.185
3-8090	3-8690	0.283	227.8	-20.2	-0.76	0.764	67.4	0.386	1.618	116.4	358.5	---	2.241	2.08	1.180	89.6	120.4	34.6	0.180
3-8090	3-8700	0.287	227.9	-19.3	-0.38	0.765	67.2	0.389	1.619	116.5	368.6	0.989	2.250	1.93	1.182	92.4	110.8	34.3	0.189
3-8090	3-8710	0.294	227.8	-18.3	-0.04	0.765	66.6	0.398	1.620	117.0	379.1	0.975	2.265	1.86	1.184	95.4	103.4	33.2	0.213
3-8090	3-8720	0.306	227.2	-17.4	0.28	0.765	65.5	0.414	1.619	117.9	390.1	0.949	2.289	1.84	1.186	98.7	99.4	31.8	0.252
3-8090	3-8730	0.325	226.3	-16.5	0.61	0.764	64.1	0.437	1.617	119.2	401.5	0.911	2.324	1.88	1.187	102.3	98.7	30.5	0.303
3-8090	3-8730	0.277	112.4	23.5	0.61	0.540	106.7	0.570	1.098	193.5	835.8	0.472	1.725	1.88	1.057	124.3	52.0	21.6	0.623
3-8090	3-8730	0.511	92.6	24.5	0.61	0.605	132.3	0.733	1.196	204.5	846.7	0.320	2.073	1.88	1.092	136.3	47.3	19.4	0.840
3-8090	3-8740	0.352	225.0	-15.5	0.97	0.764	62.0	0.470	1.615	121.2	413.6	0.857	2.374	1.99	1.188	106.5	99.2	29.4	0.367
3-8090	3-8740	0.231	135.6	19.6	0.97	0.519	95.3	0.558	1.072	184.3	836.7	0.474	1.669	1.99	1.048	123.6	62.1	23.9	0.605
3-8090	3-8750	0.390	223.2	-14.5	1.39	0.763	59.1	0.515	1.613	123.9	426.5	0.783	2.444	2.18	1.189	111.4	101.4	28.4	0.449
3-8090	3-8750	0.236	156.5	13.3	1.39	0.505	85.9	0.578	1.056	177.0	839.6	0.445	1.667	2.18	1.042	125.1	71.4	25.3	0.627
3-8090	3-8760	0.442	220.7	-13.4	1.91	0.763	54.9	0.576	1.611	127.8	440.6	0.683	2.540	2.50	1.189	117.4	104.2	27.6	0.552
3-8090	3-8760	0.279	172.0	7.1	1.91	0.495	76.2	0.622	1.045	171.3	844.0	0.395	1.695	2.50	1.038	128.3	80.2	26.2	0.677
3-8090	3-8770	0.517	217.4	-12.0	2.65	0.762	48.9	0.658	1.610	133.3	456.2	0.551	2.669	3.05	1.189	125.2	106.8	26.9	0.686
3-8090	3-8770	0.353	181.8	2.8	2.65	0.488	65.3	0.689	1.037	167.4	850.3	0.322	1.753	3.05	1.034	133.5	88.1	26.4	0.760
3-8090	3-8780	0.458	186.8	0.5	3.84	0.483	52.1	0.781	1.032	166.0	859.2	0.226	1.839	4.07	1.032	141.3	94.6	26.3	0.884
3-8090	3-8790	0.598	187.7	-0.2	6.33	0.482	35.5	0.889	1.031	168.2	871.4	0.114	1.947	6.39	1.030	152.7	99.1	26.0	1.060
3-8090	3-8830	0.525	161.2	6.3	-3.97	0.260	60.7	0.915	0.882	177.0	920.7	0.075	1.689	-4.57	0.938	23.9	24.0	8.3	1.075
3-8090	3-8850	0.469	126.3	17.0	-3.97	0.353	119.1	0.847	0.928	186.0	929.7	0.102	1.713	-4.57	0.967	32.2	19.5	5.6	0.969
3-8090	3-8840	0.543	77.4	20.9	-2.55	0.738	132.1	0.674	1.522	222.0	615.7	0.496	2.548	-3.32	1.162	51.9	7.7	-1.1	0.741
3-8090	3-8850	0.459	73.8	20.9	-1.72	0.738	125.2	0.581	1.521	227.2	630.8	0.637	2.404	-2.67	1.160	60.0	10.2	-0.5	0.598
3-8090	3-8860	0.396	71.2	21.0	-1.15	0.737	120.2	0.509	1.518	230.5	643.9	0.745	2.291	-2.29	1.157	66.2	13.2	0.3	0.489
3-8090	3-8870	0.566	196.8	-7.9	-0.72	0.592	40.2	0.810	1.174	159.2	582.4	0.223	2.124	-2.06	1.067	36.4	49.6	16.8	0.948
3-8090	3-8870	0.350	69.3	21.2	-0.72	0.736	116.5	0.455	1.515	232.4	655.5	0.826	2.204	-2.06	1.154	71.1	16.3	0.9	0.404
3-8090	3-8880	0.512	198.8	-8.5	-0.35	0.602	45.6	0.755	1.191	156.5	589.4	0.292	2.090	-1.92	1.070	41.6	56.0	18.2	0.863
3-8090	3-8880	0.316	68.0	21.7	-0.35	0.735	113.8	0.413	1.512	234.4	666.3	0.887	2.136	-1.92	1.151	75.0	19.1	1.2	0.336

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8090	3-8890	0.459	200.6	-8.9	-0.02	0.612	50.8	0.696	1.209	154.0	546.6	0.367	2.051	-1.85	1.074	46.7	62.5	19.1	0.779
3-8090	3-8890	0.289	67.0	22.2	-0.02	0.734	111.7	0.382	1.509	233.8	676.4	0.933	2.084	-1.85	1.148	78.4	21.2	0.9	0.282
3-8100	3-8210	0.757	54.2	21.7	1.70	1.097	132.9	1.00276	6.039	274.2	400.8	0.893	---	-2.26	1.403	110.4	315.0	-22.3	0.592
3-8100	3-8220	0.697	56.4	22.9	2.24	1.034	131.8	0.885	7.587	269.3	405.5	0.874	---	-2.62	1.355	111.3	320.2	-21.6	0.568
3-8100	3-8230	0.642	58.5	24.4	3.01	0.977	130.5	0.789	4.066	264.2	409.9	0.857	---	-3.22	1.312	111.8	326.2	-21.2	0.548
3-8100	3-8240	0.592	60.7	26.5	4.29	0.926	129.0	0.712	2.914	259.0	414.2	0.840	---	-4.33	1.275	112.2	332.9	-21.5	0.532
3-8100	3-8250	0.548	62.8	30.7	7.02	0.880	127.3	0.648	2.344	253.5	418.3	0.825	---	-6.91	1.243	112.3	340.9	-20.6	0.525
3-8100	3-8260	0.545	66.4	45.8	18.36	0.838	125.4	0.596	2.006	248.0	422.2	0.811	---	-18.10	1.215	112.4	353.1	-17.5	0.525
3-8100	3-8270	0.538	79.3	-6.3	-23.65	0.800	123.6	0.556	1.783	242.1	426.6	0.793	---	24.07	1.191	112.7	320.6	30.0	0.651
3-8100	3-8280	0.422	74.3	12.2	-7.02	0.766	121.4	0.521	1.626	236.4	430.3	0.779	---	7.60	1.170	112.6	347.4	12.9	0.493
3-8100	3-8290	0.378	76.5	16.9	-3.82	0.734	119.0	0.494	1.510	230.5	434.0	0.764	---	4.55	1.152	112.7	357.5	10.1	0.472
3-8100	3-8300	0.341	80.0	19.2	-2.41	0.705	116.6	0.473	1.421	224.4	437.7	0.749	---	3.31	1.136	112.8	5.8	10.7	0.463
3-8100	3-8310	0.306	84.3	20.7	-1.59	0.679	113.9	0.458	1.350	218.3	441.5	0.732	---	2.66	1.123	113.0	13.7	12.4	0.459
3-8100	3-8320	0.273	89.8	21.7	-1.01	0.654	111.0	0.448	1.293	212.2	445.2	0.714	---	2.27	1.111	113.3	21.6	14.5	0.457
3-8100	3-8330	0.243	96.8	22.4	-0.57	0.632	107.9	0.443	1.247	206.0	449.0	0.694	---	2.04	1.100	113.7	29.5	16.8	0.460
3-8100	3-8340	0.217	105.8	22.6	-0.20	0.611	104.5	0.444	1.208	199.8	452.8	0.672	---	1.90	1.091	114.4	37.5	19.1	0.466
3-8100	3-8350	0.196	117.4	22.0	0.13	0.592	100.7	0.450	1.175	193.7	456.7	0.646	---	1.83	1.082	115.3	45.8	21.2	0.477
3-8100	3-8360	0.183	131.6	19.9	0.45	0.574	96.6	0.463	1.147	187.7	460.8	0.616	---	1.82	1.075	116.5	54.2	23.0	0.493
3-8100	3-8370	0.183	147.5	16.0	0.78	0.557	91.8	0.484	1.123	181.9	465.2	0.580	---	1.87	1.067	118.1	62.7	24.5	0.517
3-8100	3-8380	0.199	162.8	10.9	1.14	0.542	86.4	0.513	1.103	176.5	469.9	0.537	1.868	1.98	1.061	120.3	71.2	25.6	0.551
3-8100	3-8390	0.235	175.5	5.8	1.56	0.528	79.9	0.555	1.085	171.7	475.2	0.483	1.687	2.18	1.055	123.3	79.6	26.3	0.599
3-8100	3-8400	0.291	184.8	1.7	2.09	0.516	72.0	0.612	1.070	167.7	481.5	0.415	1.726	2.51	1.049	127.5	87.6	26.6	0.665
3-8100	3-8410	0.371	190.8	-1.0	2.85	0.506	62.2	0.689	1.059	165.2	489.1	0.329	1.788	3.09	1.043	133.4	94.8	26.5	0.760
3-8100	3-8420	0.480	193.6	-2.5	4.10	0.500	49.5	0.787	1.051	164.9	499.0	0.224	1.878	4.16	1.039	141.8	100.7	26.1	0.894
3-8100	3-8530	0.591	209.9	-12.4	0.14	0.683	90.6	0.774	1.361	150.3	233.6	---	2.414	-1.83	1.115	41.0	69.0	20.5	0.893
3-8100	3-8540	0.556	212.1	-12.9	0.45	0.693	93.9	0.734	1.388	147.0	239.9	---	2.406	-1.82	1.120	44.9	76.1	21.1	0.828
3-8100	3-8550	0.523	214.4	-13.3	0.76	0.703	97.6	0.694	1.413	143.8	246.5	---	2.395	-1.86	1.124	48.6	83.1	21.2	0.766
3-8100	3-8560	0.492	216.6	-13.6	1.09	0.711	99.8	0.656	1.438	140.6	252.8	---	2.382	-1.96	1.129	52.1	90.0	21.0	0.706
3-8100	3-8570	0.464	218.7	-13.6	1.47	0.719	52.4	0.620	1.462	137.8	259.4	---	2.368	-2.13	1.133	55.5	96.8	20.2	0.648
3-8100	3-8580	0.437	220.9	-13.5	1.94	0.726	54.8	0.585	1.484	135.0	266.1	---	2.353	-2.41	1.137	58.7	103.3	18.9	0.592
3-8100	3-8590	0.413	223.0	-12.9	2.57	0.733	57.0	0.552	1.505	132.3	273.0	---	2.337	-2.87	1.142	61.8	109.5	16.8	0.540
3-8100	3-8600	0.391	225.1	-11.6	3.53	0.738	58.9	0.522	1.524	129.8	280.0	---	2.320	-3.65	1.146	64.8	115.1	13.6	0.490
3-8100	3-8610	0.374	227.4	-8.6	5.27	0.743	60.7	0.495	1.541	127.5	287.2	---	2.304	-5.25	1.150	67.6	119.9	7.8	0.447
3-8100	3-8620	0.371	230.2	-0.3	9.95	0.747	62.2	0.470	1.556	125.4	294.6	---	2.288	-9.76	1.154	70.3	123.3	-6.2	0.429
3-8100	3-8640	0.349	218.9	-39.7	-11.40	0.754	64.8	0.429	1.580	121.7	310.6	---	2.258	11.84	1.162	75.7	156.7	51.4	0.375
3-8100	3-8650	0.514	226.5	-29.6	-5.10	0.756	65.8	0.413	1.590	120.3	318.7	---	2.246	5.75	1.165	78.3	147.2	38.2	0.287
3-8100	3-8660	0.301	229.1	-25.9	-3.04	0.758	66.5	0.400	1.597	119.1	327.2	---	2.236	3.85	1.169	80.8	145.1	33.6	0.243
3-8100	3-8670	0.292	230.6	-23.9	-1.98	0.760	67.1	0.391	1.603	118.1	336.1	---	2.229	2.95	1.172	83.3	142.2	32.3	0.211
3-8100	3-8680	0.288	231.5	-22.5	-1.29	0.761	67.5	0.385	1.607	117.5	345.3	---	2.226	2.45	1.176	85.9	136.8	32.6	0.189
3-8100	3-8690	0.286	232.1	-21.4	-0.79	0.762	67.6	0.383	1.610	117.2	354.9	---	2.226	2.15	1.178	88.6	128.4	33.6	0.179
3-8100	3-8700	0.288	232.4	-20.4	-0.39	0.762	67.4	0.385	1.612	117.1	364.8	0.995	2.232	1.96	1.181	91.3	118.6	33.9	0.182
3-8100	3-8710	0.293	232.3	-19.5	-0.04	0.762	67.0	0.392	1.612	117.4	375.2	0.986	2.244	1.86	1.183	94.3	110.2	33.2	0.201
3-8100	3-8720	0.304	231.9	-18.6	0.28	0.762	66.2	0.405	1.612	118.1	385.9	0.969	2.264	1.82	1.185	97.4	104.9	32.0	0.234
3-8100	3-8730	0.320	231.1	-17.8	0.61	0.762	64.9	0.425	1.610	119.2	397.1	0.927	2.294	1.83	1.186	100.8	102.8	30.6	0.280
3-8100	3-8740	0.343	230.0	-16.9	0.95	0.761	63.1	0.453	1.609	120.9	408.9	0.879	2.338	1.91	1.187	104.7	103.1	29.4	0.338
3-8100	3-8740	0.250	129.0	21.3	0.95	0.524	101.3	0.568	1.079	188.9	836.9	0.467	1.692	1.91	1.051	124.3	62.0	23.7	0.617
3-8100	3-8750	0.564	97.8	24.5	0.95	0.614	137.7	0.781	1.214	203.6	851.7	0.266	2.162	1.91	1.099	140.5	55.4	21.1	0.912
3-8100	3-8750	0.376	228.4	-16.0	1.33	0.761	60.5	0.493	1.606	123.2	421.4	0.814	2.395	2.06	1.188	109.3	105.0	28.4	0.412
3-8100	3-8750	0.233	151.5	15.1	1.33	0.506	91.0	0.573	1.059	180.7	838.9	0.452	1.665	2.06	1.043	124.8	71.8	25.3	0.621
3-8100	3-8760	0.421	226.2	-15.0	1.79	0.760	56.9	0.547	1.604	126.4	434.8	0.726	2.482	2.32	1.188	114.8	107.6	27.5	0.505
3-8100	3-8760	0.259	169.7	8.2	1.79	0.495	81.3	0.605	1.046	174.2	842.6	0.413	1.678	2.32	1.038	127.1	81.0	26.1	0.636
3-8100	3-8770	0.485	223.3	-13.9	2.41	0.760	51.7	0.620	1.603	131.1	449.7	0.609	2.598	2.75	1.187	121.7	110.4	26.6	0.624
3-8100	3-8770	0.319	182.0	2.9	2.41	0.496	70.8	0.661	1.036	169.4	848.0	0.351	1.721	2.75	1.034	131.3	89.3	26.4	0.723
3-8100	3-8780	0.575	219.3	-12.5	3.35	0.759	44.4	0.715	1.602	137.8	466.6	0.457	2.747	3.50	1.187	130.7	112.7	25.9	0.780
3-8100	3-8780	0.410	189.0	-0.4	3.35	0.480	58.6	0.741	1.030	166.7	855.5	0.267	1.793	3.50	1.030	137.8	96.5	26.2	0.826
3-8100	3-8790	0.535	191.7	-1.8	5.07	0.476	53.4	0.843	1.026	167.1	866.0	0.161	1.892	5.05	1.028	147.5	102.1	25.8	0.977
3-8100	3-8830	0.568	165.9	4.5	-4.82	0.232	53.5	0.943	0.872	177.4	916.8	0.050	1.694	-5.48	0.931	19.6	26.1	9.2	1.132
3-8100	3-8830	0.520	128.4	16.6	-4.82	0.346	128.7	0.884	0.925	186.3	925.7	0.107	1.742	-5.48	0.965	27.9	21.4	6.4	1.032
3-8100	3-8840	0.582	84.6	21.4	-2.88	0.735	135.4	0.722	1.513	218.5	607.8	0.421	2.606	-3.71	1.161	47.4	10.9	0.5	0.818
3-8100	3-8850	0.484	80.3	21.4	-1.87	0.735	127.8	0.619	1.513	224.8	624.0	0.577	2.448	-2.87	1.158	56.7	13.1	1.0	0.656
3-8100	3-8860	0.413	77.4	21.6	-1.22	0.734	122.0	0.538	1.510	228.7	637.7	0.698	2.322	-2.41	1.155	63.6	16.0	1.8	0.534
3-8100	3-8870	0.589	200.2	-9.2	-0.75	0.584	36.1	0.831	1.162	160.6	579.4	0.197	2.128	-2.12	1.065	34.2	51.0	17.3	0.980
3-8100	3-8870	0.360	75.3	21.9	-0.75	0.733	117.8	0.476	1.507	231.0	649.8	0.790	2.224	-2.12	1.152	68.9	19.2	2.5	0.440
3-8100	3-8880	0.535	202.2	-9.8	-0.36	0.594	43.7	0.777	1.179	157.8	586.4	0.263	2.096	-1.95	1.067	39.5	57.5	18.6	0.895
3-8100	3-8880	0.724	73.8	22.4	-0.36	0.732	114.7	0.428	1.504	232.2	660.7	0.860	2.148	-1.95	1.149	73.2	22.3	3.0	0.365
3-8100	3-8890	0.481	204.1	-10.3	-0.02	0.605	49.0	0.720	1.197	155.2	593.5	0.336	2.059	-1.85	1.070	44.7	64.0	19.5	0.811
3-8100	3-8890	0.290	72.8	23.0	-0.02	0.731	112.3	0.392	1.501	232.7	671.0	0.912	2.090	-1.85	1.147	76.7	24.9	3.1	0.306
3-8100	3-8900	0.428	205.9	-10.6	0.29	0.615	54.0	0.659	1.216	153.0	600.9	0.414	2.017	-1.82	1.074	49.7	70.4	20.2	0.727
3-8100	3-8900	0.268	72.0	23.7	0.29	0.730	110.5	0.365	1.498	232.8	680.7	0.951	2.045	-1.82	1.144	79.8	26.6	2.4	0.257
3-8110	3-8240	0.661	63.9	26.0	3.69	0.987	131.8	0.813	4.428	263.0	413.9	0.828	---	-3.66	1.321	113.9	332.5	-19.3	0.590
3-8110	3-8250	0.607	66.2	28.3	5.50	0.932	130.2	0.730	3.015	257.7	418.1	0.812	---	-5.32	1.281	114.1	339.8	-20.3	0.571
3-8110	3-8260	0.567	68.7	35.6	10.57	0.883	128.4	0.664	2.372	252.2	422.1	0.798	---	-10.23	1.247	114.1	349.1	-22.2	0.574
3-8110	3-8280	0.475	77.8	9.3	-10.18	0.798	124.4	0.567	1.772	240.6	430.1	0.767	---	10.81	1.192	114.1	344.4	17.2	0.547
3-8110	3-8290	0.419	79.2	16.4	-4.64	0.761	122.1	0.532	1.609	234.7	433.9	0.753	---	5.43	1.170	114.0	357.0	11.2	0.507
3-8110	3-8300	0.377	82.3	19.2	-2.74	0.728	119.6	0.505	1.490	228.7	437.6	0.738	---	3.69	1.151	114.0	5.7	11.1	0.492
3-8110	3-8310	0.338	86.2	20.8	-1.73	0.697	117.0	0.484	1.400	222.6	441.3	0.723	---	2.83	1.134	114.0	13.7	12.5	0.483
3-8110	3-8320	0.302	91.2	21.8	-1.08	0.670	114.1	0.469	1.330	216.4	445.1	0.706	---	2.38	1.120	114.2	21.6	14.6	0.478
3-8110	3-8330	0.269	97.4	22.5	-0.60	0.644	111.0	0.460	1.273	210.2	448.8	0.688	---	2.09	1.108	114.5	29.6	16.8	0.476
3-8110	3-8340	0.239	105.2	22.7	-0.21	0.621	107.7	0.457	1.227	204.0	452.6	0.667	---	1.92	1.097	115.0	37.7	19.0	0.479
3-8110	3-8350	0.214	115.4	22.3	0.13	0.599	104.0	0.459	1.188	197.8	456.4	0.643	---	1.82	1.087	115.7	46.0	21.1	0.485

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8110	3-8360	0.195	128.2	20.6	0.45	0.579	99.9	0.467	1.156	191.7	460.4	0.616	---	1.78	1.078	116.7	54.4	23.0	0.497
3-8110	3-8370	0.187	143.3	17.3	0.77	0.561	95.3	0.483	1.129	195.7	464.6	0.584	---	1.81	1.070	118.0	63.0	24.5	0.516
3-8110	3-8380	0.194	159.0	12.4	1.11	0.544	90.1	0.507	1.105	180.0	469.1	0.545	---	1.89	1.062	119.9	71.7	25.6	0.544
3-8110	3-8390	0.220	173.1	7.0	1.49	0.528	83.9	0.542	1.085	174.8	474.0	0.497	1.674	2.04	1.055	122.4	80.3	26.3	0.583
3-8110	3-8400	0.266	184.1	2.2	1.96	0.515	76.6	0.591	1.069	170.3	479.7	0.437	1.700	2.31	1.048	126.0	88.5	26.5	0.639
3-8110	3-8410	0.335	191.8	-1.3	2.59	0.503	67.5	0.657	1.055	166.9	486.5	0.361	1.749	2.75	1.042	131.0	96.1	26.3	0.719
3-8110	3-8420	0.430	196.2	-3.4	3.55	0.494	56.0	0.745	1.045	165.4	495.1	0.266	1.824	3.54	1.037	138.1	102.7	25.9	0.832
3-8110	3-8430	0.550	197.4	-4.2	5.36	0.489	41.1	0.851	1.040	166.6	506.5	0.155	1.926	5.19	1.033	148.3	107.8	25.3	0.992
3-8110	3-8440	0.671	215.5	-14.1	0.45	0.685	42.8	0.749	1.369	148.5	237.1	---	2.393	-1.78	1.115	43.4	77.5	21.3	0.851
3-8110	3-8550	0.538	217.8	-14.5	0.75	0.695	46.0	0.709	1.395	145.4	243.5	---	2.384	-1.80	1.120	47.2	84.5	21.5	0.788
3-8110	3-8560	0.506	220.0	-14.8	1.06	0.705	48.9	0.670	1.420	142.3	250.0	---	2.372	-1.87	1.125	50.8	91.5	21.2	0.727
3-8110	3-8570	0.477	222.2	-14.9	1.41	0.713	51.6	0.632	1.445	139.3	256.6	---	2.358	-2.01	1.129	54.2	98.3	20.5	0.668
3-8110	3-8580	0.449	224.4	-14.8	1.82	0.721	54.1	0.597	1.468	136.5	263.2	---	2.343	-2.23	1.134	57.5	104.9	19.2	0.611
3-8110	3-8590	0.424	226.5	-14.4	2.36	0.727	56.3	0.563	1.489	133.8	270.1	---	2.328	-2.58	1.138	60.6	111.1	17.4	0.558
3-8110	3-8600	0.402	228.6	-13.4	3.12	0.733	58.4	0.532	1.509	131.2	277.0	---	2.311	-3.18	1.143	63.6	116.9	14.6	0. 7
3-8110	3-8610	0.382	230.7	-11.4	4.39	0.739	60.2	0.503	1.527	128.8	284.2	---	2.295	-4.28	1.147	66.5	122.0	10.1	0.460
3-8110	3-8620	0.370	233.1	-6.5	7.12	0.743	61.8	0.477	1.543	126.7	291.6	---	2.279	-6.87	1.151	69.3	125.8	1.2	0.425
3-8110	3-8630	0.413	234.8	12.4	18.82	0.747	63.2	0.455	1.557	124.7	299.0	---	2.265	-18.41	1.156	72.0	128.2	-27.8	0.493
3-8110	3-8640	0.424	208.6	-52.0	-22.05	0.750	64.6	0.433	1.569	122.8	307.5	---	2.248	22.61	1.160	74.8	188.8	60.2	0.521
3-8110	3-8650	0.325	229.5	-33.3	-6.63	0.753	65.6	0.416	1.579	121.3	315.4	---	2.236	7.34	1.164	77.3	153.4	41.0	0.310
3-8110	3-8660	0.308	233.0	-27.8	-3.56	0.755	66.4	0.402	1.587	120.1	323.9	---	2.226	4.42	1.167	79.9	150.1	33.8	0.257
3-8110	3-8670	0.298	234.7	-25.3	-2.20	0.757	67.1	0.392	1.594	119.0	332.6	---	2.218	3.22	1.171	82.4	147.7	31.3	0.221
3-8110	3-8680	0.292	235.8	-23.6	-1.39	0.758	67.5	0.384	1.598	118.3	341.8	---	2.213	2.59	1.174	85.0	145.3	31.2	0.195
3-8110	3-8690	0.289	236.5	-22.4	-0.84	0.759	67.7	0.381	1.602	117.9	351.2	---	2.211	2.22	1.177	87.6	146.1	32.1	0.180
3-8110	3-8700	0.289	236.8	-21.4	-0.41	0.760	67.7	0.381	1.604	117.7	361.0	0.993	2.215	2.00	1.180	90.3	126.7	33.0	0.178
3-8110	3-8710	0.289	236.9	-20.5	-0.04	0.760	67.4	0.386	1.605	117.9	371.2	0.985	2.224	1.86	1.182	93.1	117.5	32.9	0.191
3-8110	3-8720	0.302	236.6	-19.7	0.29	0.760	66.7	0.397	1.604	118.4	381.8	0.968	2.241	1.80	1.184	96.1	111.0	31.9	0.218
3-8110	3-8730	0.316	235.9	-18.9	0.60	0.760	65.7	0.414	1.603	119.3	392.8	0.940	2.267	1.79	1.185	99.4	107.7	30.6	0.258
3-8110	3-8740	0.336	234.9	-18.1	0.93	0.759	64.1	0.439	1.602	120.6	404.3	0.899	2.304	1.84	1.186	103.1	107.2	29.4	0.311
3-8110	3-8740	0.292	121.7	22.4	0.93	0.535	109.2	0.593	1.094	194.4	838.1	0.445	1.743	1.84	1.057	126.0	61.5	23.3	0.648
3-8110	3-8740	0.486	108.5	24.2	0.93	0.591	131.0	0.727	1.175	208.3	847.0	0.320	2.030	1.84	1.086	135.9	57.5	21.8	0.830
3-8110	3-8750	0.364	233.5	-17.3	1.28	0.759	61.8	0.473	1.600	122.6	416.4	0.842	2.357	1.95	1.187	107.4	108.6	28.2	0.378
3-8110	3-8750	0.239	145.6	17.0	1.28	0.510	96.4	0.574	1.063	184.8	838.7	0.453	1.674	1.95	1.045	124.8	72.0	25.1	0.622
3-8110	3-8760	0.404	231.6	-16.4	1.70	0.756	58.7	0.521	1.597	125.4	429.4	0.765	2.430	2.15	1.187	112.4	111.0	27.2	0.462
3-8110	3-8760	0.246	166.2	9.8	1.70	0.495	86.4	0.594	1.047	177.5	841.5	0.425	1.668	2.15	1.039	126.3	81.5	26.0	0.642
3-8110	3-8770	0.459	229.0	-15.5	2.23	0.757	54.2	0.585	1.595	129.3	443.5	0.661	2.529	2.49	1.186	118.6	113.8	26.3	0.568
3-8110	3-8770	0.292	181.1	3.4	2.23	0.485	76.2	0.638	1.036	171.8	846.0	0.375	1.696	2.49	1.034	129.5	90.4	26.3	0.693
3-8110	3-8780	0.537	225.5	-14.3	2.98	0.757	48.0	0.671	1.594	134.9	459.3	0.525	2.663	3.06	1.185	126.6	116.4	25.4	0.707
3-8110	3-8780	0.369	130.4	-0.8	2.98	0.477	64.6	0.706	1.028	168.0	852.4	0.302	1.753	3.06	1.029	134.9	98.2	26.1	0.777
3-8110	3-8790	0.478	195.0	-3.0	4.24	0.472	50.7	0.799	1.023	166.8	861.4	0.206	1.840	4.15	1.026	143.0	104.5	25.6	0.905
3-8110	3-8830	0.576	132.0	15.8	-6.17	0.337	138.8	0.922	0.920	185.8	920.9	0.071	1.769	-6.89	0.963	22.8	23.8	7.4	1.106
3-8110	3-8840	0.490	164.7	4.8	-3.35	0.261	75.2	0.894	0.883	178.2	923.2	0.094	1.673	-4.23	0.936	26.9	32.3	11.2	1.032
3-8110	3-8840	0.450	144.5	12.1	-3.35	0.318	109.1	0.851	0.910	183.5	928.5	0.135	1.684	-4.23	0.953	31.3	29.5	9.7	0.968
3-8110	3-8850	0.515	87.2	21.7	-2.07	0.732	130.9	0.660	1.505	222.0	616.9	0.511	2.498	-3.12	1.157	52.9	16.1	2.5	0.721
3-8110	3-8860	0.433	83.7	22.0	-1.31	0.732	124.2	0.569	1.503	226.7	631.4	0.647	2.358	-2.54	1.154	60.7	18.8	3.2	0.583
3-8110	3-8870	0.373	81.4	22.4	-0.78	0.731	119.3	0.499	1.500	229.5	644.0	0.751	2.249	-2.19	1.151	66.6	22.0	4.0	0.478
3-8110	3-8880	0.559	205.6	-11.2	-0.37	0.587	41.6	0.799	1.168	159.1	583.3	0.234	2.101	-1.98	1.063	37.3	59.0	19.0	0.928
3-8110	3-8880	0.328	79.7	22.9	-0.37	0.730	115.7	0.446	1.497	231.1	655.2	0.829	2.164	-1.98	1.148	71.3	25.2	4.6	0.397
3-8110	3-8890	0.505	207.6	-11.7	-0.03	0.597	47.1	0.743	1.185	156.5	590.4	0.305	2.066	-1.86	1.066	42.6	65.6	19.9	0.843
3-8110	3-8890	0.294	78.6	23.5	-0.03	0.729	113.0	0.405	1.493	231.8	665.6	0.888	2.098	-1.86	1.145	75.1	28.2	4.9	0.331
3-8110	3-8900	0.451	209.5	-12.0	0.29	0.608	52.3	0.683	1.204	154.1	597.6	0.381	2.026	-1.80	1.070	47.7	72.0	20.5	0.758
3-8110	3-8900	0.267	77.8	24.2	0.29	0.728	110.9	0.374	1.490	231.9	675.4	0.933	2.047	-1.80	1.143	78.3	30.5	4.7	0.278
3-8110	3-8910	0.399	211.2	-12.1	0.59	0.618	57.2	0.621	1.222	152.2	605.3	0.463	1.982	-1.79	1.075	52.7	78.3	20.7	0.675
3-8110	3-8910	0.248	77.3	25.1	0.59	0.727	109.4	0.351	1.487	231.7	684.8	0.966	2.008	-1.79	1.140	81.1	31.7	3.7	0.235
3-8120	3-8280	0.556	83.4	1.6	-18.47	0.836	127.5	0.622	1.994	244.7	430.0	0.754	---	19.17	1.218	115.7	335.7	26.1	0.693
3-8120	3-8290	0.466	82.0	15.5	-5.96	0.794	125.2	0.577	1.752	238.8	433.7	0.741	---	6.91	1.191	115.5	356.0	13.0	0.548
3-8120	3-8300	0.418	84.8	19.0	-3.18	0.755	122.7	0.542	1.586	232.9	437.4	0.727	---	4.19	1.168	115.3	5.5	11.6	0.525
3-8120	3-8310	0.375	88.4	20.8	-1.92	0.720	120.1	0.515	1.467	226.8	441.2	0.712	---	3.08	1.149	115.2	13.7	12.7	0.511
3-8120	3-8320	0.335	92.9	21.8	-1.16	0.689	117.2	0.494	1.377	220.6	444.9	0.696	---	2.49	1.132	115.2	21.7	14.6	0.501
3-8120	3-8330	0.298	98.4	22.5	-0.63	0.660	114.2	0.480	1.307	214.4	448.6	0.679	---	2.15	1.117	115.4	29.7	16.8	0.496
3-8120	3-8340	0.265	105.4	22.7	-0.22	0.633	110.9	0.472	1.251	208.1	452.3	0.666	---	1.93	1.104	115.7	37.8	19.0	0.494
3-8120	3-8350	0.235	114.2	22.4	0.13	0.609	107.2	0.470	1.205	201.9	456.1	0.639	---	1.81	1.092	116.2	46.2	21.1	0.497
3-8120	3-8360	0.211	125.5	21.2	0.45	0.587	103.2	0.474	1.168	195.7	460.0	0.614	---	1.75	1.082	117.0	54.7	22.9	0.504
3-8120	3-8370	0.196	139.3	18.5	0.76	0.566	98.8	0.485	1.136	189.6	464.1	0.585	---	1.75	1.072	118.1	63.3	24.4	0.518
3-8120	3-8380	0.194	154.8	14.0	1.08	0.547	93.7	0.504	1.110	183.7	468.4	0.550	---	1.80	1.064	119.6	72.1	25.5	0.540
3-8120	3-8390	0.210	169.8	8.4	1.43	0.530	87.9	0.533	1.087	178.2	473.0	0.508	1.667	1.92	1.055	121.8	80.8	26.2	0.572
3-8120	3-8400	0.246	182.5	3.1	1.85	0.515	81.0	0.574	1.068	173.2	478.2	0.475	1.681	2.13	1.048	124.8	89.3	26.4	0.618
3-8120	3-8410	0.303	194.9	-1.2	2.38	0.501	72.6	0.631	1.053	169.1	484.3	0.439	1.717	2.47	1.041	129.0	97.5	26.2	0.684
3-8120	3-8420	0.386	198.0	-4.0	3.15	0.490	62.1	0.708	1.041	166.5	491.5	0.404	1.777	3.07	1.035	135.0	104.4	25.7	0.780
3-8120	3-8430	0.498	200.9	-5.5	4.45	0.482	48.6	0.806	1.033	166.2	501.7	0.201	1.865	4.20	1.030	143.6	110.2	25.0	0.916
3-8120	3-8540	0.587	218.9	-15.3	0.45	0.678	41.6	0.764	1.349	150.2	234.4	---	2.380	-1.75	1.111	41.8	78.9	21.6	0.875
3-8120	3-8550	0.553	221.2	-15.7	0.74	0.688	44.9	0.724	1.376	146.9	240.7	---	2.371	-1.74	1.116	45.7	85.9	21.7	0.819
3-8120	3-8560	0.521	223.5	-15.9	1.04	0.698	48.0	0.684	1.402	143.8	247.2	---	2.360	-1.79	1.121	49.4	92.9	21.4	0.748
3-8120	3-8570	0.491	225.7	-16.1	1.36	0.707	50.9	0.646	1.427	140.8	253.7	---	2.348	-1.89	1.126	52.9	99.0	20.7	0.688
3-8120	3-8580	0.462	227.9	-16.0	1.73	0.715	53.3	0.609	1.450	137.9	260.3	---	2.334	-2.00	1.130	56.2	106.4	19.5	0.631
3-8120	3-8590	0.436	230.0	-15.7	2.19	0.722	55.7	0.574	1.473	135.2	267.1	---	2.318	-2.34	1.135	59.4	112.8	17.8	0.576
3-8120	3-8600	0.413	232.1	-15.0	2.81	0.729	57.8	0.542	1.493	132.6	274.1	---	2.302	-2.80	1.140	62.5	118.7	15.3	0.524
3-8120	3-8610	0.392	234.1	-13.5	3.77	0.734	59.7	0.512	1.512	130.2	281.2	---	2.286	-3.59	1.144	65.4	124.0	11.7	0.475
3-8120	3-8620	0.376	236.3	-10.4	5.57	0.739	61.4	0.485	1.529	127.9	288.5	---	2.270	-5.24	1.149	68.3	128.3	5.4	0.433
3-8120	3-8630	0.375	238.5	-1.2	10.67	0.744	62.9	0.461	1.544	125.9	296.0	---	2.255	-10.19	1.153	71.0	130.7	-10.2	0.420

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8120	3-8650	0.343	231.3	-39.1	-9.53	0.750	65.4	0.420	1.567	122.6	312.4	---	2.226	10.30	1.162	76.3	162.7	46.1	0.348
3-8120	3-8660	0.316	236.8	-30.1	-4.31	0.753	66.3	0.405	1.576	121.0	320.5	---	2.215	5.23	1.105	78.9	155.1	34.5	0.273
3-8120	3-8670	0.304	238.9	-26.7	-2.49	0.754	67.0	0.398	1.583	119.9	329.2	---	2.206	3.57	1.169	81.4	152.8	30.5	0.232
3-8120	3-8680	0.297	240.1	-24.8	-1.52	0.756	67.6	0.384	1.589	119.1	338.2	---	2.200	2.76	1.172	84.0	149.4	29.6	0.202
3-8120	3-8690	0.293	240.9	-23.4	-0.89	0.757	67.9	0.379	1.593	118.5	347.5	---	2.197	2.31	1.176	86.6	143.4	30.4	0.183
3-8120	3-8700	0.292	241.3	-22.4	-0.42	0.758	67.9	0.378	1.595	118.3	357.2	---	2.199	2.03	1.178	89.2	134.7	31.5	0.175
3-8120	3-8710	0.295	241.4	-21.4	-0.04	0.758	67.7	0.381	1.597	118.3	367.3	0.988	2.205	1.87	1.181	92.0	125.2	32.0	0.182
3-8120	3-8720	0.301	241.2	-20.6	0.29	0.758	67.2	0.390	1.597	118.6	377.7	0.975	2.219	1.77	1.183	94.9	117.5	31.5	0.204
3-8120	3-8730	0.313	240.7	-19.9	0.60	0.758	66.3	0.404	1.596	119.4	388.5	0.952	2.240	1.74	1.184	98.1	113.1	30.4	0.239
3-8120	3-8740	0.330	239.9	-19.1	0.91	0.757	65.0	0.425	1.595	120.5	399.8	0.917	2.273	1.76	1.185	101.6	111.6	29.2	0.287
3-8120	3-8750	0.354	238.6	-18.4	1.24	0.757	63.0	0.456	1.593	122.1	411.6	0.867	2.318	1.85	1.185	105.6	112.4	28.0	0.347
3-8120	3-8750	0.258	139.0	18.8	1.24	0.517	102.8	0.584	1.071	189.4	638.9	0.445	1.697	1.85	1.049	125.5	71.9	24.9	0.635
3-8120	3-8750	0.547	109.2	23.7	1.24	0.604	137.2	0.781	1.196	202.8	652.3	0.262	2.129	1.85	1.094	140.6	65.7	23.0	0.909
3-8120	3-8760	0.399	236.9	-17.6	1.62	0.756	60.3	0.497	1.590	124.5	424.1	0.799	2.381	2.00	1.185	110.2	114.4	26.9	0.423
3-8120	3-8760	0.241	161.4	11.7	1.62	0.498	91.7	0.588	1.049	181.2	840.8	0.433	1.666	2.00	1.040	125.8	81.9	2549	0.635
3-8120	3-8770	0.437	234.6	-16.9	2.08	0.756	56.4	0.554	1.588	127.8	437.6	0.708	2.468	2.27	1.185	115.8	117.2	25.4	0.518
3-8120	3-8770	0.270	179.1	4.5	2.08	0.485	81.4	0.619	1.036	174.6	844.5	0.394	1.677	2.27	1.034	128.2	93.2	2652	0.670
3-8120	3-8780	0.504	231.5	-15.9	2.70	0.755	51.0	0.630	1.586	132.5	452.5	0.567	2.586	2.71	1.184	122.9	119.9	24.9	0.641
3-8120	3-8780	0.334	190.8	-0.8	2.70	0.476	70.4	0.676	1.026	169.9	849.9	0.333	1.720	2.71	1.029	132.5	99.5	26.0	0.737
3-8120	3-8790	0.598	227.3	-14.8	3.67	0.755	43.3	0.728	1.586	139.4	469.6	0.431	2.741	3.50	1.183	132.2	122.1	28.1	0.802
3-8120	3-8790	0.429	197.4	-3.9	3.67	0.469	57.5	0.757	1.020	167.3	857.5	0.247	1.792	3.50	1.025	139.2	106.6	25.4	0.844
3-8120	3-8800	0.557	199.7	-5.2	5.50	0.466	41.6	0.860	1.017	167.9	868.2	0.143	1.890	5.17	1.022	149.3	101.8	24.7	0.999
3-8120	3-8840	0.541	171.5	2.1	-4.02	0.228	85.2	0.929	0.870	178.0	918.6	0.061	1.679	-4.96	0.927	21.9	94.7	12.2	1.097
3-8120	3-8840	0.495	143.4	12.5	-4.02	0.318	123.5	0.880	0.910	184.9	925.5	0.109	1.710	-4.96	0.953	28.4	92.6	10.2	1.018
3-8120	3-8850	0.552	94.3	21.7	-2.34	0.730	134.5	0.706	1.496	218.9	609.4	0.440	2.553	-3.44	1.155	48.7	19.2	4.4	0.793
3-8120	3-8860	0.458	90.3	22.2	-1.43	0.729	126.7	0.605	1.495	224.6	624.9	0.590	2.400	-2.69	1.132	57.5	21.6	4.7	0.638
3-8120	3-8870	0.389	87.6	22.6	-0.83	0.729	121.1	0.526	1.493	228.0	638.1	0.707	2.278	-2.27	1.149	64.1	24.7	5.4	0.521
3-8120	3-8880	0.584	209.1	-12.5	-0.39	0.579	39.5	0.821	1.156	160.5	580.3	0.287	2.105	-2.01	1.059	35.1	60.6	19.4	0.961
3-8120	3-8880	0.338	85.7	23.2	-0.39	0.728	117.0	0.466	1.489	229.9	649.8	0.795	2.184	-2.01	1.146	69.2	28.0	6.2	0.430
3-8120	3-8890	0.529	211.2	-13.0	-0.03	0.590	45.1	0.766	1.173	157.7	587.2	0.274	2.072	-1.86	1.062	40.5	67.2	20.3	0.875
3-8120	3-8890	0.299	84.5	23.8	-0.03	0.727	113.9	0.420	1.486	230.8	660.3	0.862	2.110	-1.86	1.144	73.4	31.3	6.6	0.359
3-8120	3-8900	0.475	213.1	-13.4	0.29	0.601	50.4	0.707	1.191	155.3	594.4	0.349	2.034	-1.77	1.066	45.7	73.7	20.9	0.790
3-8120	3-8900	0.269	83.7	24.6	0.29	0.725	111.5	0.385	1.482	231.1	670.2	0.912	2.052	-1.77	1.141	76.8	34.0	6.7	0.301
3-8120	3-8910	0.422	214.9	-13.5	0.59	0.612	55.5	0.646	1.210	153.2	601.9	0.429	1.992	-1.74	1.071	50.7	80.0	21.1	0.706
3-8120	3-8910	0.246	83.2	25.5	0.59	0.724	109.7	0.358	1.479	230.9	679.7	0.950	2.008	-1.74	1.139	79.7	36.0	6.2	0.254
3-8120	3-8920	0.370	216.4	-13.4	0.88	0.622	60.3	0.583	1.230	151.6	609.9	0.513	1.946	-1.76	1.076	55.6	86.1	20.9	0.623
3-8120	3-8920	0.229	82.9	26.5	0.88	0.724	108.3	0.337	1.476	230.5	688.8	0.979	1.975	-1.76	1.137	82.3	36.6	4.8	0.216
3-8130	3-8290	0.522	85.2	33.4	-8.39	0.833	128.2	0.630	1.969	242.9	433.4	0.727	---	9.30	1.217	147.1	354.2	16.0	0.602
3-8130	3-8300	0.464	87.5	18.7	-3.83	0.789	125.8	0.586	1.724	237.0	437.2	0.714	---	4.89	1.190	116.8	5.3	12.4	0.564
3-8130	3-8310	0.416	90.9	20.7	-2.17	0.748	123.2	0.551	1.659	230.9	440.9	0.701	---	3.37	1.166	116.6	13.8	12.9	0.543
3-8130	3-8320	0.372	95.0	21.8	-1.26	0.712	120.4	0.524	1.440	224.7	444.7	0.686	---	2.63	1.146	116.4	21.8	14.7	0.529
3-8130	3-8330	0.331	99.9	22.4	-0.67	0.679	117.4	0.504	1.351	218.5	448.4	0.670	---	2.21	1.128	116.4	29.8	16.8	0.519
3-8130	3-8340	0.294	106.1	22.7	-0.22	0.650	114.1	0.491	1.282	212.2	452.1	0.653	---	1.95	1.113	116.5	38.0	18.9	0.513
3-8130	3-8350	0.260	113.8	22.5	0.14	0.622	110.6	0.484	1.228	206.0	455.9	0.633	---	1.80	1.099	116.9	46.3	21.0	0.511
3-8130	3-8360	0.231	123.7	21.5	0.46	0.597	106.7	0.484	1.183	199.7	459.7	0.611	---	1.71	1.087	117.4	54.9	22.8	0.514
3-8130	3-8370	0.210	136.1	19.3	0.76	0.574	102.3	0.490	1.147	193.5	463.6	0.585	---	1.69	1.076	118.3	63.6	24.3	0.523
3-8130	3-8380	0.200	150.6	15.4	1.06	0.553	97.4	0.504	1.116	187.5	467.8	0.554	---	1.72	1.066	119.5	72.4	25.4	0.539
3-8130	3-8390	0.206	166.0	10.1	1.39	0.534	91.9	0.527	1.091	181.7	472.2	0.516	---	1.80	1.057	121.3	81.3	26.1	0.564
3-8130	3-8400	0.231	180.0	4.3	1.76	0.516	85.3	0.561	1.069	176.3	477.0	0.470	1.669	1.96	1.048	123.8	89.9	26.3	0.602
3-8130	3-8410	0.278	191.1	-0.7	2.22	0.500	77.5	0.609	1.051	171.7	482.5	0.411	1.691	2.23	1.040	127.4	98.2	26.0	0.657
3-8130	3-8420	0.348	199.0	-4.2	2.84	0.487	67.9	0.675	1.037	168.2	489.2	0.337	1.737	2.68	1.033	132.4	105.8	25.4	0.736
3-8130	3-8430	0.446	203.5	-6.4	3.82	0.477	55.6	0.763	1.027	166.6	497.8	0.243	1.830	3.50	1.027	139.7	112.3	24.6	0.851
3-8130	3-8440	0.577	204.7	-7.3	5.74	0.472	39.7	0.868	1.022	167.9	509.1	0.135	1.908	5.26	1.023	150.2	117.1	23.8	1.014
3-8130	3-8550	0.569	224.7	-16.7	0.74	0.681	43.8	0.739	1.356	148.5	237.9	---	2.350	-1.69	1.111	44.2	87.4	21.9	0.833
3-8130	3-8560	0.536	227.0	-17.0	1.02	0.692	47.0	0.698	1.383	145.3	244.3	---	2.348	-1.71	1.116	47.9	94.4	21.5	0.770
3-8130	3-8570	0.505	229.3	-17.2	1.32	0.701	49.9	0.659	1.408	142.3	250.8	---	2.337	-1.78	1.121	51.5	101.3	20.8	0.709
3-8130	3-8580	0.476	231.5	-17.2	1.66	0.710	52.5	0.622	1.433	139.4	257.4	---	2.323	-1.91	1.127	54.9	108.0	19.7	0.651
3-8130	3-8590	0.449	233.6	-16.9	2.06	0.717	55.0	0.586	1.456	136.6	264.2	---	2.309	-2.13	1.132	58.2	114.4	18.1	0.595
3-8130	3-8600	0.425	235.6	-16.4	2.57	0.724	57.2	0.552	1.477	133.9	271.0	---	2.293	-2.48	1.137	61.3	120.4	16.8	0.542
3-8130	3-8610	0.403	237.7	-15.3	3.32	0.730	59.2	0.522	1.497	131.5	278.1	---	2.277	-3.07	1.141	64.3	125.9	12.7	0.492
3-8130	3-8620	0.384	239.7	-13.1	4.59	0.736	60.9	0.493	1.514	129.2	285.4	---	2.261	-4.10	1.146	67.2	130.6	7.9	0.446
3-8130	3-8630	0.373	241.7	-7.9	7.44	0.740	62.5	0.468	1.530	127.1	292.9	---	2.246	-6.90	1.151	70.0	133.8	-1.7	0.412
3-8130	3-8640	0.434	241.7	13.8	21.50	0.744	63.9	0.446	1.544	125.2	300.4	---	2.232	-20.81	1.155	72.6	134.7	-35.3	0.515
3-8130	3-8650	0.391	227.3	-50.0	-17.01	0.748	65.2	0.424	1.555	123.4	308.9	---	2.215	17.84	1.159	75.4	184.4	54.9	0.448
3-8130	3-8660	0.325	240.4	-33.1	-5.52	0.750	66.2	0.408	1.565	122.0	317.1	---	2.204	6.49	1.163	77.9	160.8	36.3	0.294
3-8130	3-8670	0.311	243.0	-28.2	-2.89	0.752	67.0	0.395	1.573	120.8	325.7	---	2.196	4.02	1.167	80.5	157.7	30.1	0.245
3-8130	3-8680	0.302	244.4	-25.8	-1.68	0.754	67.6	0.385	1.579	119.9	334.6	---	2.187	2.97	1.171	83.0	155.0	28.2	0.211
3-8130	3-8690	0.297	245.3	-24.3	-0.96	0.755	67.9	0.378	1.584	119.2	343.8	---	2.183	2.40	1.174	85.6	150.2	28.4	0.187
3-8130	3-8700	0.295	245.8	-23.2	-0.44	0.756	68.1	0.376	1.587	118.8	353.4	---	2.183	2.07	1.177	88.2	142.5	29.6	0.175
3-8130	3-8710	0.296	246.0	-23.2	-0.05	0.756	68.0	0.377	1.588	118.7	363.4	0.990	2.187	1.87	1.179	90.9	133.2	30.7	0.176
3-8130	3-8720	0.301	245.9	-21.4	0.29	0.757	67.6	0.383	1.589	118.9	373.6	0.980	2.190	1.75	1.181	93.8	124.6	30.7	0.192
3-8130	3-8730	0.310	245.5	-20.7	0.60	0.756	66.9	0.395	1.589	119.5	384.3	0.961	2.216	1.70	1.183	96.8	118.9	30.0	0.222
3-8130	3-8740	0.325	244.8	-20.0	0.90	0.756	65.8	0.413	1.607	120.4	395.3	0.932	2.243	1.69	1.184	100.1	116.4	28.9	0.264
3-8130	3-8750	0.346	243.7	-19.3	1.21	0.756	64.1	0.439	1.585	121.8	406.9	0.889	2.282	1.75	1.184	103.9	116.3	27.7	0.319
3-8130	3-8750	0.306	131.0	20.6	1.21	0.532	111.5	0.614	1.089	195.2	840.3	0.421	1.758	1.70	1.056	127.5	71.3	24.5	0.672
3-8130	3-8750	0.463	116.4	22.9	1.21	0.579	129.6	0.723	1.155	202.3	847.4	0.380	1.989	1.75	1.080	135.7	68.0	23.5	0.820
3-8130	3-8760	0.376	242.2	-18.7	1.55	0.755	61.7	0.476	1.583	123.7	469.0	0.829	2.337	1.87	1.184	108.2	118.0	26.5	0.387
3-8130	3-8760	0.246	155.6	13.8	1.55	0.503	97.4	0.588	1.054	185.2	840.5	0.434	1.674	1.87	1.042	125.8	82.1	25.7	0.636
3-8130	3-8760	0.596	114.6	23.0	1.55	0.613	131.1	0.822	1.211	201.6	866.9	0.216	2.206	1.87	1.092	144.6	74.4	23.9	0.974
3-8130	3-8770	0.418	240.2	-18.0	1.96	0.754	58.4	0.526	1.581	126.5	432.0	0.749	2.413	2.07	1.184	113.3	120.5	25.4	0.473

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THE12	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8130	3-8770	0.256	175.8	6.0	1.96	0.487	86.7	0.607	1.037	177.9	843.4	0.408	1.666	2.07	1.034	127.2	91.8	26.0	0.654
3-8130	3-8780	0.476	237.4	-17.3	2.49	0.754	53.7	0.593	1.579	130.5	446.2	0.642	2.516	2.42	1.183	119.7	123.3	24.3	0.582
3-8130	3-8780	0.305	190.2	+0.4	2.49	0.476	76.0	0.651	1.025	172.2	847.9	0.358	1.693	2.42	1.028	130.6	100.6	25.8	0.705
3-8130	3-8790	0.557	233.7	-16.4	3.24	0.754	47.1	0.682	1.578	136.3	462.1	0.502	2.653	3.01	1.182	127.9	125.9	23.3	0.725
3-8130	3-8790	0.386	199.0	-4.4	3.24	0.468	63.9	0.721	1.018	168.5	854	0.284	1.751	3.01	1.024	136.1	108.3	25.1	0.792
3-8130	3-8800	0.499	203.2	-6.5	4.54	0.463	49.3	0.814	1.013	167.5	863.4	0.188	1.837	4.15	1.020	144.5	114.4	24.2	0.924
3-8130	3-8840	0.388	176.6	-0.0	-5.05	0.197	56.1	0.956	0.860	178.2	914.4	0.038	1.682	-6.05	0.919	17.3	36.9	13.1	1.156
3-8130	3-8840	0.548	145.0	12.1	-5.05	0.315	132.9	0.915	0.907	185.1	921.4	0.077	1.737	-6.05	0.951	23.9	33.0	11.0	1.083
3-8130	3-8850	0.596	101.6	21.4	-2.69	0.728	138.8	0.756	1.488	215.3	601.4	0.363	2.613	-3.84	1.153	43.9	22.5	5.7	0.874
3-8130	3-8860	0.488	97.1	22.0	-1.57	0.728	129.7	0.645	1.488	222.2	618.1	0.528	2.447	-2.88	1.151	53.9	24.[illegible]	6.1	0.699
3-8130	3-8870	0.409	93.9	22.6	-0.89	0.727	123.2	0.557	1.485	226.4	632.1	0.659	2.312	-2.36	1.148	61.4	27.4	6.8	0.567
3-8130	3-8880	0.350	91.8	23.2	-0.41	0.726	118.5	0.489	1.482	228.8	644.2	0.738	2.207	-2.05	1.145	67.1	30.7	7.6	0.467
3-8130	3-8890	0.555	214.7	-14.2	-0.03	0.584	42.9	0.789	1.161	159.0	584.1	0.245	2.078	-1.86	1.058	38.3	68.7	20.7	0.909
3-8130	3-8890	0.306	90.5	23.9	+0.03	0.725	114.9	0.437	1.479	230.0	655.1	0.833	2.125	-1.86	1.142	71.6	34.1	8.2	0.388
3-8130	3-8900	0.500	216.7	-14.6	0.30	0.595	48.4	0.731	1.179	156.5	591.2	0.317	2.042	-1.75	1.062	45.5	75.3	21.2	0.823
3-8130	3-8900	0.272	89.6	24.7	0.30	0.724	112.3	0.397	1.475	230.4	665.1	0.890	2.061	-1.75	1.140	75.2	37.2	[illegible].4	0.325
3-8130	3-8910	0.446	218.6	-14.8	0.59	0.606	53.7	0.670	1.198	154.2	598.6	0.395	2.001	-1.70	1.067	48.7	81.8	21.4	0.738
3-8130	3-8910	0.246	89.1	25.6	0.59	0.723	110.2	0.366	1.472	230.2	674.6	0.933	2.011	-1.70	1.137	78.3	39.7	8.2	0.274
3-8130	3-8920	0.393	220.3	-14.8	0.87	0.617	58.7	0.607	1.217	152.4	606.4	0.478	1.956	-1.69	1.072	55.7	88.0	21.2	0.654
3-8130	3-8920	0.226	88.9	26.6	0.87	0.722	108.6	0.343	1.469	229.8	683.7	0.965	1.972	-1.69	1.135	81.0	41.2	7.3	0.232
3-8130	3-8930	0.342	221.7	-14.5	1.16	0.627	63.4	0.544	1.237	151.2	614.7	0.564	1.910	-1.74	1.077	58.5	93.8	20.6	0.572
3-8130	3-8930	0.212	88.8	27.8	1.16	0.721	107.4	0.326	1.466	229.3	692.8	0.988	1.944	-1.74	1.134	83.4	41.0	6.5	0.199
3-8140	3-8290	0.595	89.3	8.1	-14.23	0.880	131.5	0.694	2.331	246.8	433.1	0.713	---	15.20	1.249	118.9	349.0	22.3	0.686
3-8140	3-8300	0.516	90.4	17.9	-4.85	0.828	128.9	0.637	1.933	241.0	436.8	0.701	---	5.96	1.216	118.5	4.8	13.5	0.610
3-8140	3-8310	0.461	93.5	20.5	-2.50	0.782	126.3	0.593	1.690	234.9	440.6	0.688	---	3.76	1.187	118.1	13.8	13.3	0.581
3-8140	3-8320	0.412	97.3	21.7	+1.39	0.741	123.6	0.558	1.527	228.8	444.4	0.675	---	2.80	1.163	117.8	22.0	14.7	0.561
3-8140	3-8330	0.367	101.8	22.4	-0.72	0.703	120.6	0.532	1.410	222.6	448.1	0.660	---	2.28	1.142	117.6	30.0	16.7	0.546
3-8140	3-8340	0.326	107.3	22.6	-0.24	0.669	117.4	0.513	1.324	216.3	451.8	0.644	---	1.97	1.124	117.5	38.2	18.9	0.535
3-8140	3-8350	0.288	114.1	22.4	0.14	0.638	113.9	0.501	1.256	210.0	455.6	0.627	---	1.79	1.108	117.7	46.6	20.9	0.529
3-8140	3-8360	0.255	122.7	21.6	0.47	0.610	110.1	0.496	1.203	203.7	459.4	0.606	---	1.68	1.093	118.0	55.1	22.7	0.527
3-8140	3-8370	0.228	133.6	19.8	0.76	0.585	105.9	0.498	1.160	197.5	463.2	0.583	---	1.63	1.081	118.7	63.9	24.2	0.531
3-8140	3-8380	0.211	146.9	16.6	1.05	0.561	101.2	0.506	1.125	191.3	467.2	0.555	---	1.63	1.069	119.6	72.8	25.3	0.542
3-8140	3-8390	0.207	161.8	11.7	1.35	0.539	95.8	0.524	1.096	185.3	471.4	0.522	---	1.69	1.059	121.1	81.7	26.0	0.561
3-8140	3-8400	0.221	176.7	5.8	1.69	0.520	89.6	0.551	1.071	179.7	476.0	0.481	1.662	1.81	1.049	123.2	90.5	26.1	0.590
3-8140	3-8410	0.257	189.4	0.3	2.08	0.502	82.3	0.591	1.051	174.6	481.1	0.429	1.673	2.02	1.040	126.1	99.0	25.9	0.635
3-8140	3-8420	0.316	199.0	-4.1	2.61	0.487	73.4	0.648	1.034	170.4	487.0	0.364	1.705	2.37	1.032	130.3	106.9	25.2	0.701
3-8140	3-8430	0.400	205.3	-7.0	3.37	0.474	62.1	0.725	1.022	167.7	494.5	0.281	1.762	2.97	1.025	136.4	114.0	24.3	0.796
3-8140	3-8440	0.516	208.2	-8.5	4.70	0.466	47.7	0.822	1.014	167.4	504.3	0.180	1.847	4.15	1.019	145.3	119.6	23.3	0.935
3-8140	3-8550	0.586	228.2	-17.7	0.74	0.675	42.6	0.754	1.336	150.0	235.1	---	2.344	-1.63	1.106	42.6	88.8	22.0	0.856
3-8140	3-8560	0.552	230.5	-18.0	1.01	0.685	45.9	0.713	1.369	146.8	241.4	---	2.336	-1.63	1.112	46.4	95.9	21.7	0.793
3-8140	3-8570	0.520	232.8	-18.2	1.29	0.695	48.9	0.674	1.389	143.8	247.9	---	2.325	-1.68	1.117	50.1	102.8	21.0	0.731
3-8140	3-8580	0.490	235.1	-18.2	1.60	0.705	51.7	0.635	1.414	140.8	254.5	---	2.312	-1.78	1.123	53.6	109.5	19.8	0.672
3-8140	3-8590	0.463	237.2	-18.0	1.95	0.713	54.2	0.598	1.438	138.0	261.2	---	2.298	-1.94	1.128	56.9	116.0	18.3	0.615
3-8140	3-8600	0.437	239.3	-17.6	2.39	0.720	56.5	0.564	1.460	135.3	268.0	---	2.283	-2.21	1.133	60.3	122.1	16.2	0.561
3-8140	3-8610	0.414	241.3	-16.8	2.99	0.727	58.6	0.532	1.481	132.8	275.0	---	2.268	-2.66	1.138	63.2	127.8	13.4	0.509
3-8140	3-8620	0.394	243.2	-15.2	3.92	0.732	60.5	0.502	1.499	130.4	282.2	---	2.252	-3.45	1.143	66.1	132.8	9.5	0.461
3-8140	3-8630	0.378	245.4	-11.9	5.73	0.737	62.1	0.475	1.516	128.2	289.7	---	2.236	-5.12	1.148	68.9	136.7	2.8	0.420
3-8140	3-8640	0.380	246.7	-2.1	11.23	0.742	63.6	0.452	1.530	126.3	297.3	---	2.221	-10.48	1.153	71.6	138.0	-14.2	0.411
3-8140	3-8660	0.340	247.5	-37.6	-7.71	0.748	66.0	0.412	1.553	122.9	313.7	---	2.193	8.75	1.161	76.9	168.4	40.2	0.324
3-8140	3-8670	0.318	247.2	-29.9	-3.47	0.750	66.9	0.397	1.562	121.7	322.2	---	2.183	4.65	1.165	79.5	162.6	30.1	0.260
3-8140	3-8680	0.308	248.8	-26.9	-1.90	0.752	67.5	0.386	1.569	120.6	331.0	---	2.174	3.22	1.169	82.0	160.2	26.8	0.222
3-8140	3-8690	0.302	249.7	-25.1	-1.04	0.754	68.0	0.378	1.574	119.9	340.1	---	2.169	2.52	1.172	84.6	156.4	26.3	0.194
3-8140	3-8700	0.298	250.3	-23.8	-0.47	0.755	68.3	0.374	1.578	119.4	349.6	---	2.167	2.12	1.175	87.2	150.0	27.4	0.176
3-8140	3-8710	0.298	250.6	-22.9	-0.05	0.755	68.3	0.373	1.580	119.2	359.4	---	2.170	1.87	1.178	89.8	141.2	28.8	0.172
3-8140	3-8720	0.302	250.6	-22.1	0.30	0.756	68.0	0.377	1.581	119.2	369.5	0.984	2.177	1.73	1.180	92.6	132.2	29.5	0.182
3-8140	3-8730	0.309	250.3	-21.3	0.61	0.756	67.4	0.387	1.581	119.6	380.0	0.969	2.192	1.65	1.181	95.6	125.3	29.2	0.206
3-8140	3-8740	0.322	249.7	-20.7	0.90	0.755	66.5	0.402	1.580	120.3	390.9	0.945	2.215	1.63	1.182	98.7	121.5	28.3	0.243
3-8140	3-8750	0.340	248.7	-20.1	1.19	0.755	65.0	0.425	1.578	121.5	402.2	0.908	2.249	1.65	1.183	102.3	120.6	27.2	0.292
3-8140	3-8760	0.366	247.4	-19.5	1.50	0.754	63.0	0.457	1.576	123.1	414.1	0.856	2.296	1.74	1.183	106.3	121.7	26.0	0.354
3-8140	3-8760	0.266	148.9	15.9	1.50	0.512	104.0	0.598	1.063	189.9	840.8	0.427	1.698	1.74	1.045	126.5	82.1	25.5	0.649
3-8140	3-8760	0.534	120.3	22.2	1.50	0.596	136.9	0.782	1.179	202.1	853.1	0.257	2.100	1.74	1.039	140.8	76.2	24.2	0.906
3-8140	3-8770	0.402	245.6	-19.0	1.86	0.754	60.1	0.501	1.574	125.5	426.6	0.786	2.362	1.90	1.183	111.0	123.9	24.8	0.432
3-8140	3-8770	0.249	171.3	7.9	1.86	0.491	92.2	0.600	1.039	181.5	842.6	0.416	1.663	1.90	1.035	126.7	92.2	25.9	0.646
3-8140	3-8780	0.452	243.2	-18.4	2.31	0.753	56.1	0.560	1.571	128.8	440.1	0.691	2.451	2.16	1.182	116.7	126.7	23.6	0.529
3-8140	3-8780	0.282	188.4	0.5	2.31	0.478	81.5	0.631	1.025	175.0	846.2	0.378	1.673	2.16	1.028	129.1	101.4	25.6	0.681
3-8140	3-8790	0.422	240.0	-17.8	2.92	0.753	50.4	0.639	1.570	133.7	455.1	0.567	2.572	2.61	1.180	124.0	129.4	22.6	0.655
3-8140	3-8790	0.349	199.7	-4.5	2.92	0.468	70.0	0.639	1.016	170.2	851.7	0.316	1.715	2.61	1.023	133.5	109.6	24.8	0.749
3-8140	3-8800	0.448	206.0	-7.4	3.89	0.461	56.5	0.771	1.009	167.8	859.4	0.231	1.788	3.42	1.018	140.5	116.5	23.8	0.858
3-8140	3-8810	0.580	207.8	-8.6	5.80	0.458	39.8	0.874	1.006	168.7	870.3	0.127	1.886	5.17	1.015	150.9	121.4	22.9	1.018
3-8140	3-8850	0.512	175.7	0.3	-3.20	0.235	79.9	0.911	0.871	179.0	920.7	0.077	1.665	-4.39	0.924	24.6	43.2	14.9	1.057
3-8140	3-8860	0.479	159.9	6.8	-3.20	0.288	111.1	0.881	0.893	183.0	924.8	0.106	1.679	-4.39	0.939	28.4	41.0	13.8	1.009
3-8140	3-8860	0.524	104.0	21.6	-1.77	0.726	133.1	0.689	1.480	219.4	610.9	0.459	2.500	-3.11	1.149	49.9	27.6	7.5	0.767
3-8140	3-8870	0.433	100.4	22.3	-0.97	0.726	125.6	0.591	1.478	224.5	625.9	0.605	2.352	-2.46	1.146	58.4	30.2	8.2	0.619
3-8140	3-8880	0.366	98.0	23.0	-0.43	0.725	120.2	0.514	1.475	227.6	638.6	0.717	2.234	-2.09	1.144	64.7	33.4	8.9	0.506
3-8140	3-8890	0.581	218.2	-15.4	-0.03	0.577	40.7	0.812	1.149	160.3	581.1	0.216	2.082	-1.86	1.054	36.0	70.4	21.0	0.942
3-8140	3-8890	0.316	96.5	23.8	-0.03	0.724	116.2	0.456	1.472	229.1	649.9	0.801	2.143	-1.86	1.141	69.6	36.9	9.6	0.419
3-8140	3-8900	0.526	220.4	-15.8	0.30	0.589	46.3	0.756	1.167	157.6	588.0	0.285	2.048	-1.73	1.058	41.4	77.0	21.5	0.856
3-8140	3-8900	0.278	95.6	24.6	0.30	0.723	113.1	0.411	1.468	229.7	660.1	0.865	2.072	-1.73	1.138	73.6	40.2	10.0	0.351
3-8140	3-8910	0.474	222.3	-16.1	0.60	0.600	51.7	0.695	1.185	155.3	595.3	0.361	2.009	-1.65	1.063	46.6	83.5	21.7	0.771
3-8140	3-8910	0.248	98.1	25.5	0.60	0.722	110.8	0.376	1.465	229.7	669.7	0.914	2.016	-1.65	1.136	76.9	43.2	10.0	0.295

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8140	3-8920	0.418	224.1	-16.1	0.87	0.611	56.9	0.632	1.204	153.3	602.9	0.443	1.966	-1.63	1.068	51.7	89.8	21.5	0.686
3-8140	3-8920	0.226	94.9	26.5	0.87	0.720	109.0	0.350	1.461	229.2	678.8	0.950	1.972	-1.62	1.134	79.7	45.3	9.5	0.249
3-8140	3-8930	0.366	225.7	-15.9	1.14	0.622	51.7	0.569	1.224	151.9	611.0	0.528	1.920	-1.65	1.073	56.6	95.7	20.9	0.603
3-8140	3-8930	0.208	95.0	27.7	1.14	0.719	107.6	0.330	1.458	228.6	687.7	0.977	1.939	-1.65	1.133	82.2	46.1	8.3	0.213
3-8140	3-8940	0.315	226.9	-15.3	1.43	0.632	66.3	0.506	1.244	151.1	619.8	0.515	1.873	-1.72	1.079	61.3	101.2	19.9	0.522
3-8140	3-8940	0.196	95.1	28.9	1.43	0.719	106.5	0.315	1.456	228.0	696.7	0.997	1.915	-1.72	1.132	84.5	45.0	6.0	0.184
3-8150	3-8300	0.577	93.4	16.4	-6.66	0.876	132.0	0.699	2.281	244.9	436.4	0.687	---	7.82	1.248	120.3	3.8	15.5	0.665
3-8150	3-8310	0.513	96.3	20.2	-2.99	0.822	129.5	0.643	1.889	238.9	440.2	0.675	---	4.28	1.213	119.7	13.8	13.7	0.625
3-8150	3-8320	0.458	99.8	21.5	-1.57	0.775	126.8	0.599	1.651	232.9	444.0	0.662	---	3.00	1.184	119.3	22.1	14.9	0.598
3-8150	3-8330	0.408	104.0	22.2	-0.78	0.732	123.9	0.565	1.492	226.7	447.8	0.649	---	2.36	1.159	118.9	30.2	16.7	0.577
3-8150	3-8340	0.362	108.9	22.4	-0.25	0.693	120.7	0.540	1.379	220.4	451.5	0.635	---	2.00	1.137	118.7	38.4	18.8	0.561
3-8150	3-8350	0.320	114.9	22.2	0.15	0.658	117.3	0.522	1.295	214.1	455.3	0.619	---	1.77	1.118	118.6	46.8	20.8	0.550
3-8150	3-8360	0.283	122.4	21.6	0.48	0.627	113.5	0.512	1.230	207.8	459.0	0.600	---	1.64	1.102	118.8	55.4	22.6	0.544
3-8150	3-8370	0.251	131.9	20.1	0.77	0.598	109.4	0.508	1.179	201.5	462.8	0.580	---	1.57	1.087	119.2	64.1	24.1	0.543
3-8150	3-8380	0.226	143.8	17.4	1.05	0.571	104.9	0.512	1.137	195.2	466.7	0.555	---	1.55	1.074	119.9	73.1	25.2	0.548
3-8150	3-8390	0.214	157.8	13.2	1.33	0.547	99.7	0.524	1.103	189.1	470.8	0.525	---	1.59	1.062	121.0	82.0	25.8	0.561
3-8150	3-8400	0.218	172.7	7.5	1.63	0.525	93.8	0.545	1.075	183.2	475.1	0.489	---	1.67	1.051	122.7	91.0	26.0	0.583
3-8150	3-8410	0.242	186.7	1.5	1.98	0.505	86.9	0.578	1.052	177.8	479.8	0.444	1.660	1.83	1.041	125.1	99.6	25.7	0.619
3-8150	3-8420	0.289	198.1	-3.5	2.42	0.488	78.6	0.625	1.033	173.0	485.3	0.387	1.679	2.10	1.031	128.6	107.9	25.0	0.672
3-8150	3-8430	0.361	206.2	-7.2	3.02	0.473	68.4	0.691	1.018	169.4	491.8	0.314	1.722	2.55	1.023	133.7	115.3	23.9	0.751
3-8150	3-8440	0.462	210.9	-9.4	3.99	0.462	55.3	0.779	1.007	167.7	500.2	0.223	1.792	3.37	1.016	141.2	121.7	22.8	0.867
3-8150	3-8450	0.596	212.1	-10.3	5.96	0.456	38.4	0.883	1.002	169.0	511.6	0.118	1.887	5.19	1.012	152.0	126.3	21.7	1.032
3-8150	3-8560	0.569	234.1	-18.9	1.01	0.679	44.8	0.729	1.343	148.3	238.5	---	2.322	-1.55	1.107	44.9	97.3	21.8	0.816
3-8150	3-8570	0.536	236.4	-19.1	1.27	0.690	47.9	0.688	1.370	145.2	245.0	---	2.312	-1.58	1.112	49.7	104.3	21.0	0.753
3-8150	3-8580	0.505	238.7	-19.1	1.55	0.699	50.8	0.649	1.395	142.2	251.5	---	2.301	-1.65	1.118	52.2	111.0	19.9	0.693
3-8150	3-8590	0.477	240.9	-19.0	1.86	0.708	53.4	0.611	1.420	139.4	258.2	---	2.287	-1.77	1.124	55.6	117.6	18.4	0.635
3-8150	3-8600	0.451	243.0	-18.6	2.23	0.716	55.8	0.576	1.443	136.6	265.0	---	2.273	-1.98	1.129	58.9	123.8	16.4	0.580
3-8150	3-8610	0.426	245.0	-18.0	2.72	0.723	58.0	0.542	1.464	134.0	271.9	---	2.258	-2.32	1.135	62.0	129.6	13.9	0.527
3-8150	3-8620	0.405	246.9	-16.8	3.44	0.729	59.9	0.512	1.483	131.6	279.1	---	2.242	-2.89	1.140	64.9	134.9	10.6	0.478
3-8150	3-8630	0.387	248.7	-14.6	4.68	0.734	61.7	0.484	1.501	129.4	286.4	---	2.226	-3.99	1.145	67.8	139.3	5.5	0.452
3-8150	3-8640	0.376	250.4	-9.2	7.59	0.739	63.2	0.459	1.516	127.3	294.0	---	2.211	-6.76	1.150	70.6	141.9	-4.7	0.400
3-8150	3-8650	0.462	247.8	15.7	24.79	0.743	64.5	0.437	1.530	125.5	301.7	---	2.198	-23.83	1.155	73.2	140.9	-43.5	0.549
3-8150	3-8660	0.370	243.8	-46.5	-12.93	0.746	65.8	0.416	1.541	123.9	310.3	---	2.182	14.02	1.159	76.0	183.2	47.9	0.392
3-8150	3-8670	0.327	251.3	-32.2	-4.38	0.749	66.7	0.400	1.550	122.5	318.6	---	2.171	5.60	1.163	78.5	167.7	31.0	0.278
3-8150	3-8680	0.314	253.1	-27.9	-2.19	0.751	67.5	0.388	1.558	121.4	327.3	---	2.162	3.55	1.167	81.0	165.0	25.7	0.234
3-8150	3-8690	0.307	254.1	-25.8	-1.15	0.753	68.0	0.378	1.564	120.5	336.4	---	2.155	2.65	1.171	83.6	162.1	24.3	0.202
3-8150	3-8700	0.302	254.8	-24.4	-0.51	0.754	68.4	0.372	1.568	119.9	345.7	---	2.152	2.17	1.174	86.1	156.9	24.9	0.180
3-8150	3-8710	0.301	255.1	-23.4	-0.05	0.754	68.5	0.370	1.571	119.6	355.4	---	2.152	1.88	1.176	88.8	149.1	26.5	0.170
3-8150	3-8720	0.303	255.2	-22.6	0.31	0.755	68.3	0.372	1.572	119.5	365.4	0.987	2.158	1.70	1.178	91.5	140.0	27.7	0.174
3-8150	3-8730	0.309	255.0	-21.9	0.62	0.755	67.9	0.379	1.573	119.8	375.8	0.976	2.169	1.60	1.180	94.3	132.1	28.0	0.193
3-8150	3-8740	0.319	254.5	-21.2	0.90	0.755	67.1	0.392	1.572	120.3	386.5	0.956	2.188	1.56	1.181	97.4	127.2	27.5	0.224
3-8150	3-8750	0.335	253.7	-20.7	1.18	0.754	65.9	0.412	1.571	121.2	397.6	0.924	2.217	1.56	1.182	100.7	125.2	26.5	0.268
3-8150	3-8760	0.357	252.6	-20.2	1.47	0.754	64.1	0.439	1.569	122.6	409.2	0.880	2.258	1.62	1.187	104.5	125.6	25.3	0.324
3-8150	3-8760	0.319	140.1	18.3	1.47	0.531	113.8	0.632	1.083	195.9	842.4	0.399	1.767	1.62	1.054	128.9	81.3	25.1	0.692
3-8150	3-8760	0.444	128.3	20.8	1.47	0.570	128.4	0.719	1.135	201.4	847.9	0.319	1.951	1.62	1.074	115.4	78.7	24.5	0.810
3-8150	3-8770	0.388	251.0	-19.7	1.79	0.753	61.6	0.478	1.366	124.6	421.3	0.818	2.314	1.74	1.181	108.8	127.4	24.1	0.394
3-8150	3-8770	0.253	165.6	10.1	1.79	0.498	98.1	0.599	1.044	185.5	842.2	0.418	1.670	1.74	1.037	126.7	92.4	25.7	0.646
3-8150	3-8770	0.587	125.3	21.1	1.79	0.607	142.1	0.824	1.195	201.1	857.8	0.210	2.180	1.74	1.094	144.9	85.0	24.5	0.974
3-8150	3-8780	0.432	249.0	-19.3	2.17	0.753	58.2	0.530	1.564	127.4	434.3	0.735	2.392	1.94	1.180	114.0	130.0	22.9	0.481
3-8150	3-8780	0.266	185.4	1.9	2.17	0.481	87.0	0.617	1.026	178.1	845.0	0.393	1.660	1.94	1.029	128.1	102.1	25.4	0.663
3-8150	3-8790	0.492	246.1	-18.8	2.68	0.752	53.3	0.600	1.562	131.4	448.5	0.625	2.498	2.28	1.179	120.5	132.8	21.7	0.593
3-8150	3-8790	0.318	199.3	-4.2	2.68	0.469	75.8	0.662	1.015	172.5	849.5	0.343	1.687	2.28	1.022	131.4	110.7	24.5	0.774
3-8150	3-8800	0.576	242.3	-18.2	3.42	0.752	48.4	0.691	1.561	137.4	464.6	0.482	2.640	2.87	1.178	129.0	135.1	20.7	0.739
3-8150	3-8800	0.403	207.8	-8.0	3.42	0.461	63.2	0.733	1.007	168.8	856.0	0.269	1.745	2.87	1.017	137.1	118.2	23.4	0.803
3-8150	3-8810	0.520	211.7	-9.9	4.72	0.456	48.0	0.828	1.002	168.0	865.3	0.173	1.832	4.03	1.013	145.9	124.0	22.3	0.939
3-8150	3-8850	0.569	183.1	-2.7	-3.98	0.197	66.9	0.946	0.857	178.6	915.9	0.047	1.667	-5.22	0.914	19.2	45.9	15.9	1.125
3-8150	3-8850	0.527	158.2	7.4	-3.98	0.294	126.2	0.909	0.893	184.3	921.7	0.081	1.706	-5.22	0.940	24.8	42.8	14.3	1.062
3-8150	3-8860	0.567	111.2	20.8	-2.02	0.725	137.2	0.738	1.472	216.1	603.3	0.385	2.558	-3.40	1.148	45.4	30.8	9.0	0.844
3-8150	3-8870	0.462	107.0	21.7	-1.06	0.725	128.4	0.629	1.471	222.4	619.4	0.545	2.397	-2.58	1.145	55.0	33.0	9.5	0.676
3-8150	3-8880	0.385	104.3	22.6	-0.46	0.725	122.2	0.543	1.469	226.2	632.9	0.670	2.267	-2.14	1.142	62.2	36.0	10.2	0.550
3-8150	3-8890	0.328	102.5	23.4	-0.03	0.723	117.6	0.477	1.465	228.3	644.6	0.766	2.165	-1.87	1.139	67.6	39.5	10.9	0.454
3-8150	3-8900	0.553	224.0	-16.9	0.31	0.583	44.1	0.780	1.154	158.8	584.8	0.254	2.054	-1.70	1.054	39.1	78.7	21.8	0.890
3-8150	3-8900	0.285	101.5	24.3	0.31	0.722	114.1	0.427	1.462	229.1	655.1	0.838	2.086	-1.70	1.137	71.9	43.0	11.4	0.378
3-8150	3-8910	0.499	226.1	-17.2	0.61	0.594	49.6	0.721	1.172	156.4	592.0	0.328	2.017	-1.60	1.058	44.4	85.2	21.9	0.804
3-8150	3-8910	0.252	101.0	25.2	0.61	0.721	111.5	0.388	1.458	229.2	664.8	0.892	2.024	-1.60	1.135	75.4	46.3	11.6	0.317
3-8150	3-8920	0.444	228.0	-17.3	0.87	0.605	54.9	0.658	1.192	154.2	599.4	0.407	1.976	-1.56	1.063	49.6	91.6	21.7	0.719
3-8150	3-8920	0.226	100.9	26.2	0.87	0.720	109.4	0.358	1.454	228.8	674.0	0.934	1.975	-1.56	1.133	78.3	49.0	11.4	0.268
3-8150	3-8930	0.391	229.6	-17.1	1.13	0.617	59.9	0.594	1.211	152.6	607.3	0.491	1.931	-1.56	1.069	54.6	97.7	21.1	0.635
3-8150	3-8930	0.207	101.1	27.4	1.13	0.719	107.8	0.335	1.451	228.2	682.9	0.965	1.937	-1.56	1.131	80.9	50.6	10.6	0.228
3-8150	3-8940	0.339	231.0	-16.7	1.40	0.627	64.7	0.530	1.231	151.6	615.9	0.578	1.884	-1.60	1.075	59.4	103.3	20.2	0.552
3-8150	3-8940	0.192	101.4	28.6	1.40	0.718	106.6	0.318	1.448	227.4	691.7	0.987	1.909	-1.60	1.130	83.3	50.6	9.0	0.195
3-8150	3-8950	0.289	232.0	-15.7	1.69	0.638	69.1	0.468	1.251	151.4	625.2	0.665	1.837	-1.70	1.081	64.1	108.4	18.8	0.472
3-8150	3-8950	0.182	101.8	30.0	1.69	0.717	105.8	0.306	1.446	226.8	700.6	1.003	1.890	-1.70	1.130	85.5	48.4	6.3	0.170
3-8160	3-8310	0.572	99.2	19.5	-3.74	0.871	132.6	0.702	2.217	242.9	439.7	0.661	---	5.08	1.245	121.5	13.7	14.5	0.677
3-8150	3-8320	0.510	102.5	21.3	-1.80	0.815	130.0	0.647	1.837	236.8	443.6	0.649	---	3.27	1.209	120.9	22.3	15.0	0.642
3-8160	3-8330	0.454	106.4	22.0	-0.86	0.766	127.1	0.604	1.607	230.7	447.4	0.637	---	2.46	1.179	120.4	30.5	16.7	0.614
3-8160	3-8340	0.403	110.8	22.2	-0.27	0.722	124.0	0.571	1.454	224.5	451.1	0.624	---	2.02	1.153	120.0	38.7	18.8	0.592
3-8160	3-8350	0.356	116.2	22.0	0.16	0.682	120.7	0.547	1.345	218.2	454.9	0.609	---	1.76	1.131	119.8	47.0	20.7	0.575
3-8160	3-8360	0.314	122.8	21.4	0.49	0.647	117.0	0.531	1.265	211.8	458.6	0.593	---	1.60	1.112	119.7	55.6	22.5	0.564
3-8160	3-8370	0.277	131.1	20.2	0.78	0.614	113.0	0.522	1.202	205.5	462.4	0.575	---	1.51	1.095	119.9	64.4	24.0	0.558

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8160	3-8380	0.247	141.5	18.0	1.05	0.585	108.6	0.521	1.153	199.2	466.3	0.553	---	1.47	1.029	120.4	73.3	25.0	0.558
3-8160	3-8390	0.227	154.2	14.3	1.31	0.558	103.7	0.527	1.114	192.9	470.2	0.527	---	1.48	1.066	121.2	82.4	25.7	0.565
3-8160	3-8400	0.221	168.6	9.2	1.58	0.533	98.0	0.543	1.082	186.9	474.4	0.495	---	1.54	1.053	122.5	91.4	25.8	0.580
3-8160	3-8410	0.233	183.2	3.1	1.89	0.511	91.5	0.568	1.055	181.1	478.8	0.455	---	1.66	1.042	124.5	100.2	25.5	0.607
3-8160	3-8420	0.260	196.1	-2.6	2.26	0.491	83.8	0.607	1.033	175.9	483.8	0.406	1.661	1.89	1.031	127.3	108.4	24.7	0.650
3-8160	3-8430	0.328	206.1	-6.9	2.78	0.474	74.3	0.663	1.016	171.6	489.6	0.342	1.689	2.20	1.022	131.5	116.4	23.6	0.714
3-8160	3-8440	0.414	212.7	-9.8	3.49	0.460	62.4	0.740	1.002	168.8	496.9	0.261	1.744	2.79	1.014	137.7	123.3	22.3	0.810
3-8160	3-8450	0.533	215.7	-11.4	4.80	0.451	47.1	0.837	0.994	168.5	506.6	0.162	1.826	3.96	1.008	146.8	128.8	21.1	0.949
3-8160	3-8560	0.586	237.7	-19.8	1.01	0.673	43.6	0.745	1.323	149.9	235.6	---	2.308	-1.48	1.101	43.3	98.9	21.9	0.839
3-8160	3-8570	0.553	240.1	-19.9	1.26	0.684	46.8	0.704	1.350	146.7	242.0	---	2.299	-1.48	1.108	47.1	105.8	21.1	0.776
3-8160	3-8580	0.521	242.4	-19.9	1.51	0.694	49.8	0.664	1.376	143.7	248.5	---	2.289	-1.52	1.114	50.8	113.6	20.0	0.715
3-8160	3-8590	0.492	244.6	-19.8	1.79	0.704	52.5	0.625	1.401	140.8	255.1	---	2.276	-1.62	1.120	54.3	119.2	18.5	0.656
3-8160	3-8600	0.464	246.7	-19.5	2.11	0.712	55.0	0.588	1.424	138.0	261.9	---	2.262	-1.77	1.126	57.6	123.5	16.6	0.600
3-8160	3-8610	0.439	248.7	-19.0	2.52	0.719	57.3	0.554	1.447	135.3	268.8	---	2.247	-2.03	1.131	60.7	131.4	14.2	0.546
3-8160	3-8620	0.417	250.6	-18.1	3.08	0.726	59.3	0.522	1.467	132.8	275.9	---	2.232	-2.45	1.137	63.8	136.9	11.2	0.495
3-8160	3-8630	0.397	252.4	-16.5	3.97	0.732	61.2	0.492	1.485	130.5	283.2	---	2.217	-3.21	1.142	66.7	141.6	7.1	0.448
3-8160	3-8640	0.381	254.1	-13.2	5.74	0.737	62.8	0.466	1.501	128.4	290.7	---	2.201	-4.85	1.147	69.5	145.1	0.3	0.407
3-8160	3-8650	0.385	255.0	-2.8	11.56	0.741	64.2	0.443	1.516	126.3	298.4	---	2.187	-10.54	1.152	72.2	145.3	-18.1	0.402
3-8160	3-8660	0.575	211.2	-63.7	-37.62	0.745	65.6	0.420	1.528	124.7	307.1	---	2.170	38.97	1.157	75.0	233.7	51.0	0.768
3-8160	3-8670	0.338	255.1	-35.5	-5.99	0.748	66.5	0.404	1.538	123.3	315.0	---	2.160	7.26	1.161	77.5	174.0	33.6	0.392
3-8160	3-8680	0.322	257.5	-29.7	-2.61	0.750	67.4	0.390	1.547	122.1	323.6	---	2.150	4.01	1.165	80.0	169.7	25.1	0.247
3-8160	3-8690	0.313	258.6	-26.4	-1.29	0.752	68.0	0.379	1.553	121.1	332.6	---	2.142	2.82	1.169	82.6	167.4	22.4	0.212
3-8160	3-8700	0.307	259.3	-24.9	-0.55	0.753	68.5	0.372	1.558	120.4	341.8	---	2.137	2.22	1.172	85.1	168.3	22.4	0.186
3-8160	3-8710	0.304	259.7	-23.8	-0.05	0.754	68.7	0.368	1.562	120.0	351.4	---	2.136	1.88	1.175	87.7	168.7	23.7	0.171
3-8160	3-8720	0.305	259.9	-22.9	0.32	0.755	68.6	0.368	1.564	119.8	361.3	0.988	2.139	1.87	1.177	90.1	168.0	25.4	0.169
3-8160	3-8730	0.309	259.8	-22.2	0.63	0.755	68.3	0.373	1.564	119.9	371.5	0.981	2.148	1.55	1.179	93.1	168.5	26.4	0.181
3-8160	3-8740	0.317	259.4	-21.6	0.91	0.755	67.7	0.383	1.564	120.3	382.1	0.965	2.163	1.45	1.180	96.1	169.3	26.3	0.207
3-8160	3-8750	0.330	258.7	-21.1	1.17	0.754	66.7	0.400	1.563	121.1	393.0	0.938	2.187	1.47	1.180	99.3	170.2	25.8	0.246
3-8160	3-8760	0.350	257.7	-20.7	1.44	0.752	65.2	0.423	1.561	122.2	404.3	0.900	2.222	1.51	1.180	102.6	171.7	24.5	0.296
3-8160	3-8770	0.377	256.4	-20.3	1.73	0.753	63.0	0.457	1.559	123.8	416.1	0.847	2.271	1.59	1.180	106.8	173.0	23.3	0.359
3-8160	3-8770	0.273	158.8	12.5	1.73	0.509	105.0	0.609	1.053	190.1	842.5	0.411	1.695	1.59	1.081	127.4	92.4	25.4	0.659
3-8160	3-8770	0.525	131.2	19.9	1.73	0.591	136.7	0.783	1.133	201.6	853.9	0.252	2.073	1.59	1.083	141.0	86.9	24.6	0.905
3-8160	3-8780	0.434	254.6	-20.0	2.03	0.753	60.0	0.502	1.556	126.2	428.7	0.775	2.338	1.74	1.179	113.6	133.3	22.1	0.438
3-8160	3-8780	0.258	181.0	3.8	2.06	0.487	92.6	0.609	1.029	181.7	944.2	0.402	1.656	1.74	1.030	127.5	102.5	25.1	0.653
3-8160	3-8790	0.466	252.1	-19.6	2.48	0.752	55.9	0.564	1.554	129.6	442.2	0.678	2.431	2.00	1.178	117.4	136.1	20.8	0.537
3-8160	3-8790	0.293	197.8	-3.4	2.48	0.473	81.5	0.641	1.015	175.2	847.8	0.364	1.665	2.00	1.022	129.8	111.6	24.3	0.685
3-8160	3-8800	0.539	248.8	-19.2	3.06	0.752	49.9	0.646	1.553	134.5	457.3	0.450	2.555	2.43	1.176	124.9	138.7	19.7	0.666
3-8160	3-8800	0.364	208.8	-8.2	3.06	0.462	69.6	0.699	1.005	170.5	853.3	0.303	1.707	2.43	1.016	136.3	119.6	23.0	0.757
3-8160	3-8810	0.466	214.7	-10.8	4.00	0.456	55.5	0.783	0.999	168.2	861.1	0.217	1.781	3.23	1.011	141.5	126.2	21.7	0.869
3-8160	3-8850	0.586	159.9	6.8	-5.29	0.293	139.3	0.942	0.890	184.3	917.2	0.051	1.729	-6.58	0.938	19.7	44.9	15.1	1.132
3-8160	3-8870	0.498	113.8	20.8	-1.19	0.725	131.7	0.673	1.463	220.0	612.5	0.479	2.846	-2.74	1.144	51.2	36.0	10.8	0.742
3-8160	3-8880	0.409	110.6	21.9	-0.50	0.724	124.5	0.576	1.462	224.7	626.9	0.619	2.304	-2.19	1.141	59.3	38.8	11.4	0.599
3-8160	3-8890	0.344	108.6	22.8	-0.03	0.724	119.2	0.502	1.459	227.3	639.3	0.727	2.197	-1.87	1.138	65.4	42.1	12.1	0.491
3-8160	3-8900	0.581	227.7	-18.0	0.32	0.577	41.8	0.804	1.142	160.1	581.7	0.224	2.059	-1.67	1.049	36.8	80.4	22.0	0.925
3-8160	3-8900	0.295	107.5	23.7	0.32	0.722	115.3	0.445	1.455	228.6	650.2	0.808	2.303	-1.67	1.136	70.1	45.7	12.7	0.407
3-8160	3-8910	0.526	229.9	-18.3	0.62	0.589	47.4	0.746	1.160	157.5	588.7	0.295	2.024	-1.55	1.054	42.2	87.0	22.1	0.839
3-8160	3-8910	0.258	106.9	24.7	0.62	0.721	112.3	0.401	1.451	228.9	660.1	0.869	2.034	-1.55	1.133	73.9	49.3	13.0	0.341
3-8160	3-8920	0.471	231.9	-18.4	0.88	0.600	52.8	0.684	1.178	155.2	596.0	0.372	1.985	-1.49	1.059	47.4	93.4	21.9	0.753
3-8160	3-8920	0.229	106.9	25.7	0.88	0.720	110.0	0.388	1.448	228.6	669.3	0.915	1.980	-1.49	1.131	77.0	52.3	13.0	0.288
3-8160	3-8930	0.417	233.6	-18.3	1.13	0.612	58.0	0.621	1.198	153.4	603.7	0.455	1.941	-1.43	1.065	52.5	99.6	21.3	0.668
3-8160	3-8930	0.207	107.1	26.8	1.13	0.719	108.2	0.342	1.444	227.9	678.2	0.950	1.938	-1.47	1.130	79.7	54.6	12.5	0.244
3-8160	3-8940	0.364	235.1	-17.9	1.38	0.623	62.9	0.556	1.216	152.1	612.0	0.541	1.893	-1.49	1.071	57.4	105.4	20.4	0.504
3-8160	3-8940	0.189	107.6	28.0	1.38	0.718	106.8	0.322	1.448	227.1	686.9	0.977	1.905	-1.49	1.128	82.1	55.5	11.4	0.208
3-8160	3-8950	0.313	236.3	-17.2	1.64	0.633	67.5	0.492	1.238	151.6	621.0	0.629	1.848	-1.56	1.077	62.2	110.7	19.1	0.503
3-8160	3-8950	0.177	108.2	29.4	1.64	0.717	105.8	0.308	1.438	226.3	695.6	0.995	1.882	-1.56	1.128	84.3	56.6	9.4	0.180
3-8160	3-8960	0.264	236.9	-15.9	1.93	0.644	71.8	0.432	1.258	152.0	630.9	0.715	1.802	-1.68	1.083	66.8	115.2	17.4	0.424
3-8160	3-8960	0.169	108.8	30.8	1.93	0.716	105.1	0.299	1.437	225.7	704.6	1.008	1.866	-1.68	1.128	86.5	57.1	6.3	0.169
3-8170	3-8320	0.569	105.4	20.8	-2.14	0.864	133.1	0.704	2.142	240.7	443.0	0.635	---	3.64	1.241	122.8	22.5	15.3	0.692
3-8170	3-8330	0.506	109.0	21.6	-0.96	0.807	130.3	0.649	1.780	234.6	446.9	0.624	---	2.59	1.204	122.1	30.7	16.8	0.657
3-8170	3-8340	0.449	113.1	21.9	-0.29	0.756	127.3	0.608	1.561	228.4	450.7	0.612	---	2.05	1.174	121.5	39.0	18.7	0.628
3-8170	3-8350	0.397	117.9	21.7	0.16	0.711	124.1	0.576	1.415	222.2	454.5	0.599	---	1.74	1.147	121.0	47.3	20.6	0.605
3-8170	3-8360	0.350	123.8	21.2	0.51	0.671	120.5	0.554	1.311	215.9	458.2	0.585	---	1.56	1.124	120.8	55.9	22.4	0.588
3-8170	3-8370	0.308	131.0	20.1	0.80	0.634	116.6	0.540	1.234	209.5	462.0	0.568	---	1.45	1.104	120.7	64.7	23.8	0.577
3-8170	3-8380	0.272	140.0	18.2	1.05	0.601	112.3	0.533	1.175	203.2	465.8	0.549	---	1.39	1.087	121.0	73.6	24.9	0.571
3-8170	3-8390	0.245	151.2	15.2	1.30	0.571	107.6	0.534	1.128	196.9	469.7	0.526	---	1.38	1.071	121.5	82.7	25.5	0.572
3-8170	3-8400	0.229	164.6	10.6	1.55	0.544	103.2	0.543	1.090	190.7	473.7	0.498	---	1.42	1.057	122.5	91.7	25.6	0.581
3-8170	3-8410	0.231	179.2	4.8	1.82	0.519	96.0	0.563	1.060	184.7	477.9	0.463	---	1.50	1.044	124.0	100.6	25.3	0.601
3-8170	3-8420	0.254	193.2	-1.2	2.14	0.496	88.8	0.594	1.036	179.2	482.6	0.420	1.649	1.65	1.032	126.3	109.2	24.5	0.633
3-8170	3-8430	0.300	204.9	-6.3	2.54	0.476	80.0	0.640	1.015	174.3	487.8	0.365	1.664	1.90	1.021	129.8	117.3	23.3	0.685
3-8170	3-8440	0.373	213.4	-10.0	3.11	0.460	69.1	0.705	0.999	170.5	494.2	0.294	1.703	2.33	1.012	134.8	124.7	21.9	0.763
3-8170	3-8450	0.476	218.4	-12.2	4.03	0.447	55.3	0.792	0.987	168.8	502.5	0.205	1.770	3.12	1.004	142.4	130.9	20.4	0.879
3-8170	3-8570	0.570	243.7	-20.7	1.25	0.678	45.7	0.720	1.329	148.2	239.1	---	2.285	-1.33	1.102	46.6	107.3	21.1	0.799
3-8170	3-8580	0.538	246.1	-20.7	1.49	0.689	48.8	0.679	1.356	145.1	245.5	---	2.276	-1.40	1.109	49.3	114.1	20.0	0.737
3-8170	3-8590	0.507	248.3	-20.6	1.73	0.699	51.6	0.639	1.381	142.1	252.1	---	2.264	-1.47	1.115	52.9	120.2	18.5	0.678
3-8170	3-8600	0.479	250.5	-20.3	2.01	0.708	54.2	0.601	1.406	139.3	258.8	---	2.251	-1.59	1.121	56.3	127.1	16.6	0.620
3-8170	3-8610	0.453	252.5	-19.9	2.35	0.716	56.6	0.566	1.429	136.6	265.6	---	2.237	-1.78	1.127	59.5	133.2	14.4	0.566
3-8170	3-8620	0.429	254.4	-19.1	2.80	0.723	58.7	0.533	1.450	134.0	273.7	---	2.222	-2.09	1.133	62.6	138.8	11.7	0.514
3-8170	3-8630	0.406	256.2	-17.9	3.46	0.729	60.6	0.502	1.469	131.7	279.9	---	2.206	-2.62	1.139	65.5	143.9	8.2	0.464
3-8170	3-8640	0.390	257.9	-15.7	4.63	0.735	62.3	0.474	1.486	129.5	287.4	---	2.191	-3.67	1.144	68.4	148.0	3.0	0.419
3-8170	3-8650	0.379	259.1	-10.4	7.50	0.739	63.8	0.450	1.501	127.5	295.0	---	2.176	-6.42	1.149	71.1	150.1	-7.3	0.387

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8170	3-8650	0.301	253.0	18.1	29.00	0.743	65.1	0.428	1.515	125.7	302.8	---	2.163	-27.80	1.154	73.7	147.2	-52.5	0.602
3-8170	3-8670	0.339	258.0	-42.1	-9.58	0.717	66.3	0.408	1.526	124.1	311.4	---	2.149	10.90	1.159	76.5	164.4	39.8	0.349
3-8170	3-8680	0.330	261.8	-30.6	-3.26	0.749	67.2	0.393	1.535	122.8	319.9	---	2.138	4.70	1.163	79.0	174.5	25.1	0.263
3-8170	3-8690	0.319	263.1	-27.1	-1.48	0.751	68.0	0.380	1.542	121.7	328.8	---	2.129	3.04	1.167	81.5	172.2	20.7	0.223
3-8170	3-8700	0.312	263.8	-25.2	-0.60	0.753	68.5	0.371	1.548	120.9	337.9	---	2.123	2.16	1.170	84.1	169.2	19.8	0.194
3-8170	3-8710	0.308	264.3	-24.0	-0.06	0.754	68.8	0.366	1.552	120.4	347.4	---	2.120	1.89	1.173	86.6	163.8	20.8	0.174
3-8170	3-8720	0.308	264.5	-23.1	0.34	0.755	68.9	0.365	1.554	120.1	357.2	---	2.121	1.68	1.175	89.2	156.0	22.6	0.166
3-8170	3-8730	0.310	264.5	-22.4	0.65	0.755	68.9	0.367	1.556	120.1	367.3	0.984	2.127	1.50	1.177	91.9	147.2	24.1	0.172
3-8170	3-8740	0.316	264.2	-21.8	0.92	0.755	68.2	0.375	1.556	120.3	377.7	0.972	2.139	1.41	1.178	94.8	140.0	24.7	0.192
3-8170	3-8750	0.327	263.7	-21.4	1.17	0.755	67.4	0.389	1.555	120.9	388.4	0.951	2.159	1.38	1.179	97.8	135.7	24.3	0.225
3-8170	3-8760	0.343	262.9	-21.0	1.42	0.754	66.1	0.409	1.553	121.8	399.5	0.918	2.189	1.39	1.179	101.2	134.2	23.5	0.270
3-8170	3-8770	0.367	261.7	-20.7	1.68	0.754	64.3	0.438	1.551	123.2	411.1	0.878	2.231	1.45	1.179	105.0	134.8	22.4	0.327
3-8170	3-8770	0.332	149.2	15.4	1.68	0.532	115.7	0.647	1.076	196.4	844.3	0.379	1.772	1.45	1.051	130.1	91.5	25.1	0.708
3-8170	3-8770	0.428	139.8	17.9	1.68	0.563	127.3	0.715	1.116	200.6	848.5	0.318	1.914	1.45	1.067	135.2	89.5	24.8	0.801
3-8170	3-8780	0.399	260.1	-20.4	1.97	0.753	61.7	0.478	1.549	125.1	423.2	0.809	2.289	1.56	1.178	109.3	136.7	21.1	0.398
3-8170	3-8780	0.260	175.4	6.1	1.97	0.495	98.7	0.608	1.033	185.7	843.8	0.405	1.662	1.56	1.032	127.4	102.8	24.9	0.652
3-8170	3-8780	0.582	135.8	18.5	1.97	0.604	142.2	0.827	1.180	200.6	858.7	0.204	2.155	1.56	1.089	145.3	95.6	24.3	0.974
3-8170	3-8790	0.348	258.0	-20.2	2.32	0.752	58.1	0.531	1.547	128.0	436.2	0.725	2.368	1.76	1.176	114.6	139.3	19.8	0.486
3-8170	3-8790	0.275	194.9	-2.2	2.32	0.477	87.2	0.625	1.015	178.6	846.5	0.381	1.650	1.76	1.023	128.7	112.3	24.0	0.668
3-8170	3-8800	0.507	255.1	-20.0	2.78	0.752	53.0	0.604	1.545	132.1	450.5	0.612	2.477	2.08	1.175	121.2	142.0	18.6	0.600
3-8170	3-8800	0.331	208.6	-8.0	2.78	0.465	75.6	0.670	1.004	172.7	851.0	0.331	1.677	2.08	1.015	132.1	120.7	22.7	0.730
3-8170	3-8810	0.595	251.2	-19.7	3.48	0.752	45.8	0.598	1.544	138.2	466.6	0.466	2.622	2.64	1.173	129.9	144.3	17.6	0.750
3-8170	3-8810	0.419	216.9	-11.4	3.48	0.457	62.6	0.742	0.996	169.1	857.5	0.257	1.735	2.64	1.010	137.9	127.9	21.2	0.811
3-8170	3-8820	0.540	220.4	-13.1	4.74	0.452	46.8	0.838	0.991	168.4	866.9	0.160	1.823	3.77	1.005	147.0	133.5	19.7	0.950
3-8170	3-8860	0.551	189.4	-5.3	-2.94	0.205	77.4	0.934	0.854	179.1	917.4	0.056	1.652	-4.39	0.909	21.3	55.1	18.2	1.093
3-8170	3-8860	0.513	171.7	2.2	-2.94	0.276	118.6	0.905	0.880	183.3	921.7	0.084	1.676	-4.39	0.927	25.4	52.5	17.3	1.045
3-8170	3-8870	0.541	120.8	19.6	-1.36	0.725	135.6	0.721	1.456	217.0	605.1	0.403	2.505	-2.93	1.142	46.8	30.2	12.2	0.816
3-8170	3-8880	0.439	117.1	20.9	-0.55	0.725	127.2	0.614	1.455	220.8	620.7	0.562	2.348	-2.25	1.139	58.1	41.6	12.6	0.654
3-8170	3-8890	0.364	114.8	21.9	-0.03	0.724	121.1	0.530	1.452	226.2	633.7	0.683	2.228	-1.87	1.137	62.9	44.8	13.3	0.532
3-8170	3-8900	0.308	113.4	22.9	0.34	0.723	116.7	0.466	1.449	228.0	645.1	0.774	2.124	-1.64	1.134	68.1	48.4	13.9	0.440
3-8170	3-8910	0.555	233.6	-19.2	0.64	0.584	45.1	0.771	1.147	158.6	585.4	0.262	2.031	-1.50	1.049	39.9	88.7	22.3	0.873
3-8170	3-8910	0.266	112.8	23.9	0.64	0.722	113.3	0.417	1.445	228.6	655.3	0.843	2.048	-1.50	1.132	72.9	52.0	14.3	0.367
3-8170	3-8920	0.300	235.7	-19.3	0.90	0.595	50.6	0.711	1.165	156.2	542.5	0.337	1.993	-1.42	1.055	45.2	95.3	22.0	0.787
3-8170	3-8920	0.234	112.7	24.9	0.90	0.720	110.7	0.379	1.441	228.4	664.8	0.895	1.988	-1.42	1.130	75.6	55.4	14.5	0.309
3-8170	3-8930	0.445	237.6	-19.3	1.13	0.607	55.9	0.646	1.184	154.2	600.1	0.417	1.951	-1.38	1.060	50.3	101.6	21.4	0.702
3-8170	3-8930	0.208	113.1	26.0	1.13	0.719	108.7	0.350	1.438	227.8	673.7	0.935	1.941	-1.38	1.128	78.5	58.2	14.2	0.261
3-8170	3-8940	0.391	239.3	-19.0	1.36	0.618	61.0	0.583	1.204	152.7	608.1	0.503	1.906	-1.35	1.066	55.4	107.5	20.5	0.617
3-8170	3-8940	0.189	113.7	27.2	1.36	0.718	107.1	0.328	1.434	226.9	682.3	0.964	1.904	-1.39	1.127	81.0	59.9	13.5	0.222
3-8170	3-8950	0.338	240.6	-18.4	1.60	0.629	65.8	0.518	1.225	151.8	616.8	0.590	1.859	-1.43	1.073	60.2	112.9	19.3	0.535
3-8170	3-8950	0.174	114.6	28.5	1.60	0.717	105.9	0.311	1.431	226.0	690.9	0.986	1.876	-1.43	1.126	83.2	60.0	12.0	0.190
3-8170	3-8960	0.288	241.4	-17.4	1.86	0.640	70.3	0.455	1.245	151.9	626.4	0.678	1.812	-1.52	1.079	64.9	117.7	17.7	0.454
3-8170	3-8960	0.164	115.4	29.9	1.86	0.716	105.1	0.299	1.429	225.2	699.7	1.002	1.857	-1.52	1.126	85.4	57.9	9.6	0.166
3-8170	3-8970	0.241	241.7	-15.7	2.16	0.650	74.4	0.398	1.265	153.0	637.0	0.762	1.768	-1.67	1.086	69.4	121.5	15.7	0.378
3-8170	3-8970	0.158	116.1	31.4	2.16	0.716	104.6	0.292	1.429	224.7	708.8	1.011	1.846	-1.67	1.127	87.5	53.0	6.2	0.151
3-8130	3-8330	0.566	111.7	21.2	-1.10	0.855	133.5	0.704	2.060	233.5	446.3	0.610	---	2.75	1.236	123.9	31.1	16.9	0.707
3-8180	3-8340	0.501	115.6	21.5	-0.32	0.797	130.6	0.652	1.719	232.4	450.1	0.599	---	2.09	1.198	123.1	39.3	18.6	0.670
3-8180	3-8350	0.443	120.0	21.3	0.18	0.746	127.4	0.611	1.513	226.2	454.0	0.588	---	1.73	1.167	122.5	47.6	20.5	0.681
3-8180	3-8360	0.391	125.2	20.8	0.53	0.700	124.0	0.582	1.374	219.9	457.8	0.575	---	1.51	1.140	122.0	56.2	22.2	0.617
3-8180	3-8370	0.343	131.5	19.8	0.82	0.659	120.2	0.561	1.276	213.5	461.6	0.560	---	1.38	1.116	121.8	65.0	23.7	0.600
3-8180	3-8380	0.302	139.3	18.2	1.07	0.621	116.1	0.548	1.203	207.2	465.4	0.543	---	1.31	1.096	121.7	74.0	24.7	0.588
3-8180	3-8390	0.268	149.1	15.7	1.30	0.588	111.5	0.544	1.147	200.8	469.2	0.523	---	1.28	1.078	122.0	83.0	25.3	0.584
3-8180	3-8400	0.244	161.2	11.8	1.53	0.557	106.3	0.548	1.103	194.5	473.1	0.499	---	1.29	1.062	122.7	92.5	25.4	0.586
3-8180	3-8410	0.235	175.1	6.5	1.77	0.529	100.4	0.561	1.067	188.4	477.2	0.469	---	1.35	1.047	123.8	101.1	25.0	0.598
3-8180	3-8420	0.246	189.6	0.3	2.04	0.504	93.6	0.585	1.038	182.6	481.5	0.431	---	1.46	1.034	125.7	109.8	24.2	0.622
3-8180	3-8430	0.279	202.7	-5.3	2.38	0.482	85.5	0.622	1.015	177.3	486.3	0.384	1.646	1.65	1.022	128.4	118.1	23.0	0.662
3-8180	3-8440	0.339	213.1	-9.7	2.82	0.462	75.5	0.676	0.996	172.8	492.0	0.322	1.670	1.96	1.011	132.6	125.7	21.5	0.724
3-8180	3-8450	0.427	220.1	-12.6	3.49	0.446	63.0	0.752	0.982	169.8	499.1	0.244	1.721	2.51	1.002	138.8	132.4	19.8	0.819
3-8180	3-8460	0.548	223.4	-14.1	4.23	0.436	46.8	0.848	0.974	169.4	508.7	0.148	1.800	3.63	0.995	148.0	137.7	18.3	0.960
3-8180	3-8570	0.508	247.4	-21.3	1.26	0.673	44.4	0.736	1.308	149.7	238.1	---	2.271	-1.28	1.097	48.9	108.9	21.1	0.823
3-8180	3-8580	0.555	249.8	-21.3	1.47	0.684	47.7	0.695	1.335	146.5	242.5	---	2.262	-1.29	1.104	41.8	115.7	19.9	0.760
3-8180	3-8590	0.524	252.1	-21.2	1.69	0.695	50.6	0.654	1.361	143.5	249.0	---	2.252	-1.33	1.110	51.4	122.3	18.4	0.700
3-8180	3-8600	0.494	254.3	-21.0	1.93	0.704	53.3	0.615	1.386	140.6	255.7	---	2.240	-1.41	1.117	54.9	128.7	16.6	0.642
3-8180	3-8610	0.467	256.4	-20.6	2.22	0.713	55.8	0.579	1.410	137.9	262.5	---	2.226	-1.55	1.123	58.2	134.9	14.4	0.586
3-8180	3-8620	0.443	258.3	-20.0	2.53	0.720	58.0	0.544	1.432	135.3	269.4	---	2.211	-1.78	1.129	61.3	140.7	11.9	0.533
3-8180	3-8630	0.420	260.1	-19.0	3.08	0.727	60.0	0.512	1.452	132.8	276.6	---	2.196	-2.17	1.135	64.3	146.0	8.8	0.482
3-8180	3-8640	0.400	261.8	-17.5	3.90	0.733	61.8	0.483	1.470	130.6	284.0	---	2.181	-2.86	1.141	67.2	150.6	4.6	0.435
3-8180	3-8650	0.385	263.1	-14.3	5.56	0.738	63.4	0.457	1.486	128.5	291.6	---	2.166	-4.41	1.146	70.0	153.0	-2.2	0.394
3-8180	3-8660	0.389	263.3	-3.7	11.52	0.742	64.8	0.434	1.500	126.6	299.4	---	2.152	-10.26	1.152	72.7	153.0	-21.3	0.390
3-8180	3-8670	0.455	248.9	-60.3	-23.85	0.746	66.1	0.413	1.512	124.9	307.9	---	2.137	25.22	1.156	75.4	218.0	51.0	0.550
3-8180	3-8680	0.339	266.2	-32.9	-4.38	0.749	67.1	0.396	1.523	123.5	316.2	---	2.126	5.86	1.161	78.0	179.8	26.5	0.284
3-8180	3-8690	0.326	267.6	-27.7	-1.75	0.751	67.9	0.382	1.531	122.4	324.9	---	2.116	3.34	1.165	80.5	176.8	19.4	0.236
3-8180	3-8700	0.318	268.4	-25.5	-0.67	0.753	68.5	0.372	1.537	121.4	333.9	---	2.109	2.38	1.168	83.0	174.5	17.3	0.203
3-8180	3-8710	0.313	268.9	-24.1	-0.06	0.754	68.9	0.365	1.542	120.8	343.3	---	2.104	1.89	1.171	85.6	170.4	17.7	0.179
3-8180	3-8720	0.311	269.2	-23.2	0.36	0.755	69.1	0.362	1.545	120.4	353.0	---	2.104	1.61	1.174	88.1	163.7	19.4	0.166
3-8180	3-8730	0.312	269.2	-22.5	0.68	0.755	69.0	0.363	1.547	120.2	362.9	0.986	8.107	1.44	1.175	90.8	155.2	21.3	0.166
3-8180	3-8740	0.316	269.0	-21.9	0.94	0.756	68.7	0.368	1.547	120.3	373.2	0.978	2.117	1.34	1.177	93.5	147.2	22.6	0.180
3-8180	3-8750	0.325	268.6	-21.4	1.18	0.755	68.0	0.379	1.547	120.7	383.8	0.961	2.133	1.29	1.178	96.5	141.6	22.8	0.207
3-8180	3-8760	0.339	267.9	-21.1	1.41	0.755	66.9	0.396	1.546	121.5	394.7	0.934	2.157	1.28	1.178	99.7	139.0	22.2	0.247
3-8180	3-8770	0.358	266.9	-20.8	1.64	0.755	65.4	0.421	1.544	122.6	406.0	0.894	2.193	1.32	1.177	103.2	138.8	21.3	0.297
3-8180	3-8780	0.386	265.6	-20.6	1.89	0.754	63.2	0.455	1.541	124.2	417.8	0.840	2.243	1.40	1.176	107.2	140.2	20.1	0.361

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8180	3-8780	0.279	168.6	8.7	1.89	0.508	105.8	0.618	1.042	190.4	843.9	0.398	1.686	1.40	1.036	128.0	102.7	24.7	0.665
3-8180	3-8780	0.520	141.7	17.0	1.89	0.588	136.7	0.785	1.148	201.2	854.8	0.246	2.049	1.40	1.078	141.3	97.5	24.3	0.903
3-8180	3-8790	0.425	263.8	-20.5	2.19	0.753	60.1	0.502	1.539	126.6	430.4	0.766	2.312	1.54	1.175	132.0	142.6	18.8	0.440
3-8180	3-8790	0.266	190.7	-0.4	2.19	0.484	73.0	0.616	1.018	181.9	845.6	0.391	1.644	1.54	1.024	120.0	112.7	23.7	0.657
3-8180	3-8800	0.479	261.3	-20.4	2.57	0.753	55.3	0.565	1.537	130.0	443.9	0.668	2.406	1.78	1.173	117.9	145.3	17.5	0.541
3-8180	3-8800	0.304	207.2	-7.3	2.57	0.470	81.5	0.648	1.003	175.3	849.2	0.354	1.653	1.78	1.015	130.3	101.6	22.3	0.691
3-8180	3-8810	0.555	257.9	-20.3	3.10	0.752	49.6	0.650	1.535	135.1	459.1	0.538	2.533	2.18	1.171	125.6	147.8	16.3	0.672
3-8180	3-8810	0.378	218.0	-11.6	3.10	0.459	69.2	0.706	0.994	170.6	854.6	0.292	1.696	2.18	1.008	134.9	129.4	20.6	0.761
3-8180	3-8820	0.484	223.8	-13.9	3.97	0.452	54.7	0.792	0.988	168.4	862.5	0.206	1.770	2.93	1.003	142.4	135.6	19.9	0.876
3-8180	3-8860	0.570	171.1	2.5	-3.86	0.283	134.4	0.935	0.879	184.0	917.9	0.057	1.702	-5.35	0.927	20.9	54.5	17.8	1.107
3-8180	3-8870	0.593	128.0	18.0	-1.59	0.726	140.3	0.774	1.448	213.3	597.0	0.327	2.560	-3.20	1.140	41.7	42.8	13.6	0.900
3-8180	3-8880	0.474	123.7	19.6	-0.61	0.726	130.4	0.656	1.448	220.6	614.0	0.498	2.398	-2.33	1.138	52.4	44.6	13.9	0.716
3-8180	3-8890	0.388	120.9	20.8	-0.04	0.725	123.4	0.562	1.446	224.9	628.0	0.634	2.258	-1.86	1.135	60.2	47.5	14.4	0.579
3-8180	3-8900	0.324	119.4	21.9	0.36	0.724	118.3	0.489	1.443	227.3	639.9	0.737	2.149	-1.61	1.133	66.0	51.0	15.0	0.475
3-8180	3-8910	0.585	237.5	-20.1	0.66	0.579	42.6	0.796	1.134	159.8	582.1	0.231	2.036	-1.45	1.044	37.5	90.5	22.4	0.909
3-8180	3-8910	0.277	118.6	22.9	0.66	0.723	114.5	0.434	1.439	228.2	650.5	0.614	2.084	-1.45	1.131	70.6	54.8	15.5	0.395
3-8180	3-8920	0.529	239.7	-20.2	0.92	0.591	48.3	0.737	1.152	157.3	589.1	0.302	2.001	-1.35	1.050	42.9	97.1	22.1	0.823
3-8180	3-8920	0.240	118.5	24.0	0.92	0.722	111.6	0.392	1.435	228.3	660.2	0.873	1.998	-1.35	1.129	74.2	58.4	15.7	0.331
3-8180	3-8930	0.474	241.7	-20.2	1.14	0.603	53.7	0.675	1.171	155.1	596.5	0.381	1.961	-1.29	1.056	48.1	103.5	21.5	0.737
3-8180	3-8930	0.212	118.9	25.0	1.14	0.720	109.3	0.359	1.432	227.8	669.2	0.918	1.946	-1.29	1.127	77.2	61.5	15.7	0.279
3-8180	3-8940	0.419	283.4	-20.0	1.36	0.614	58.9	0.610	1.191	153.3	604.3	0.464	1.917	-1.28	1.062	53.2	109.5	20.5	0.652
3-8180	3-8940	0.190	119.7	26.1	1.36	0.719	107.5	0.334	1.428	227.0	677.9	0.951	1.905	-1.28	1.126	79.8	63.8	15.2	0.237
3-8180	3-8950	0.365	244.9	-19.5	1.57	0.626	63.9	0.545	1.211	152.2	612.6	0.551	1.870	-1.30	1.068	58.2	115.2	19.3	0.568
3-8180	3-8950	0.183	120.7	27.4	1.57	0.718	106.2	0.315	1.425	226.0	686.4	0.976	1.873	-1.30	1.125	82.1	64.8	14.1	0.202
3-8180	3-8960	0.313	246.0	-18.7	1.80	0.636	68.5	0.481	1.231	151.8	627.8	0.640	1.823	-1.36	1.075	63.0	120.2	17.8	0.486
3-8180	3-8960	0.161	121.8	28.7	1.80	0.717	105.1	0.301	1.422	225.0	695.0	0.994	1.850	-1.36	1.125	84.3	68.9	12.4	0.175
3-8180	3-8970	0.264	246.4	-17.3	2.06	0.647	72.8	0.420	1.252	152.5	632.1	0.726	1.777	-1.47	1.082	67.5	124.4	16.0	0.408
3-8180	3-8970	0.153	122.8	30.1	2.06	0.716	104.4	0.292	1.421	224.3	703.8	1.006	1.835	-1.47	1.125	86.4	68.4	9.7	0.155
3-8180	3-8980	0.220	246.2	-15.1	2.38	0.656	76.8	0.365	1.271	154.5	643.6	0.807	1.735	-1.65	1.089	71.1	127.3	13.8	0.334
3-8180	3-8980	0.150	123.5	31.7	2.38	0.717	104.1	0.287	1.421	224.1	713.2	1.013	1.829	-1.65	1.128	88.5	54.9	6.0	0.145
3-8190	3-8340	0.561	118.2	21.0	-0.35	0.046	333.8	0.703	1.973	236.3	449.5	0.585	---	.14	1.229	125.0	39.1	18.6	0.720
3-8190	3-8350	0.495	122.3	20.9	0.19	0.787	130.8	0.653	1.657	230.1	453.4	0.575	---	1.71	1.191	126.1	46.0	20.4	0.682
3-8190	3-8360	0.437	126.9	20.4	0.56	0.734	127.4	0.616	1.464	223.8	457.2	0.564	---	1.46	1.159	123.5	56.6	22.1	0.652
3-8190	3-8370	0.384	132.5	19.5	0.85	0.688	123.8	0.587	1.334	217.5	461.0	0.551	---	1.31	1.131	123.0	65.3	23.5	0.628
3-8190	3-8380	0.337	139.4	18.1	1.09	0.646	119.6	0.568	1.241	211.2	464.9	0.536	---	1.22	1.108	122.7	74.3	24.5	0.610
3-8190	3-8390	0.297	147.9	15.9	1.31	0.608	115.3	0.558	1.172	204.8	468.7	0.519	---	1.18	1.087	122.7	83.4	25.1	0.599
3-8190	3-8400	0.265	158.5	12.6	1.52	0.574	110.4	0.556	1.119	198.5	472.5	0.498	---	1.17	1.068	123.1	92.4	25.2	0.596
3-8190	3-8410	0.247	171.2	7.9	1.73	0.543	104.6	0.562	1.078	192.2	476.5	0.472	---	1.21	1.051	123.9	101.4	24.8	0.601
3-8190	3-8420	0.245	185.5	2.0	1.96	0.515	99.4	0.579	1.044	186.2	480.6	0.439	---	1.29	1.036	125.3	110.2	23.9	0.616
3-8190	3-8430	0.265	199.5	-4.0	2.24	0.489	90.8	0.608	1.017	180.5	485.1	0.398	---	1.42	1.023	127.4	118.7	22.7	0.646
3-8190	3-8440	0.311	211.7	-9.0	2.59	0.467	81.7	0.653	0.996	175.5	490.2	0.346	1.646	1.65	1.010	130.8	126.6	21.1	0.694
3-8190	3-8450	0.384	220.7	-12.4	3.09	0.448	76.2	0.717	0.979	171.6	496.4	0.277	1.680	2.03	1.000	135.8	133.7	19.3	0.770
3-8190	3-8460	0.489	226.2	-14.8	3.92	0.434	55.6	0.805	0.967	169.7	504.5	0.191	1.734	2.75	0.991	143.4	139.7	17.5	0.886
3-8190	3-8580	0.573	253.6	-21.8	1.46	0.679	46.5	0.711	1.314	148.0	239.5	---	2.248	-1.17	1.098	46.2	117.3	19.9	0.784
3-8190	3-8590	0.541	255.9	-21.7	1.86	0.690	49.6	0.670	1.341	144.9	245.9	---	2.239	-1.19	1.105	49.9	123.9	18.4	0.723
3-8190	3-8600	0.511	258.1	-21.5	1.87	0.700	52.4	0.630	1.366	142.0	252.5	---	2.227	-1.25	1.112	53.4	130.4	16.5	0.664
3-8190	3-8610	0.483	260.3	-21.1	2.11	0.709	54.9	0.592	1.391	139.2	259.3	---	2.214	-1.35	1.119	56.3	136.6	14.4	0.607
3-8190	3-8620	0.457	262.2	-20.6	2.40	0.718	57.3	0.557	1.413	136.5	266.2	---	2.200	-1.52	1.125	60.0	142.5	12.0	0.553
3-8190	3-8630	0.433	264.1	-19.8	2.79	0.725	59.4	0.524	1.435	134.0	273.2	---	2.188	-1.80	1.132	63.1	148.0	9.1	0.501
3-8190	3-8640	0.412	265.7	-18.7	3.38	0.731	61.3	0.493	1.454	131.6	280.6	---	2.170	-2.27	1.138	66.0	152.9	5.6	0.453
3-8190	3-8650	0.394	267.2	-16.6	4.43	0.737	63.0	0.466	1.471	129.5	288.1	---	2.155	-3.21	1.143	68.9	157.0	0.0	0.408
3-8190	3-8660	0.383	268.1	-11.5	7.12	0.741	64.4	0.441	1.486	127.5	295.9	---	2.141	-5.81	1.149	71.6	158.8	-9.6	0.374
3-8190	3-8670	0.556	256.9	20.8	34.68	0.745	65.7	0.420	1.499	125.8	303.6	---	2.128	-33.27	1.154	74.2	154.1	-62.3	0.682
3-8190	3-8680	0.353	270.4	-37.2	-6.76	0.748	66.9	0.400	1.510	124.2	312.4	---	2.114	8.28	1.158	76.9	187.4	30.8	0.316
3-8190	3-8690	0.333	272.1	-28.5	-2.17	0.751	67.8	0.385	1.519	123.0	321.0	---	2.104	3.79	1.162	79.4	181.2	18.6	0.251
3-8190	3-8700	0.324	272.9	-25.4	-0.77	0.753	68.5	0.373	1.526	121.9	329.9	---	2.095	2.50	1.166	82.0	179.4	15.1	0.314
3-8190	3-8710	0.318	273.5	-24.1	-0.07	0.755	69.0	0.365	1.531	121.1	339.2	---	2.089	1.90	1.169	84.5	176.4	14.6	0.116
3-8190	3-8720	0.314	273.8	-23.1	0.38	0.756	69.2	0.360	1.535	120.6	348.7	---	2.087	1.57	1.172	87.0	171.0	15.9	0.168
3-8190	3-8730	0.314	273.9	-22.3	0.71	0.756	69.3	0.359	1.537	120.4	358.6	---	2.088	1.38	1.174	89.6	163.2	18.0	0.162
3-8190	3-8740	0.317	273.8	-21.8	0.97	0.757	69.1	0.362	1.538	120.4	368.7	0.982	2.095	1.26	1.175	92.3	154.8	19.8	0.170
3-8190	3-8750	0.323	273.5	-21.3	1.19	0.757	68.6	0.370	1.538	120.4	379.1	0.969	2.108	1.20	1.176	95.1	148.2	20.7	0.191
3-8190	3-8760	0.335	273.0	-21.0	1.41	0.756	67.7	0.384	1.537	121.2	389.9	0.947	2.128	1.17	1.176	98.2	144.3	20.6	0.225
3-8190	3-8770	0.351	272.1	-20.8	1.62	0.756	66.4	0.405	1.536	122.1	401.0	0.914	2.158	1.19	1.176	101.5	143.2	19.9	0.270
3-8190	3-8780	0.375	271.0	-20.6	1.84	0.755	64.5	0.435	1.534	123.5	412.5	0.867	2.200	1.24	1.175	105.3	144.0	18.9	0.327
3-8190	3-8780	0.344	158.2	12.1	1.84	0.595	117.5	0.660	1.068	196.9	846.0	0.363	1.773	1.24	1.047	131.1	101.7	24.4	0.721
3-8190	3-8780	0.417	151.0	14.3	1.84	0.559	126.3	0.711	1.098	200.0	849.1	0.317	1.880	1.24	1.059	135.0	100.2	24.3	0.792
3-8190	3-8790	0.409	269.4	-20.6	2.09	0.755	61.9	0.475	1.531	125.4	424.7	0.803	2.259	1.34	1.174	109.6	146.0	17.6	0.398
3-8190	3-8790	0.267	185.2	1.9	2.09	0.494	99.2	0.614	1.022	185.9	845.1	0.395	1.650	1.34	1.026	127.8	113.0	23.4	0.855
3-8190	3-8790	0.580	146.0	15.4	2.09	0.603	142.4	0.830	1.165	200.3	859.6	0.198	2.132	1.34	1.083	145.6	106.1	23.5	0.974
3-8190	3-8800	0.455	267.3	-20.6	2.39	0.754	58.2	0.531	1.529	128.3	437.6	0.718	2.340	1.52	1.172	115.0	148.5	16.3	0.488
3-8190	3-8800	0.284	204.5	-6.1	2.39	0.476	87.4	0.630	1.004	178.5	847.8	0.371	1.637	1.52	1.016	129.1	122.3	22.0	0.669
3-8190	3-8810	0.520	264.5	-20.6	2.80	0.753	53.0	0.605	1.527	132.4	451.9	0.603	2.451	1.80	1.170	121.7	151.2	15.0	0.603
3-8190	3-8810	0.343	218.0	-11.5	2.80	0.463	75.6	0.676	0.992	172.8	852.3	0.322	1.663	1.80	1.008	132.5	130.5	20.2	0.721
3-8190	3-8820	0.434	226.2	-14.5	3.43	0.495	62.1	0.749	0.985	169.2	858.8	0.247	1.722	2.31	1.002	138.5	137.4	18.3	0.813
3-8190	3-8830	0.559	229.6	-16.0	4.58	0.450	45.8	0.846	0.980	168.7	868.3	0.151	1.810	3.35	0.997	147.8	142.7	16.7	0.956
3-8190	3-8870	0.534	195.6	-7.7	-1.95	0.220	87.5	0.921	0.852	179.8	918.9	0.067	1.636	-3.58	0.904	23.3	644.4	20.1	1.060
3-8190	3-8870	0.509	185.7	-3.5	-1.95	0.260	109.8	0.903	0.866	182.2	921.4	0.084	1.648	-3.58	0.914	25.8	62.9	19.7	1.031
3-8190	3-8880	0.517	130.4	18.9	-0.69	0.727	134.2	0.704	1.441	217.9	606.7	0.427	2.454	-2.43	1.136	40.2	47.9	15.1	0.788
3-8190	3-8890	0.417	127.2	19.5	-0.04	0.726	126.0	0.598	1.439	223.4	621.9	0.578	2.301	-1.88	1.134	57.1	50.4	15.5	0.631
3-8190	3-8900	0.344	125.3	20.7	0.38	0.726	120.1	0.516	1.437	226.4	634.6	0.695	2.173	-1.57	1.132	63.7	53.7	16.1	0.514

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8190	3-8910	0.290	124.4	21.8	0.69	0.724	115.8	0.454	1.434	287.9	645.7	0.783	2.084	-1.38	1.129	68.7	57.4	36.6	0.425
3-8190	3-8920	0.560	243.6	-21.0	0.94	0.586	45.9	0.764	1.138	158.4	585.8	0.269	2.008	-1.27	1.045	40.5	98.9	22.2	0.859
3-8190	3-8920	0.249	124.2	22.8	0.94	0.723	112.6	0.406	1.430	228.3	655.6	0.849	2.011	-1.27	1.127	72.7	61.2	16.9	0.355
3-8190	3-8930	0.504	245.7	-21.0	1.16	0.598	51.4	0.703	1.157	156.0	592.9	0.344	1.970	-1.20	1.051	45.8	105.4	21.5	0.773
3-8190	3-8930	0.217	124.6	23.8	1.16	0.722	110.1	0.370	1.426	227.9	664.9	0.899	1.953	-1.20	1.126	75.9	64.6	16.9	0.299
3-8190	3-8940	0.449	247.6	-20.8	1.36	0.610	56.7	0.639	1.177	154.0	600.5	0.425	1.928	-1.17	1.057	51.0	111.5	20.5	0.687
3-8190	3-8940	0.193	125.4	24.9	1.36	0.721	108.1	0.342	1.422	227.2	673.6	0.936	1.978	-1.17	1.124	78.7	67.4	16.6	0.253
3-8190	3-8950	0.394	249.2	-20.4	1.55	0.622	61.8	0.573	1.197	152.6	608.6	0.511	1.902	-1.18	1.064	56.0	117.3	19.3	0.603
3-8190	3-8950	0.174	126.6	26.0	1.55	0.719	106.5	0.320	1.418	226.1	682.1	0.965	1.871	-1.18	1.123	81.1	69.1	15.9	0.215
3-8190	3-8960	0.341	250.5	-19.7	1.76	0.833	66.6	0.507	1.217	151.9	617.4	0.600	1.835	-1.22	1.071	60.9	122.6	17.8	0.520
3-8190	3-8960	0.159	128.0	27.3	1.76	0.718	105.3	0.304	1.416	225.0	690.5	0.986	1.845	-1.22	1.123	83.3	69.2	14.6	0.185
3-8190	3-8970	0.290	251.2	-18.6	1.98	0.644	71.1	0.444	1.238	152.1	627.2	0.688	1.788	-1.29	1.078	65.6	127.1	16.1	0.440
3-8190	3-8970	0.149	129.3	28.6	1.98	0.718	104.4	0.292	1.413	224.1	698.2	1.000	1.826	-1.29	1.124	85.3	67.0	12.6	0.161
3-8190	3-8980	0.242	251.2	-16.9	2.24	0.654	75.3	0.386	1.258	153.6	638.2	0.772	1.744	-1.42	1.085	70.1	130.6	14.1	0.363
3-8190	3-8980	0.144	130.4	30.1	2.24	0.717	103.9	0.286	1.413	223.6	708.2	1.009	1.816	-1.42	1.125	87.4	61.9	9.7	0.146
3-8190	3-8990	0.200	250.4	-14.3	2.57	0.663	79.0	0.336	1.276	156.3	650.5	0.847	1.706	-1.63	1.092	74.3	132.6	11.6	0.293
3-8190	3-8990	0.144	130.8	31.7	2.57	0.718	103.9	0.284	1.414	223.7	718.0	1.012	1.816	-1.63	1.126	89.5	54.2	5.9	0.142
3-8200	3-8400	0.292	156.6	13.0	1.51	0.594	114.5	0.567	1.142	202.4	472.0	0.494	---	1.05	1.076	123.7	92.8	25.0	0.610
3-8200	3-8410	0.264	167.9	9.0	1.70	0.559	109.1	0.568	1.092	196.1	475.8	0.472	---	1.07	1.057	124.2	101.8	24.5	0.608
3-8200	3-8420	0.252	181.3	3.7	1.90	0.528	103.1	0.578	1.053	190.0	479.8	0.444	---	1.12	1.040	125.1	110.6	23.7	0.615
3-8200	3-8430	0.259	195.6	-2.4	2.13	0.500	96.0	0.599	1.022	184.0	484.1	0.409	---	1.22	1.025	126.8	119.2	22.3	0.635
3-8200	3-8440	0.290	209.1	-8.0	2.41	0.474	87.5	0.635	0.997	178.6	488.7	0.364	1.629	1.38	1.011	129.4	127.3	20.7	0.672
3-8200	3-8690	0.342	276.7	-29.7	-2.88	0.751	67.6	0.389	1.506	123.6	317.1	---	2.091	4.52	1.160	78.4	185.9	18.8	0.268
3-8200	3-8700	0.330	277.5	-25.7	-0.91	0.754	68.4	0.375	1.514	122.4	325.9	---	2.082	2.65	1.164	80.9	183.9	13.1	0.226
3-8200	3-8710	0.323	278.0	-23.9	-0.07	0.755	69.0	0.365	1.520	121.5	335.0	---	2.075	1.91	1.167	83.4	181.9	11.6	0.196
3-8200	3-8720	0.318	278.4	22.8	0.41	0.757	69.4	0.358	1.524	120.9	344.4	---	2.071	1.53	1.170	85.9	177.8	12.3	0.173
3-8200	3-8730	0.316	278.6	-22.1	0.74	0.757	69.5	0.355	1.527	120.5	354.2	---	2.070	1.31	1.172	88.5	171.0	14.3	0.161
3-8200	3-8740	0.318	278.6	-21.5	1.00	0.758	69.4	0.356	1.529	120.4	364.2	0.984	2.074	1.17	1.174	91.1	162.8	16.5	0.162
3-8200	3-8750	0.323	278.4	-21.1	1.22	0.758	69.1	0.362	1.530	120.5	374.3	0.975	2.084	1.10	1.174	93.8	155.3	18.1	0.177
3-8200	3-8760	0.332	277.9	-20.8	1.41	0.758	68.4	0.373	1.529	120.9	385.1	0.958	2.100	1.06	1.175	96.7	150.2	18.6	0.205
3-8200	3-8770	0.346	277.3	-20.6	1.60	0.758	67.3	0.391	1.528	121.6	396.0	0.931	2.125	1.06	1.174	99.9	147.9	18.3	0.245
3-8200	3-8780	0.366	276.3	-20.5	1.79	0.757	65.7	0.416	1.526	122.7	407.3	0.891	2.161	1.09	1.174	103.4	147.9	17.4	0.296
3-8200	3-8790	0.284	178.2	4.6	2.01	0.508	106.4	0.623	1.031	190.5	845.3	0.389	1.674	1.16	1.030	128.5	112.9	23.2	0.667
3-8200	3-8800	0.273	200.4	-4.5	2.25	0.484	93.3	0.620	1.006	182.0	846.9	0.383	1.630	1.28	1.017	128.3	122.7	21.6	0.657
3-8200	3-8920	0.260	129.8	21.5	0.98	0.725	113.7	0.423	1.424	228.2	651.0	0.822	2.027	-1.19	1.126	71.1	63.9	17.9	0.381
3-8200	3-8930	0.225	130.2	22.5	1.18	0.724	110.9	0.382	1.420	228.1	660.5	0.878	1.963	-1.11	1.124	74.6	67.6	18.1	0.320
3-8200	3-8940	0.197	131.0	23.5	1.37	0.723	108.7	0.350	1.416	227.5	669.4	0.920	1.913	-1.06	1.123	77.5	70.8	17.9	0.270
3-8200	3-8950	0.176	132.3	24.5	1.55	0.721	106.9	0.326	1.413	226.5	677.9	0.952	1.873	-1.05	1.122	80.0	73.1	17.4	0.229
3-8200	3-8960	0.159	133.8	25.6	1.72	0.720	105.6	0.307	1.409	225.3	686.3	0.976	1.843	-1.07	1.122	82.3	74.0	16.5	0.196
3-8200	3-8970	0.147	135.5	26.8	1.91	0.719	104.6	0.294	1.407	224.3	694.8	0.993	1.820	-1.13	1.122	84.3	72.9	15.0	0.169
3-8200	3-8980	0.268	256.2	-18.4	2.13	0.651	73.5	0.410	1.244	152.8	632.8	0.734	1.754	-1.22	1.081	68.1	133.7	14.2	0.395
3-8200	3-8980	0.140	136.9	28.1	2.13	0.719	103.9	0.285	1.406	223.5	703.5	1.005	1.806	-1.22	1.123	86.4	69.2	12.8	0.150
3-8200	3-8990	0.222	255.8	-16.3	2.39	0.661	77.5	0.356	1.263	155.0	644.7	0.814	1.712	-1.37	1.088	72.5	136.4	12.0	0.321
3-8200	3-8990	0.137	137.7	29.6	2.39	0.719	103.6	0.281	1.406	223.2	712.9	1.011	1.801	-1.37	1.124	88.4	62.4	9.8	0.140
3-8200	3-9000	0.184	254.4	-13.2	2.75	0.669	80.9	0.311	1.281	158.5	657.8	0.882	1.679	-1.62	1.095	76.5	137.2	9.4	0.256
3-8200	3-9000	0.141	137.6	31.2	2.75	0.720	103.9	0.283	1.409	223.9	723.2	1.010	1.808	-1.62	1.127	90.7	53.6	6.0	0.143
3-8250	3-8450	0.297	202.5	-6.1	2.00	0.519	107.1	0.624	1.091	191.0	487.8	0.377	---	0.40	1.011	128.6	137.8	36.8	0.650
3-8250	3-8710	0.357	300.6	-21.4	-0.24	0.762	68.2	0.379	1.457	123.5	313.5	---	2.008	2.08	1.155	77.7	202.9	0.1	0.264
3-8250	3-8720	0.346	300.9	-19.1	0.83	0.765	69.1	0.363	1.465	122.2	322.3	---	1.998	1.05	1.159	80.2	203.4	-4.1	0.227
3-8250	3-8730	0.338	301.3	-18.2	1.20	0.767	69.8	0.352	1.472	121.2	331.4	---	1.990	0.72	1.162	82.7	203.2	-5.2	0.196
3-8250	3-8740	0.332	301.7	-17.6	1.39	0.769	70.3	0.343	1.478	120.4	340.7	---	1.984	0.56	1.164	85.1	200.8	-4.7	0.172
3-8250	3-8750	0.328	301.9	-17.3	1.52	0.770	70.6	0.338	1.481	119.9	350.4	---	1.982	0.47	1.165	87.6	195.7	-2.9	0.155
3-8250	3-8760	0.328	302.0	-17.0	1.61	0.770	70.6	0.337	1.483	119.6	360.3	0.983	1.983	0.41	1.166	90.1	188.4	-0.1	0.150
3-8250	3-8770	0.331	301.9	-16.9	1.69	0.771	70.4	0.340	1.484	119.6	370.4	0.979	1.990	0.38	1.166	92.6	180.7	2.8	0.157
3-8250	3-8780	0.337	301.7	-16.9	1.76	0.771	69.9	0.348	1.485	119.8	380.9	0.967	2.002	0.36	1.166	95.3	174.9	4.8	0.178
3-8250	3-8790	0.349	301.3	-17.0	1.82	0.770	69.1	0.362	1.484	120.4	391.5	0.946	2.021	0.36	1.165	98.2	171.6	5.7	0.211
3-8250	3-8800	0.366	300.7	-17.2	1.89	0.770	67.8	0.383	1.482	121.2	402.5	0.915	2.050	0.37	1.163	101.4	170.8	5.8	0.254
3-8250	3-8820	0.285	213.4	-10.0	2.04	0.505	100.6	0.616	0.987	186.8	848.3	0.379	1.596	0.42	1.003	128.0	142.2	15.4	0.643
3-8250	3-8940	0.252	157.0	14.5	1.59	0.741	113.7	0.420	1.392	229.4	647.7	0.808	1.976	-0.42	1.118	70.5	85.6	22.2	0.382
3-8250	3-8950	0.214	158.0	15.3	1.67	0.740	110.7	0.376	1.388	229.4	657.3	0.867	1.910	-0.39	1.117	74.1	89.4	22.1	0.318
3-8250	3-8960	0.185	159.6	16.0	1.73	0.738	108.4	0.342	1.385	228.9	666.3	0.911	1.859	-0.37	1.116	77.1	92.8	21.9	.167
3-8250	3-8970	0.162	161.5	16.5	1.80	0.737	106.6	0.317	1.381	227.9	674.9	0.944	1.819	-0.36	1.116	79.6	95.3	21.6	0.226
3-8250	3-8980	0.145	163.8	17.0	1.86	0.736	105.2	0.298	1.378	226.8	683.3	0.968	1.788	-0.36	1.117	81.8	96.5	21.2	0.192
3-8250	3-8990	0.133	166.0	17.4	1.92	0.735	104.2	0.283	1.376	225.7	691.8	0.986	1.766	-0.37	1.118	83.9	95.7	20.8	0.164
3-8250	3-9000	0.125	167.9	17.8	1.99	0.735	103.5	0.274	1.374	224.8	700.6	0.998	1.751	-0.40	1.119	85.9	92.2	20.3	0.144
3-8250	3-9010	0.266	281.7	-18.4	2.07	0.673	75.8	0.370	1.228	152.6	638.1	0.774	1.682	-0.44	1.082	70.8	159.7	7.1	0.342
3-8250	3-9010	0.121	168.9	18.4	2.07	0.735	103.1	0.269	1.374	224.4	709.9	1.005	1.744	-0.44	1.121	87.9	85.2	19.6	0.131
3-8250	3-9020	0.223	280.6	-17.0	2.18	0.682	79.4	0.319	1.246	155.5	650.7	0.848	1.648	-0.51	1.090	75.0	161.8	5.6	0.273
3-8250	3-9020	0.122	168.6	19.1	2.18	0.736	103.2	0.270	1.377	224.9	720.1	1.005	1.748	-0.51	1.124	90.0	78.4	18.3	0.131
3-8250	3-9030	0.187	278.7	-15.2	2.33	0.689	82.4	0.281	1.262	159.6	664.6	0.907	1.616	-0.63	1.097	78.7	161.8	4.3	0.213
3-8250	3-9030	0.131	166.6	19.9	2.33	0.738	104.0	0.278	1.382	226.4	731.3	0.998	1.766	-0.63	1.128	92.5	65.4	16.6	0.145
3-8250	3-9040	0.162	276.2	-12.8	2.58	0.695	84.7	0.255	1.274	163.9	678.7	0.949	1.599	-0.85	1.103	82.0	158.7	2.9	0.166
3-8250	3-9040	0.148	163.4	20.9	2.58	0.741	105.4	0.295	1.392	228.7	743.5	0.981	1.803	-0.85	1.132	95.3	5862	14.7	0.177
3-8250	3-9050	0.148	273.9	-9.0	3.13	0.698	86.0	0.240	1.282	167.3	692.0	0.974	1.590	-1.36	1.108	84.7	151.6	-0.4	0.134
3-8250	3-9050	0.177	160.3	22.2	3.13	0.746	107.6	0.324	1.406	231.4	756.1	0.950	1.862	-1.36	1.138	98.6	55.9	12.6	0.225
3-8300	3-8730	0.382	319.0	-2.0	7.11	0.780	68.6	0.372	1.405	122.8	307.6	---	1.927	-5.33	1.147	76.5	218.2	-36.7	0.295
3-8300	3-8740	0.360	322.5	-7.7	3.48	0.783	69.6	0.355	1.415	121.2	316.2	---	1.916	-1.74	1.151	78.9	225.6	-25.6	0.244
3-8300	3-8750	0.348	323.6	-8.6	2.75	0.785	70.5	0.340	1.423	119.9	325.1	---	1.906	-1.06	1.153	81.3	228.4	-23.9	0.211
3-8300	3-8760	0.339	324.3	-8.9	2.43	0.787	71.1	0.329	1.429	118.9	334.2	---	1.899	-0.78	1.155	83.7	228.7	-23.1	0.182
3-8300	3-8770	0.333	324.8	-9.1	2.24	0.789	71.6	0.321	1.434	118.1	343.7	---	1.894	-0.63	1.156	86.1	226.0	-22.1	0.159

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8300	3-8780	0.329	325.1	-9.2	2.10	0.790	71.8	0.316	1.437	117.6	353.3	---	1.891	-0.55	1.156	88.4	220.2	-20.2	0.145
3-8300	3-8790	0.329	325.3	-9.4	2.09	0.791	71.8	0.316	1.439	117.3	353.2	0.985	1.893	-0.49	1.156	90.8	212.3	-17.3	0.141
3-8300	3-8800	0.332	325.4	-9.6	1.91	0.791	71.6	0.319	1.440	117.3	373.4	0.980	1.900	-0.46	1.154	93.2	204.6	-14.1	0.150
3-8300	3-8810	0.339	325.3	-9.9	1.82	0.791	71.1	0.328	1.440	117.6	383.7	0.968	1.912	-0.45	1.153	95.8	199.1	-11.4	0.171
3-8300	3-8820	0.351	325.1	-10.4	1.75	0.791	70.2	0.342	1.439	118.1	394.3	0.947	1.932	-0.45	1.151	98.6	196.4	-9.7	0.203
3-8300	3-8830	0.369	324.7	-10.9	1.66	0.790	68.9	0.364	1.438	119.0	405.2	0.915	1.961	-0.47	1.148	101.6	196.0	-9.1	0.246
3-8300	3-8850	0.298	245.8	-19.5	1.47	0.517	97.2	0.603	0.950	184.8	850.9	0.377	1.523	-9.56	0.975	127.0	168.8	4.0	0.611
3-8300	3-8960	0.265	182.7	5.0	2.14	0.766	114.2	0.422	1.364	232.0	644.1	0.788	1.940	0.57	1.111	69.6	108.6	23.9	0.388
3-8300	3-8970	0.222	183.8	5.5	2.04	0.765	111.0	0.374	1.361	232.6	654.3	0.853	1.870	0.51	1.111	73.6	112.2	23.6	0.319
3-8300	3-8980	0.191	185.4	5.7	1.95	0.764	108.6	0.337	1.358	233.5	663.7	0.900	1.816	0.48	1.112	76.7	115.6	23.3	0.265
3-8300	3-8990	0.167	187.3	5.7	1.87	0.763	106.8	0.310	1.355	231.9	672.7	0.935	1.776	0.46	1.113	79.3	118.1	23.2	0.222
3-8300	3-9000	0.150	189.3	5.5	1.79	0.762	105.4	0.290	1.353	231.1	681.6	0.961	1.745	0.45	1.114	81.7	119.4	23.4	0.186
3-8300	3-9010	0.137	191.2	5.2	1.71	0.761	104.4	0.275	1.351	230.3	690.4	0.980	1.722	0.46	1.115	83.8	118.6	24.1	0.158
3-8300	3-9020	0.129	192.6	4.7	1.63	0.761	103.7	0.265	1.350	229.6	699.5	0.992	1.708	0.48	1.118	85.8	115.0	25.4	0.136
3-8300	3-9030	0.124	193.2	4.2	1.54	0.761	103.4	0.260	1.350	229.4	709.1	0.999	1.701	0.52	1.120	87.7	107.7	27.1	0.125
3-8300	3-9040	0.280	308.3	-15.7	1.42	0.699	76.0	0.349	1.204	150.0	639.5	0.784	1.624	0.58	1.082	72.0	187.9	-1.4	0.319
3-8300	3-9040	0.125	192.4	3.8	1.42	0.762	103.5	0.261	1.352	229.8	719.3	1.000	1.704	0.58	1.123	89.9	97.3	28.6	0.124
3-8300	3-9050	0.238	307.3	-15.7	1.27	0.707	79.3	0.301	1.220	152.6	652.0	0.853	1.588	0.69	1.090	75.9	190.9	-1.6	0.255
3-8300	3-9050	0.131	190.2	3.4	1.27	0.763	104.0	0.268	1.357	230.9	730.3	0.993	1.720	0.69	1.127	92.2	86.6	29.1	0.137
3-8300	3-9060	0.205	305.9	-16.1	1.03	0.714	81.9	0.265	1.234	156.2	665.5	0.907	1.562	0.88	1.096	79.4	192.6	-0.2	0.200
3-8300	3-9060	0.145	186.6	2.8	1.03	0.766	105.2	0.283	1.365	232.7	742.0	0.978	1.751	0.88	1.131	94.8	78.9	29.1	0.165
3-8300	3-9070	0.181	304.6	-17.7	0.60	0.719	83.9	0.241	1.245	159.8	679.2	0.965	1.545	1.28	1.102	82.4	192.9	4.1	0.157
3-8300	3-9070	0.168	182.4	1.8	0.60	0.770	107.1	0.309	1.377	234.8	754.1	0.951	1.802	1.28	1.136	97.9	75.3	29.7	0.208
3-8300	3-9080	0.166	304.3	-22.9	-0.62	0.722	85.1	0.227	1.252	162.7	692.1	0.968	1.535	2.45	1.106	85.0	194.1	16.8	0.132
3-8300	3-9080	0.201	177.8	-1.5	-0.62	0.776	109.6	0.345	1.392	236.5	765.9	0.912	1.873	2.45	1.142	101.3	75.0	33.2	0.264
3-8300	3-9100	0.166	297.7	-1.5	4.44	0.724	85.9	0.217	1.257	164.9	714.5	0.985	1.530	-2.69	1.111	89.0	158.6	-22.1	0.109
3-8300	3-9100	0.294	180.9	11.4	4.44	0.789	116.0	0.441	1.433	237.4	787.0	0.802	2.065	-2.69	1.154	109.1	83.8	15.9	0.396
3-8350	3-8770	0.351	344.3	5.4	5.16	0.806	70.8	0.333	1.373	118.5	316.6	---	1.830	-3.97	1.143	79.6	260.3	-41.6	0.246
3-8350	3-8780	0.336	346.2	3.1	5.68	0.808	71.7	0.318	1.381	117.1	325.3	---	1.820	-2.60	1.144	81.8	263.3	-37.5	0.209
3-8350	3-8790	0.325	347.3	2.0	2.94	0.810	72.4	0.306	1.387	116.0	334.3	---	1.812	-1.98	1.144	84.1	264.0	-36.0	0.180
3-8350	3-8800	0.318	348.0	1.3	2.47	0.812	72.8	0.298	1.392	115.1	343.6	---	1.807	-1.64	1.144	86.3	261.6	-35.3	0.157
3-8350	3-8810	0.314	348.6	0.7	2.13	0.813	73.1	0.293	1.395	114.5	353.1	---	1.804	-1.44	1.143	88.4	255.6	-34.6	0.141
3-8350	3-8820	0.312	349.0	0.2	1.86	0.814	73.2	0.291	1.398	114.1	362.8	0.991	1.805	-1.32	1.142	90.6	246.7	-33.1	0.135
3-8350	3-8830	0.314	348.3	-0.3	1.63	0.814	73.0	0.294	1.399	114.0	372.7	0.988	1.810	-1.25	1.140	92.9	237.4	-30.6	0.140
3-8350	3-8840	0.320	349.5	-0.9	1.41	0.814	72.6	0.301	1.399	114.2	382.9	0.978	1.820	-1.23	1.137	95.2	230.5	-27.7	0.157
3-8350	3-8850	0.331	349.5	-1.6	1.20	0.814	71.8	0.314	1.399	114.8	393.3	0.960	1.838	-1.24	1.135	97.8	226.8	-25.4	0.186
3-8350	3-8860	0.348	349.5	-2.3	0.97	0.814	70.6	0.334	1.398	115.6	404.0	0.931	1.864	-1.30	1.132	100.6	225.8	-24.0	0.224
3-8350	3-8870	0.373	349.3	-3.1	0.72	0.813	68.8	0.363	1.397	117.0	415.2	0.890	1.903	-1.39	1.129	103.9	226.6	-23.3	0.275
3-8350	3-8990	0.256	208.8	-5.0	2.30	0.794	112.0	0.383	1.337	236.0	649.4	0.825	1.850	1.53	1.106	72.2	136.6	21.6	0.335
3-8350	3-9000	0.219	210.0	-5.2	2.01	0.793	109.3	0.340	1.335	236.7	659.6	0.881	1.790	1.38	1.109	75.8	139.8	21.3	0.274
3-8350	3-9010	0.191	211.4	-5.6	1.77	0.792	107.3	0.309	1.333	236.7	669.3	0.921	1.745	1.29	1.111	78.7	142.5	21.3	0.226
3-8350	3-9020	0.171	212.9	-6.2	1.55	0.791	105.8	0.286	1.331	236.4	678.7	0.950	1.712	1.24	1.113	81.2	144.1	21.9	0.189
3-8350	3-9030	0.157	214.2	-7.1	1.34	0.791	104.8	0.270	1.329	235.9	688.1	0.970	1.688	1.23	1.115	83.4	144.8	23.4	0.159
3-8350	3-9040	0.148	215.1	-8.2	1.12	0.790	104.1	0.259	1.328	235.6	697.5	0.984	1.672	1.26	1.117	85.4	141.3	26.0	0.136
3-8350	3-9050	0.143	215.4	-9.4	0.89	0.790	103.7	0.253	1.328	235.4	707.3	0.992	1.665	1.32	1.120	87.4	135.2	29.7	0.123
3-8350	3-9060	0.142	214.7	-10.7	0.62	0.791	103.7	0.253	1.330	235.7	717.5	0.994	1.666	1.45	1.123	89.5	125.6	33.5	0.120
3-8350	3-9070	0.293	334.9	-10.0	0.28	0.726	75.1	0.342	1.177	146.2	638.0	0.774	1.579	1.65	1.081	72.1	218.6	-9.6	0.320
3-8350	3-9070	0.147	212.9	-12.0	0.28	0.792	104.1	0.258	1.333	236.4	728.2	0.989	1.677	1.65	1.126	91.7	114.9	36.2	0.130
3-8350	3-9080	0.253	334.5	-11.4	-0.18	0.734	78.3	0.295	1.192	148.1	650.0	0.841	1.543	1.99	1.088	75.9	223.1	-8.0	0.259
3-8350	3-9080	0.158	210.1	-13.5	-0.18	0.794	105.0	0.270	1.339	237.6	739.4	0.977	1.702	1.99	1.129	94.1	106.7	37.5	0.153
3-8350	3-9090	0.220	334.0	-14.3	-0.93	0.740	66.8	0.258	1.205	150.9	662.8	0.894	1.516	2.61	1.094	79.2	227.0	-3.5	0.209
3-8350	3-9090	0.177	206.4	-15.5	-0.93	0.798	106.4	0.292	1.349	239.0	751.0	0.955	1.742	2.61	1.134	96.8	102.6	38.6	0.190
3-8350	3-9100	0.199	334.6	-20.5	-2.42	0.745	82.7	0.232	1.215	154.0	676.6	0.934	1.496	3.99	1.098	82.2	231.2	7.8	0.176
3-8350	3-9100	0.207	202.1	-19.2	-2.42	0.802	108.4	0.322	1.361	240.3	762.4	0.923	1.800	3.99	1.138	100.0	102.5	41.8	0.242
3-8350	3-9110	0.208	340.5	-39.2	-7.59	0.748	83.9	0.215	1.222	156.7	688.9	0.959	1.484	9.06	1.102	84.6	242.5	36.0	0.209
3-8350	3-9110	0.262	198.4	-31.2	-7.59	0.807	111.0	0.362	1.378	241.0	773.2	0.879	1.876	9.06	1.143	103.4	104.9	54.7	0.332
3-8350	3-9130	0.191	317.6	12.6	6.85	0.751	85.1	0.201	1.228	159.5	712.2	0.982	1.475	-5.60	1.105	88.7	177.9	-57.6	0.138
3-8350	3-9140	0.176	321.6	4.2	4.30	0.751	85.1	0.200	1.229	159.5	722.3	0.984	1.475	-3.17	1.104	90.4	182.9	-40.2	0.106
3-8350	3-9150	0.174	323.8	0.3	3.27	0.751	84.8	0.202	1.229	158.7	731.7	0.981	1.477	-2.26	1.104	92.0	181.9	-28.5	0.102
3-8400	3-8800	0.322	7.3	18.7	5.76	0.823	72.0	0.312	1.336	116.7	315.4	---	1.754	-5.46	1.131	79.8	303.2	-45.3	0.253
3-8400	3-8810	0.304	9.9	15.2	5.78	0.826	72.9	0.297	1.344	115.1	323.9	---	1.744	-3.64	1.131	82.0	304.5	-39.7	0.213
3-8400	3-8820	0.292	11.4	13.5	2.77	0.828	73.6	0.285	1.351	113.8	332.7	---	1.736	-2.80	1.131	84.0	305.1	-37.5	0.182
3-8400	3-8830	0.283	12.4	12.0	2.12	0.830	74.1	0.275	1.356	112.8	341.6	---	1.730	-2.33	1.130	86.1	303.6	-37.1	0.158
3-8400	3-8840	0.277	13.2	11.0	1.65	0.831	74.5	0.269	1.360	112.0	350.8	---	1.726	-2.05	1.128	88.1	298.9	-37.8	0.140
3-8400	3-8850	0.275	13.8	10.1	1.27	0.832	74.6	0.267	1.362	111.5	360.2	0.999	1.726	-1.88	1.126	90.1	290.6	-38.7	0.131
3-8400	3-8860	0.275	14.3	9.3	0.94	0.832	74.6	0.268	1.364	111.3	369.9	0.999	1.729	-1.79	1.124	92.1	280.2	-38.6	0.132
3-8400	3-8870	0.280	14.7	8.4	0.64	0.832	74.2	0.273	1.364	111.4	379.8	0.992	1.737	-1.75	1.122	94.2	270.9	-37.2	0.144
3-8400	3-8880	0.289	15.1	7.6	0.34	0.832	73.6	0.283	1.364	111.8	389.9	0.978	1.751	-1.77	1.119	96.5	264.9	-35.3	0.166
3-8400	3-8890	0.303	15.3	6.8	0.03	0.832	72.6	0.300	1.364	112.6	400.4	0.954	1.773	-1.84	1.117	99.0	262.2	-33.5	0.200
3-8400	3-8900	0.326	15.4	5.9	-0.32	0.832	71.1	0.326	1.363	113.8	411.2	0.919	1.806	-1.98	1.115	101.9	262.1	-32.1	0.244
3-8400	3-9020	0.276	236.3	-14.8	1.93	0.815	111.0	0.364	1.312	238.9	651.4	0.835	1.790	2.21	1.108	73.4	165.3	14.5	0.311
3-8400	3-9030	0.239	237.1	-15.5	1.51	0.814	108.4	0.323	1.310	239.7	662.0	0.887	1.733	1.98	1.110	76.8	168.4	14.2	0.253
3-8400	3-9040	0.213	238.2	-16.4	1.15	0.813	106.6	0.293	1.308	239.8	672.0	0.925	1.692	1.84	1.112	79.7	170.9	14.5	0.208
3-8400	3-9050	0.194	239.3	-17.5	0.83	0.813	105.2	0.272	1.307	239.7	681.7	0.951	1.663	1.77	1.114	82.1	172.3	15.7	0.173
3-8400	3-9060	0.181	240.2	-18.8	0.53	0.812	104.3	0.258	1.306	239.5	691.4	0.969	1.642	1.76	1.116	84.3	171.9	18.2	0.146
3-8400	3-9070	0.173	240.7	-20.2	0.22	0.812	103.7	0.248	1.305	239.3	701.3	0.981	1.629	1.79	1.119	86.3	169.0	22.2	0.127
3-8400	3-9080	0.170	240.7	-21.8	-0.12	0.812	103.5	0.244	1.306	239.3	711.3	0.987	1.624	1.89	1.121	88.3	162.8	27.4	0.117
3-8400	3-9090	0.171	239.9	-23.5	-0.51	0.813	103.6	0.245	1.307	239.7	721.8	0.987	1.628	2.07	1.123	90.4	153.8	32.4	0.118
3-8400	3-9100	0.209	0.6	-2.5	-1.01	0.747	74.5	0.339	1.152	143.6	635.9	0.761	1.543	2.37	1.078	71.9	250.9	-14.8	0.329
3-8400	3-9100	0.178	238.3	-25.3	-1.01	0.814	104.1	0.252	1.311	240.4	732.7	0.981	1.642	2.37	1.126	92.5	144.8	35.9	0.132

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8400	3-9110	0.247	0.3	-5.4	-1.69	0.755	77.7	0.289	1.168	145.1	647.5	0.830	1.506	2.88	1.084	75.7	255.8	-11.4	0.269
3-8400	3-9110	0.191	235.9	-27.4	-1.69	0.817	105.0	0.266	1.318	241.5	743.9	0.967	1.669	2.88	1.128	95.0	138.5	37.9	0.159
3-8400	3-9120	0.216	0.1	-10.6	-2.79	0.761	80.3	0.250	1.181	147.5	660.1	0.885	1.476	3.81	1.089	79.1	259.9	-4.3	0.221
3-8400	3-9120	0.214	232.9	-30.2	-2.79	0.820	106.5	0.289	1.327	242.6	755.2	0.943	1.711	3.81	1.131	97.7	136.4	39.7	0.199
3-8400	3-9130	0.200	1.7	-20.7	-5.06	0.766	82.3	0.221	1.191	150.5	673.2	0.927	1.654	5.92	1.093	82.0	263.4	11.1	0.198
3-8400	3-9130	0.250	229.4	-35.3	-5.06	0.824	108.5	0.321	1.340	243.5	766.2	0.919	1.770	5.92	1.135	100.7	138.5	43.9	0.257
3-8400	3-9140	0.256	10.2	-44.6	-13.42	0.769	83.7	0.202	1.198	153.3	686.1	0.956	1.440	14.12	1.095	84.5	271.8	43.0	0.290
3-8400	3-9160	0.191	333.2	25.4	7.94	0.772	85.1	0.184	1.206	157.1	710.6	0.984	1.427	-7.56	1.095	88.5	205.8	-80.1	0.165
3-8400	3-9170	0.165	339.4	15.1	4.62	0.773	83.2	0.182	1.207	157.4	721.0	0.988	1.426	-4.40	1.094	90.1	217.0	-64.9	0.115
3-8400	3-9180	0.159	342.6	9.6	3.23	0.773	85.1	0.182	1.207	157.0	730.6	0.987	1.427	-3.17	1.092	91.6	214.5	-52.8	0.102
3-8400	3-9190	0.159	345.2	6.4	2.43	0.773	84.8	0.185	1.207	155.8	739.5	0.983	1.430	-2.54	1.090	93.0	212.9	-43.4	0.102
3-8400	3-9200	0.163	347.7	4.3	1.88	0.772	84.3	0.190	1.206	154.2	747.8	0.976	1.435	-2.18	1.087	94.3	213.3	-36.7	0.110
3-8450	3-8830	0.271	32.8	30.2	5.30	0.827	73.4	0.291	1.308	117.3	314.8	---	1.689	-5.99	1.118	80.3	339.7	-38.2	0.251
3-8450	3-8840	0.251	35.9	25.0	3.06	0.829	74.2	0.276	1.316	115.7	323.2	---	1.680	-3.91	1.117	82.3	339.0	-31.8	0.209
3-8450	3-8850	0.239	37.5	22.1	1.95	0.832	74.9	0.264	1.323	114.4	331.8	---	1.672	-2.97	1.116	84.2	339.0	-29.2	0.178
3-8450	3-8860	0.230	38.5	20.2	1.26	0.833	75.4	0.254	1.328	113.4	340.6	---	1.666	-2.46	1.115	86.1	337.7	-28.8	0.154
3-8450	3-8870	0.224	39.3	18.6	0.76	0.835	75.8	0.248	1.332	112.6	349.6	---	1.662	-2.15	1.114	87.9	333.9	-30.0	0.136
3-8450	3-8880	0.222	39.9	17.3	0.37	0.836	75.9	0.245	1.334	112.1	358.8	---	1.662	-1.96	1.112	89.8	326.9	-32.0	0.126
3-8450	3-8890	0.222	40.5	16.2	0.03	0.836	75.9	0.246	1.336	111.8	368.2	1.008	1.664	-1.86	1.110	91.6	317.7	-33.7	0.125
3-8450	3-8900	0.226	41.0	15.2	-0.29	0.836	75.6	0.250	1.337	111.8	377.9	1.002	1.671	-1.81	1.106	93.5	308.6	-34.2	0.135
3-8450	3-8910	0.234	41.5	14.3	-0.59	0.836	75.1	0.260	1.337	112.1	387.7	0.990	1.684	-1.81	1.107	95.6	302.0	-33.5	0.155
3-8450	3-8920	0.248	42.0	13.5	-0.90	0.836	74.2	0.275	1.336	112.7	397.9	0.969	1.703	-1.87	1.105	97.9	298.6	-32.2	0.185
3-8450	3-8930	0.268	42.4	12.8	-1.24	0.836	72.8	0.298	1.335	113.6	408.4	0.938	1.732	-1.99	1.104	100.5	297.9	-30.8	0.222
3-8450	3-8940	0.298	42.7	12.2	-1.64	0.835	70.8	0.331	1.334	115.1	419.4	0.893	1.779	-2.18	1.103	103.7	298.9	-29.4	0.277
3-8450	3-9060	0.270	267.8	-22.3	0.60	0.818	108.3	0.322	1.283	238.7	659.3	0.870	1.697	2.07	1.110	76.4	198.3	1.6	0.259
3-8450	3-9070	0.248	268.9	-23.3	0.22	0.817	106.3	0.290	1.281	238.7	669.3	0.910	1.653	1.91	1.112	79.3	201.5	1.6	0.214
3-8450	3-9080	0.228	270.0	-24.4	-0.11	0.816	104.8	0.267	1.279	238.3	679.0	0.938	1.620	1.83	1.114	81.7	203.9	2.3	0.177
3-8450	3-9090	0.213	271.2	-25.6	-0.44	0.815	103.7	0.250	1.278	237.8	688.6	0.958	1.597	1.80	1.115	83.8	205.0	4.2	0.149
3-8450	3-9100	0.203	272.1	-26.9	-0.76	0.815	103.0	0.239	1.276	237.4	698.2	0.972	1.581	1.84	1.116	85.9	204.1	7.5	0.127
3-8450	3-9110	0.198	272.7	-28.4	-1.11	0.815	102.6	0.232	1.276	237.1	708.1	0.980	1.572	1.93	1.117	87.8	200.4	12.4	0.113
3-8450	3-9120	0.197	272.8	-30.1	-1.50	0.815	102.4	0.230	1.277	237.2	718.4	0.983	1.571	2.11	1.118	89.7	193.8	18.3	0.109
3-8450	3-9130	0.251	24.2	4.0	-2.00	0.753	75.6	0.325	1.136	144.5	635.9	0.767	1.505	2.46	1.074	72.6	282.5	-15.3	0.324
3-8450	3-9130	0.201	272.3	-31.9	-2.00	0.816	102.7	0.233	1.280	237.9	729.3	0.981	1.576	2.46	1.119	91.7	185.5	23.7	0.116
3-8450	3-9140	0.209	22.1	-0.9	-2.69	0.762	79.1	0.272	1.153	146.7	648.3	0.840	1.466	2.90	1.080	76.6	286.3	-10.7	0.261
3-8450	3-9140	0.212	270.9	-34.1	-2.69	0.818	103.5	0.244	1.285	239.1	740.7	0.971	1.598	2.90	1.120	94.0	178.2	27.5	0.137
3-8450	3-9150	0.179	19.8	-9.0	-3.77	0.769	81.9	0.230	1.167	150.4	662.1	0.898	1.436	3.81	1.084	80.1	288.2	-2.5	0.210
3-8450	3-9150	0.233	268.9	-36.9	-3.77	0.821	104.8	0.264	1.293	240.7	752.5	0.952	1.634	3.81	1.122	96.6	174.3	30.3	0.173
3-8450	3-9160	0.170	19.3	-22.0	-5.93	0.774	84.0	0.201	1.178	154.7	676.5	0.940	1.415	5.80	1.086	83.1	287.6	15.7	0.186
3-8450	3-9160	0.268	267.0	-41.7	-5.93	0.826	106.7	0.293	1.306	242.3	764.2	0.923	1.688	5.80	1.124	99.6	174.9	34.5	0.228
3-8450	3-9170	0.232	25.5	-43.9	-13.15	0.777	85.4	0.184	1.185	158.6	690.4	0.968	1.465	12.86	1.087	85.5	286.1	44.6	0.263
3-8450	3-9190	0.166	338.5	34.6	7.87	0.780	86.7	0.168	1.193	163.1	715.5	0.992	1.394	-8.48	1.085	89.3	354.5	-87.2	0.175
3-8450	3-9200	0.134	347.4	20.8	4.00	0.781	86.7	0.167	1.194	163.3	725.6	0.994	1.393	-4.77	1.083	90.8	258.5	-73.8	0.116
3-8450	3-9210	0.127	352.4	13.4	2.46	0.781	86.5	0.168	1.194	162.5	734.7	0.993	1.394	-3.36	1.081	92.1	249.0	-61.5	0.101
3-8450	3-9220	0.126	356.6	9.3	1.59	0.781	86.2	0.171	1.193	161.0	743.0	0.989	1.397	-2.69	1.078	93.3	245.6	-52.0	0.101
3-8450	3-9230	0.129	0.6	6.9	1.01	0.780	85.7	0.176	1.192	158.9	750.7	0.982	1.401	-2.29	1.075	94.5	245.7	-45.2	0.109
3-8450	3-9240	0.405	57.2	21.7	0.56	0.949	65.1	0.476	1.831	87.1	328.7	---	2.703	-2.05	1.201	80.0	357.5	-10.1	0.295
3-8450	3-9240	0.135	4.6	5.6	0.56	0.779	85.0	0.182	1.190	156.3	758.0	0.973	1.407	-2.05	1.072	95.6	248.0	-40.6	0.121
3-8450	3-9250	0.392	58.3	21.2	0.20	0.950	66.0	0.466	1.836	84.9	336.3	---	2.691	-1.90	1.199	82.5	356.2	-10.2	0.264
3-8450	3-9250	0.142	8.6	5.0	0.20	0.779	84.1	0.191	1.189	153.5	764.9	0.961	1.416	-1.90	1.069	96.8	251.8	-37.5	0.136
3-8500	3-8810	0.292	63.2	13.4	-3.24	0.783	68.8	0.385	1.219	131.7	277.5	---	1.689	2.35	1.097	70.0	326.9	-6.7	0.390
3-8500	3-8820	0.271	64.4	10.0	-4.25	0.791	70.5	0.354	1.238	129.3	285.1	---	1.677	3.23	1.100	72.6	331.5	-1.3	0.350
3-8500	3-8830	0.261	65.7	2.4	-6.54	0.797	72.0	0.327	1.255	127.1	292.9	---	1.665	5.41	1.103	75.0	334.1	8.9	0.321
3-8500	3-8850	0.267	47.8	55.6	31.56	0.808	74.4	0.283	1.281	123.4	309.4	---	1.643	-12.92	1.105	79.5	18.9	-44.3	0.332
3-8500	3-8860	0.202	60.6	34.9	3.42	0.811	75.3	0.266	1.290	122.0	317.7	---	1.634	-4.90	1.105	81.5	3.7	-25.6	0.223
3-8500	3-8870	0.186	62.6	28.0	1.49	0.814	76.0	0.252	1.298	120.8	326.2	---	1.626	-3.08	1.105	83.4	2.2	-19.4	0.185
3-8500	3-8880	0.176	63.4	24.4	0.58	0.816	76.6	0.242	1.304	119.8	334.9	---	1.620	-2.30	1.104	85.2	1.2	-17.2	0.158
3-8500	3-8890	0.170	63.9	21.9	0.03	0.818	77.0	0.234	1.309	119.0	343.9	---	1.616	-1.87	1.103	87.0	358.5	-17.3	0.137
3-8500	3-8900	0.167	64.3	20.1	-0.35	0.819	77.2	0.230	1.312	118.4	352.9	---	1.614	-1.62	1.102	88.7	353.3	-18.9	0.123
3-8500	3-8910	0.166	64.7	18.7	-0.65	0.820	77.3	0.229	1.314	118.1	362.2	1.014	1.615	-1.47	1.101	90.4	345.8	-21.2	0.118
3-8500	3-8920	0.163	65.3	17.6	-0.91	0.820	77.1	0.231	1.315	117.8	371.5	1.011	1.619	-1.38	1.100	92.2	337.4	-22.9	0.122
3-8500	3-8930	0.174	66.0	16.8	-1.14	0.820	76.7	0.237	1.315	117.8	381.0	1.003	1.628	-1.33	1.099	94.0	330.4	-23.6	0.136
3-8500	3-8940	0.183	66.8	16.3	-1.36	0.820	76.1	0.248	1.315	117.9	390.6	0.989	1.641	-1.32	1.099	95.9	326.1	-23.3	0.158
3-8500	3-8950	0.198	67.7	15.9	-1.58	0.820	75.1	0.265	1.314	118.1	400.4	0.966	1.661	-1.35	1.098	98.1	324.5	-22.4	0.189
3-8500	3-8960	0.218	68.6	15.8	-1.82	0.819	74.6	0.288	1.312	118.6	410.4	0.934	1.691	-1.42	1.098	100.6	324.9	-21.7	0.229
3-8500	3-8970	0.248	69.5	16.0	-2.10	0.818	74.6	0.322	1.310	119.5	420.9	0.889	1.732	-1.55	1.098	103.7	326.6	-19.7	0.280
3-8500	3-8980	0.290	70.1	16.2	-2.44	0.818	68.6	0.369	1.308	121.0	432.0	0.825	1.792	-1.75	1.099	107.5	329.1	-18.2	0.346
3-8500	3-9090	0.315	301.4	-22.0	-0.51	0.796	108.5	0.336	1.250	232.3	651.6	0.830	1.671	1.64	1.108	74.4	231.4	-12.9	0.293
3-8500	3-9100	0.281	302.8	-22.7	-0.80	0.794	106.0	0.299	1.247	231.4	660.8	0.875	1.619	1.41	1.108	77.5	236.2	-13.4	0.243
3-8500	3-9110	0.255	304.4	-23.4	-1.05	0.793	104.0	0.270	1.244	229.9	669.4	0.908	1.579	1.34	1.108	79.9	240.9	-13.4	0.205
3-8500	3-9120	0.234	306.3	-24.1	-1.29	0.792	102.5	0.248	1.240	228.0	677.7	0.933	1.548	1.32	1.108	82.0	245.2	-13.0	0.174
3-8500	3-9130	0.217	308.4	-24.8	-1.52	0.790	101.2	0.231	1.237	225.8	685.7	0.951	1.522	1.34	1.107	83.8	240.8	-12.0	0.149
3-8500	3-9140	0.285	48.7	14.1	-1.78	0.719	70.8	0.421	1.091	147.9	618.0	0.631	1.551	1.41	1.057	65.7	302.2	-17.0	0.442
3-8500	3-9140	0.204	310.6	-25.7	-1.78	0.789	100.1	0.218	1.234	223.5	693.5	0.965	1.502	1.41	1.106	85.4	251.3	-10.1	0.129
3-8500	3-9150	0.223	44.3	10.4	-2.06	0.732	76.0	0.345	1.114	149.3	629.6	0.730	1.498	1.53	1.065	70.9	306.7	-14.7	0.355
3-8500	3-9150	0.194	312.9	-26.7	-2.06	0.788	99.2	0.207	1.231	221.2	701.4	0.976	1.486	1.53	1.104	86.8	252.2	-7.3	0.113
3-8500	3-9160	0.171	35.9	3.5	-2.42	0.744	80.9	0.275	1.130	153.8	644.2	0.825	1.450	1.74	1.072	76.0	309.3	-11.7	0.271
3-8500	3-9160	0.107	315.1	-28.0	-2.42	0.787	98.5	0.200	1.229	219.2	709.6	0.983	1.474	1.74	1.102	88.3	251.0	-3.1	0.102
3-8500	3-9170	0.136	21.5	-8.3	-2.90	0.756	85.4	0.218	1.160	162.8	667.3	0.908	1.413	2.08	1.079	80.8	308.0	-7.1	0.195
3-8500	3-9170	0.184	316.8	-29.9	-2.90	0.786	98.1	0.196	1.228	218.2	718.7	0.987	1.468	2.08	1.100	89.8	246.6	2.9	0.097
3-8500	3-9180	0.129	3.8	-22.7	-3.64	0.765	89.1	0.183	1.180	175.9	684.5	0.964	1.396	2.69	1.083	85.0	299.6	1.5	0.137

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8500	3-9180	0.190	316.9	-32.7	-3.64	0.788	98.5	0.198	1.231	219.5	730.1	0.987	1.474	2.69	1.099	91.7	237.3	10.8	0.103
3-8500	3-9190	0.142	354.1	-34.1	-5.05	0.771	91.3	0.171	1.193	186.5	707.1	0.988	1.397	3.98	1.085	88.1	284.7	17.6	0.117
3-8500	3-9190	0.215	314.2	-37.1	-5.05	0.792	100.2	0.215	1.241	225.1	745.7	0.975	1.508	3.98	1.100	94.5	224.2	19.2	0.135
3-8500	3-9200	0.183	1.6	-47.5	-9.26	0.773	92.0	0.169	1.197	189.8	720.4	0.995	1.400	8.08	1.084	90.1	273.7	42.0	0.168
3-8500	3-9200	0.278	313.3	-45.9	-9.26	0.800	103.4	0.254	1.261	232.4	762.9	0.941	1.580	8.08	1.103	98.3	218.0	31.4	0.223
3-8500	3-9220	0.148	328.4	21.4	5.83	0.772	91.4	0.169	1.196	186.8	737.4	0.994	1.398	-7.25	1.079	92.5	229.4	-83.1	0.156
3-8500	3-9230	0.123	338.4	6.3	2.28	0.771	90.7	0.170	1.193	183.6	743.9	0.991	1.396	-3.81	1.075	93.4	255.4	-62.0	0.113
3-8500	3-9240	0.117	345.8	0.9	0.99	0.770	90.0	0.173	1.191	180.0	750.0	0.986	1.396	-2.64	1.072	94.3	259.5	-49.9	0.110
3-8500	3-9250	0.114	252.6	-1.1	0.29	0.769	89.2	0.175	1.188	176.1	755.8	0.980	1.396	-2.07	1.068	95.1	263.5	-42.8	0.115
3-8500	3-9260	0.114	359.5	-1.4	-0.16	0.768	88.3	0.180	1.185	172.0	761.4	0.972	1.399	-1.74	1.065	96.0	268.1	-38.3	0.125
3-8500	3-9270	0.359	90.8	22.8	-0.50	0.938	65.2	0.468	1.809	88.5	327.6	---	2.656	-1.54	1.193	79.8	23.4	3.1	0.291
3-8500	3-9270	0.115	6.5	-0.7	-0.50	0.766	87.3	0.186	1.183	167.8	766.9	0.963	1.403	-1.54	1.063	96.9	273.3	-35.3	0.138
3-8500	3-9280	0.346	91.8	22.0	-0.78	0.939	66.1	0.457	1.815	86.5	335.1	---	2.644	-1.42	1.192	82.3	23.9	3.0	0.260
3-8500	3-9280	0.119	13.0	0.6	-0.78	0.765	86.7	0.194	1.180	163.6	772.2	0.956	1.409	-1.42	1.060	97.8	279.0	-33.0	0.153
3-8500	3-9290	0.336	92.6	21.2	-1.02	0.940	66.7	0.449	1.819	84.8	343.0	---	2.636	-1.35	1.191	84.8	22.4	2.0	0.234
3-8500	3-9290	0.125	23.1	2.4	-1.02	0.764	84.9	0.205	1.177	159.3	777.5	0.936	1.419	-1.35	1.058	98.9	285.1	-31.1	0.170
3-8500	3-9300	0.330	93.1	20.7	-1.24	0.940	67.2	0.444	1.822	83.8	351.5	---	2.632	-1.32	1.191	87.4	18.4	-0.1	0.216
3-8500	3-9300	0.136	28.4	4.4	-1.24	0.763	82.4	0.219	1.174	155.1	782.9	0.917	1.432	-1.32	1.057	100.1	291.3	-29.3	0.191
3-8550	3-8810	0.267	83.2	19.2	-2.02	0.718	67.3	0.453	1.145	144.3	259.9	---	1.664	0.54	1.072	64.1	336.5	-8.7	0.482
3-8550	3-8820	0.257	84.0	18.2	-2.14	0.732	69.4	0.411	1.172	141.9	267.6	---	1.654	0.60	1.080	67.3	342.2	-6.0	0.431
3-8550	3-8830	0.231	84.5	16.9	-2.29	0.743	71.3	0.376	1.196	139.8	275.5	---	1.643	0.70	1.085	70.2	347.7	-3.3	0.383
3-8550	3-8840	0.208	84.8	15.2	-2.50	0.753	73.0	0.341	1.217	137.9	283.5	---	1.633	0.87	1.089	72.9	352.7	-0.2	0.339
3-8550	3-8850	0.189	84.7	13.7	-2.86	0.761	74.4	0.313	1.236	136.2	291.8	---	1.622	1.19	1.092	75.4	357.0	3.3	0.298
3-8550	3-8860	0.175	84.4	8.1	-3.67	0.768	75.6	0.288	1.251	134.8	300.2	---	1.612	1.95	1.094	77.7	0.0	8.7	0.262
3-8550	3-8870	0.186	83.4	-8.6	-7.61	0.773	76.6	0.268	1.264	133.7	308.8	---	1.603	5.85	1.095	79.9	356.7	27.4	0.248
3-8550	3-8880	0.151	80.6	43.7	-3.88	0.777	77.5	0.251	1.275	132.7	317.7	---	1.595	-5.62	1.096	81.9	22.7	-22.4	0.219
3-8550	3-8890	0.131	81.9	24.3	-4.10	0.781	78.1	0.238	1.283	132.0	326.7	---	1.589	-1.94	1.096	83.8	15.8	-6.9	0.169
3-8550	3-8900	0.125	81.5	19.5	-0.70	0.783	78.6	0.228	1.290	131.4	335.7	---	1.584	-1.19	1.096	85.6	13.6	-4.1	0.144
3-8550	3-8910	0.121	81.2	17.0	-1.05	0.785	78.9	0.222	1.294	131.0	344.9	---	1.581	-0.38	1.096	87.3	9.9	-4.1	0.125
3-8550	3-8920	0.119	81.2	15.5	-1.27	0.786	79.1	0.218	1.297	130.6	354.1	---	1.580	-0.71	1.095	88.9	3.9	-5.8	0.114
3-8550	3-8930	0.119	81.6	14.5	-1.41	0.787	79.0	0.218	1.299	130.3	363.3	1.016	1.582	-0.61	1.095	90.6	356.3	-8.2	0.111
3-8550	3-8940	0.122	82.5	14.0	-1.53	0.787	78.8	0.221	1.300	129.9	372.4	1.012	1.587	-0.55	1.094	92.2	349.1	-10.3	0.118
3-8550	3-8950	0.127	83.8	13.9	-1.62	0.787	78.4	0.227	1.299	129.5	381.6	1.004	1.594	-0.52	1.094	94.0	343.8	-11.5	0.133
3-8550	3-8960	0.135	85.6	14.1	-1.71	0.786	77.7	0.238	1.298	129.0	390.7	0.989	1.601	-0.50	1.094	95.8	341.2	-11.7	0.155
3-8550	3-8970	0.147	87.7	14.6	-1.79	0.786	76.8	0.253	1.296	128.6	399.7	0.968	1.624	-0.49	1.095	97.7	340.9	-11.2	0.183
3-8550	3-8980	0.164	90.0	15.3	-1.88	0.785	75.5	0.274	1.294	128.2	408.9	0.939	1.648	-0.50	1.095	99.9	342.2	-10.2	0.218
3-8550	3-8990	0.187	92.4	16.0	-1.97	0.784	73.7	0.302	1.291	127.9	418.2	0.901	1.680	-0.52	1.096	102.5	344.7	-8.8	0.262
3-8550	3-9000	0.219	94.6	16.9	-2.07	0.782	71.3	0.340	1.288	128.0	427.9	0.850	1.725	-0.57	1.097	105.6	347.9	-7.2	0.316
3-8550	3-9010	0.264	96.3	17.8	-2.19	0.781	68.0	0.392	1.285	128.7	438.3	0.782	1.788	-0.64	1.098	109.6	351.4	-5.6	0.385
3-8550	3-9130	0.218	336.6	-14.4	-1.60	0.746	104.7	0.319	1.202	218.2	647.9	0.819	1.585	0.52	1.096	74.6	276.2	-21.4	0.295
3-8550	3-9140	0.252	339.6	-14.1	-1.70	0.743	101.8	0.287	1.195	213.7	653.6	0.852	1.558	0.50	1.094	76.7	283.9	-20.8	0.259
3-8550	3-9150	0.220	343.9	-13.5	-1.78	0.739	99.0	0.263	1.187	207.7	657.7	0.875	1.499	0.49	1.090	78.3	292.4	-19.6	0.234
3-8550	3-9160	0.238	65.6	16.8	-1.87	0.679	74.1	0.424	1.077	155.7	615.9	0.620	1.534	0.50	1.049	65.4	323.8	-13.2	0.451
3-8550	3-9160	0.189	150.9	-11.9	-1.87	0.734	96.0	0.247	1.176	199.0	659.2	0.886	1.486	0.50	1.086	79.1	302.1	-17.7	0.220
3-8550	3-9170	0.157	91.6	7.3	-1.97	0.704	83.4	0.307	1.119	164.7	635.0	0.776	1.463	0.52	1.064	73.4	324.7	-12.3	0.315
3-8550	3-9170	0.153	9.2	-6.1	-1.97	0.722	90.8	0.249	1.154	182.4	652.7	0.867	1.441	0.52	1.076	78.2	316.0	-14.3	0.236
3-8550	3-9270	0.200	342.3	-11.3	-0.89	0.749	97.8	0.233	1.209	207.7	776.5	0.927	1.490	-1.02	1.071	99.8	263.7	-29.1	0.185
3-8550	3-9280	0.172	349.8	-10.0	-1.16	0.743	95.0	0.221	1.196	198.1	776.5	0.932	1.460	-0.79	1.066	99.3	274.7	-28.1	0.178
3-8550	3-9290	0.154	357.2	-8.3	-1.34	0.740	92.8	0.218	1.188	190.3	778.3	0.929	1.447	-0.66	1.062	99.4	283.8	-26.7	0.160
3-8550	3-9300	0.321	122.1	16.8	-1.47	0.911	65.1	0.457	1.790	92.0	329.6	---	2.608	-0.58	1.187	80.6	46.2	14.8	0.272
3-8550	3-9300	0.142	5.1	-6.1	-1.47	0.746	91.3	0.219	1.182	183.4	701.0	0.922	1.441	-0.58	1.059	99.8	292.1	-25.2	0.188
3-8550	3-9310	0.310	122.9	16.1	-1.58	0.912	65.9	0.447	1.795	90.3	337.4	---	2.598	-0.53	1.188	83.1	45.6	14.5	0.243
3-8550	3-9310	0.133	13.9	-3.4	-1.58	0.734	89.1	0.225	1.176	177.0	784.1	0.912	1.441	-0.53	1.057	100.4	299.9	-23.4	0.199
3-8550	3-9320	0.302	123.5	15.6	-1.67	0.913	66.4	0.440	1.799	89.1	345.7	---	2.592	-0.50	1.188	85.6	42.5	13.5	0.220
3-8550	3-9320	0.178	23.7	-0.1	-1.67	0.731	87.3	0.234	1.171	171.0	787.6	0.897	1.446	-0.50	1.055	101.2	307.3	-21.5	0.215
3-8550	3-9330	0.299	123.8	15.2	-1.75	0.913	66.7	0.437	1.802	88.4	354.5	---	2.590	-0.49	1.189	88.3	36.8	11.6	0.207
3-8550	3-9330	0.129	34.4	3.6	-1.75	0.729	85.3	0.247	1.167	165.3	791.5	0.879	1.456	-0.49	1.054	102.3	314.5	-19.4	0.234
3-8550	3-9340	0.299	123.6	15.0	-1.83	0.914	66.6	0.438	1.803	88.4	364.1	1.014	2.595	-0.49	1.190	91.2	29.2	8.9	0.208
3-8550	3-9340	0.136	45.6	7.4	-1.83	0.727	83.1	0.265	1.163	160.0	795.7	0.855	1.472	-0.47	1.054	103.6	321.4	-17.2	0.258
3-8550	3-9350	0.306	123.3	15.0	-1.92	0.914	66.2	0.444	1.806	89.2	374.5	1.003	2.589	-0.51	1.192	94.4	21.6	6.2	0.226
3-8550	3-9350	0.150	56.6	10.9	-1.92	0.725	80.6	0.289	1.160	155.0	800.3	0.824	1.495	-0.51	1.054	105.2	328.1	-14.8	0.288
3-8600	3-8810	0.286	98.1	20.1	-1.82	0.628	68.0	0.532	1.067	157.2	244.9	---	1.635	-0.40	1.042	58.1	343.8	-7.6	0.577
3-8600	3-8820	0.249	98.7	19.4	-1.75	0.652	70.5	0.477	1.102	155.2	252.9	---	1.628	-0.41	1.054	62.1	349.5	-5.3	0.514
3-8600	3-8830	0.217	98.8	18.8	-1.68	0.671	72.8	0.428	1.135	153.4	261.1	---	1.621	-0.42	1.064	65.6	355.1	-3.1	0.456
3-8600	3-8840	0.189	98.2	18.1	-1.59	0.688	74.7	0.384	1.165	151.9	269.5	---	1.612	-0.46	1.072	68.9	0.5	-1.0	0.402
3-8600	3-8850	0.164	97.1	17.6	-1.49	0.702	76.4	0.346	1.191	150.7	278.3	---	1.604	-0.51	1.078	71.9	5.6	0.8	0.352
3-8600	3-8860	0.144	95.4	17.3	-1.37	0.717	77.8	0.314	1.214	149.8	287.2	---	1.595	-0.60	1.083	74.7	10.5	2.3	0.307
3-8600	3-8870	0.127	93.2	17.4	-1.18	0.722	79.0	0.286	1.234	149.2	296.4	---	1.587	-0.75	1.086	77.2	15.1	3.2	0.265
3-8600	3-8880	0.113	90.6	18.5	-0.86	0.729	80.0	0.264	1.250	148.8	305.7	---	1.580	-1.03	1.089	79.5	19.2	2.9	0.228
3-8600	3-8890	0.102	87.6	23.2	-0.11	0.735	80.8	0.246	1.263	148.6	315.2	---	1.574	-1.75	1.090	81.6	23.5	-0.5	0.197
3-8600	3-8900	0.111	82.3	53.8	4.36	0.739	81.4	0.232	1.273	148.5	324.8	---	1.569	-6.18	1.091	83.6	36.1	-23.9	0.199
3-8600	3-8910	0.118	83.7	-14.7	-5.73	0.742	81.8	0.222	1.280	148.5	334.4	---	1.565	3.95	1.092	85.4	7.9	34.6	0.158
3-8600	3-8920	0.096	82.2	-2.2	-3.27	0.744	82.1	0.216	1.286	148.4	343.9	---	1.563	1.52	1.092	87.2	10.8	19.2	0.125
3-8600	3-8930	0.091	81.6	1.5	-2.67	0.745	82.2	0.213	1.289	148.2	353.7	---	1.563	0.96	1.092	88.8	6.4	12.9	0.112
3-8600	3-8940	0.089	82.2	3.6	-2.38	0.746	82.1	0.212	1.290	147.8	362.3	1.017	1.564	0.71	1.092	90.4	0.1	7.8	0.109
3-8600	3-8950	0.090	83.9	5.3	-2.22	0.746	81.9	0.215	1.290	147.2	371.2	1.013	1.568	0.58	1.092	92.0	354.3	3.5	0.115
3-8600	3-8960	0.092	86.7	6.9	-2.10	0.746	81.5	0.220	1.289	146.3	379.9	1.005	1.573	0.50	1.092	93.6	350.5	0.6	0.128
3-8600	3-8970	0.097	90.5	8.6	-2.01	0.745	80.9	0.229	1.287	145.2	388.4	0.993	1.582	0.45	1.092	95.2	349.1	-1.1	0.147
3-8600	3-8980	0.104	95.1	10.2	-1.93	0.744	80.0	0.241	1.284	143.9	396.6	0.975	1.593	0.42	1.093	96.9	349.7	-1.5	0.171
3-8600	3-8990	0.115	100.1	11.6	-1.86	0.742	78.9	0.256	1.281	142.5	404.8	0.952	1.609	0.41	1.093	98.7	351.8	-1.2	0.200

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8600	3-9000	0.330	105.3	13.1	-1.79	0.740	77.5	0.277	1.277	141.0	412.9	0.923	1.630	0.40	1.094	100.7	354.9	-0.2	0.233
3-8600	3-9010	0.150	110.2	14.4	-1.72	0.739	75.6	0.303	1.272	139.5	421.2	0.886	1.658	0.41	1.095	103.1	358.8	1.2	0.272
3-8600	3-9020	0.178	114.7	15.4	-1.65	0.737	73.3	0.338	1.268	138.3	429.7	0.840	1.696	0.43	1.096	105.8	3.1	2.9	0.320
3-8600	3-9030	0.216	118.5	16.3	-1.56	0.735	70.2	0.388	1.263	137.5	438.6	0.780	1.747	0.47	1.097	109.2	7.6	4.7	0.380
3-8600	3-9040	0.268	121.3	17.1	-1.45	0.733	66.0	0.443	1.259	137.4	448.4	0.701	1.817	0.54	1.099	113.6	12.1	6.5	0.457
3-8600	3-9160	0.248	13.7	0.4	-1.94	0.673	99.9	0.359	1.138	198.7	630.9	0.730	1.547	-0.42	1.073	70.4	317.5	-17.5	0.369
3-8600	3-9170	0.245	83.7	19.4	-1.86	0.611	74.7	0.499	1.044	163.3	605.6	0.523	1.565	-0.41	1.033	60.2	338.6	-9.7	0.537
3-8600	3-9170	0.199	27.2	4.9	-1.86	0.661	93.6	0.348	1.118	186.9	629.2	0.729	1.508	-0.41	1.064	70.7	328.2	-14.1	0.363
3-8600	3-9320	0.306	148.2	7.2	-2.16	0.875	64.3	0.453	1.766	98.4	327.0	---	2.567	0.54	1.184	79.8	67.1	24.1	0.275
3-8600	3-9320	0.249	5.7	-4.1	-2.16	0.709	101.3	0.310	1.206	207.9	796.4	0.832	1.580	0.54	1.067	105.7	300.7	-18.5	0.294
3-8600	3-9330	0.295	149.1	7.0	-2.06	0.876	65.1	0.443	1.772	96.8	334.9	---	2.557	0.48	1.185	82.4	66.6	24.0	0.244
3-8600	3-9330	0.202	13.5	-1.8	-2.06	0.700	96.8	0.288	1.188	197.4	795.5	0.846	1.530	0.48	1.061	104.6	311.0	-16.3	0.276
3-8600	3-9340	0.288	149.8	6.8	-1.97	0.877	65.6	0.436	1.776	95.6	343.3	---	2.550	0.44	1.187	84.9	63.5	23.6	0.219
3-8600	3-9340	0.174	22.0	1.0	-1.97	0.694	93.4	0.283	1.176	188.8	796.5	0.843	1.509	0.44	1.059	104.5	319.8	-13.9	0.275
3-8600	3-9350	0.284	150.2	6.7	-1.90	0.877	65.9	0.432	1.779	94.9	352.1	---	2.548	0.41	1.188	87.6	57.5	22.6	0.204
3-8600	3-9350	0.155	32.2	4.3	-1.90	0.689	90.5	0.287	1.167	181.1	798.4	0.833	1.502	0.41	1.057	104.9	328.0	-11.4	0.284
3-8600	3-9360	0.284	150.4	6.9	-1.83	0.878	65.9	0.432	1.782	94.7	361.6	1.011	2.552	0.41	1.190	90.5	49.4	20.7	0.203
3-8600	3-9360	0.143	44.5	8.2	-1.83	0.685	87.6	0.297	1.160	174.2	801.1	0.816	1.505	0.41	1.056	105.7	335.6	-8.7	0.299
3-8600	3-9370	0.289	150.2	7.3	-1.76	0.878	65.6	0.438	1.783	95.3	371.8	1.003	2.564	0.41	1.192	93.6	41.3	18.3	0.218
3-8600	3-9370	0.141	58.7	12.2	-1.76	0.682	84.5	0.314	1.154	167.8	804.4	0.791	1.517	0.41	1.056	106.9	342.9	-5.9	0.322
3-8600	3-9380	0.300	149.6	7.9	-1.69	0.878	64.8	0.450	1.784	96.7	382.9	0.982	2.586	0.42	1.194	97.1	34.9	16.0	0.251
3-8600	3-9380	0.151	73.8	15.6	-1.69	0.679	81.2	0.340	1.149	162.1	808.3	0.759	1.539	0.42	1.057	108.6	349.9	-3.1	0.352
3-8600	3-9390	0.174	87.8	17.9	-1.61	0.677	77.4	0.375	1.144	157.0	813.0	0.716	1.573	0.45	1.058	110.9	356.6	-0.3	0.394
3-8600	3-9400	0.214	99.3	19.1	-1.51	0.674	72.9	0.423	1.140	152.9	818.7	0.659	1.622	0.50	1.059	114.1	2.9	2.4	0.449
3-8600	3-8810	0.298	104.4	19.9	-2.06	0.517	73.9	0.623	0.990	169.7	231.6	---	1.608	-1.30	1.007	91.4	350.3	-5.8	0.678
3-8650	3-8820	0.252	104.3	19.4	-1.82	0.557	76.3	0.552	1.035	168.3	240.2	---	1.606	-1.21	1.026	56.6	355.5	-3.8	0.599
3-8650	3-8830	0.213	103.2	19.0	-1.61	0.591	78.4	0.487	1.077	167.2	249.2	---	1.603	-1.16	1.042	61.1	0.7	-1.9	0.527
3-8650	3-8840	0.180	101.0	18.8	-1.41	0.618	80.2	0.430	1.117	166.6	258.5	---	1.598	-1.15	1.055	65.2	5.8	-0.1	0.461
3-8650	3-8850	0.153	97.5	18.8	-1.21	0.641	81.8	0.381	1.154	166.3	268.1	---	1.593	-1.17	1.066	68.9	10.7	1.5	0.401
3-8650	3-8860	0.131	92.8	19.0	-0.99	0.659	83.2	0.339	1.186	166.4	278.0	---	1.588	-1.24	1.074	72.2	15.5	2.6	0.346
3-8650	3-8870	0.115	87.1	19.6	-0.75	0.673	84.4	0.305	1.214	166.9	288.3	---	1.584	-1.35	1.080	75.2	19.9	3.3	0.297
3-8650	3-8880	0.104	80.7	20.8	-0.45	0.685	85.3	0.277	1.237	167.6	298.8	---	1.580	-1.53	1.085	77.9	23.8	3.1	0.253
3-8650	3-8890	0.098	74.1	22.9	-0.04	0.693	86.1	0.256	1.256	168.5	309.3	---	1.577	-1.82	1.088	80.3	27.2	1.5	0.215
3-8650	3-8900	0.091	67.8	26.9	0.58	0.700	86.7	0.240	1.270	169.3	319.9	---	1.574	-2.33	1.091	82.6	30.0	-2.5	0.184
3-8650	3-8910	0.091	61.5	35.1	1.72	0.705	87.1	0.228	1.281	170.1	330.2	---	1.573	-3.38	1.092	84.6	32.9	-11.4	0.163
3-8650	3-8920	0.107	51.9	54.6	4.85	0.708	87.3	0.220	1.288	170.5	340.1	---	1.572	-6.41	1.093	86.4	40.2	-31.7	0.174
3-8650	3-8940	0.142	72.2	-27.5	-0.82	0.710	87.4	0.214	1.294	170.3	359.2	---	1.572	7.46	1.093	89.9	337.0	51.7	0.174
3-8650	3-8950	0.105	69.6	-13.2	-4.91	0.710	87.1	0.216	1.294	169.4	367.8	1.015	1.573	3.64	1.093	91.4	347.3	29.8	0.130
3-8650	3-8960	0.095	70.9	-5.6	-3.62	0.709	86.7	0.219	1.292	168.2	376.1	1.009	1.575	2.45	1.093	92.9	348.4	17.9	0.130
3-8650	3-8970	0.090	74.6	-0.7	-2.95	0.708	86.2	0.225	1.289	166.5	384.0	0.999	1.578	1.89	1.093	94.3	349.1	11.3	0.142
3-8650	3-8980	0.088	80.2	3.1	-2.52	0.706	85.4	0.232	1.284	164.5	391.5	0.986	1.583	1.57	1.093	95.8	350.9	7.8	0.159
3-8650	3-8990	0.089	87.5	6.3	-2.21	0.704	84.5	0.243	1.279	162.3	398.9	0.969	1.590	1.38	1.093	97.3	353.7	6.3	0.180
3-8650	3-9000	0.092	96.2	8.9	-1.96	0.701	83.3	0.256	1.273	159.7	406.0	0.957	1.599	1.25	1.093	98.9	357.5	6.2	0.204
3-8650	3-9010	0.100	105.7	11.0	-1.74	0.699	81.9	0.272	1.267	157.1	413.0	0.922	1.612	1.18	1.093	100.6	1.9	6.8	0.232
3-8650	3-9020	0.112	115.1	12.3	-1.54	0.696	80.2	0.293	1.260	154.4	420.0	0.891	1.630	1.15	1.094	102.5	6.8	8.0	0.263
3-8650	3-9030	0.130	123.9	13.1	-1.34	0.693	78.2	0.319	1.254	151.7	427.2	0.854	1.653	1.15	1.094	104.6	12.0	9.6	0.300
3-8650	3-9040	0.156	131.3	13.4	-1.14	0.689	75.6	0.351	1.247	149.3	434.5	0.809	1.685	1.19	1.095	107.2	17.5	11.4	0.344
3-8650	3-9050	0.190	137.4	13.5	-0.91	0.686	72.4	0.393	1.241	147.2	442.3	0.753	1.728	1.27	1.096	110.3	23.1	13.2	0.398
3-8650	3-9060	0.237	141.9	13.5	-0.64	0.683	68.2	0.447	1.234	145.7	450.8	0.683	1.786	1.40	1.096	114.2	28.7	15.0	0.466
3-8650	3-9170	0.288	43.1	12.2	-2.21	0.598	102.8	0.484	1.087	194.5	611.1	0.561	1.613	-1.38	1.051	61.5	336.8	-12.3	0.521
3-8650	3-9180	0.253	95.5	19.8	-1.95	0.543	79.8	0.559	1.018	171.7	598.4	0.449	1.586	-1.25	1.019	56.1	151.6	-5.5	0.606
3-8650	3-9180	0.227	68.5	17.5	-1.95	0.573	90.7	0.486	1.053	180.7	607.4	0.541	1.566	-1.25	1.035	61.1	147.7	-7.6	0.525
3-8650	3-9340	0.301	171.0	-3.5	-2.73	0.838	64.0	0.447	1.741	104.3	326.3	---	2.520	1.72	1.182	79.7	88.2	30.8	0.271
3-8650	3-9350	0.291	172.1	-3.2	-2.36	0.839	64.7	0.437	1.747	102.9	334.5	---	2.510	1.47	1.184	82.3	87.4	30.6	0.240
3-8650	3-9360	0.284	173.0	-3.0	-2.08	0.840	65.2	0.430	1.751	101.9	343.0	---	2.504	1.31	1.186	84.9	83.7	30.5	0.215
3-8650	3-9360	0.299	27.5	6.8	-2.08	0.671	106.6	0.402	1.208	208.6	809.8	0.723	1.694	1.31	1.072	111.9	330.6	-8.6	0.412
3-8650	3-9370	0.287	173.6	-2.7	-1.85	0.841	65.5	0.426	1.754	101.3	352.1	---	2.503	1.22	1.188	87.6	76.9	30.1	0.201
3-8650	3-9370	0.223	37.4	9.4	-1.85	0.655	99.0	0.361	1.478	196.7	807.5	0.753	1.603	1.22	1.065	109.5	340.6	-4.7	0.371
3-8650	3-9380	0.281	173.9	-2.2	-1.64	0.841	65.5	0.427	1.757	101.2	361.7	1.007	2.507	1.16	1.191	90.5	68.0	28.9	0.200
3-8650	3-9380	0.184	48.6	12.5	-1.64	0.646	94.2	0.353	1.163	187.7	808.2	0.752	1.574	1.16	1.062	109.3	349.1	-1.2	0.366
3-8650	3-9390	0.286	173.8	-1.5	-1.45	0.842	65.1	0.433	1.758	101.7	371.9	0.997	2.519	1.15	1.193	93.6	59.4	26.9	0.216
3-8650	3-9390	0.162	62.8	15.8	-1.45	0.640	89.9	0.360	1.152	179.9	810.2	0.738	1.566	1.15	1.060	109.8	357.0	2.0	0.376
3-8650	3-9400	0.296	173.4	-0.6	-1.25	0.842	64.3	0.445	1.759	102.9	382.9	0.977	2.540	1.17	1.196	97.0	53.1	24.8	0.249
3-8650	3-9400	0.155	80.1	18.6	-1.25	0.634	85.8	0.376	1.143	172.9	813.0	0.713	1.573	1.17	1.060	111.0	4.7	5.2	0.396
3-8650	3-9410	0.314	172.5	0.6	-1.03	0.842	63.0	0.465	1.758	104.9	394.8	0.941	2.575	1.22	1.198	100.9	49.6	23.2	0.300
3-8650	3-9410	0.164	98.4	19.8	-1.03	0.630	81.3	0.403	1.136	166.7	816.7	0.678	1.594	1.22	1.060	112.8	12.0	8.2	0.428
3-8650	3-9420	0.192	114.4	19.5	-0.79	0.626	78.4	0.443	1.130	161.5	821.3	0.630	1.630	1.32	1.060	115.4	19.1	11.0	0.474
3-8650	3-9430	0.241	126.3	18.5	-0.49	0.623	76.5	0.498	1.125	157.4	827.2	0.565	1.685	1.50	1.061	119.1	25.8	13.5	0.539
3-8700	3-8820	0.300	98.8	20.1	-2.33	0.471	93.0	0.642	0.987	181.7	229.8	---	---	-2.20	1.003	50.0	0.7	-2.3	0.701
3-8700	3-8830	0.248	95.7	19.9	-1.88	0.524	92.5	0.557	1.041	182.0	240.1	---	---	-1.93	1.026	56.2	5.0	-0.8	0.606
3-8700	3-8840	0.209	91.0	19.9	-1.52	0.566	92.7	0.482	1.094	182.9	251.0	---	---	-1.76	1.046	61.6	9.4	0.7	0.522
3-8700	3-8850	0.181	84.7	19.9	-1.21	0.601	93.1	0.419	1.144	184.3	262.3	---	---	-1.67	1.062	66.3	13.6	1.9	0.446
3-8700	3-8860	0.162	77.5	19.9	-0.92	0.628	93.7	0.367	1.189	186.3	274.2	---	---	-1.64	1.075	70.4	17.5	2.7	0.379
3-8700	3-8870	0.151	70.2	19.9	-0.64	0.648	94.2	0.326	1.228	188.8	286.4	---	---	-1.65	1.085	74.0	21.1	3.1	0.320
3-8700	3-8880	0.144	63.6	20.1	-0.35	0.664	94.7	0.295	1.260	191.4	298.7	---	---	-1.71	1.092	77.2	24.0	2.7	0.268
3-8700	3-8890	0.141	58.1	20.6	-0.03	0.676	95.1	0.273	1.286	193.8	310.9	---	---	-1.84	1.097	80.1	26.1	1.3	0.224
3-8700	3-8900	0.140	53.8	21.9	0.36	0.685	95.4	0.257	1.305	195.9	322.6	---	---	-2.04	1.100	82.6	27.0	-1.6	0.188
3-8700	3-8910	0.139	50.7	23.3	0.85	0.690	95.5	0.247	1.318	197.4	333.7	---	---	-2.37	1.102	84.9	26.5	-6.6	0.161
3-8700	3-8920	0.139	48.4	26.4	1.55	0.694	95.5	0.240	1.326	198.2	344.0	---	---	-2.92	1.103	86.9	24.8	-14.3	0.144
3-8700	3-8930	0.140	46.4	31.9	2.71	0.695	95.4	0.237	1.330	198.1	353.5	---	---	-3.93	1.103	88.8	23.2	-25.4	0.141

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8700	3-8940	0.149	43.5	43.2	5.21	0.695	95.2	0.235	1.329	197.4	362.3	1.017	---	-6.28	1.102	90.4	25.5	-41.1	0.165
3-8700	3-8950	0.236	33.2	70.9	15.65	0.693	94.8	0.236	1.326	195.9	370.2	1.014	---	-16.59	1.101	91.9	54.1	-65.4	0.325
3-8700	3-8970	0.154	67.1	-14.5	-7.60	0.688	93.6	0.241	1.313	191.6	385.3	0.997	---	6.94	1.099	94.8	332.6	35.3	0.195
3-8700	3-8980	0.129	67.7	-3.7	-4.68	0.684	92.8	0.246	1.305	188.7	391.9	0.984	---	4.16	1.098	96.1	343.6	21.2	0.181
3-8700	3-8990	0.117	71.5	2.4	-3.40	0.680	91.8	0.252	1.295	185.5	398.3	0.969	---	3.02	1.097	97.4	350.2	14.8	0.191
3-8700	3-9000	0.108	77.6	6.6	-2.65	0.676	90.7	0.260	1.285	182.0	404.4	0.951	---	2.43	1.096	98.7	355.9	12.2	0.207
3-8700	3-9010	0.102	86.0	9.7	-2.14	0.671	89.4	0.270	1.275	178.3	410.4	0.930	1.620	2.07	1.096	100.1	1.6	11.5	0.227
3-8700	3-9020	0.099	96.7	12.1	-1.74	0.666	87.8	0.283	1.264	174.5	416.3	0.907	1.622	1.86	1.095	101.5	7.5	12.0	0.249
3-8700	3-9030	0.101	109.4	13.4	-1.41	0.661	86.1	0.299	1.254	170.6	422.2	0.879	1.629	1.72	1.094	103.1	13.5	13.1	0.274
3-8700	3-9040	0.108	122.7	13.7	-1.11	0.656	84.0	0.318	1.244	166.8	428.2	0.848	1.639	1.66	1.094	104.8	19.8	14.6	0.303
3-8700	3-9050	0.123	135.1	12.9	-0.83	0.651	81.5	0.342	1.234	163.0	434.3	0.811	1.656	1.64	1.094	106.8	26.3	16.3	0.337
3-8700	3-9060	0.146	145.7	11.6	-0.54	0.647	78.6	0.373	1.224	159.5	440.7	0.768	1.681	1.67	1.093	109.1	32.8	18.1	0.376
3-8700	3-9070	0.178	154.0	10.2	-0.23	0.642	75.1	0.412	1.215	156.3	447.5	0.715	1.715	1.76	1.093	112.0	39.5	19.8	0.425
3-8700	3-9080	0.223	160.1	8.0	0.13	0.637	70.7	0.462	1.207	153.7	454.9	0.650	1.764	1.92	1.093	115.6	46.1	21.4	0.486
3-8700	3-9090	0.281	164.2	6.2	0.58	0.633	65.2	0.526	1.199	152.0	463.4	0.568	1.830	2.18	1.092	120.2	52.4	22.7	0.566
3-8700	3-9360	0.304	192.5	-13.3	-3.01	0.807	64.1	0.439	1.713	109.4	326.8	---	2.465	2.70	1.181	80.0	110.1	34.2	0.264
3-8700	3-9370	0.295	193.8	-12.5	-2.39	0.808	64.8	0.429	1.719	108.2	335.2	---	2.457	2.24	1.183	82.6	108.6	33.8	0.233
3-8700	3-9380	0.289	194.8	-11.9	-1.94	0.809	65.2	0.423	1.723	107.3	344.0	---	2.452	1.96	1.186	85.3	104.1	34.0	0.209
3-8700	3-9390	0.286	195.5	-11.2	-1.58	0.810	65.4	0.420	1.726	106.9	353.3	---	2.451	1.79	1.189	88.0	96.3	34.2	0.197
3-8700	3-9400	0.287	195.8	-10.4	-1.26	0.810	65.3	0.421	1.728	106.8	363.1	1.001	2.456	1.68	1.191	90.9	86.7	33.6	0.198
3-8700	3-9400	0.270	57.6	17.7	-1.26	0.622	105.4	0.447	1.180	201.1	817.3	0.652	1.707	1.68	1.073	115.2	2.5	4.8	0.475
3-8700	3-9410	0.292	195.8	-9.6	-0.97	0.810	64.9	0.428	1.729	107.3	373.6	0.990	2.469	1.64	1.194	94.0	77.9	32.1	0.216
3-8700	3-9410	0.206	71.9	20.1	-0.97	0.607	97.6	0.422	1.154	190.7	816.8	0.667	1.640	1.64	1.066	113.8	11.6	8.9	0.448
3-8700	3-9420	0.303	195.5	-8.6	-0.69	0.810	64.1	0.440	1.730	108.4	384.4	0.968	2.491	1.65	1.196	97.4	71.9	30.3	0.251
3-8700	3-9420	0.177	89.6	21.7	-0.69	0.597	91.7	0.424	1.138	182.3	818.4	0.656	1.620	1.65	1.063	114.1	20.1	12.3	0.452
3-8700	3-9430	0.171	110.1	21.3	-0.39	0.590	86.2	0.441	1.127	175.1	821.1	0.630	1.624	1.70	1.062	115.3	28.3	15.3	0.472
3-8700	3-9440	0.188	129.2	18.8	-0.06	0.584	80.4	0.472	1.119	169.0	823.0	0.591	1.646	1.82	1.061	117.4	36.2	17.9	0.508
3-8700	3-9450	0.229	143.8	15.6	0.33	0.579	74.0	0.518	1.112	163.9	830.0	0.535	1.688	2.02	1.061	120.6	43.8	20.2	0.562
3-8700	3-9460	0.292	153.3	12.9	0.84	0.575	66.4	0.584	1.106	160.4	836.5	0.460	1.752	2.36	1.060	125.3	51.0	21.9	0.640
3-8710	3-8800	0.489	98.6	20.9	-4.66	0.318	111.6	0.859	0.887	183.8	207.2	---	---	-4.29	0.949	31.0	353.5	-5.2	0.978
3-8710	3-8810	0.395	98.6	20.5	-3.30	0.394	102.6	0.761	0.932	184.1	217.5	---	---	-3.08	0.975	40.5	357.4	-3.6	0.844
3-8710	3-8820	0.322	96.7	20.3	-2.52	0.461	98.7	0.664	0.984	184.5	228.0	---	---	-2.47	1.001	48.4	1.5	-2.1	0.728
3-8710	3-8830	0.267	93.3	20.1	-1.99	0.517	97.0	0.574	1.041	185.3	238.8	---	---	-2.11	1.026	55.1	5.7	-0.6	0.626
3-8710	3-8840	0.226	88.2	20.1	-1.58	0.563	96.4	0.494	1.097	186.6	250.1	---	---	-1.90	1.047	60.8	9.8	0.7	0.536
3-8710	3-8850	0.197	81.7	20.0	-1.24	0.599	96.3	0.428	1.150	188.6	262.0	---	---	-1.77	1.064	65.7	13.8	1.8	0.456
3-8710	3-8860	0.178	74.6	19.9	-0.93	0.628	96.5	0.374	1.198	191.2	274.4	---	---	-1.71	1.078	70.1	17.5	2.6	0.386
3-8710	3-8870	0.167	67.6	19.9	-0.64	0.650	96.8	0.333	1.240	194.1	287.1	---	---	-1.70	1.086	73.9	20.7	2.8	0.324
3-8710	3-8880	0.161	61.6	19.9	-0.34	0.666	97.1	0.302	1.275	197.1	299.9	---	---	-1.74	1.096	77.2	23.4	2.3	0.271
3-8710	3-8890	0.158	56.7	20.3	-0.03	0.678	97.4	0.280	1.302	200.0	312.4	---	---	-1.84	1.101	80.1	25.6	0.9	0.226
3-8710	3-8900	0.157	53.0	21.1	0.34	0.687	97.6	0.265	1.322	202.2	324.3	---	---	-2.01	1.106	82.8	25.4	-2.0	0.189
3-8710	3-8910	0.156	50.4	22.5	0.79	0.692	97.6	0.255	1.335	203.6	335.4	---	---	-2.28	1.106	85.1	24.3	-4.8	0.161
3-8710	3-8920	0.155	48.6	24.9	1.39	0.695	97.6	0.249	1.343	204.5	345.7	---	---	-2.72	1.107	87.2	21.8	-13.8	0.144
3-8710	3-8930	0.155	47.4	28.9	2.31	0.696	97.4	0.245	1.345	204.3	355.1	---	---	-3.49	1.107	89.0	19.0	-23.2	0.140
3-8710	3-8940	0.157	45.9	36.5	4.03	0.696	97.1	0.244	1.344	203.4	363.7	1.016	---	-5.05	1.106	90.7	18.5	-35.4	0.153
3-8710	3-8950	0.181	42.0	53.8	8.73	0.694	96.7	0.244	1.339	201.7	371.5	1.013	---	-9.61	1.105	92.2	28.2	-53.7	0.212
3-8710	3-8970	0.195	70.3	-21.5	-11.36	0.688	95.4	0.248	1.323	197.0	386.2	0.995	---	10.76	1.102	91	320.9	44.9	0.248
3-8710	3-8980	0.146	67.7	-6.1	-5.78	0.683	94.6	0.252	1.313	193.9	392.5	0.982	---	5.33	1.100	93.4	340.1	25.7	0.195
3-8710	3-8990	0.129	70.4	1.5	-3.90	0.679	93.6	0.257	1.302	190.4	398.6	0.967	---	3.60	1.099	97.6	348.6	17.1	0.198
3-8710	3-9000	0.118	75.6	6.3	-2.92	0.674	92.4	0.264	1.291	186.8	404.6	0.950	---	2.77	1.098	98.9	355.1	13.5	0.212
3-8710	3-9010	0.109	83.0	9.7	-2.29	0.668	91.1	0.273	1.279	182.9	410.4	0.930	---	2.31	1.097	100.2	1.2	12.4	0.230
3-8710	3-9020	0.104	92.9	12.2	-1.82	0.663	89.5	0.285	1.268	178.9	416.1	0.907	1.628	2.02	1.096	101.5	7.3	12.6	0.250
3-8710	3-9030	0.102	105.0	13.8	-1.45	0.657	87.6	0.299	1.256	174.6	421.8	0.881	1.631	1.85	1.095	103.0	13.6	13.6	0.274
3-8710	3-9040	0.106	118.6	14.2	-1.13	0.652	85.7	0.316	1.245	170.7	427.3	0.851	1.638	1.75	1.094	104.6	20.0	15.1	0.300
3-8710	3-9050	0.116	132.2	13.5	-0.83	0.646	83.4	0.338	1.234	166.7	433.4	0.817	1.650	1.70	1.094	106.4	26.6	16.8	0.331
3-8710	3-9060	0.135	144.2	11.9	-0.53	0.641	80.6	0.365	1.223	162.8	439.2	0.777	1.670	1.71	1.093	108.6	33.3	18.5	0.367
3-8710	3-9070	0.163	153.9	10.2	-0.22	0.636	77.3	0.400	1.213	159.3	445.9	0.728	1.698	1.77	1.092	111.2	40.2	20.3	0.411
3-8710	3-9080	0.202	161.2	8.6	0.13	0.631	73.2	0.444	1.204	156.2	452.9	0.670	1.739	1.90	1.092	114.4	47.0	21.8	0.465
3-8710	3-9090	0.254	166.4	7.3	0.54	0.626	68.1	0.501	1.196	153.6	460.7	0.596	1.795	2.12	1.091	118.5	53.7	23.2	0.535
3-8710	3-9100	0.323	169.6	6.6	1.09	0.622	61.6	0.576	1.189	152.8	469.7	0.504	1.873	2.49	1.090	123.9	60.0	24.2	0.628
3-8710	3-9110	0.417	170.8	6.5	1.90	0.619	52.9	0.673	1.183	153.9	480.6	0.387	1.980	3.14	1.090	131.4	65.4	25.0	0.754
3-8710	3-9120	0.545	169.9	7.2	3.33	0.618	41.1	0.793	1.181	157.2	494.4	0.244	2.118	4.40	1.089	141.9	69.4	25.3	0.928
3-8710	3-9170	0.531	137.5	14.8	-3.91	0.326	50.0	0.902	0.891	174.6	562.7	0.087	1.695	-3.60	0.951	25.7	359.5	-1.7	1.056
3-8710	3-9170	0.491	70.5	19.4	-3.91	0.516	126.3	0.747	1.039	196.1	584.2	0.262	1.816	43.60	1.031	41.7	349.2	-7.8	0.848
3-8710	3-9180	0.432	134.6	15.2	-2.89	0.374	64.8	0.818	0.911	173.8	572.1	0.167	1.670	-2.73	0.966	35.2	4.1	-0.0	0.922
3-8710	3-9180	0.376	77.5	19.9	-2.89	0.504	112.2	0.662	1.096	192.6	590.9	0.346	1.705	-2.75	1.023	48.6	355.4	-5.1	0.733
3-8710	3-9240	0.586	180.6	-0.7	-0.50	0.752	40.6	0.761	1.501	143.3	241.0	---	2.653	-4.72	1.151	43.5	45.1	15.5	0.875
3-8710	3-9250	0.552	182.6	-1.4	-0.20	0.758	43.6	0.725	1.530	139.9	247.2	---	2.641	-4.78	1.153	47.1	52.0	17.0	0.814
3-8710	3-9260	0.520	184.6	-1.9	0.14	0.765	46.4	0.691	1.553	136.5	253.5	---	2.626	-4.91	1.155	50.5	58.9	18.1	0.754
3-8710	3-9270	0.489	186.6	-2.3	0.54	0.770	49.0	0.657	1.575	133.2	259.9	---	2.610	-5.12	1.158	53.8	65.8	18.7	0.697
3-8710	3-9280	0.461	188.7	-2.3	1.05	0.776	51.4	0.624	1.596	130.1	266.3	---	2.592	-5.46	1.160	57.0	72.6	18.7	0.641
3-8710	3-9290	0.435	190.9	-2.0	1.77	0.781	53.6	0.594	1.615	127.1	272.8	---	2.574	-5.82	1.162	60.0	79.4	17.9	0.589
3-8710	3-9300	0.412	193.3	-0.7	2.97	0.785	55.6	0.565	1.633	124.2	279.5	---	2.556	-6.07	1.164	63.0	85.9	15.5	0.540
3-8710	3-9310	0.394	196.4	3.8	5.54	0.789	57.4	0.539	1.649	121.5	286.3	---	2.538	-6.50	1.167	65.8	92.2	9.5	0.499
3-8710	3-9320	0.419	201.9	19.8	16.18	0.792	59.0	0.515	1.663	118.9	293.1	---	2.520	-16.99	1.169	68.5	100.7	-13.5	0.535
3-8710	3-9330	0.459	169.5	-37.2	-23.90	0.795	60.6	0.491	1.676	116.5	300.8	---	2.500	23.23	1.171	71.4	138.6	69.1	0.574
3-8710	3-9340	0.346	189.6	-21.7	-7.76	0.797	61.9	0.473	1.687	114.4	308.0	---	2.485	7.23	1.174	73.9	112.0	44.6	0.373
3-8710	3-9350	0.324	193.8	-17.4	-4.71	0.799	63.0	0.456	1.697	112.5	315.7	---	2.470	4.33	1.177	76.5	113.3	37.7	0.318
3-8710	3-9360	0.310	196.1	-15.6	-3.37	0.801	63.9	0.442	1.705	110.9	323.6	---	2.458	3.14	1.179	79.1	114.5	35.0	0.277
3-8710	3-9370	0.299	197.6	-14.5	-2.59	0.802	64.6	0.431	1.711	109.6	332.0	---	2.448	2.52	1.182	81.7	115.8	34.0	0.245
3-8710	3-9380	0.292	198.3	-13.7	-2.05	0.803	65.1	0.423	1.716	108.6	340.7	---	2.442	2.16	1.185	84.3	110.4	34.1	0.216

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8710	3-9390	0.288	199.6	-13.0	-1.64	0.804	65.4	0.419	1.719	108.0	349.8	---	2.439	1.93	1.188	87.0	103.8	34.5	0.199
3-8710	3-9400	0.288	200.1	-12.2	-1.29	0.805	65.4	0.419	1.722	107.8	359.4	---	2.442	1.79	1.190	89.8	94.5	34.4	0.195
3-8710	3-9410	0.291	200.2	-11.4	-0.98	0.805	65.2	0.423	1.723	108.1	369.6	0.994	2.452	1.72	1.193	92.8	85.0	33.3	0.207
3-8710	3-9410	0.243	68.0	20.0	-0.98	0.608	102.7	0.446	1.165	196.8	818.3	0.646	1.684	1.72	1.070	115.2	11.0	8.5	0.475
3-8710	3-9410	0.520	51.9	18.3	-0198	0.670	128.6	0.658	1.284	212.8	834.3	0.439	2.128	1.72	1.107	129.4	4.7	4.2	0.735
3-8710	3-9420	0.300	200.0	-10.4	-0.69	0.805	64.5	0.433	1.723	108.9	380.3	0.977	2.470	1.70	1.195	96.1	77.8	31.6	0.236
3-8710	3-9420	0.194	84.4	21.8	-0.69	0.595	95.6	0.433	1.144	187.4	818.8	0.649	1.638	1.70	1.065	114.6	19.9	12.2	0.462
3-8710	3-9430	0.315	199.3	-9.3	-0.39	0.805	63.4	0.451	1.723	110.3	391.7	0.947	2.500	1.73	1.198	99.7	73.8	30.0	0.280
3-8710	3-9430	0.175	104.2	22.0	-0.39	0.586	89.6	0.441	1.130	179.5	820.9	0.632	1.628	1.73	1.063	115.3	28.3	15.4	0.472
3-8710	3-9440	0.337	198.2	-8.1	-0.06	0.805	61.7	0.477	1.722	112.5	404.0	0.901	2.544	1.83	1.200	103.8	72.5	28.8	0.340
3-8710	3-9440	0.180	124.8	19.9	-0.06	0.579	83.8	0.464	1.120	172.7	824.1	0.600	1.640	1.83	1.061	116.9	36.6	18.1	0.499
3-8710	3-9450	0.371	196.5	-6.6	0.31	0.805	59.1	0.515	1.721	115.7	417.2	0.834	2.608	1.99	1.201	108.7	73.1	28.0	0.418
3-8710	3-9450	0.209	141.8	16.3	0.31	0.573	77.5	0.503	1.111	167.0	828.5	0.553	1.670	1.99	1.060	119.6	44.5	20.4	0.544
3-8710	3-9460	0.419	194.2	-4.9	0.78	0.804	55.4	0.570	1.720	120.2	431.8	0.740	2.699	2.27	1.203	114.7	74.7	27.5	0.519
3-8710	3-9460	0.262	153.6	12.9	0.78	0.569	70.3	0.559	1.105	162.6	834.2	0.488	1.722	2.27	1.060	123.5	52.1	22.3	0.609
3-8710	3-9470	0.490	191.0	-2.9	1.43	0.804	50.0	0.644	1.719	126.4	448.1	0.611	2.827	2.75	1.204	122.2	76.5	27.2	0.651
3-8710	3-9470	0.339	160.8	10.6	1.43	0.565	61.6	0.636	1.100	168.0	841.7	0.401	1.799	2.75	1.059	129.1	59.0	23.7	0.703
3-8710	3-9480	0.591	186.6	-0.5	2.46	0.804	42.0	0.744	1.719	135.2	467.1	0.441	2.998	3.61	1.205	132.3	77.8	26.9	0.827
3-8710	3-9480	0.447	164.1	9.5	2.46	0.563	50.5	0.738	1.097	160.0	851.8	0.287	1.906	3.61	1.059	137.3	64.7	24.5	0.838
3-8710	3-9480	0.505	100.7	25.0	2.46	0.296	111.5	0.878	0.876	183.2	1235.0	0.107	1.646	3.61	0.944	151.2	51.1	20.3	1.004
3-8710	3-9480	0.576	89.8	25.0	2.46	0.331	132.1	0.906	0.894	185.6	1237.5	0.084	1.704	3.61	0.956	154.8	50.2	19.8	1.062
3-8710	3-9490	0.591	163.9	9.8	4.53	0.562	35.8	0.859	1.096	163.5	865.6	0.154	2.037	5.52	1.059	149.1	68.5	24.9	1.027
3-8710	3-9490	0.529	126.2	21.8	4.53	0.389	66.7	0.915	0.857	177.7	1239.7	0.072	1.642	5.52	0.931	156.0	58.7	22.3	1.066
3-8720	3-8800	0.544	96.9	21.1	-5.73	0.327	126.4	0.891	0.896	185.4	204.2	---	---	-5.43	0.955	27.2	354.8	-4.7	1.037
3-8720	3-8810	0.435	96.5	20.7	-3.76	0.392	112.3	0.790	0.935	186.4	215.3	---	---	-3.62	0.977	37.9	358.5	-3.3	0.886
3-8720	3-8820	0.353	94.5	20.5	-2.76	0.458	105.5	0.687	0.987	187.4	226.4	---	---	-2.79	1.003	46.6	2.3	-1.9	0.758
3-8720	3-8830	0.291	90.8	20.3	-2.12	0.516	102.2	0.591	1.045	188.7	237.7	---	---	-2.32	1.028	53.8	6.2	-0.6	0.648
3-8720	3-8840	0.247	85.4	20.2	-1.65	0.563	100.6	0.508	1.104	190.7	249.6	---	---	-2.05	1.050	60.0	10.1	0.7	0.551
3-8720	3-8850	0.217	79.0	20.1	-1.27	0.601	99.9	0.438	1.161	193.2	262.1	---	---	-1.88	1.068	65.2	13.8	1.7	0.467
3-8720	3-8860	0.198	72.1	20.0	-0.94	0.631	99.7	0.382	1.213	196.4	275.1	---	---	-1.79	1.083	69.8	17.2	2.3	0.393
3-8720	3-8870	0.187	65.6	19.8	-0.64	0.654	99.7	0.340	1.258	199.9	288.4	---	---	-1.75	1.094	73.7	20.2	2.4	0.328
3-8720	3-8880	0.181	60.1	19.8	-0.34	0.671	99.8	0.310	1.295	203.4	301.6	---	---	-1.77	1.102	77.2	22.4	1.9	0.273
3-8720	3-8890	0.178	55.9	20.1	-0.03	0.683	99.9	0.288	1.324	206.5	314.4	---	---	-1.84	1.107	80.3	23.6	0.3	0.227
3-8720	3-8900	0.177	52.8	20.8	0.32	0.692	99.9	0.274	1.344	208.9	326.5	---	---	-1.98	1.110	83.0	23.4	-2.6	0.190
3-8720	3-8910	0.175	50.7	22.0	0.74	0.697	99.9	0.265	1.357	210.4	337.6	---	---	-2.20	1.112	85.4	21.6	-7.3	0.162
3-8720	3-8920	0.174	49.3	23.9	1.27	0.700	99.7	0.259	1.364	211.0	347.7	---	---	-2.53	1.112	87.5	18.4	-13.7	0.146
3-8720	3-8930	0.172	48.5	26.9	2.03	0.700	99.5	0.256	1.365	210.7	356.9	---	---	-3.06	1.112	89.4	14.7	-21.7	0.141
3-8720	3-8940	0.171	47.9	32.3	3.31	0.699	99.1	0.254	1.362	209.5	365.3	1.016	---	-4.27	1.110	91.1	12.7	-31.3	0.150
3-8720	3-8950	0.178	46.5	43.2	6.08	0.696	98.6	0.254	1.356	207.7	372.9	1.012	---	-6.90	1.109	92.6	16.3	-44.5	0.184
3-8720	3-8960	0.275	41.8	71.6	18.29	0.693	98.0	0.254	1.347	205.2	379.8	1.004	---	-18.96	1.107	94.0	48.2	-68.9	0.317
3-8720	3-8970	0.312	79.6	-32.0	-22.10	0.688	97.4	0.257	1.336	202.6	387.3	0.992	---	21.58	1.105	95.5	293.0	54.5	0.422
3-8720	3-8980	0.169	69.0	-9.9	-7.58	0.683	96.4	0.260	1.324	199.2	393.3	0.980	---	7.21	1.103	96.7	334.8	31.8	0.219
3-8720	3-8990	0.143	70.1	0.3	-4.59	0.678	95.4	0.264	1.311	195.5	399.2	0.965	---	4.37	1.101	97.9	346.5	19.9	0.208
3-8720	3-9000	0.129	74.4	5.9	-3.26	0.672	94.2	0.270	1.298	191.6	404.9	0.948	---	3.20	1.100	99.1	4.1	15.0	0.218
3-8720	3-9010	0.119	80.8	9.7	-2.48	0.666	92.9	0.277	1.285	187.5	410.5	0.928	---	2.57	1.098	100.3	9.7	13.4	0.234
3-8720	3-9020	0.111	89.6	12.4	-1.93	0.660	91.3	0.287	1.272	183.3	416.0	0.906	---	2.20	1.097	101.6	7.1	13.3	0.253
3-8720	3-9030	0.106	100.9	14.2	-1.51	0.654	89.6	0.300	1.259	179.0	421.5	0.882	1.636	1.98	1.096	103.0	13.5	14.2	0.274
3-8720	3-9040	0.106	114.3	14.9	-1.15	0.648	87.6	0.315	1.246	174.7	427.0	0.854	1.639	1.84	1.095	104.5	20.1	15.5	0.298
3-8720	3-9050	0.112	128.6	14.3	-0.83	0.642	85.3	0.334	1.234	170.4	432.6	0.822	1.647	1.77	1.094	106.2	26.9	17.2	0.326
3-8720	3-9060	0.127	141.9	12.6	-0.53	0.636	82.6	0.359	1.223	166.3	438.4	0.784	1.662	1.75	1.093	108.2	33.8	18.9	0.359
3-8720	3-9070	0.150	153.0	10.4	-0.22	0.631	79.4	0.390	1.212	162.4	444.5	0.740	1.685	1.79	1.092	110.5	40.8	20.6	0.399
3-8720	3-9080	0.184	161.7	8.4	0.12	0.625	75.6	0.429	1.202	159.0	451.1	0.686	1.718	1.89	1.091	113.4	47.8	22.2	0.447
3-8720	3-9090	0.230	167.9	6.7	0.51	0.620	70.9	0.480	1.193	156.1	458.4	0.620	1.765	2.03	1.090	117.0	54.8	23.6	0.509
3-8720	3-9100	0.291	172.1	5.6	1.01	0.615	65.0	0.546	1.185	154.2	466.6	0.538	1.831	2.37	1.089	121.8	61.5	24.6	0.590
3-8720	3-9110	0.373	174.3	5.1	1.70	0.611	57.2	0.632	1.178	153.9	476.4	0.434	1.923	2.88	1.088	128.2	67.5	25.4	0.699
3-8720	3-9120	0.484	174.5	5.3	2.81	0.609	46.9	0.741	1.174	155.9	488.6	0.304	2.045	3.82	1.087	137.2	72.3	25.8	0.848
3-8720	3-9170	0.560	140.6	13.9	-4.60	0.294	46.9	0.927	0.880	175.7	559.3	0.064	1.696	-4.37	0.943	22.1	1.3	-1.0	1.103
3-8720	3-9170	0.540	76.6	20.2	-4.60	0.501	132.4	0.803	1.029	194.7	578.4	0.203	1.855	-4.37	1.026	36.7	351.8	-6.7	0.927
3-8720	3-9180	0.462	138.7	14.2	-3.22	0.343	62.5	0.852	0.905	174.7	568.4	0.134	1.677	-3.16	0.957	31.7	6.0	0.8	0.972
3-8720	3-9180	0.413	81.6	20.3	-3.22	0.490	117.0	0.706	1.018	193.0	586.7	0.299	1.737	-3.16	1.015	45.1	357.3	-4.3	0.789
3-8720	3-9190	0.344	125.9	16.9	-2.42	0.412	82.4	0.729	0.950	177.1	580.9	0.258	1.691	-2.54	0.981	43.3	9.1	1.6	0.803
3-8720	3-9190	0.318	102.9	20.0	-2.42	0.458	98.3	0.666	0.988	184.2	588.0	0.330	1.645	-2.54	1.002	48.3	5.9	-0.3	0.731
3-8720	3-9240	0.599	184.0	-2.2	-0.50	0.743	39.5	0.775	1.490	145.2	238.3	---	2.644	-1.76	1.148	42.0	46.3	15.9	0.898
3-8720	3-9250	0.565	186.0	-2.9	-0.19	0.750	42.5	0.739	1.514	141.7	244.5	---	2.632	-1.80	1.150	45.6	53.2	17.3	0.836
3-8720	3-9260	0.532	188.1	-3.4	0.13	0.756	45.4	0.703	1.537	138.3	250.8	---	2.619	-1.90	1.152	49.2	60.2	18.4	0.776
3-8720	3-9270	0.501	190.1	-3.8	0.51	0.762	48.1	0.669	1.560	135.0	257.1	---	2.603	-2.07	1.155	52.5	67.1	19.1	0.717
3-8720	3-9280	0.472	192.2	-4.0	0.97	0.768	50.8	0.636	1.581	131.9	263.5	---	2.588	-2.35	1.157	55.8	74.0	19.2	0.661
3-8720	3-9290	0.445	194.3	-3.9	1.59	0.773	52.8	0.606	1.601	128.8	270.0	---	2.569	-2.80	1.160	58.9	80.8	18.6	0.607
3-8720	3-9300	0.421	196.5	-3.0	2.54	0.778	54.9	0.575	1.619	125.9	276.7	---	2.550	-3.59	1.162	61.8	87.3	16.8	0.557
3-8720	3-9310	0.400	199.2	-0.7	4.30	0.782	56.8	0.547	1.636	123.2	283.4	---	2.532	-5.20	1.164	64.7	93.5	12.6	0.511
3-8720	3-9320	0.392	203.1	7.1	9.13	0.786	58.5	0.522	1.652	120.6	290.3	---	2.514	-9.87	1.167	67.5	99.7	0.8	0.488
3-8720	3-9340	0.369	189.3	-28.4	-11.55	0.791	61.5	0.478	1.677	116.0	305.1	---	2.478	11.10	1.172	72.9	119.9	52.6	0.416
3-8720	3-9350	0.333	196.7	-20.7	-5.80	0.794	62.6	0.460	1.687	114.0	312.7	---	2.464	5.49	1.175	75.5	117.6	40.2	0.337
3-8720	3-9360	0.316	199.6	-17.9	-3.86	0.795	63.6	0.445	1.695	112.3	320.5	---	2.451	3.71	1.178	78.1	118.7	35.9	0.291
3-8720	3-9370	0.305	201.4	-16.5	-2.88	0.797	64.4	0.433	1.702	110.9	328.8	---	2.440	2.86	1.181	80.7	118.7	34.3	0.254
3-8720	3-9380	0.297	202.7	-15.5	-2.20	0.798	65.0	0.424	1.708	109.8	337.4	---	2.432	2.38	1.184	83.3	116.4	34.0	0.224
3-8720	3-9390	0.291	203.7	-14.7	-1.72	0.799	65.4	0.418	1.712	109.1	346.4	---	2.428	2.08	1.187	86.0	110.9	34.4	0.203
3-8720	3-9400	0.290	204.3	-14.0	-1.33	0.800	65.5	0.417	1.715	108.7	355.8	---	2.429	1.90	1.189	88.8	102.3	34.7	0.194
3-8720	3-9410	0.292	204.5	-13.1	-1.00	0.800	65.3	0.419	1.716	108.8	365.8	0.997	2.436	1.80	1.192	91.7	92.6	34.2	0.200
3-8720	3-9410	0.325	63.1	19.9	-1.00	0.621	111.8	0.506	1.195	205.5	822.5	0.591	1.799	1.80	1.080	119.0	9.3	7.4	0.544

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8720	3-9410	0.408	58.8	19.5	-1.00	0.640	119.5	0.570	1.230	210.2	827.2	0.529	1.931	1.80	1.091	123.2	7.5	6.1	0.622
3-8720	3-9420	0.298	204.4	-12.2	-0.69	0.800	64.8	0.427	1.717	109.4	376.3	0.983	2.451	1.76	1.195	94.9	84.3	32.8	0.222
3-8720	3-9420	0.222	79.7	21.8	-0.69	0.595	100.1	0.449	1.152	192.9	819.8	0.635	1.670	1.76	1.068	115.6	19.5	12.0	0.481
3-8720	3-9430	0.355	57.3	19.9	-0.69	0.671	132.1	0.699	1.296	211.7	838.9	0.390	2.201	1.76	1.112	132.7	12.0	7.1	0.793
3-8720	3-9430	0.310	203.9	-11.2	-0.38	0.800	63.9	0.442	1.717	110.6	387.4	0.959	2.475	1.77	1.197	98.3	79.1	31.1	0.261
3-8720	3-9430	0.185	98.4	22.6	-0.38	0.584	93.3	0.496	1.134	184.1	821.0	0.628	1.639	1.77	1.064	115.6	28.3	15.4	0.478
3-8720	3-9440	0.329	203.0	-10.0	-0.06	0.800	62.4	0.464	1.716	112.4	399.3	0.919	2.513	1.83	1.199	102.2	76.9	29.8	0.314
3-8720	3-9440	0.177	119.5	21.0	-0.06	0.575	87.2	0.461	1.121	176.7	823.6	0.604	1.638	1.83	1.062	116.7	36.8	18.3	0.495
3-8720	3-9450	0.358	201.6	-8.7	0.30	0.800	60.3	0.498	1.715	115.1	412.1	0.862	2.568	1.97	1.201	106.7	77.0	28.8	0.385
3-8720	3-9450	0.195	138.8	17.2	0.30	0.568	81.0	0.491	1.112	170.4	827.3	0.566	1.658	1.97	1.061	118.8	45.1	20.7	0.530
3-8720	3-9460	0.399	199.5	-7.1	0.73	0.799	57.1	0.545	1.714	118.9	426.0	0.780	2.647	2.20	1.202	112.2	78.3	28.2	0.475
3-8720	3-9460	0.237	153.0	13.2	0.73	0.563	74.1	0.538	1.104	165.3	832.3	0.510	1.698	2.20	1.059	122.0	53.0	22.4	0.584
3-8720	3-9470	0.459	196.7	-5.3	1.30	0.799	52.5	0.610	1.713	124.2	441.4	0.667	2.758	2.58	1.203	118.9	80.3	27.7	0.592
3-8720	3-9470	0.303	162.1	10.2	1.30	0.559	66.0	0.604	1.098	161.7	838.9	0.434	1.762	2.58	1.059	126.8	60.4	24.0	0.664
3-8720	3-9480	0.545	192.9	-3.2	2.14	0.799	45.7	0.699	1.712	131.6	459.0	0.536	2.908	3.25	1.204	127.8	82.0	27.4	0.746
3-8720	3-9480	0.396	167.1	8.4	2.14	0.555	56.0	0.694	1.094	160.3	847.6	0.335	1.853	3.25	1.058	133.7	66.8	25.0	0.778
3-8720	3-9490	0.522	168.5	7.9	3.65	0.554	42.9	0.808	1.092	162.0	859.5	0.210	1.973	4.59	1.057	143.6	71.7	25.5	0.940
3-8720	3-9490	0.504	119.8	23.0	3.65	0.250	90.3	0.897	0.862	180.0	1237.5	0.088	1.636	4.59	0.935	153.5	60.1	22.5	1.032
3-8720	3-9500	0.594	135.6	19.5	7.44	0.224	48.8	0.905	0.853	177.6	1245.2	0.039	1.667	8.22	0.928	162.4	66.3	23.7	1.152
3-8730	3-8810	0.488	94.5	20.9	-4.40	0.406	123.6	0.822	0.950	188.7	213.2	---	---	-4.34	0.985	34.8	359.5	-3.1	0.938
3-8730	3-8820	0.393	92.3	20.6	-3.07	0.465	113.4	0.713	0.999	190.4	224.9	---	---	-3.17	1.009	44.5	3.0	-1.8	0.795
3-8730	3-8830	0.323	88.4	20.5	-2.28	0.521	108.1	0.611	1.057	192.5	236.9	---	---	-2.56	1.033	52.4	6.6	-0.5	0.673
3-8730	3-8840	0.275	82.9	20.4	-1.74	0.569	105.3	0.523	1.119	195.0	249.5	---	---	-2.21	1.056	59.1	10.2	0.6	0.569
3-8730	3-8850	0.243	76.6	20.2	-1.31	0.608	103.9	0.450	1.180	198.3	262.7	---	---	-1.99	1.075	64.7	13.6	1.4	0.479
3-8730	3-8860	0.222	70.1	20.0	-0.96	0.639	103.1	0.393	1.236	202.2	276.3	---	---	-1.86	1.090	69.5	16.7	2.0	0.400
3-8730	3-8870	0.211	64.1	19.8	-0.64	0.662	102.8	0.351	1.284	206.3	290.2	---	---	-1.80	1.101	73.7	19.3	2.0	0.333
3-8730	3-8880	0.205	59.3	19.8	-0.34	0.680	102.6	0.321	1.324	210.2	303.9	---	---	-1.80	1.109	77.3	21.1	1.2	0.276
3-8730	3-8890	0.202	55.6	20.1	-0.03	0.692	102.5	0.301	1.354	213.6	317.0	---	---	-1.84	1.115	80.4	21.7	-0.5	0.229
3-8730	3-8900	0.199	53.0	20.7	0.31	0.700	102.4	0.287	1.375	216.0	329.0	---	---	-1.95	1.118	83.2	20.9	-3.5	0.191
3-8730	3-8910	0.197	51.3	21.7	0.70	0.704	102.3	0.279	1.387	217.4	340.0	---	---	-2.13	1.119	85.7	18.4	-8.0	0.164
3-8730	3-8920	0.195	50.3	23.2	1.17	0.706	102.0	0.273	1.392	217.8	349.9	---	---	-2.42	1.119	87.8	14.5	-13.9	0.149
3-8730	3-8930	0.192	49.9	25.6	1.82	0.706	101.7	0.270	1.391	217.2	358.9	---	---	-2.90	1.118	89.8	10.3	-20.8	0.144
3-8730	3-8940	0.189	49.8	29.5	2.82	0.704	101.3	0.267	1.386	215.8	367.0	1.015	---	-3.73	1.116	91.5	7.5	-28.3	0.151
3-8730	3-8950	0.188	49.5	36.8	4.70	0.701	100.7	0.266	1.377	213.7	374.4	1.010	---	-5.45	1.114	93.0	8.6	-37.8	0.173
3-8730	3-8960	0.212	47.7	53.9	10.01	0.696	100.1	0.266	1.365	211.0	381.2	1.002	---	-10.62	1.111	94.4	20.1	-54.8	0.246
3-8730	3-8980	0.207	72.1	-16.3	-11.05	0.685	98.4	0.269	1.337	204.5	394.1	0.977	---	10.74	1.107	97.0	325.3	40.3	0.267
3-8730	3-8990	0.161	70.7	-1.6	-5.62	0.679	97.3	0.272	1.322	200.6	399.8	0.962	---	5.47	1.104	98.2	343.7	23.5	0.222
3-8730	3-9000	0.143	73.9	5.4	-3.72	0.673	96.1	0.277	1.307	196.5	405.3	0.945	---	3.73	1.102	99.4	352.8	16.8	0.226
3-8730	3-9010	0.130	79.4	9.6	-2.71	0.666	94.7	0.283	1.292	192.2	410.7	0.926	---	2.89	1.100	100.5	360.0	14.4	0.239
3-8730	3-9020	0.120	87.2	12.6	-2.06	0.659	93.2	0.291	1.277	187.8	416.0	0.905	---	2.41	1.099	101.7	6.7	14.0	0.256
3-8730	3-9030	0.112	97.4	14.6	-1.58	0.652	91.4	0.302	1.263	183.3	421.3	0.882	---	2.12	1.097	103.0	13.4	14.7	0.276
3-8730	3-9040	0.108	110.1	15.5	-1.19	0.646	89.5	0.315	1.249	178.8	426.6	0.855	1.643	1.94	1.096	104.4	20.2	16.0	0.298
3-8730	3-9050	0.111	124.4	15.1	-0.84	0.639	87.2	0.333	1.236	174.3	432.0	0.825	1.647	1.84	1.094	106.0	27.1	17.6	0.324
3-8730	3-9060	0.121	138.8	13.5	-0.53	0.632	84.6	0.354	1.223	170.0	437.6	0.790	1.657	1.80	1.093	107.8	34.1	19.3	0.353
3-8730	3-9070	0.140	151.4	11.0	-0.21	0.626	81.5	0.382	1.211	165.8	443.4	0.749	1.674	1.81	1.092	110.0	41.3	21.0	0.389
3-8730	3-9080	0.169	161.4	8.5	0.12	0.620	77.9	0.417	1.200	162.0	449.6	0.700	1.701	1.88	1.091	112.6	48.5	22.6	0.433
3-8730	3-9090	0.209	168.9	6.4	0.49	0.614	73.6	0.462	1.190	158.6	456.4	0.643	1.740	2.03	1.089	115.8	55.8	23.9	0.487
3-8730	3-9100	0.263	174.1	4.8	0.94	0.609	68.1	0.520	1.181	156.1	464.0	0.567	1.796	2.27	1.088	120.0	62.8	25.0	0.558
3-8730	3-9110	0.335	177.3	3.9	1.54	0.604	61.2	0.596	1.174	154.8	472.9	0.474	1.873	2.68	1.086	125.6	69.3	25.7	0.652
3-8730	3-9120	0.432	178.5	3.6	2.44	0.601	52.0	0.695	1.168	155.5	483.7	0.357	1.979	3.40	1.085	133.2	74.8	26.2	0.781
3-8730	3-9130	0.562	177.4	4.2	4.07	0.600	39.5	0.814	1.166	159.1	497.5	0.217	2.114	4.87	1.085	144.0	78.9	26.3	0.958
3-8730	3-9140	0.591	173.4	13.1	-5.63	0.259	43.4	0.950	0.869	176.7	555.8	0.044	1.695	-5.48	0.936	18.4	3.1	-0.2	1.151
3-8730	3-9170	0.594	83.3	20.9	-5.63	0.484	139.3	0.858	1.017	192.8	572.0	0.145	1.890	-5.48	1.021	31.0	354.8	-5.3	1.014
3-8730	3-9110	0.494	142.3	13.1	-3.66	0.311	60.1	0.884	0.892	175.6	564.8	0.104	1.681	-3.68	0.949	28.1	7.9	1.6	1.021
3-8730	3-9160	0.455	86.3	20.7	-3.66	0.476	122.4	0.753	1.010	192.9	582.1	0.249	1.770	-3.68	1.015	41.1	359.4	-3.4	0.851
3-8730	3-9150	0.381	133.9	15.1	-2.65	0.376	78.8	0.777	0.930	176.7	576.0	0.207	1.652	-2.84	0.970	39.1	11.5	2.8	0.865
3-8730	3-9190	0.347	101.8	20.2	-2.65	0.451	104.4	0.691	0.986	186.7	585.9	0.304	1.668	-2.84	1.001	46.3	6.9	0.0	0.763
3-8730	3-9250	0.578	189.4	-4.3	-0.19	0.741	41.4	0.752	1.497	143.5	241.8	---	2.623	-1.81	1.147	44.2	54.5	17.7	0.859
3-8730	3-9260	0.545	191.5	-4.9	0.13	0.748	44.4	0.716	1.521	140.1	248.0	---	2.610	-1.89	1.149	47.8	61.5	18.8	0.798
3-8730	3-9270	0.513	193.5	-5.4	0.49	0.755	47.2	0.681	1.544	136.8	254.4	---	2.596	-2.02	1.152	51.2	68.4	19.5	0.739
3-8730	3-9280	0.484	195.6	-5.6	0.91	0.761	49.7	0.648	1.566	133.6	260.8	---	2.580	-2.2	1.155	54.5	75.4	19.6	0.681
3-8730	3-9290	0.456	197.7	-5.6	1.45	0.766	52.1	0.615	1.586	130.5	267.3	---	2.562	-2.62	1.157	57.7	82.2	19.2	0.626
3-8730	3-9300	0.431	199.9	-5.1	2.24	0.771	54.2	0.585	1.606	127.6	273.9	---	2.544	-3.23	1.160	60.7	88.8	17.7	0.574
3-8730	3-9310	0.409	202.3	-3.5	3.54	0.775	56.2	0.556	1.623	124.8	280.6	---	2.526	-4.37	1.162	63.6	95.0	14.7	0.526
3-8730	3-9320	0.393	205.4	0.8	6.38	0.779	58.0	0.530	1.639	122.2	287.5	---	2.508	-7.07	1.165	66.4	100.8	7.4	0.488
3-8730	3-9330	0.434	210.1	20.0	18.91	0.783	59.6	0.507	1.654	119.8	294.4	---	2.491	-19.44	1.168	69.1	108.8	-19.4	0.550
3-8730	3-9340	0.444	179.9	-40.0	-22.29	0.786	61.1	0.483	1.666	117.5	302.3	---	2.471	21.91	1.171	72.0	149.1	66.3	0.548
3-8730	3-9350	0.345	198.8	-24.9	-7.58	0.788	62.3	0.465	1.677	115.5	309.7	---	2.457	7.35	1.174	74.6	122.8	54.2	0.361
3-8730	3-9360	0.324	202.9	-20.5	-4.54	0.790	63.4	0.449	1.686	113.7	317.5	---	2.443	4.46	1.177	77.2	123.0	37.3	0.307
3-8730	3-9370	0.311	205.1	-18.6	-3.18	0.792	64.2	0.436	1.694	112.2	325.6	---	2.431	3.26	1.180	79.7	123.4	34.6	0.267
3-8730	3-9380	0.301	206.6	-17.4	-2.37	0.793	64.9	0.425	1.700	111.0	334.1	---	2.423	2.63	1.183	82.3	121.9	33.8	0.234
3-8730	3-9390	0.295	207.7	-16.4	-1.81	0.794	65.3	0.418	1.704	110.2	343.0	---	2.417	2.25	1.186	85.0	117.6	34.1	0.209
3-8730	3-9400	0.292	208.4	-15.6	-1.38	0.795	65.6	0.415	1.707	109.7	352.3	---	2.416	2.02	1.188	87.7	110.1	34.7	0.195
3-8730	3-9410	0.293	208.8	-14.8	-1.02	0.795	65.5	0.416	1.709	109.6	3.2.1	0.998	2.421	1.88	1.191	90.6	100.4	34.7	0.195
3-8730	3-9420	0.298	208.8	-13.9	-0.69	0.795	65.1	0.422	1.710	110.0	372.4	0.989	2.432	1.81	1.194	93.7	91.3	33.7	0.211
3-8730	3-9420	0.269	75.3	21.8	-0.69	0.601	106.4	0.481	1.168	199.4	821.8	0.606	1.730	1.81	1.074	117.6	18.6	11.5	0.517
3-8730	3-9420	0.476	62.9	20.8	-0.69	0.649	126.0	0.639	1.256	211.0	833.4	0.453	2.058	1.81	1.101	128.2	14.1	8.4	0.711
3-8730	3-9430	0.307	208.5	-12.9	-0.38	0.795	64.4	0.434	1.711	110.9	383.2	0.968	2.453	1.80	1.196	97.0	84.9	32.2	0.243
3-8730	3-9430	0.205	93.0	22.9	-0.38	0.583	97.5	0.457	1.140	189.2	821.5	0.620	1.661	1.80	1.067	116.2	28.1	15.3	0.490
3-8730	3-9430	0.587	63.0	21.5	-0.38	0.672	135.5	0.736	1.306	210.3	842.6	0.345	2.267	1.80	1.118	135.8	19.6	10.0	0.848

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8730	3-9440	0.323	207.7	-11.8	-0.06	0.795	63.1	0.453	1.710	112.4	394.8	0.935	2.485	1.84	1.198	100.7	81.7	30.7	0.291
3-8730	3-9440	0.182	113.7	22.0	-0.06	0.573	90.9	0.462	1.124	181.0	823.4	0.605	1.643	1.84	1.063	116.7	36.9	18.3	0.496
3-8730	3-9450	0.348	206.5	-10.6	0.29	0.795	61.3	0.482	1.709	114.7	407.1	0.885	2.532	1.94	1.200	104.9	81.0	29.6	0.354
3-8730	3-9450	0.187	134.6	18.5	0.29	0.565	84.5	0.484	1.113	174.1	826.5	0.574	1.651	1.94	1.061	118.3	49.4	20.8	0.521
3-8730	3-9460	0.383	204.7	-9.2	0.69	0.795	58.5	0.523	1.707	117.9	420.5	0.814	2.600	2.13	1.201	109.9	82.1	28.8	0.436
3-8730	3-9460	0.218	151.3	13.9	0.69	0.558	77.8	0.522	1.104	168.3	830.8	0.528	1.680	2.13	1.059	120.9	53.7	22.8	0.565
3-8730	3-9470	0.434	202.3	-7.6	1.20	0.794	54.6	0.580	1.706	122.4	435.1	0.716	2.696	2.44	1.202	116.0	83.9	28.2	0.540
3-8730	3-9470	0.273	162.6	10.1	1.20	0.553	70.1	0.578	1.097	163.9	836.6	0.463	1.732	2.44	1.058	124.9	61.5	24.3	0.631
3-8730	3-9480	0.507	198.9	-5.7	1.92	0.794	48.9	0.658	1.705	128.7	451.6	0.582	2.828	2.97	1.203	123.8	86.0	27.8	0.676
3-8730	3-9480	0.353	169.3	7.5	1.92	0.549	60.9	0.656	1.092	161.3	844.1	0.375	1.809	2.97	1.057	130.7	68.6	25.3	0.728
3-8730	3-9490	0.463	172.3	6.4	3.07	0.546	49.2	0.759	1.088	161.4	854.4	0.282	1.914	3.95	1.056	139.1	74.3	25.8	0.866
3-8730	3-9500	0.545	133.1	20.2	5.49	0.216	71.7	0.931	0.894	178.6	1241.8	0.059	1.650	6.20	0.929	158.3	68.4	23.9	1.095
3-8740	3-8810	0.560	92.7	21.0	-5.33	0.444	135.6	0.857	0.984	190.9	210.9	---	---	-5.34	1.004	31.1	0.3	-2.9	1.005
3-8740	3-8820	0.446	90.2	20.8	-3.47	0.486	122.3	0.743	1.024	193.7	223.7	---	---	-3.65	1.021	42.0	3.5	-1.7	0.840
3-8740	3-8830	0.365	86.2	20.6	-2.48	0.536	114.7	0.635	1.081	196.5	236.5	---	---	-2.84	1.043	50.8	6.8	-0.6	0.709
3-8740	3-8840	0.311	80.8	20.5	-1.84	0.583	110.5	0.541	1.146	199.9	249.9	---	---	-2.38	1.065	58.2	10.1	0.4	0.590
3-8740	3-8850	0.275	76.6	20.3	-1.37	0.622	108.2	0.465	1.210	204.0	263.8	---	---	-2.11	1.084	64.1	13.1	1.1	0.493
3-8740	3-8860	0.253	73.6	20.0	-0.99	0.652	106.8	0.406	1.270	208.6	278.3	---	---	-1.94	1.100	69.2	15.9	1.5	0.410
3-8740	3-8870	0.240	69.2	19.9	-0.65	0.676	106.1	0.365	1.322	213.3	292.8	---	---	-1.85	1.111	73.6	18.0	1.3	0.339
3-8740	3-8880	0.233	58.9	19.9	-0.34	0.693	105.6	0.336	1.364	217.6	306.8	---	---	-1.82	1.119	77.4	19.3	0.5	0.280
3-8740	3-8890	0.229	55.7	20.1	-0.02	0.704	105.3	0.317	1.395	221.0	319.9	---	---	-1.85	1.124	80.7	19.3	-1.4	0.232
3-8740	3-8900	0.225	53.6	20.6	0.30	0.711	105.0	0.305	1.415	223.4	331.9	---	---	-1.92	1.127	83.6	17.8	-4.5	0.194
3-8740	3-8910	0.222	52.3	21.5	0.67	0.715	104.8	0.296	1.426	224.6	342.7	---	---	-2.07	1.128	86.1	14.6	-8.9	0.168
3-8740	3-8920	0.218	51.6	22.8	1.10	0.716	104.5	0.291	1.429	224.7	352.4	---	---	-2.31	1.127	88.3	10.2	-14.4	0.153
3-8740	3-8930	0.214	51.5	24.8	1.66	0.715	104.1	0.287	1.425	223.8	361.1	1.016	---	-2.69	1.125	90.2	5.7	-20.1	0.150
3-8740	3-8940	0.209	51.8	27.8	2.48	0.712	103.6	0.284	1.416	222.1	368.9	1.014	---	-3.33	1.123	92.0	2.7	-25.9	0.156
3-8740	3-8950	0.205	52.1	32.8	3.85	0.707	102.9	0.282	1.403	219.7	376.0	1.008	---	-4.54	1.120	93.5	2.7	-32.8	0.173
3-8740	3-8960	0.210	53.0	43.3	6.91	0.702	102.2	0.280	1.388	216.8	382.6	0.999	---	-7.15	1.117	94.9	8.5	-44.1	0.212
3-8740	3-8970	0.322	54.7	73.0	21.52	0.695	101.3	0.279	1.372	213.4	388.5	0.989	---	-21.90	1.114	96.1	41.1	-70.9	0.434
3-8740	3-8980	0.303	80.1	-27.0	-20.20	0.689	100.5	0.281	1.354	209.9	395.2	0.973	---	19.97	1.111	97.5	303.2	50.3	0.409
3-8740	3-8990	0.184	72.1	-4.7	-7.26	0.681	99.4	0.282	1.336	205.8	400.5	0.959	---	7.19	1.108	98.5	339.4	28.5	0.245
3-8740	3-9000	0.159	74.1	4.5	-4.35	0.674	98.1	0.285	1.319	201.5	405.8	0.942	---	4.43	1.105	99.7	351.1	18.9	0.237
3-8740	3-9010	0.143	78.7	9.5	-3.02	0.667	96.7	0.290	1.301	197.3	411.0	0.924	---	3.26	1.103	100.8	359.2	15.5	0.246
3-8740	3-9020	0.131	85.5	12.7	-2.22	0.659	95.1	0.297	1.284	192.4	416.1	0.904	---	2.64	1.101	101.9	6.3	14.7	0.261
3-8740	3-9030	0.120	94.5	14.9	-1.66	0.651	93.4	0.305	1.268	187.7	421.2	0.881	---	2.23	1.099	103.1	13.2	15.2	0.279
3-8740	3-9040	0.114	106.2	16.1	-1.23	0.644	91.4	0.317	1.253	183.0	426.3	0.856	---	2.04	1.097	104.4	20.2	16.3	0.299
3-8740	3-9050	0.112	120.1	16.0	-0.86	0.637	89.2	0.332	1.238	178.3	431.3	0.827	1.649	1.91	1.095	105.9	27.4	17.9	0.322
3-8740	3-9060	0.117	135.0	14.5	-0.53	0.629	86.6	0.351	1.224	173.7	436.9	0.794	1.654	1.84	1.093	107.6	34.4	19.6	0.349
3-8740	3-9070	0.132	148.9	11.9	-0.21	0.622	83.7	0.376	1.211	169.3	442.4	0.756	1.668	1.83	1.092	109.5	41.7	21.3	0.381
3-8740	3-9080	0.156	160.4	9.0	0.12	0.616	80.2	0.407	1.199	165.1	448.3	0.712	1.687	1.87	1.090	111.9	49.1	22.8	0.420
3-8740	3-9090	0.191	169.2	6.4	0.47	0.609	76.1	0.447	1.188	161.4	454.7	0.658	1.719	1.99	1.088	114.8	56.6	24.2	0.469
3-8740	3-9100	0.239	175.6	4.3	0.89	0.603	71.1	0.498	1.178	158.3	461.7	0.591	1.765	2.18	1.087	118.5	63.9	25.1	0.531
3-8740	3-9110	0.302	179.8	2.9	1.42	0.598	64.7	0.565	1.169	156.3	469.8	0.508	1.831	2.52	1.085	123.3	70.5	26.0	0.613
3-8740	3-9120	0.387	182.0	2.2	2.17	0.594	56.5	0.653	1.162	155.8	479.5	0.404	1.921	3.08	1.083	129.9	77.0	26.5	0.724
3-8740	3-9130	0.501	182.0	2.3	3.41	0.591	45.6	0.783	1.158	157.8	491.7	0.275	2.042	4.15	1.082	139.1	81.9	26.6	0.877
3-8740	3-9180	0.526	145.7	12.1	-4.27	0.276	57.6	0.912	0.880	176.4	561.2	0.077	1.682	-4.36	0.941	24.4	9.7	2.5	1.070
3-8740	3-9180	0.501	91.7	20.9	-4.27	0.461	128.4	0.803	1.000	192.3	577.0	0.197	1.803	-4.36	1.011	36.6	1.8	-2.3	0.922
3-8740	3-9190	0.417	139.9	13.5	-2.94	0.342	76.1	0.820	0.913	176.8	571.6	0.165	1.660	-3.20	0.959	35.1	13.7	3.8	0.922
3-8740	3-9190	0.380	103.0	20.2	-2.94	0.441	110.1	0.725	0.982	188.2	583.0	0.270	1.694	-3.20	0.999	42.5	8.2	0.6	0.807
3-8740	3-9250	0.592	192.8	-5.8	-0.19	0.733	40.3	0.786	1.480	145.2	239.1	---	2.613	-1.89	1.143	42.7	55.8	18.1	0.882
3-8740	3-9260	0.558	194.9	-6.4	0.13	0.740	43.4	0.730	1.504	141.3	245.3	---	2.601	-1.88	1.146	46.4	62.8	19.2	0.820
3-8740	3-9270	0.526	196.9	-6.9	0.47	0.747	46.2	0.694	1.527	138.5	251.6	---	2.588	-1.98	1.149	49.9	69.8	19.8	0.760
3-8740	3-9280	0.496	199.0	-7.2	0.86	0.753	48.9	0.660	1.550	135.3	258.0	---	2.572	-2.17	1.152	53.2	76.1	20.0	0.702
3-8740	3-9290	0.468	201.1	-7.3	1.35	0.759	51.3	0.626	1.571	132.2	264.5	---	2.556	-2.46	1.154	56.4	83.8	19.6	0.646
3-8740	3-9300	0.442	203.2	-6.9	2.01	0.764	53.5	0.595	1.591	129.3	271.1	---	2.538	-2.95	1.157	59.5	90.2	19.5	0.592
3-8740	3-9310	0.418	205.5	-5.9	3.02	0.769	55.6	0.566	1.610	126.5	277.8	---	2.520	-3.80	1.160	62.5	96.5	16.1	0.542
3-8740	3-9320	0.399	208.1	-3.2	4.94	0.773	57.4	0.538	1.626	123.8	284.6	---	2.502	-5.56	1.163	65.4	102.4	11.1	0.498
3-8740	3-9330	0.396	211.9	5.7	10.38	0.777	59.1	0.514	1.641	121.4	291.6	---	2.485	-10.85	1.166	68.1	107.8	-2.8	0.482
3-8740	3-9350	0.366	199.1	-31.2	-10.99	0.783	62.0	0.470	1.666	116.9	306.7	---	2.450	10.83	1.172	73.6	131.1	51.1	0.402
3-8740	3-9360	0.333	205.9	-23.6	-5.53	0.785	63.1	0.453	1.676	115.1	314.4	---	2.436	5.53	1.175	76.2	127.6	39.4	0.325
3-8740	3-9370	0.318	208.7	-20.7	-3.62	0.787	64.0	0.439	1.684	113.5	322.4	---	2.423	3.78	1.178	78.8	123.9	35.2	0.280
3-8740	3-9380	0.307	210.5	-19.2	-2.60	0.788	64.7	0.427	1.691	112.3	330.8	---	2.413	2.92	1.181	81.4	120.0	33.6	0.244
3-8740	3-9390	0.300	211.7	-18.1	-1.93	0.789	65.3	0.419	1.696	111.3	339.6	---	2.407	2.48	1.184	84.0	123.9	33.6	0.216
3-8740	3-9400	0.295	212.6	-17.2	-1.45	0.790	65.6	0.414	1.700	110.7	348.8	---	2.404	2.15	1.187	86.7	117.6	34.2	0.198
3-8740	3-9410	0.295	213.1	-16.4	-1.05	0.791	65.6	0.414	1.702	110.4	350.4	---	2.406	1.97	1.190	89.5	101.4	34.7	0.192
3-8740	3-9420	0.298	213.2	-15.5	-0.70	0.791	65.4	0.418	1.704	110.6	368.5	0.992	2.415	1.87	1.193	92.5	88.7	34.3	0.202
3-8740	3-9430	0.306	213.0	-14.6	-0.38	0.791	64.8	0.427	1.704	111.3	379.2	0.976	2.432	1.82	1.195	95.7	71.1	33.0	0.229
3-8740	3-9430	0.237	88.1	23.1	-0.38	0.586	102.7	0.477	1.150	194.8	822.7	0.602	1.699	1.82	1.070	117.4	27.6	15.0	0.513
3-8740	3-9430	0.521	68.1	22.1	-0.38	0.653	130.6	0.688	1.272	210.3	838.2	0.397	2.140	1.82	1.109	131.9	21.3	11.0	0.778
3-8740	3-9440	0.319	212.4	-13.5	-0.06	0.791	63.7	0.443	1.704	112.6	390.4	0.948	2.439	1.84	1.197	99.2	86.8	31.5	0.270
3-8740	3-9440	0.194	107.8	22.8	-0.06	0.572	94.9	0.467	1.129	185.6	823.5	0.601	1.656	1.84	1.065	117.0	36.9	18.3	0.502
3-8740	3-9450	0.340	211.4	-12.4	0.28	0.791	62.1	0.468	1.702	114.5	402.4	0.906	2.499	1.99	1.199	103.2	90.3	30.2	0.327
3-8740	3-9450	0.184	129.4	19.9	0.28	0.562	88.1	0.480	1.115	178.0	825.9	0.579	1.650	1.92	1.062	118.0	45.7	20.9	0.517
3-8740	3-9460	0.370	209.8	-11.2	0.66	0.791	59.8	0.504	1.701	117.2	415.3	0.844	2.558	2.07	1.200	107.8	85.9	29.3	0.400
3-8740	3-9460	0.207	148.4	15.0	0.66	0.554	81.4	0.510	1.104	171.6	829.6	0.541	1.690	2.07	1.060	120.1	54.3	22.9	0.551
3-8740	3-9470	0.414	207.6	-9.7	1.13	0.790	56.4	0.554	1.700	121.0	429.2	0.758	2.641	2.32	1.201	113.4	87.6	28.6	0.498
3-8740	3-9470	0.248	162.1	10.4	1.13	0.548	74.1	0.557	1.096	166.4	834.6	0.486	1.707	2.32	1.058	123.4	62.5	24.5	0.605
3-8740	3-9480	0.476	204.7	-8.1	1.74	0.790	51.5	0.623	1.698	126.4	444.8	0.641	2.786	2.75	1.202	120.4	89.7	28.1	0.615
3-8740	3-9480	0.317	170.8	7.0	1.74	0.544	65.5	0.624	1.090	162.9	841.2	0.410	1.771	2.75	1.056	128.3	70.1	25.5	0.686
3-8740	3-9490	0.566	200.6	-6.1	2.67	0.790	44.4	0.714	1.698	134.0	462.5	0.485	2.911	3.90	1.202	129.5	91.6	27.6	0.774

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8740	3-9490	0.412	175.4	5.2	2.67	0.540	54.9	0.715	1.086	161.5	850.1	0.309	1.862	3.50	1.055	135.4	76.6	26.1	0.803
3-8740	3-9500	0.541	176.4	4.7	4.38	0.538	41.2	0.828	1.083	163.4	862.1	0.187	1.980	5.03	1.054	145.7	81.4	26.3	0.969
3-8740	3-9500	0.529	125.0	21.9	4.38	0.229	102.8	0.918	0.862	181.2	1239.9	0.071	1.653	5.03	0.935	156.3	69.6	23.9	1.070
3-8740	3-9540	0.576	90.5	21.0	-5.48	0.463	137.8	0.859	1.002	191.8	931.3	0.142	1.862	-5.48	1.013	30.9	359.5	-3.3	1.012
3-8750	3-8820	0.516	88.4	20.9	-4.02	0.527	131.7	0.778	1.074	197.1	222.7	---	---	-4.27	1.043	39.1	3.8	-1.8	0.898
3-8750	3-8830	0.420	84.2	20.7	-2.75	0.565	121.9	0.663	1.125	201.0	236.6	---	---	-3.17	1.060	48.9	6.8	-0.8	0.743
3-8750	3-8840	0.356	78.9	20.6	-1.98	0.607	116.2	0.563	1.190	205.3	250.9	---	---	-2.58	1.080	56.9	9.7	0.0	0.616
3-8750	3-8850	0.315	73.1	20.3	-1.44	0.643	112.8	0.484	1.258	210.3	265.7	---	---	-2.24	1.099	63.4	12.4	0.6	0.510
3-8750	3-8860	0.290	67.5	20.1	-1.02	0.673	110.8	0.425	1.322	215.7	280.9	---	---	-2.03	1.114	68.9	14.7	0.8	0.422
3-8750	3-8870	0.275	62.7	20.0	-0.66	0.695	109.5	0.384	1.377	220.9	296.0	---	---	-1.91	1.125	73.5	16.3	0.5	0.347
3-8750	3-8880	0.266	58.9	20.0	-0.34	0.711	108.8	0.357	1.421	225.5	310.2	---	---	-1.85	1.132	77.5	17.0	-0.5	0.285
3-8750	3-8890	0.260	56.2	20.2	-0.02	0.721	108.2	0.340	1.452	228.9	323.3	---	---	-1.85	1.137	80.9	16.4	-2.6	0.236
3-8750	3-8900	0.255	54.5	20.7	0.29	0.727	107.8	0.328	1.471	231.0	335.1	---	---	-1.90	1.139	83.9	14.1	-5.8	0.199
3-8750	3-8910	0.250	53.5	21.5	0.64	0.730	107.4	0.320	1.479	231.9	345.6	---	---	-2.01	1.139	86.5	10.3	-10.0	0.174
3-8750	3-8920	0.245	53.2	22.7	1.04	0.730	107.0	0.314	1.478	231.6	354.9	---	---	-2.20	1.137	88.8	5.5	-14.9	0.161
3-8750	3-8930	0.239	53.3	24.3	1.54	0.727	106.5	0.309	1.469	230.4	363.3	1.016	---	-2.51	1.135	90.8	0.9	-19.7	0.158
3-8750	3-8940	0.233	53.8	26.6	2.22	0.722	105.9	0.304	1.455	228.5	370.8	1.013	---	-3.02	1.131	92.5	358.1	-24.1	0.164
3-8750	3-8950	0.226	54.6	30.3	3.20	0.716	105.2	0.300	1.438	225.8	377.7	1.006	---	-3.91	1.128	94.1	357.9	-28.9	0.178
3-8750	3-8960	0.222	55.2	37.2	5.31	0.710	104.5	0.297	1.418	222.6	384.0	0.996	---	-5.78	1.124	95.4	1.5	-36.4	0.204
3-8750	3-8970	0.246	55.4	54.2	11.32	0.702	103.6	0.295	1.397	219.0	389.9	0.985	---	-11.04	1.120	96.7	14.3	-53.2	0.283
3-8750	3-8990	0.219	74.9	-10.3	-10.31	0.686	101.5	0.295	1.354	211.0	401.3	0.955	---	10.31	1.112	99.0	332.1	35.7	0.286
3-8750	3-9000	0.178	74.9	3.0	-5.27	0.677	100.2	0.296	1.333	206.5	406.4	0.939	---	5.42	1.109	100.1	348.9	21.7	0.251
3-8750	3-9010	0.159	78.7	9.1	-3.42	0.669	98.7	0.299	1.313	201.8	411.4	0.921	---	3.74	1.106	101.1	358.2	16.8	0.255
3-8750	3-9020	0.144	84.5	12.8	-2.42	0.660	97.1	0.303	1.293	197.1	416.3	0.901	---	2.91	1.103	102.2	5.8	15.4	0.268
3-8750	3-9030	0.131	92.5	15.2	-1.77	0.652	95.4	0.310	1.275	192.2	421.2	0.879	---	2.44	1.100	103.3	13.0	15.6	0.283
3-8750	3-9040	0.121	103.0	16.6	-1.28	0.643	93.4	0.320	1.258	187.3	426.2	0.855	---	2.15	1.098	104.5	20.1	16.7	0.302
3-8750	3-9050	0.116	116.0	16.9	-0.89	0.635	91.2	0.333	1.242	182.4	431.2	0.828	---	1.98	1.096	75.9	27.3	18.2	0.323
3-8750	3-9060	0.117	131.8	15.6	-0.54	0.627	88.7	0.350	1.226	177.6	436.3	0.797	1.655	1.88	1.094	107.4	34.6	19.8	0.347
3-8750	3-9070	0.126	145.6	13.0	-0.21	0.620	85.9	0.371	1.212	172.9	441.6	0.762	1.662	1.84	1.092	109.2	42.1	21.5	0.376
3-8750	3-9080	0.145	158.6	9.7	0.11	0.612	82.5	0.399	1.199	168.5	447.2	0.721	1.676	1.86	1.090	111.3	49.7	23.1	0.411
3-8750	3-9090	0.176	168.9	6.6	0.46	0.605	78.6	0.434	1.186	164.4	453.2	0.672	1.701	1.95	1.088	113.9	57.3	24.4	0.456
3-8750	3-9100	0.217	176.5	4.0	0.85	0.598	73.9	0.479	1.175	160.8	459.8	0.612	1.739	2.11	1.086	117.2	64.8	25.5	0.509
3-8750	3-9110	0.274	181.8	2.1	1.33	0.593	68.1	0.539	1.166	158.1	467.2	0.538	1.794	2.37	1.084	121.5	72.1	26.2	0.580
3-8750	3-9120	0.348	184.9	1.0	1.97	0.587	60.7	0.616	1.158	156.7	476.0	0.444	1.871	2.82	1.082	127.2	78.8	26.7	0.676
3-8750	3-9130	0.448	186.0	0.6	2.96	0.584	50.9	0.716	1.152	157.3	486.8	0.328	1.976	3.63	1.080	135.1	84.4	26.8	0.807
3-8750	3-9140	0.581	184.8	1.1	4.80	0.582	37.9	0.834	1.150	161.0	500.6	0.191	2.109	5.30	1.079	146.1	88.5	26.7	0.987
3-8750	3-9180	0.559	148.8	11.1	-5.15	0.240	54.9	0.937	0.868	177.3	557.6	0.054	1.683	-5.31	0.933	20.6	11.6	3.3	1.120
3-8750	3-9180	0.552	97.6	20.9	-5.15	0.445	135.3	0.854	0.989	191.1	571.4	0.145	1.834	-5.31	1.005	31.4	4.4	-1.1	1.000
3-8750	3-9190	0.453	144.8	12.1	-3.32	0.307	73.7	0.857	0.897	177.2	567.5	0.128	1.666	-3.65	0.950	31.2	15.8	4.7	0.976
3-8750	3-9190	0.419	105.6	20.1	-3.32	0.429	116.1	0.764	0.976	189.1	579.4	0.230	1.721	-3.65	0.996	40.2	9.9	1.3	0.859
3-8750	3-9260	0.572	198.2	-7.8	0.12	0.732	42.3	0.743	1.487	143.6	242.6	---	2.392	-1.87	1.143	44.9	64.1	19.5	0.843
3-8750	3-9270	0.539	200.3	-8.3	0.45	0.740	45.2	0.707	1.511	140.2	248.9	---	2.579	-1.94	1.146	48.5	71.1	20.2	0.781
3-8750	3-9280	0.508	202.4	-8.7	0.82	0.746	48.0	0.672	1.534	137.0	255.3	---	2.564	-2.09	1.149	51.9	78.1	20.4	0.722
3-8750	3-9290	0.480	204.5	-8.8	1.26	0.752	50.5	0.638	1.556	133.9	261.7	---	2.548	-2.33	1.152	55.2	85.0	20.0	0.666
3-8750	3-9300	0.453	206.6	-8.7	1.83	0.758	52.8	0.606	1.576	130.9	268.3	---	2.531	-2.72	1.155	58.3	91.7	19.1	0.611
3-8750	3-9310	0.429	208.8	-8.0	2.66	0.763	54.9	0.575	1.595	128.1	275.0	---	2.513	-3.37	1.158	61.4	98.1	17.1	0.559
3-8750	3-9320	0.408	211.2	-6.2	4.05	0.767	56.9	0.547	1.613	125.4	281.8	---	2.495	-4.60	1.161	64.3	104.0	13.3	0.512
3-8750	3-9330	0.394	214.2	-1.2	7.18	0.771	58.6	0.521	1.629	122.9	288.8	---	2.478	-7.57	1.164	67.1	109.2	4.9	0.476
3-8750	3-9340	0.456	217.7	20.9	22.29	0.775	60.1	0.498	1.643	120.6	295.8	---	2.462	-22.53	1.167	69.8	116.7	-26.4	0.578
3-8750	3-9350	0.425	192.0	-41.8	-19.85	0.778	61.6	0.475	1.655	118.3	303.8	---	2.442	19.76	1.170	72.6	155.5	62.6	0.512
3-8750	3-9360	0.345	208.4	-27.5	-7.13	0.780	62.8	0.458	1.666	116.5	311.3	---	2.428	7.20	1.174	75.2	132.9	42.7	0.349
3-8750	3-9370	0.325	212.2	-23.1	-4.22	0.782	63.8	0.442	1.675	114.8	319.3	---	2.415	4.45	1.177	77.8	132.3	36.1	0.295
3-8750	3-9380	0.313	214.3	-21.0	-2.89	0.784	64.6	0.429	1.682	113.4	327.6	---	2.404	3.28	1.180	80.4	132.0	33.5	0.256
3-8750	3-9390	0.304	215.7	-19.7	-2.08	0.785	65.2	0.420	1.687	112.4	336.3	---	2.396	2.66	1.183	83.0	129.7	33.0	0.225
3-8750	3-9400	0.299	216.7	-18.7	-1.52	0.786	65.6	0.414	1.692	111.6	345.3	---	2.392	2.29	1.186	85.7	124.6	33.5	0.202
3-8750	3-9410	0.297	217.3	-17.9	-1.09	0.787	65.7	0.412	1.695	111.3	354.8	---	2.392	2.06	1.189	88.5	116.4	34.3	0.191
3-8750	3-9420	0.299	217.6	-17.0	-0.72	0.787	65.6	0.414	1.696	111.3	364.7	0.994	2.398	1.92	1.192	91.4	106.6	34.4	0.196
3-8750	3-9430	0.305	217.5	-16.1	-0.38	0.787	65.1	0.421	1.697	111.8	375.2	0.982	2.412	1.85	1.194	94.5	97.9	33.5	0.216
3-8750	3-9430	0.305	82.4	23.1	-0.38	0.598	111.1	0.524	1.175	202.3	825.7	0.559	1.790	1.85	1.079	120.5	26.4	14.2	0.568
3-8750	3-9430	0.422	75.1	22.8	-0.38	0.626	122.4	0.613	1.224	208.6	832.0	0.474	1.974	1.85	1.095	126.4	23.8	12.5	0.679
3-8750	3-9440	0.316	217.0	-15.1	-0.06	0.787	64.3	0.435	1.697	112.7	386.2	0.959	2.434	1.85	1.196	97.9	92.4	32.2	0.252
3-8750	3-9440	0.215	102.2	23.4	-0.06	0.573	99.5	0.479	1.136	190.6	824.1	0.591	1.680	1.85	1.067	117.8	36.6	18.1	0.516
3-8750	3-9440	0.560	73.8	23.1	-0.06	0.657	134.5	0.730	1.285	209.2	842.7	0.347	2.224	1.85	1.114	135.4	28.9	13.7	0.839
3-8750	3-9450	0.333	216.2	-14.1	0.27	0.787	62.9	0.456	1.696	114.3	397.8	0.923	2.469	1.89	1.198	101.6	89.9	30.8	0.302
3-8750	3-9450	0.189	123.7	21.2	0.27	0.561	92.0	0.481	1.118	182.2	825.7	0.580	1.655	1.89	1.063	118.0	45.8	20.9	0.518
3-8750	3-9460	0.359	214.8	-13.0	0.64	0.787	60.9	0.487	1.695	116.7	410.3	0.870	2.520	2.01	1.198	105.9	89.9	29.8	0.368
3-8750	3-9460	0.194	144.5	16.4	0.64	0.552	85.1	0.502	1.105	179.1	828.8	0.551	1.660	2.01	1.060	119.5	54.7	23.0	0.541
3-8750	3-9470	0.397	212.9	-11.7	1.06	0.786	58.0	0.531	1.693	119.9	423.7	0.795	2.592	2.22	1.200	111.1	91.3	28.9	0.452
3-8750	3-9470	0.228	160.7	11.1	1.06	0.545	77.9	0.540	1.096	169.3	833.1	0.504	1.688	2.22	1.058	122.2	63.3	24.6	0.585
3-8750	3-9480	0.451	210.3	-10.2	1.61	0.786	53.8	0.591	1.692	124.5	438.4	0.692	2.692	2.56	1.201	117.4	93.4	28.3	0.560
3-8750	3-9480	0.285	171.5	6.9	1.61	0.539	69.8	0.597	1.089	164.9	838.8	0.438	1.739	2.56	1.050	126.3	71.3	25.7	0.652
3-8750	3-9490	0.527	206.7	-8.5	2.38	0.786	47.7	0.673	1.691	130.9	455.0	0.553	2.828	3.14	1.201	125.5	95.5	27.7	0.701
3-8750	3-9490	0.369	177.8	4.3	2.38	0.535	60.1	0.677	1.083	162.4	846.5	0.350	1.816	3.14	1.054	132.3	78.4	26.3	0.751
3-8750	3-9500	0.482	180.4	3.1	3.66	0.532	47.7	0.779	1.080	162.6	856.9	0.238	1.922	4.25	1.053	141.0	84.2	26.5	0.892
3-8750	3-9510	0.562	139.7	18.3	6.46	0.106	79.2	0.945	0.851	179.4	1243.8	0.047	1.656	6.87	0.926	160.7	78.2	24.9	1.124
3-8750	3-9550	0.577	159.7	7.1	-4.11	0.329	40.1	0.930	0.909	174.6	919.6	0.064	1.753	-4.35	0.958	21.7	14.4	4.6	1.118
3-8750	3-9550	0.488	98.4	20.1	-4.11	0.450	127.1	0.804	0.993	191.6	936.6	0.195	1.792	-4.35	1.006	36.5	6.3	-0.3	0.921
3-8760	3-8830	0.492	82.7	20.8	-3.09	0.614	129.5	0.699	1.206	206.0	237.2	---	---	-3.58	1.088	46.6	6.4	-1.1	0.795
3-8760	3-8840	0.414	77.5	20.6	-2.15	0.645	122.1	0.593	1.265	211.5	252.7	---	---	-2.81	1.103	55.5	8.9	-0.4	0.650
3-8760	3-8850	0.365	72.0	20.4	-1.52	0.676	117.6	0.511	1.335	217.9	268.5	---	---	-2.38	1.119	62.6	11.2	-0.0	0.533

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8760	3-8860	0.335	66.9	20.2	-1.06	0.702	114.9	0.453	1.402	223.6	284.4	---	---	-2.12	1.133	68.5	13.0	0.0	0.437
3-8760	3-8870	0.316	62.6	20.1	-0.68	0.722	113.2	0.413	1.460	229.2	299.8	---	---	-1.96	1.143	73.5	14.1	-0.5	0.358
3-8760	3-8880	0.304	59.3	20.2	-0.34	0.736	112.1	0.387	1.505	233.8	314.2	---	---	-1.88	1.149	77.7	14.2	-1.7	0.293
3-8760	3-8890	0.296	57.0	20.4	-0.02	0.744	111.3	0.371	1.534	237.0	327.1	---	---	-1.85	1.153	81.3	12.9	-3.9	0.243
3-8760	3-8900	0.289	55.6	20.9	0.29	0.749	110.7	0.359	1.550	238.8	338.5	---	---	-1.88	1.154	84.4	9.9	-7.2	0.206
3-8760	3-8910	0.283	55.0	21.6	0.62	0.749	110.1	0.350	1.552	239.3	348.6	---	---	-1.96	1.153	87.0	5.5	-11.2	0.182
3-8760	3-8920	0.275	54.9	22.6	0.99	0.747	109.6	0.343	1.544	238.6	357.5	---	---	-2.11	1.150	89.4	0.6	-15.4	0.171
3-8760	3-8930	0.268	55.3	24.0	1.44	0.743	109.0	0.336	1.528	237.1	365.5	1.015	---	-2.36	1.146	91.4	356.3	-19.3	0.169
3-8760	3-8940	0.259	56.0	25.9	2.03	0.736	108.4	0.329	1.507	234.8	372.7	1.011	---	-2.76	1.142	93.1	353.7	-22.6	0.176
3-8760	3-8950	0.250	57.0	28.7	2.88	0.729	107.6	0.323	1.482	231.9	379.3	1.003	---	-3.44	1.137	94.7	353.7	-26.0	0.188
3-8760	3-8960	0.242	58.1	33.4	4.33	0.720	106.8	0.316	1.456	228.4	385.4	0.993	---	-4.72	1.132	96.1	350.6	-30.8	0.207
3-8760	3-8970	0.243	59.1	43.5	7.69	0.711	105.8	0.314	1.429	224.6	391.1	0.981	---	-7.93	1.127	97.3	4.2	-41.0	0.247
3-8760	3-8980	0.379	73.2	74.6	25.71	0.702	104.7	0.310	1.402	220.4	396.2	0.968	---	-25.80	1.122	98.3	34.4	-72.1	0.513
3-8760	3-8990	0.294	81.2	-20.5	-17.74	0.692	103.7	0.309	1.376	216.2	402.2	0.950	---	17.81	1.118	99.6	315.3	45.7	0.395
3-8760	3-9000	0.201	76.5	0.5	-6.71	0.682	102.3	0.308	1.351	211.5	407.0	0.935	---	6.93	1.113	100.6	345.7	25.6	0.272
3-8760	3-9010	0.176	79.2	8.5	-3.97	0.673	100.9	0.309	1.327	206.7	411.8	0.917	---	4.36	1.110	101.5	356.9	18.4	0.267
3-8760	3-9020	0.159	84.3	12.7	-2.68	0.663	99.3	0.312	1.305	201.8	416.6	0.898	---	3.24	1.106	102.5	5.2	16.2	0.276
3-8760	3-9030	0.144	91.3	15.4	-1.90	0.653	97.5	0.317	1.284	196.7	421.4	0.877	---	2.63	1.103	103.6	12.7	16.1	0.289
3-8760	3-9040	0.131	100.6	17.0	-1.35	0.644	95.5	0.325	1.264	191.7	426.1	0.854	---	2.27	1.100	104.7	20.0	17.0	0.306
3-8760	3-9050	0.122	112.4	17.6	-0.92	0.635	93.3	0.335	1.246	186.6	430.9	0.828	---	2.05	1.097	105.9	27.3	18.4	0.324
3-8760	3-9060	0.119	126.6	16.7	-0.55	0.626	90.8	0.350	1.229	181.6	435.9	0.799	---	1.92	1.095	107.3	34.8	20.0	0.346
3-8760	3-9070	0.124	141.8	14.3	-0.21	0.618	88.1	0.368	1.213	176.7	440.9	0.767	1.660	1.86	1.092	109.0	42.4	21.7	0.372
3-8760	3-9080	0.138	156.0	10.8	0.11	0.610	86.9	0.392	1.199	171.9	446.3	0.728	1.669	1.85	1.090	110.9	50.1	23.3	0.403
3-8760	3-9090	0.163	167.8	7.2	0.45	0.602	81.1	0.423	1.185	167.5	451.9	0.684	1.687	1.91	1.088	113.2	57.9	24.6	0.441
3-8760	3-9100	0.199	176.7	4.1	0.82	0.595	76.7	0.464	1.173	163.6	458.1	0.629	1.717	2.03	1.085	116.2	65.7	25.7	0.490
3-8760	3-9110	0.249	183.2	1.7	1.25	0.588	71.3	0.516	1.162	160.3	465.0	0.563	1.762	2.25	1.083	119.9	73.2	26.4	0.552
3-8760	3-9120	0.315	187.4	0.0	1.82	0.582	64.5	0.584	1.153	158.1	473.0	0.479	1.827	2.61	1.080	124.9	80.3	26.8	0.635
3-8760	3-9130	0.402	189.5	-0.8	2.62	0.577	55.8	0.673	1.146	157.6	482.6	0.374	1.917	3.23	1.078	131.7	86.6	26.9	0.748
3-8760	3-9140	0.519	189.4	-0.8	3.98	0.574	44.2	0.784	1.142	159.6	494.8	0.247	2.036	4.42	1.076	141.2	91.5	26.7	0.904
3-8760	3-9180	0.593	151.5	10.1	-6.52	0.200	52.0	0.959	0.858	178.1	554.0	0.035	1.881	-6.75	0.925	16.6	13.5	4.1	1.170
3-8760	3-9190	0.488	149.1	10.7	-3.83	0.271	71.8	0.891	0.883	177.7	563.6	0.096	1.670	-4.23	0.940	27.2	17.8	5.6	1.029
3-8760	3-9190	0.462	109.2	19.9	-3.83	0.416	122.5	0.807	0.968	189.3	575.2	0.187	1.749	-4.23	0.992	36.2	11.9	2.2	0.919
3-8760	3-9260	0.586	201.6	-9.2	0.12	0.725	41.2	0.757	1.469	145.2	239.9	---	2.581	-1.86	1.139	43.4	65.4	19.8	0.865
3-8760	3-9270	0.553	203.7	-9.7	0.44	0.732	44.2	0.721	1.493	141.9	246.2	---	2.570	-1.91	1.142	47.1	72.4	20.5	0.803
3-8760	3-9280	0.522	205.8	-10.1	0.79	0.739	47.1	0.685	1.517	138.7	252.5	---	2.556	-2.02	1.146	50.6	79.5	20.7	0.744
3-8760	3-9290	0.492	207.9	-10.3	1.19	0.746	49.7	0.650	1.540	135.5	258.9	---	2.540	-2.22	1.149	53.9	86.4	20.4	0.686
3-8760	3-9300	0.465	210.0	-10.2	1.70	0.752	52.1	0.617	1.561	132.5	265.5	---	2.524	-2.53	1.152	57.1	93.2	19.5	0.630
3-8760	3-9310	0.440	212.2	-9.8	2.30	0.757	54.3	0.586	1.581	129.7	272.1	---	2.506	-3.04	1.155	60.2	99.6	17.9	0.577
3-8760	3-9320	0.417	214.4	-8.5	3.45	0.762	56.3	0.556	1.599	126.9	278.9	---	2.489	-3.94	1.158	63.2	105.7	14.9	0.528
3-8760	3-9330	0.399	217.0	-5.5	5.51	0.766	58.1	0.529	1.616	124.4	285.9	---	2.471	-5.83	1.162	66.0	111.0	9.0	0.485
3-8760	3-9340	0.401	220.4	4.6	11.67	0.770	59.7	0.505	1.630	122.0	292.9	---	2.454	-11.84	1.165	68.8	115.6	-6.9	0.477
3-8760	3-9360	0.363	209.5	-33.1	-10.06	0.776	62.5	0.462	1.655	117.8	308.3	---	2.420	10.20	1.172	74.2	141.0	48.3	0.385
3-8760	3-9370	0.334	215.5	-25.8	-5.10	0.778	63.5	0.446	1.664	116.1	314.1	---	2.406	5.40	1.175	76.8	136.9	37.6	0.313
3-8760	3-9380	0.320	218.1	-23.0	-3.27	0.780	64.4	0.432	1.672	114.6	319.4	---	2.395	3.73	1.179	79.4	136.6	33.6	0.269
3-8760	3-9390	0.310	219.7	-21.3	-2.27	0.781	65.1	0.421	1.679	113.4	322.9	---	2.386	2.91	1.182	82.1	135.1	32.3	0.235
3-8760	3-9400	0.304	220.8	-20.2	-1.62	0.782	65.6	0.414	1.683	112.6	341.9	---	2.380	2.44	1.185	84.7	131.2	32.5	0.208
3-8760	3-9410	0.300	221.5	-19.3	-1.13	0.783	65.8	0.410	1.687	112.1	351.2	---	2.379	2.16	1.188	87.4	124.1	33.5	0.193
3-8760	3-9420	0.301	221.9	-18.4	-0.74	0.783	65.8	0.411	1.689	111.9	361.0	0.995	2.382	1.98	1.190	90.3	114.6	34.1	0.191
3-8760	3-9430	0.305	222.0	-17.5	-0.39	0.784	65.4	0.416	1.690	112.2	371.2	0.987	2.393	1.80	1.193	93.3	105.3	33.8	0.205
3-8760	3-9440	0.314	221.6	-16.6	-0.06	0.784	64.8	0.427	1.690	113.0	382.0	0.969	2.411	1.85	1.195	96.5	98.5	32.6	0.235
3-8760	3-9440	0.254	96.7	23.7	-0.06	0.579	105.5	0.504	1.149	196.5	825.5	0.570	1.728	1.85	1.072	119.3	36.1	17.7	0.544
3-8760	3-9440	0.488	79.5	23.6	-0.06	0.637	128.9	0.678	1.249	209.0	838.0	0.402	2.096	1.85	1.104	131.3	30.9	14.7	0.764
3-8760	3-9450	0.329	220.9	-15.6	0.27	0.784	63.6	0.445	1.689	114.5	393.4	0.938	2.441	1.87	1.197	100.1	94.9	31.3	0.280
3-8760	3-9450	0.201	117.7	22.3	0.27	0.561	96.3	0.487	1.123	186.8	825.9	0.576	1.670	1.87	1.065	118.4	45.8	20.8	0.524
3-8760	3-9450	0.595	79.6	23.8	0.27	0.659	138.2	0.768	1.297	207.8	846.9	0.301	2.293	1.87	1.120	138.7	36.8	16.2	0.897
3-8760	3-9460	0.351	219.7	-14.6	0.62	0.783	61.9	0.472	1.688	116.1	405.5	0.692	2.484	1.96	1.198	104.2	94.1	30.1	0.339
3-8760	3-9460	0.191	139.5	18.0	0.62	0.550	89.0	0.498	1.107	179.0	828.2	0.556	1.659	1.96	1.061	119.3	55.0	23.0	0.536
3-8760	3-9470	0.383	218.0	-13.5	1.01	0.783	59.3	0.510	1.687	119.0	418.4	0.826	2.547	2.12	1.199	108.9	95.1	29.2	0.435
3-8760	3-9470	0.212	158.1	12.2	1.01	0.542	81.8	0.527	1.096	172.5	831.9	0.518	1.674	2.12	1.058	121.3	63.9	24.7	0.564
3-8760	3-9480	0.429	215.7	-12.2	1.50	0.783	55.7	0.563	1.685	122.9	432.5	0.736	2.634	2.40	1.200	114.7	97.1	28.4	0.512
3-8760	3-9480	0.259	171.2	7.1	1.50	0.535	74.0	0.575	1.088	167.3	836.9	0.462	1.713	2.40	1.055	124.7	72.3	25.8	0.624
3-8760	3-9490	0.495	212.6	-10.7	2.16	0.782	50.6	0.635	1.684	128.4	448.1	0.614	2.753	2.86	1.200	121.9	99.3	27.8	0.637
3-8760	3-9490	0.331	179.4	3.7	2.16	0.530	64.9	0.643	1.081	163.8	843.5	0.386	1.777	2.86	1.053	129.7	80.0	26.4	0.707
3-8760	3-9500	0.568	208.3	-8.8	3.16	0.782	43.1	0.730	1.684	136.1	466.0	0.454	2.913	3.69	1.200	131.3	101.2	27.2	0.801
3-8760	3-9500	0.431	183.6	1.8	3.16	0.527	53.7	0.735	1.077	162.6	852.5	0.285	1.868	3.69	1.051	137.1	86.5	26.6	0.827
3-8760	3-9510	0.563	184.2	1.4	5.07	0.525	39.3	0.847	1.075	164.7	864.7	0.165	1.985	5.42	1.050	147.8	91.3	26.5	0.997
3-8760	3-9550	0.541	103.2	20.5	-4.94	0.441	134.5	0.851	0.989	190.9	931.6	0.147	1.830	-5.25	1.004	31.7	8.6	0.7	0.996
3-8760	3-9560	0.514	162.5	5.9	-3.15	0.337	51.4	0.890	0.915	174.1	924.7	0.101	1.730	-3.63	0.960	27.3	2.1	7.2	1.038
3-8760	3-9560	0.413	110.0	19.7	-3.15	0.434	116.4	0.759	0.983	189.8	940.1	0.237	1.729	-3.63	0.998	40.6	13.9	3.0	0.833
3-8770	3-8830	0.590	81.4	20.9	-3.55	0.690	137.2	0.747	1.374	211.8	238.6	---	---	-4.10	1.134	43.8	5.7	-1.6	0.866
3-8770	3-8840	0.490	76.4	20.7	-2.36	0.701	128.3	0.6	1.405	218.7	245.4	---	---	-3.09	1.139	53.7	7.8	-1.1	0.697
3-8770	3-8850	0.428	71.3	20.5	-1.63	0.722	122.7	0.552	1.467	225.6	272.2	---	---	-2.54	1.149	61.6	9.6	-0.8	0.564
3-8770	3-8860	0.390	66.6	20.3	-1.11	0.742	119.2	0.493	1.533	232.3	288.7	---	---	-2.22	1.159	68.0	10.9	-1.0	0.458
3-8770	3-8870	0.366	62.7	20.3	-0.70	0.758	116.9	0.455	1.591	238.1	304.3	---	---	-2.02	1.167	73.4	11.4	-1.7	0.373
3-8770	3-8880	0.350	59.9	20.4	-0.35	0.769	115.4	0.430	1.633	242.4	318.4	---	---	-1.90	1.172	77.8	10.8	-3.1	0.306
3-8770	3-8890	0.338	58.0	20.6	-0.02	0.775	114.4	0.413	1.657	245.2	330.9	---	---	-1.85	1.174	81.6	8.8	-5.5	0.254
3-8770	3-8900	0.329	57.0	21.1	0.29	0.776	113.6	0.401	1.664	246.6	341.9	---	---	-1.85	1.173	84.8	5.2	-8.7	0.218
3-8770	3-8910	0.319	56.6	21.8	0.61	0.774	112.9	0.390	1.656	246.6	351.5	---	---	-1.91	1.170	87.6	0.5	-12.4	0.195
3-8770	3-8920	0.310	56.8	22.7	0.96	0.770	112.3	0.380	1.636	245.5	360.0	1.015	---	-2.03	1.166	90.0	355.6	-16.0	0.185
3-8770	3-8930	0.300	57.4	23.8	1.36	0.763	111.6	0.370	1.609	243.6	367.6	1.014	---	-2.23	1.161	92.1	351.8	-19.0	0.184

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8770	3-8940	0.289	58.3	25.4	1.87	0.754	110.9	0.361	1.576	241.0	374.6	1.008	---	-2.55	1.155	93.8	349.8	-21.4	0.191
3-8770	3-8950	0.277	59.5	27.6	2.57	0.745	110.1	0.352	1.541	237.8	380.9	0.999	---	-3.07	1.148	95.4	350.0	-23.6	0.202
3-8770	3-8960	0.266	60.9	31.1	3.68	0.734	109.2	0.343	1.506	234.2	386.8	0.988	---	-4.01	1.142	96.8	352.7	-26.6	0.217
3-8770	3-8970	0.259	62.3	37.5	5.85	0.723	108.2	0.336	1.470	230.2	392.3	0.976	---	-6.02	1.136	98.0	358.4	-32.8	0.242
3-8770	3-8980	0.281	64.7	54.6	12.68	0.712	107.1	0.330	1.436	225.8	397.4	0.962	---	-12.70	1.130	99.0	11.6	-50.1	0.324
3-8770	3-9000	0.233	79.0	-4.1	-9.29	0.690	104.6	0.323	1.374	216.5	407.7	0.930	---	9.58	1.119	101.1	340.2	31.6	0.307
3-8770	3-9010	0.196	80.3	7.4	-4.76	0.678	103.1	0.322	1.346	211.6	412.3	0.912	---	5.21	1.114	102.0	355.3	20.5	0.282
3-8770	3-9020	0.175	84.6	12.5	-3.03	0.667	101.4	0.323	1.319	206.5	417.0	0.894	---	3.64	1.110	102.9	4.5	17.1	0.286
3-8770	3-9030	0.158	90.7	15.5	-2.07	0.657	99.6	0.325	1.295	201.3	421.5	0.874	---	2.86	1.106	103.9	12.3	16.6	0.297
3-8770	3-9040	0.143	98.9	17.3	-1.43	0.646	97.7	0.331	1.273	196.1	426.1	0.852	---	2.41	1.102	104.9	19.9	17.3	0.311
3-8770	3-9050	0.132	109.5	18.1	-0.95	0.636	95.5	0.339	1.252	190.8	430.8	0.827	---	2.13	1.099	106.1	27.3	18.6	0.327
3-8770	3-9060	0.124	122.7	17.6	-0.56	0.627	93.0	0.351	1.233	185.6	435.5	0.800	---	1.97	1.096	107.4	34.9	20.2	0.347
3-8770	3-9070	0.124	137.6	15.6	-0.21	0.617	90.3	0.367	1.216	180.5	440.4	0.770	---	1.88	1.093	108.8	42.6	21.9	0.370
3-8770	3-9080	0.133	152.7	12.1	0.11	0.608	87.2	0.388	1.200	175.6	445.5	0.734	1.665	1.85	1.090	110.6	50.5	23.4	0.397
3-8770	3-9090	0.152	165.8	8.1	0.44	0.600	83.6	0.415	1.185	170.8	450.9	0.693	1.677	1.87	1.087	112.7	58.4	24.7	0.431
3-8770	3-9100	0.183	176.3	4.4	0.79	0.592	79.4	0.450	1.172	166.5	456.7	0.644	1.699	1.97	1.085	115.3	66.4	25.8	0.474
3-8770	3-9110	0.227	184.0	1.5	1.19	0.584	74.4	0.497	1.160	162.8	463.1	0.584	1.735	2.14	1.082	118.6	74.2	26.5	0.528
3-8770	3-9120	0.285	189.3	-0.6	1.69	0.577	68.1	0.557	1.149	159.9	470.4	0.509	1.789	2.43	1.079	122.9	81.7	26.9	0.601
3-8770	3-9130	0.363	192.5	-1.9	2.37	0.572	60.2	0.636	1.141	158.4	479.0	0.416	1.866	2.91	1.076	128.8	88.5	26.9	0.698
3-8770	3-9140	0.466	193.5	-2.4	3.43	0.568	49.9	0.736	1.135	159.0	489.8	0.300	1.970	3.79	1.073	136.9	94.1	26.7	0.833
3-8770	3-9190	0.525	152.7	9.5	-4.57	0.233	70.3	0.921	0.870	178.2	559.8	0.069	1.671	-5.03	0.931	23.2	19.8	6.5	1.082
3-8770	3-9190	0.511	113.8	19.4	-4.57	0.400	129.6	0.852	0.959	186.8	570.4	0.142	1.775	-5.03	0.986	31.6	14.2	3.2	0.988
3-8770	3-9270	0.567	207.1	-11.1	0.44	0.725	43.2	0.734	1.476	143.6	243.4	---	2.559	-1.87	1.139	45.6	73.8	20.7	0.826
3-8770	3-9280	0.535	209.3	-11.5	0.77	0.733	46.1	0.698	1.500	140.3	249.8	---	2.547	-1.96	1.142	49.2	80.8	21.0	0.765
3-8770	3-9290	0.505	211.4	-11.7	1.14	0.740	43.8	0.662	1.523	137.2	256.2	---	2.532	-2.11	1.146	52.6	87.8	20.7	0.706
3-8770	3-9300	0.477	213.5	-11.7	1.58	0.746	51.3	0.628	1.545	134.1	262.7	---	2.516	-2.36	1.149	55.9	94.6	19.9	0.650
3-8770	3-9310	0.451	215.6	-11.4	2.17	0.751	53.6	0.596	1.566	131.2	269.3	---	2.499	-2.76	1.153	59.0	101.2	18.4	0.596
3-8770	3-9320	0.428	217.7	-10.6	3.03	0.757	55.6	0.566	1.585	128.4	276.0	---	2.481	-3.45	1.156	62.0	107.3	16.0	0.545
3-8770	3-9330	0.408	220.1	-8.5	4.49	0.761	57.5	0.538	1.602	125.8	283.0	---	2.464	-4.75	1.160	64.9	112.8	11.6	0.498
3-8770	3-9340	0.396	222.9	-3.0	7.90	0.765	59.2	0.512	1.618	123.4	290.0	---	2.446	-6.00	1.163	67.7	117.4	1.9	0.465
3-8770	3-9350	0.490	224.3	22.7	26.74	0.768	60.7	0.490	1.631	121.2	297.1	---	2.431	-26.68	1.167	70.4	124.7	-34.7	0.624
3-8770	3-9360	0.408	205.3	-42.7	-17.09	0.771	62.1	0.467	1.644	119.1	305.3	---	2.412	17.31	1.170	73.3	160.1	58.0	0.472
3-8770	3-9370	0.345	218.5	-29.2	-6.47	0.774	63.3	0.450	1.654	117.3	313.0	---	2.398	6.84	1.174	75.9	142.3	40.1	0.335
3-8770	3-9380	0.327	221.8	-25.0	-3.78	0.776	64.2	0.435	1.662	115.8	321.1	---	2.386	4.31	1.177	78.5	141.1	34.0	0.284
3-8770	3-9390	0.316	223.7	-23.0	-2.51	0.777	65.0	0.423	1.669	114.5	329.6	---	2.376	3.21	1.180	81.1	140.2	31.7	0.246
3-8770	3-9400	0.309	224.9	-21.6	-1.74	0.779	65.5	0.414	1.675	113.5	338.4	---	2.369	2.62	1.184	83.7	137.3	31.5	0.216
3-8770	3-9410	0.304	225.8	-20.6	-1.19	0.780	65.8	0.409	1.678	112.9	347.6	---	2.365	2.26	1.187	86.4	131.4	32.3	0.196
3-8770	3-9420	0.303	226.3	-19.7	-0.76	0.780	65.9	0.408	1.681	112.6	357.3	---	2.367	2.04	1.189	89.2	122.7	33.3	0.189
3-8770	3-9430	0.306	226.4	-18.8	-0.39	0.780	65.7	0.411	1.683	112.7	367.3	0.990	2.375	1.93	1.192	92.1	113.0	33.6	0.197
3-8770	3-9440	0.313	226.2	-17.9	-0.06	0.781	65.2	0.420	1.683	113.3	377.9	0.976	2.390	1.85	1.394	95.3	105.1	32.8	0.220
3-8770	3-9450	0.325	225.6	-17.0	0.27	0.780	64.2	0.435	1.682	114.3	389.0	0.950	2.415	1.85	1.196	98.7	100.3	31.6	0.259
3-8770	3-9450	0.225	111.8	23.1	0.27	0.765	101.4	0.501	1.131	191.8	826.5	0.565	1.697	1.85	1.068	119.2	45.5	20.5	0.540
3-8770	3-9450	0.535	84.9	24.1	0.27	0.643	133.6	0.726	1.265	208.2	842.9	0.347	2.184	1.85	1.111	135.2	38.8	17.0	0.832
3-8770	3-9460	0.344	224.6	-16.1	0.60	0.780	62.7	0.458	1.681	116.0	400.8	0.911	2.452	1.91	1.197	102.5	98.6	30.4	0.313
3-8770	3-9460	0.196	133.9	19.6	0.60	0.551	93.1	0.499	1.111	183.1	828.0	0.557	1.664	1.91	1.062	119.3	55.2	23.0	0.537
3-8770	3-9470	0.372	223.1	-15.1	0.98	0.780	60.6	0.472	1.680	118.3	413.3	0.854	2.506	2.04	1.198	106.9	99.0	29.3	0.381
3-8770	3-9470	0.202	154.5	13.6	0.98	0.540	85.7	0.519	1.097	176.0	830.9	0.528	1.666	2.04	1.058	120.7	64.4	24.7	0.559
3-8770	3-9480	0.412	221.1	-13.9	1.41	0.779	57.4	0.538	1.678	121.2	426.8	0.775	2.531	2.26	1.199	112.2	100.7	28.4	0.468
3-8770	3-9480	0.238	170.1	7.8	1.41	0.533	78.0	0.557	1.067	170.1	835.2	0.482	1.693	2.26	1.055	123.5	73.2	25.9	0.602
3-8770	3-9490	0.468	218.3	-12.6	1.98	0.779	53.0	0.602	1.677	126.3	441.6	0.668	2.686	2.63	1.199	118.7	103.0	27.7	0.580
3-8770	3-9490	0.299	180.3	3.5	1.98	0.527	69.4	0.615	1.080	165.7	841.0	0.416	1.744	2.63	1.053	127.4	81.3	26.5	0.671
3-8770	3-9500	0.548	214.6	-11.1	2.80	0.779	46.6	0.687	1.676	132.9	458.4	0.525	2.827	3.26	1.199	127.1	105.8	27.0	0.725
3-8770	3-9500	0.386	186.1	0.8	2.80	0.522	59.1	0.695	1.074	163.3	848.8	0.327	1.821	3.26	1.050	133.9	88.5	26.6	0.772
3-8770	3-9510	0.502	188.3	-0.3	4.20	0.519	46.1	0.799	1.071	163.7	859.4	0.215	1.927	4.48	1.048	142.9	94.1	26.5	0.918
3-8770	3-9520	0.582	145.8	16.2	7.42	0.160	91.0	0.957	0.849	180.0	1245.8	0.036	1.662	7.53	0.923	163.0	88.1	25.2	1.152
3-8770	3-9550	0.599	108.8	20.1	-6.21	0.432	142.6	0.898	0.983	189.6	925.9	0.100	1.867	-6.59	1.001	26.1	11.3	1.9	1.078
3-8770	3-9560	0.552	166.7	4.2	-3.63	0.316	46.0	0.918	0.906	174.8	921.1	0.074	1.738	-4.17	0.954	28.5	23.0	8.0	1.089
3-8770	3-9560	0.458	112.6	19.5	-3.63	0.428	123.3	0.800	0.980	190.0	936.3	0.196	1.763	-4.17	0.997	36.9	15.7	3.7	0.911
3-8770	3-9570	0.539	71.3	20.3	-2.41	0.759	130.8	0.654	1.593	226.4	622.6	0.581	2.635	-3.13	1.175	54.7	4.3	-2.8	0.699
3-8770	3-9570	0.438	162.4	5.7	-2.41	0.352	65.6	0.833	0.926	174.7	930.9	0.155	1.698	-3.13	0.964	33.8	27.5	9.4	0.943
3-8770	3-9570	0.357	128.0	16.5	-2.41	0.413	103.4	0.735	0.968	185.0	941.2	0.257	1.679	-3.13	0.988	42.7	22.5	6.7	0.815
3-8780	3-8840	0.591	75.7	20.8	-2.64	0.785	134.6	0.702	1.709	226.9	259.3	---	---	-3.42	1.193	51.6	6.2	-1.9	0.763
3-8780	3-8850	0.509	70.9	20.6	-1.76	0.789	127.9	0.615	1.724	234.7	276.9	---	---	-2.73	1.193	60.4	7.5	-1.8	0.609
3-8780	3-8860	0.458	66.6	20.5	-1.17	0.798	123.6	0.555	1.771	241.6	293.7	---	---	-2.32	1.197	67.4	8.2	-2.2	0.489
3-8780	3-8870	0.426	63.2	20.5	-0.72	0.807	120.8	0.516	1.816	247.2	309.1	---	---	-2.08	1.200	73.2	8.2	-3.0	0.396
3-8780	3-8880	0.404	60.8	20.6	-0.35	0.812	118.9	0.491	1.845	251.2	322.8	---	---	-1.93	1.201	78.0	6.9	-4.7	0.324
3-8780	3-8890	0.386	59.3	20.9	-0.02	0.814	117.6	0.472	1.853	253.4	334.7	---	---	-1.85	1.200	82.0	4.2	-7.1	0.271
3-8780	3-8900	0.374	58.5	21.3	0.29	0.811	116.6	0.456	1.840	254.2	345.1	---	---	-1.82	1.197	85.4	0.2	-10.1	0.235
3-8780	3-8910	0.362	58.4	22.0	0.60	0.806	115.8	0.441	1.811	253.7	354.3	---	---	-1.86	1.192	88.2	355.4	-13.4	0.213
3-8780	3-8920	0.349	58.8	22.8	0.93	0.798	115.0	0.427	1.771	252.3	362.4	1.015	---	-1.95	1.186	90.7	350.9	-16.4	0.204
3-8780	3-8930	0.336	59.6	23.8	1.30	0.788	114.3	0.413	1.723	250.0	369.7	1.012	---	-2.11	1.178	92.8	347.6	-18.6	0.204
3-8780	3-8940	0.323	60.6	25.1	1.75	0.777	113.5	0.399	1.672	247.1	376.3	1.005	---	-2.36	1.170	94.6	346.3	-20.3	0.210
3-8780	3-8950	0.309	62.0	26.9	2.34	0.765	112.7	0.386	1.621	243.7	382.4	0.996	---	-2.78	1.162	96.2	346.9	-21.7	0.219
3-8780	3-8960	0.294	63.6	29.5	3.22	0.752	111.7	0.374	1.571	239.9	388.1	0.984	---	-3.48	1.154	97.5	349.6	-23.5	0.232
3-8780	3-8970	0.282	65.3	33.9	4.74	0.739	110.7	0.363	1.524	235.7	393.4	0.971	---	-4.84	1.146	98.7	354.5	-27.0	0.250
3-8780	3-8980	0.279	67.4	43.6	8.39	0.725	109.5	0.354	1.480	231.2	398.4	0.957	---	-8.34	1.139	99.8	3.2	-36.6	0.288
3-8780	3-8990	0.454	99.2	75.2	31.57	0.712	108.2	0.345	1.440	226.4	402.9	0.943	---	-31.36	1.132	100.6	28.4	-73.4	0.620
3-8780	3-9000	0.291	83.7	-13.0	-15.13	0.699	106.9	0.341	1.402	221.5	408.4	0.924	---	15.49	1.126	101.8	328.0	40.7	0.388
3-8780	3-9010	0.220	81.9	5.5	-5.98	0.686	105.4	0.337	1.368	216.4	412.9	0.907	---	6.50	1.120	102.6	352.9	23.5	0.302
3-8780	3-9020	0.194	85.4	12.1	-3.49	0.674	103.7	0.335	1.337	211.2	417.3	0.889	---	4.17	1.114	103.4	3.6	18.3	0.299

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MA
ARRIVAL PLANET= EAR

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SP
3-8780	3-9030	0.175	90.8	15.5	-2.28	0.662	101.9	0.336	1.309	205.9	421.8	0.870	---	3.13	1.110	104.3	11.9	17.1	0.
3-8780	3-9040	0.158	98.4	17.5	-1.53	0.650	99.9	0.339	1.284	200.5	426.2	0.849	---	2.56	1.105	105.3	19.7	17.6	0.
3-8780	3-9050	0.143	107.4	18.5	-1.00	0.639	97.7	0.345	1.260	195.1	430.7	0.826	---	2.22	1.101	106.3	27.3	18.8	0.
3-8780	3-9060	0.132	119.3	18.4	-0.58	0.628	95.3	0.354	1.239	189.8	435.3	0.800	---	2.01	1.098	107.4	35.0	20.4	0.
3-8780	3-9070	0.127	133.5	16.8	-0.22	0.618	92.6	0.367	1.219	184.5	440.0	0.771	---	1.89	1.094	108.8	42.8	22.0	0.
3-8780	3-9080	0.131	148.8	13.5	0.11	0.608	89.6	0.385	1.202	179.3	444.8	0.739	1.664	1.84	1.091	110.3	50.8	23.5	0.
3-8780	3-9090	0.145	163.1	9.3	0.44	0.598	86.1	0.409	1.185	174.3	450.0	0.701	1.670	1.84	1.088	112.2	58.9	24.8	0.
3-8780	3-9100	0.170	175.0	5.1	0.77	0.589	82.1	0.440	1.171	169.7	455.4	0.656	1.685	1.90	1.084	114.6	67.0	25.9	0.
3-8780	3-9110	0.208	184.1	1.6	2.15	0.581	77.3	0.480	1.157	165.5	461.4	0.602	1.713	2.04	1.081	117.5	75.1	26.6	0.
3-8780	3-9120	0.259	190.7	-1.1	1.59	0.574	71.6	0.533	1.146	162.1	466.2	0.535	1.757	2.27	1.077	121.3	82.8	26.9	0.
3-8780	3-9130	0.328	194.9	-2.8	2.17	0.567	64.3	0.603	1.136	159.7	476.0	0.451	1.821	2.65	1.074	126.4	90.0	26.9	0.
3-8780	3-9140	0.419	197.0	-3.8	3.02	0.562	55.0	0.693	1.129	159.1	485.6	0.347	1.916	3.32	1.071	133.3	96.3	26.7	0.
3-8780	3-9150	0.539	196.7	-3.9	4.50	0.559	42.7	0.803	1.124	161.2	497.6	0.221	2.028	4.62	1.069	143.1	101.1	26.2	0.
3-8780	3-9190	0.563	155.9	8.4	-5.68	0.192	69.6	0.547	0.858	178.8	556.0	0.046	1.671	-6.21	0.923	19.1	21.8	7.4	1.
3-8780	3-9190	0.563	119.3	18.6	-5.68	0.382	137.4	0.897	0.947	187.8	564.9	0.098	1.797	-6.21	0.980	26.3	16.8	4.4	1.
3-8780	3-9200	0.442	145.6	11.7	-3.32	0.300	95.3	0.852	0.900	180.9	568.1	0.134	1.865	-4.02	0.948	31.8	24.8	8.1	0.
3-8780	3-9200	0.432	134.5	15.0	-3.32	0.342	108.7	0.827	0.922	184.1	571.3	0.159	1.685	-4.02	0.963	34.3	23.2	7.2	0.
3-8780	3-9270	0.582	210.5	-12.4	0.43	0.718	42.1	0.748	1.458	145.2	240.7	---	2.548	-6.84	1.135	44.2	75.1	21.0	0.
3-8780	3-9280	0.550	212.7	-12.8	0.75	0.726	45.1	0.711	1.482	141.9	247.0	---	2.537	-1.90	1.139	47.8	82.2	21.2	0.
3-8780	3-9290	0.519	214.8	-13.0	1.10	0.733	47.9	0.675	1.506	138.7	253.4	---	2.523	-2.02	1.142	51.3	89.2	21.0	0.
3-8780	3-9300	0.490	216.9	-13.1	1.50	0.740	50.5	0.640	1.529	135.7	259.8	---	2.507	-2.21	1.146	54.6	96.1	20.2	0.
3-8780	3-9310	0.464	219.0	-12.9	2.01	0.746	52.8	0.607	1.552	132.7	266.4	---	2.491	-2.53	1.150	57.8	102.7	18.9	0.
3-8780	3-9320	0.439	221.2	-12.3	2.71	0.751	55.0	0.576	1.570	129.9	273.2	---	2.474	-3.06	1.153	60.9	108.9	16.8	0.
3-8780	3-9330	0.418	223.3	-10.9	3.82	0.756	56.9	0.547	1.588	127.5	280.0	---	2.456	-4.00	1.157	63.8	114.6	13.3	0.
3-8780	3-9340	0.401	225.8	-7.5	6.00	0.761	58.7	0.520	1.604	124.8	287.1	---	2.439	-6.02	1.161	66.7	119.5	6.7	0.
3-8780	3-9350	0.408	228.7	3.8	12.98	0.764	60.3	0.496	1.619	122.5	294.3	---	2.422	-12.85	1.165	69.4	123.0	-11.7	0.
3-8780	3-9370	0.361	220.4	-34.1	-8.91	0.770	63.0	0.455	1.643	118.5	309.9	---	2.389	9.34	1.172	74.9	149.6	44.6	0.
3-8780	3-9380	0.336	225.4	-27.4	-4.53	0.772	64.0	0.439	1.652	116.9	317.9	---	2.376	5.12	1.175	77.5	145.7	34.9	0.
3-8780	3-9390	0.323	227.6	-24.6	-2.83	0.774	64.8	0.425	1.659	115.5	326.2	---	2.365	3.59	1.179	80.1	144.9	31.3	0.
3-8780	3-9400	0.314	229.1	-23.0	-1.89	0.775	65.5	0.415	1.665	114.5	335.0	---	2.357	2.82	1.182	82.7	142.9	30.3	0.
3-8780	3-9410	0.309	230.0	-21.8	-1.26	0.776	65.9	0.409	1.670	113.7	344.1	---	2.353	2.38	1.185	85.4	138.2	30.9	0.
3-8780	3-9420	0.306	230.6	-20.9	-0.79	0.777	66.0	0.406	1.673	113.3	353.6	---	2.352	2.11	1.188	88.1	130.6	32.1	0.
3-8780	3-9430	0.308	230.9	-20.0	-0.40	0.778	65.9	0.408	1.675	113.2	363.5	0.992	2.357	1.95	1.191	91.0	121.0	32.9	0.
3-8780	3-9440	0.313	230.8	-19.2	-0.06	0.778	65.5	0.414	1.676	113.6	373.9	0.982	2.369	1.86	1.193	94.0	112.2	32.7	0.
3-8780	3-9450	0.323	230.3	-18.3	0.27	0.778	64.8	0.426	1.675	114.4	384.8	0.969	2.390	1.83	1.195	97.3	106.2	31.7	0.
3-8780	3-9450	0.272	105.6	23.7	0.27	0.574	108.3	0.531	1.147	197.9	828.3	0.538	1.756	1.83	1.074	121.2	44.8	20.0	0.
3-8780	3-9450	0.456	91.2	24.3	0.27	0.621	127.1	0.666	1.226	207.6	837.9	0.407	2.048	1.83	1.099	130.6	40.7	17.9	0.
3-8780	3-9460	0.339	239.5	-17.4	0.59	0.778	63.5	0.446	1.675	115.8	396.2	0.927	2.422	1.86	1.196	101.0	103.4	30.5	0.
3-8780	3-9460	0.209	127.9	21.0	-0.59	0.553	97.7	0.505	1.116	197.7	828.1	0.552	1.679	1.86	1.064	119.7	55.1	22.8	0.
3-8780	3-9460	0.576	90.7	24.4	0.59	0.648	137.7	0.767	1.279	207.0	847.4	0.298	2.260	1.86	1.176	138.8	46.6	19.1	0.
3-8780	3-9470	0.363	228.2	-16.5	0.94	0.777	61.6	0.475	1.673	117.8	408.4	0.878	2.468	1.96	1.197	105.1	103.1	29.4	0.
3-8780	3-9470	0.199	149.8	15.4	0.94	0.540	89.7	0.514	1.099	179.8	830.3	0.534	1.661	1.96	1.059	120.4	64.7	24.7	0.
3-8780	3-9480	0.397	228.4	-15.5	1.35	0.777	59.0	0.576	1.671	120.6	421.4	0.809	2.533	2.13	1.198	110.0	104.5	28.4	0.
3-8780	3-9480	0.222	167.8	8.9	1.35	0.531	82.1	0.543	1.087	173.2	834.0	0.497	1.678	2.13	1.055	122.5	73.8	25.9	0.
3-8780	3-9490	0.446	223.9	-14.4	1.85	0.776	55.1	0.572	1.670	124.6	435.5	0.715	2.624	2.43	1.198	115.9	106.6	27.5	0.
3-8780	3-9490	0.272	180.3	3.6	1.85	0.524	73.8	0.591	1.079	168.1	839.0	0.441	1.716	2.43	1.052	125.9	82.4	26.5	0.
3-8780	3-9500	0.514	220.6	-13.1	2.53	0.776	49.6	0.647	1.668	130.2	451.3	0.588	2.749	2.92	1.198	123.3	108.9	26.8	0.
3-8780	3-9500	0.347	188.0	0.2	2.53	0.519	64.2	0.661	1.072	164.6	845.7	0.364	1.780	2.92	1.049	131.1	90.1	26.6	0.
3-8780	3-9510	0.450	191.7	-1.6	3.60	0.515	52.4	0.754	1.068	163.6	854.8	0.263	1.872	3.81	1.047	138.8	96.5	26.4	0.
3-8780	3-9520	0.586	192.0	-2.0	5.71	0.513	37.3	0.865	1.066	165.9	867.3	0.144	1.988	5.76	1.045	149.8	101.1	26.0	1.
3-8780	3-9560	0.588	170.5	2.7	-4.31	0.295	40.3	0.942	0.897	175.6	917.5	0.652	1.782	-4.92	0.948	19.7	-24.8	8.8	1.
3-8780	3-9560	0.509	116.2	19.0	-4.31	0.421	130.7	0.843	0.976	190.0	931.9	0.153	1.799	-4.92	0.995	32.5	17.7	4.6	0.
3-8780	3-9570	0.573	78.3	21.0	-2.70	0.756	134.2	0.598	1.585	222.8	614.7	0.478	2.691	-3.47	1.174	50.5	7.6	-1.1	0.
3-8780	3-9570	0.484	168.4	3.4	-2.70	0.329	59.0	0.871	0.914	174.8	926.6	0.118	1.711	-3.47	0.956	29.5	29.6	10.4	1.
3-8780	3-9570	0.390	126.7	16.9	-2.70	0.410	111.1	0.762	0.968	187.1	939.0	0.230	1.705	-3.47	0.987	40.4	23.6	7.1	0.
3-8780	3-9580	0.485	74.1	20.9	-1.80	0.755	127.0	0.603	1.584	229.2	630.9	0.629	2.539	-2.75	1.171	59.2	9.7	-0.7	0.
3-8790	3-8860	0.545	66.8	20.6	-1.25	0.874	127.9	0.651	2.292	251.4	299.1	---	---	-2.44	1.249	66.6	5.1	-3.5	0.
3-8790	3-8870	0.500	63.8	20.7	-0.76	0.872	124.6	0.608	2.267	256.5	314.0	---	---	-2.14	1.245	72.9	4.4	-4.6	0.
3-8790	3-8880	0.470	61.8	20.8	-0.36	0.869	122.3	0.577	2.241	259.8	327.0	---	---	-1.96	1.241	78.0	2.5	-6.3	0.
3-8790	3-8890	0.447	60.6	21.1	-0.03	0.864	120.8	0.552	2.198	261.4	338.3	---	---	-1.86	1.235	82.3	359.4	-8.6	0.
3-8790	3-8900	0.428	60.1	21.6	0.29	0.856	119.6	0.530	2.136	261.6	348.1	---	---	-1.81	1.228	85.9	355.2	-11.5	0.
3-8790	3-8910	0.411	60.3	22.2	0.59	0.846	118.7	0.508	2.060	260.7	356.8	---	---	-1.82	1.220	88.9	350.5	-14.3	0.
3-8790	3-8920	0.394	60.9	23.0	0.90	0.834	117.8	0.487	1.977	258.8	364.5	1.014	---	-1.88	1.210	91.5	346.5	-16.6	0.
3-8790	3-8930	0.378	61.8	23.9	1.25	0.820	117.0	0.466	1.892	256.2	371.5	1.010	---	-2.00	1.200	93.7	344.0	-18.2	0.
3-8790	3-8940	0.361	63.1	25.0	1.65	0.805	116.2	0.447	1.810	253.1	377.9	1.002	---	-2.20	1.189	95.5	343.2	-19.3	0.
3-8790	3-8950	0.344	64.6	26.5	2.16	0.790	115.3	0.428	1.733	249.4	383.8	0.991	---	-2.53	1.179	97.1	344.3	-20.1	0.
3-8790	3-8960	0.327	66.3	28.5	2.87	0.774	114.3	0.411	1.661	245.4	389.3	0.979	---	-3.07	1.169	98.4	347.1	-21.0	0.
3-8790	3-8970	0.310	68.2	31.6	4.01	0.758	113.2	0.395	1.596	241.0	394.4	0.965	---	-4.04	1.159	99.6	351.6	-22.9	0.
3-8790	3-8980	0.297	70.4	37.6	6.29	0.742	112.0	0.382	1.538	236.4	399.3	0.951	---	-5.17	1.150	100.6	358.5	-28.1	0.
3-8790	3-8990	0.319	75.1	54.7	14.08	0.726	110.6	0.370	1.486	231.6	404.0	0.936	---	-13.80	1.141	101.5	11.7	-46.3	0.
3-8790	3-9000	0.525	100.1	-28.9	-38.29	0.711	109.4	0.363	1.439	226.3	409.4	0.916	---	38.72	1.134	102.6	290.1	46.5	0.
3-8790	3-9010	0.250	84.2	1.9	-8.09	0.697	107.7	0.355	1.398	221.3	413.4	0.901	---	8.68	1.126	103.2	349.0	28.1	0.
3-8790	3-9020	0.216	86.7	11.3	-4.14	0.682	106.0	0.350	1.380	216.0	417.7	0.884	---	4.89	1.120	104.0	2.4	19.8	0.
3-8790	3-9030	0.194	91.4	15.4	-2.56	0.669	104.2	0.348	1.327	210.5	422.0	0.865	---	3.46	1.114	104.8	11.5	17.8	0.
3-8790	3-9040	0.174	97.8	17.7	-1.66	0.656	102.2	0.349	1.297	205.0	426.4	0.845	---	2.76	1.109	105.7	19.5	17.9	0.
3-8790	3-9050	0.157	106.1	18.8	-1.06	0.643	100.0	0.352	1.270	199.5	430.7	0.823	---	2.32	1.104	106.6	27.2	19.0	0.
3-8790	3-9060	0.143	116.7	19.0	-0.60	0.631	97.6	0.359	1.246	194.0	435.1	0.799	---	2.06	1.100	107.6	35.1	20.5	0.
3-8790	3-9070	0.134	129.8	17.8	-0.22	0.620	94.9	0.369	1.224	188.5	439.6	0.772	---	1.91	1.096	108.8	43.0	22.1	0.
3-8790	3-9080	0.132	144.7	15.0	0.11	0.609	92.0	0.384	1.204	183.1	444.3	0.742	---	1.83	1.092	110.2	51.1	23.6	0.
3-8790	3-9090	0.140	159.7	10.8	0.44	0.598	88.6	0.404	1.186	177.9	449.2	0.707	1.666	1.81	1.088	111.9	59.3	24.9	0.

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SP

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8790	3-9100	0.160	173.0	6.2	0.76	0.589	84.8	0.431	1.170	173.0	454.4	0.666	1.675	1.84	1.084	114.6	67.5	25.9	0.450
3-8790	3-9110	0.192	183.6	2.0	1.11	0.579	80.2	0.466	1.156	168.5	460.0	0.617	1.695	1.94	1.080	116.6	75.8	26.6	0.492
3-8790	3-9120	0.237	193.4	-1.2	1.51	0.571	74.9	0.513	1.143	164.5	466.3	0.557	1.729	2.12	1.076	119.0	83.8	27.0	0.547
3-8790	3-9130	0.297	196.8	-3.5	2.02	0.563	68.2	0.574	1.132	161.5	473.4	0.482	1.782	2.43	1.073	124.3	91.4	26.9	0.619
3-8790	3-9140	0.377	200.0	-4.9	2.72	0.557	59.8	0.654	1.123	159.9	482.0	0.389	1.857	2.94	1.069	130.3	98.2	26.6	0.719
3-8790	3-9150	0.484	200.9	-5.5	3.83	0.553	48.0	0.755	1.117	160.5	492.7	0.273	1.961	3.98	1.066	138.7	103.8	26.0	0.856
3-8790	3-9200	0.487	152.6	9.3	-3.91	0.252	92.4	0.894	0.879	180.3	563.1	0.093	1.666	-4.67	0.935	26.9	27.5	9.3	1.032
3-8790	3-9200	0.475	134.4	15.1	-3.91	0.337	139.0	0.859	0.920	186.4	568.1	0.130	1.710	-4.67	0.961	30.9	24.7	7.8	0.985
3-8790	3-9270	0.598	213.9	-13.6	0.43	0.719	40.9	0.762	1.439	140.8	237.9	----	2.537	-1.81	1.131	42.7	76.5	21.3	0.671
3-8790	3-9280	0.585	216.1	-14.0	0.74	0.720	44.1	0.725	1.464	143.5	244.2	----	2.526	-1.84	1.135	46.4	83.6	21.4	0.809
3-8790	3-9290	0.533	218.3	-14.3	1.06	0.727	46.9	0.688	1.488	140.3	250.6	----	2.513	-1.93	1.139	49.9	90.6	21.2	0.749
3-8790	3-9300	0.504	220.4	-14.4	1.43	0.734	49.6	0.653	1.512	137.2	257.0	----	2.499	-2.08	1.143	53.3	97.5	20.5	0.690
3-8790	3-9310	0.477	222.5	-14.3	1.88	0.741	52.0	0.619	1.534	134.2	263.6	----	2.483	-2.34	1.147	56.5	104.2	19.3	0.634
3-8790	3-9320	0.451	224.6	-13.9	2.46	0.747	54.3	0.587	1.554	131.4	270.3	----	2.466	-2.75	1.151	59.7	110.6	17.4	0.581
3-8790	3-9330	0.424	226.7	-12.9	3.33	0.752	56.3	0.557	1.573	128.7	277.1	----	2.449	-3.45	1.155	62.7	116.4	14.4	0.530
3-8790	3-9340	0.409	228.9	-10.6	4.66	0.756	58.2	0.529	1.590	126.2	284.1	----	2.431	-4.81	1.158	65.6	121.5	9.5	0.484
3-8790	3-9350	0.399	231.5	-6.6	6.54	0.760	59.8	0.504	1.606	123.8	291.3	----	2.414	-8.34	1.162	68.4	125.4	-1.2	0.454
3-8790	3-9360	0.444	229.2	25.5	33.08	0.764	61.2	0.482	1.619	121.7	298.4	----	2.400	-32.73	1.166	71.0	133.6	-44.4	0.703
3-8790	3-9370	0.394	219.0	-42.5	-14.33	0.767	62.7	0.460	1.631	119.7	306.7	----	2.381	14.84	1.170	73.9	164.2	52.6	0.434
3-8790	3-9380	0.346	228.8	-30.3	-45.67	0.769	63.7	0.443	1.641	118.0	314.6	----	2.367	6.32	1.174	76.5	150.8	36.7	0.320
3-8790	3-9390	0.330	231.6	-26.3	-3.26	0.771	64.6	0.428	1.649	116.5	322.9	----	2.356	4.07	1.177	79.1	189.4	31.2	0.272
3-8790	3-9400	0.320	233.2	-24.3	-2.08	0.773	65.4	0.417	1.656	115.4	331.5	----	2.346	3.07	1.181	81.7	148.0	29.3	0.236
3-8790	3-9410	0.314	234.3	-23.0	-1.35	0.774	65.9	0.409	1.661	114.5	340.5	----	2.340	2.51	1.184	84.0	144.5	29.3	0.208
3-8790	3-9420	0.310	234.9	-22.0	-0.83	0.775	66.1	0.405	1.664	114.0	349.9	----	2.338	2.18	1.187	87.1	138.1	30.5	0.191
3-8790	3-9430	0.310	235.3	-21.1	-0.41	0.775	66.1	0.404	1.667	113.8	359.6	----	2.341	1.98	1.189	89.9	129.1	31.7	0.187
3-8790	3-9440	0.314	235.3	-20.2	-0.06	0.775	65.9	0.409	1.668	114.0	369.8	0.986	2.350	1.86	1.192	92.9	119.8	32.1	0.193
3-8790	3-9450	0.322	235.0	-19.4	0.27	0.775	65.2	0.419	1.668	114.6	380.5	0.970	2.367	1.81	1.194	96.0	112.6	31.5	0.225
3-8790	3-9460	0.335	234.3	-18.6	0.59	0.775	64.2	0.435	1.667	115.7	391.7	0.941	2.393	1.82	1.195	99.5	108.6	30.5	0.267
3-8790	3-9460	0.235	121.7	22.1	0.59	0.458	103.1	0.520	1.125	192.8	828.8	0.540	1.710	1.82	1.067	120.6	54.9	22.6	0.562
3-8790	3-9460	0.514	96.2	24.8	0.59	0.631	132.8	0.723	1.246	207.2	843.3	0.345	2.147	1.82	1.107	135.1	46.6	19.8	0.827
3-8790	3-9470	0.356	233.2	-17.8	0.92	0.775	62.6	0.460	1.666	117.4	403.6	0.899	2.433	1.88	1.196	103.4	107.5	29.3	0.322
3-8790	3-9470	0.202	144.2	17.2	0.92	0.542	94.1	0.514	1.103	183.9	830.1	0.536	1.670	1.88	1.060	120.4	64.9	24.6	0.553
3-8790	3-9480	0.385	231.6	-16.9	1.29	0.775	60.3	0.496	1.664	119.8	416.2	0.839	2.490	2.02	1.197	107.9	108.3	28.3	0.393
3-8790	3-9480	0.218	164.4	10.3	1.29	0.531	86.2	0.533	1.088	176.6	883.0	0.508	1.669	2.02	1.056	121.8	74.3	25.8	0.574
3-8790	3-9490	0.427	229.4	-15.9	1.74	0.774	57.0	0.545	1.663	123.2	429.7	0.757	2.569	2.25	1.197	113.3	110.2	27.3	0.483
3-8790	3-9490	0.250	179.4	4.2	1.74	0.523	78.1	0.572	1.078	170.7	837.3	0.462	1.695	2.25	1.052	124.6	83.3	26.5	0.618
3-8790	3-9500	0.486	226.5	-14.8	2.32	0.774	52.3	0.612	1.661	127.9	444.7	0.645	2.677	2.64	1.197	120.0	112.6	26.5	0.598
3-8790	3-9500	0.334	189.1	-0.1	2.32	0.516	69.0	0.631	1.070	166.4	843.1	0.395	1.746	2.64	1.049	128.9	91.5	26.6	0.688
3-8790	3-9510	0.569	222.5	-13.5	3.17	0.774	45.5	0.700	1.660	134.6	461.6	0.497	2.823	3.31	1.196	128.6	114.7	25.7	0.748
3-8790	3-9510	0.404	194.5	-2.6	3.17	0.511	58.1	0.713	1.065	164.1	851.0	0.306	1.824	3.31	1.046	135.3	98.5	26.3	0.792
3-8790	3-9520	0.525	196.3	-3.7	4.67	0.509	44.5	0.817	1.062	164.7	861.8	0.194	1.929	4.64	1.042	44.7	104.0	25.8	0.941
3-8790	3-9560	0.565	120.8	18.3	-5.33	0.414	138.9	0.888	0.971	189.2	926.7	0.109	1.834	-6.00	0.992	27.4	20.1	5.7	1.054
3-8790	3-9570	0.527	173.4	1.4	-3.08	0.307	52.6	0.904	0.904	175.2	922.7	0.087	1.721	-3.92	0.950	25.5	31.7	11.2	1.058
3-8790	3-9570	0.432	127.4	15.8	-3.08	0.407	118.7	0.797	0.966	188.4	935.9	0.197	1.735	-3.92	0.986	37.2	25.1	7.6	0.901
3-8790	3-9580	0.512	80.8	21.5	-1.97	0.753	129.7	0.641	1.576	226.3	623.7	0.566	2.586	-2.98	1.170	55.6	12.8	0.9	0.681
3-8790	3-9580	0.383	161.2	6.2	-1.97	0.362	81.8	0.787	0.935	177.8	935.1	0.199	1.670	-2.98	0.966	38.2	34.8	11.8	0.875
3-8790	3-9580	0.363	154.0	8.9	-1.97	0.375	89.8	0.765	0.944	179.9	937.3	0.221	1.666	-2.98	0.971	40.1	33.7	11.2	0.848
3-8790	3-9590	0.438	77.3	21.6	-1.28	0.752	123.8	0.558	1.575	231.3	638.5	0.696	2.453	-2.46	1.167	63.0	15.2	1.4	0.550
3-8800	3-8870	0.594	64.6	20.9	-0.80	0.958	128.4	0.747	3.539	265.4	318.6	---	---	-2.21	1.307	72.4	0.2	-6.1	0.483
3-8800	3-8880	0.550	62.9	21.1	-0.38	0.942	125.7	0.702	3.198	268.0	330.8	---	---	-1.99	1.293	78.0	358.0	-7.8	0.395
3-8800	3-8890	0.518	62.0	21.4	-0.03	0.928	123.9	0.664	2.940	268.9	341.5	---	---	-1.86	1.281	82.6	354.6	-10.1	0.334
3-8800	3-8900	0.491	61.8	21.9	0.29	0.912	122.6	0.629	2.714	268.6	350.8	---	---	-1.79	1.268	86.4	350.4	-12.5	0.294
3-8800	3-8910	0.468	62.2	22.5	0.59	0.896	121.5	0.596	2.510	261.3	359.0	---	---	-1.77	1.255	89.6	346.3	-14.9	0.271
3-8800	3-8920	0.446	63.0	23.2	0.89	0.878	120.6	0.565	2.326	265.0	346.4	1.013	---	-1.81	1.241	92.3	342.8	-16.6	0.261
3-8800	3-8930	0.425	64.2	24.0	1.21	0.859	119.7	0.534	2.163	262.2	373.1	1.007	---	-1.90	1.227	94.6	340.8	-17.8	0.259
3-8800	3-8940	0.405	65.6	25.0	1.57	0.840	118.8	0.506	2.019	258.8	370.3	0.998	---	-2.06	1.213	96.4	340.6	-18.4	0.263
3-8800	3-8950	0.384	67.2	26.2	2.02	0.820	117.9	0.480	1.895	255.0	385.0	0.986	---	-2.31	1.200	98.0	342.1	-18.7	0.269
3-8800	3-8960	0.363	69.0	27.8	2.61	0.801	116.9	0.456	1.788	250.8	390.3	0.973	---	-2.73	1.187	99.4	345.0	-19.0	0.277
3-8800	3-8970	0.343	71.1	30.1	3.49	0.781	115.7	0.434	1.695	246.3	395.3	0.959	---	-3.45	1.175	100.5	349.4	-19.9	0.286
3-8800	3-8980	0.325	73.4	34.0	5.06	0.763	114.5	0.416	1.615	241.6	400.1	0.944	---	-4.86	1.163	101.5	355.4	-22.5	0.300
3-8800	3-8990	0.317	76.5	43.2	8.99	0.744	113.1	0.399	1.546	236.6	404.7	0.929	---	-8.64	1.153	102.3	4.6	-31.6	0.333
3-8800	3-9000	0.560	130.4	73.0	40.52	0.727	111.6	0.385	1.487	231.5	408.7	0.915	---	-40.02	1.143	103.0	19.2	-75.6	0.778
3-8800	3-9010	0.297	87.7	-5.3	-12.57	0.710	110.2	0.376	1.435	226.1	412.9	0.895	---	13.22	1.135	104.0	340.7	35.8	0.391
3-8800	3-9020	0.241	88.4	9.8	-5.14	0.693	108.4	0.368	1.389	220.7	418.1	0.878	---	5.94	1.127	104.7	0.8	22.0	0.334
3-8800	3-9030	0.214	92.5	15.1	-2.93	0.678	106.6	0.363	1.349	215.2	422.3	0.860	---	3.89	1.120	105.4	10.9	18.6	0.332
3-8800	3-9040	0.193	98.1	17.7	-1.83	0.663	104.5	0.361	1.314	209.6	426.5	0.840	---	2.95	1.114	106.1	19.2	18.3	0.338
3-8800	3-9050	0.173	105.5	19.0	-1.13	0.649	102.3	0.361	1.283	203.9	430.7	0.819	---	2.43	1.108	107.0	27.2	19.2	0.347
3-8800	3-9060	0.156	114.8	19.4	-0.63	0.636	99.9	0.365	1.255	198.3	435.0	0.797	---	2.12	1.103	107.9	35.1	20.6	0.359
3-8800	3-9070	0.143	126.6	18.6	-0.23	0.623	97.3	0.373	1.231	192.6	439.4	0.772	---	1.93	1.098	108.9	43.1	22.1	0.374
3-8800	3-9080	0.137	140.7	16.3	0.12	0.611	94.4	0.385	1.209	187.1	443.9	0.743	---	1.82	1.093	110.2	51.3	23.6	0.392
3-8800	3-9090	0.139	155.9	12.3	0.44	0.599	91.1	0.402	1.189	181.7	448.6	0.711	---	1.77	1.089	111.7	59.6	24.9	0.414
3-8800	3-9100	0.152	170.2	7.5	0.75	0.589	87.4	0.425	1.171	176.5	453.5	0.674	1.668	1.79	1.084	113.5	68.0	26.0	0.443
3-8800	3-9110	0.178	183.2	2.8	1.08	0.579	83.1	0.455	1.155	171.6	458.8	0.629	1.681	1.85	1.080	115.8	76.4	26.6	0.479
3-8800	3-9120	0.217	191.5	-1.0	1.45	0.569	78.0	0.496	1.141	167.3	464.6	0.575	1.706	2.00	1.076	118.7	84.7	26.9	0.526
3-8800	3-9130	0.270	198.1	-3.8	1.89	0.561	71.9	0.549	1.128	163.6	471.2	0.509	1.748	2.24	1.071	122.6	92.6	26.9	0.589
3-8800	3-9140	0.341	202.4	-9.7	2.48	0.553	64.2	0.620	1.118	161.2	478.9	0.425	1.811	2.64	1.067	127.8	99.8	26.4	0.674
3-8800	3-9150	0.435	204.5	-6.8	3.36	0.548	54.3	0.711	1.110	160.5	488.4	0.321	1.900	3.34	1.064	134.9	106.0	25.8	0.792
3-8800	3-9160	0.559	204.1	-6.9	4.93	0.545	41.3	0.822	1.106	162.6	500.7	0.197	2.016	4.74	1.061	145.0	110.7	25.1	0.954
3-8800	3-9200	0.530	157.6	7.6	-4.80	0.209	93.2	0.928	0.864	180.3	558.7	0.063	1.666	-5.61	0.924	22.2	29.8	10.3	1.093
3-8800	3-9200	0.524	187.2	14.4	-4.80	0.323	128.2	0.897	0.912	185.4	563.8	0.094	1.730	-5.61	0.956	26.4	26.8	8.7	1.050

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8800	3-9280	0.580	219.6	-15.2	0.73	0.713	43.0	0.739	1.446	145.1	241.4	---	2.515	-1.78	1.131	44.9	85.0	21.7	0.832
3-8800	3-9290	0.548	221.8	-15.5	1.04	0.721	45.9	0.702	1.471	141.9	247.8	---	2.503	-1.84	1.135	48.5	92.1	21.4	0.770
3-8800	3-9300	0.518	224.0	-15.6	1.37	0.729	48.7	0.666	1.494	138.8	254.2	---	2.489	-1.96	1.140	52.0	99.0	20.7	0.711
3-8800	3-9310	0.490	226.1	-15.6	1.77	0.736	51.2	0.631	1.517	135.7	260.7	---	2.474	-2.16	1.145	55.3	105.7	19.5	0.654
3-8800	3-9320	0.464	228.2	-15.3	2.27	0.742	53.6	0.598	1.538	132.9	267.4	---	2.457	-2.48	1.148	58.4	112.2	17.8	0.600
3-8800	3-9330	0.440	230.2	-14.6	2.97	0.747	55.7	0.567	1.558	130.1	274.1	---	2.440	-3.02	1.152	61.5	118.2	15.2	0.548
3-8800	3-9340	0.419	232.3	-13.0	4.10	0.752	57.6	0.538	1.576	127.5	281.1	---	2.423	-3.98	1.156	64.4	123.5	11.3	0.499
3-8800	3-9350	0.404	234.5	-9.3	6.38	0.757	59.3	0.511	1.592	125.1	288.2	---	2.406	-6.11	1.160	67.3	127.8	4.1	0.459
3-8800	3-9360	0.416	236.7	3.5	14.32	0.760	60.9	0.488	1.606	122.9	295.5	---	2.390	-13.90	1.164	70.0	130.2	-16.8	0.472
3-8800	3-9370	0.557	194.3	-55.6	-35.05	0.763	62.4	0.464	1.619	120.8	303.8	---	2.370	35.62	1.168	73.0	213.1	56.9	0.733
3-8800	3-9380	0.360	231.6	-34.4	-7.62	0.766	63.5	0.447	1.630	119.1	311.4	---	2.358	8.34	1.172	75.5	157.3	40.0	0.348
3-8800	3-9390	0.339	235.5	-28.3	-3.86	0.768	64.5	0.431	1.639	117.5	319.5	---	2.346	4.74	1.176	78.1	154.0	31.5	0.288
3-8800	3-9400	0.327	237.3	-25.6	-2.33	0.770	65.2	0.419	1.646	116.3	328.1	---	2.335	3.37	1.179	80.7	152.8	28.4	0.248
3-8800	3-9410	0.319	238.5	-24.1	-1.46	0.771	65.8	0.410	1.651	115.3	336.9	---	2.328	2.67	1.182	83.3	150.3	27.7	0.217
3-8800	3-9420	0.314	239.3	-23.0	-0.88	0.772	66.2	0.404	1.656	114.6	345.2	---	2.324	2.26	1.185	86.0	148.1	28.6	0.195
3-8800	3-9430	0.313	239.8	-22.0	-0.43	0.773	66.3	0.402	1.658	114.3	355.8	---	2.325	2.02	1.188	88.8	147.1	30.1	0.185
3-8800	3-9440	0.315	239.9	-21.2	-0.08	0.773	66.1	0.404	1.660	114.3	365.8	0.989	2.331	1.87	1.191	91.7	147.7	31.1	0.190
3-8800	3-9450	0.321	239.7	-20.4	0.27	0.774	65.7	0.412	1.661	114.7	376.3	0.976	2.345	1.79	1.193	94.7	149.5	31.0	0.211
3-8800	3-9460	0.332	239.1	-19.6	0.58	0.773	64.8	0.426	1.660	115.6	387.3	0.953	2.367	1.77	1.194	98.1	151.3	30.2	0.247
3-8800	3-9460	0.291	114.4	23.1	0.58	0.572	111.3	0.558	1.145	199.3	831.0	0.507	1.784	1.77	1.075	123.0	53.9	22.0	0.607
3-8800	3-9460	0.42.	103.5	24.1	0.58	0.607	125.2	0.657	1.202	206.1	837.8	0.413	1.992	1.77	1.094	130.0	50.9	20.7	0.734
3-8800	3-9470	0.336	138.2	-18.9	0.90	0.773	63.4	0.447	1.659	117.0	398.9	0.917	2.401	1.81	1.195	101.8	112.2	29.1	0.296
3-8800	3-9470	0.215	138.2	18.9	0.90	0.546	98.9	0.521	1.108	188.3	830.2	0.531	1.685	1.81	1.062	120.8	64.9	24.4	0.561
3-8800	3-9470	0.560	101.7	24.2	0.90	0.639	137.4	0.767	1.262	206.2	548.0	0.294	2.229	1.81	1.113	138.9	56.7	21.4	0.892
3-8800	3-9480	0.375	236.8	-18.1	1.25	0.773	61.5	0.478	1.657	119.1	411.1	0.865	2.449	1.91	1.196	106.0	112.3	28.0	0.360
3-8800	3-9480	0.206	160.0	12.1	1.25	0.532	90.9	0.528	1.090	180.3	832.3	0.515	1.666	1.91	1.056	121.4	74.7	25.8	0.568
3-8800	3-9490	0.411	234.8	-17.3	1.65	0.772	58.6	0.521	1.656	122.0	424.2	0.793	2.518	2.09	1.196	110.9	113.9	27.0	0.441
3-8800	3-9490	0.232	177.4	5.2	1.65	0.522	82.3	0.557	1.078	173.7	835.9	0.478	1.678	2.09	1.052	123.5	84.0	26.4	0.599
3-8800	3-9500	0.462	232.2	-16.4	2.15	0.772	54.6	0.580	1.654	126.0	438.4	0.695	2.613	2.40	1.196	117.0	116.2	26.0	0.544
3-8800	3-9500	0.285	189.4	-0.1	2.15	0.515	73.6	0.606	1.069	168.6	841.0	0.422	1.716	2.40	1.048	127.0	92.6	26.5	0.656
3-8800	3-9510	0.534	228.7	-15.3	2.85	0.772	48.8	0.659	1.653	131.7	454.3	0.560	2.741	2.92	1.195	124.6	118.5	25.2	0.677
3-8800	3-9510	0.364	196.6	-3.4	2.85	0.509	63.5	0.677	1.082	165.2	847.8	0.344	1.781	2.92	1.045	132.4	100.3	26.1	0.743
3-8800	3-9520	0.471	199.9	-5.0	3.97	0.505	51.1	0.771	1.050	164.4	857.1	0.242	1.874	3.87	1.042	140.3	106.5	25.6	0.870
3-8800	3-9570	0.568	177.8	-0.5	-3.62	0.286	46.2	0.931	0.894	175.8	918.9	0.061	1.727	-4.52	0.943	21.5	33.6	12.0	1.111
3-8800	3-9570	0.480	129.5	16.4	-3.62	0.403	126.6	0.836	0.963	188.9	932.0	0.158	1.768	-4.52	0.985	33.3	26.9	8.4	0.960
3-8800	3-9580	0.545	87.8	21.8	-2.20	0.750	133.0	0.683	1.569	223.2	616.2	0.497	2.640	-3.25	1.168	51.6	15.9	2.5	0.749
3-8800	3-9580	0.451	173.4	1.3	-2.20	0.328	68.2	0.848	0.915	175.8	928.8	0.139	1.691	-3.25	0.954	32.1	38.1	13.2	0.962
3-8800	3-9580	0.376	144.8	12.0	-2.20	0.386	104.2	0.769	0.951	184.4	937.4	0.220	1.682	-3.25	0.975	39.8	33.7	11.0	0.855
3-8800	3-9590	0.460	83.8	22.0	-1.38	0.750	126.0	0.590	1.567	229.0	631.9	0.642	2.492	-2.61	1.166	59.9	18.2	3.0	0.602
3-8800	3-9600	0.398	80.9	22.4	-0.82	0.749	121.1	0.519	1.565	232.8	645.4	0.753	2.377	-2.23	1.163	66.3	20.8	3.5	0.491
3-8810	3-8870	0.716	65.4	21.1	-0.85	1.076	132.0	0.96	122.973	273.8	322.6	---	---	-2.30	1.396	71.7	356.0	-7.6	0.564
3-8810	3-8880	0.651	64.0	21.3	-0.39	1.039	129.0	0.884	8.266	275.6	334.1	---	---	-2.02	1.366	77.8	353.5	-9.2	0.459
3-8810	3-8890	0.604	63.4	21.7	-0.03	1.010	127.0	0.820	5.522	275.9	344.1	---	---	-1.86	1.342	82.8	350.1	-11.2	0.388
3-8810	3-8900	0.567	63.6	22.1	0.29	0.983	125.5	0.764	4.274	275.1	353.0	---	---	-1.77	1.320	87.0	346.2	-13.3	0.342
3-8810	3-8910	0.536	64.2	22.7	0.59	0.958	124.3	0.713	3.527	273.4	360.8	1.014	---	-1.73	1.300	90.5	342.5	-15.2	0.315
3-8810	3-8920	0.508	65.2	23.4	0.88	0.932	123.3	0.665	3.017	270.9	367.9	1.011	---	-1.74	1.280	93.2	339.7	-16.5	0.302
3-8810	3-8930	0.481	66.6	24.1	1.18	0.907	122.4	0.621	2.647	267.9	374.4	1.004	---	-1.80	1.261	95.5	338.4	-17.3	0.297
3-8810	3-8940	0.455	68.1	25.0	1.51	0.882	121.5	0.580	2.366	264.3	380.4	0.993	---	-1.92	1.243	97.5	338.6	-17.6	0.298
3-8810	3-8950	0.430	69.9	26.0	1.90	0.858	120.5	0.544	2.148	260.4	386.0	0.981	---	-2.12	1.225	99.1	340.3	-17.5	0.301
3-8810	3-8960	0.405	71.8	27.3	2.40	0.833	119.5	0.511	1.975	256.0	391.2	0.987	---	-2.45	1.209	100.4	343.4	-17.4	0.306
3-8810	3-8970	0.381	74.0	29.0	3.10	0.810	118.3	0.481	1.836	251.5	396.1	0.952	---	-2.99	1.194	101.6	347.7	-17.5	0.312
3-8810	3-8980	0.358	76.3	31.8	4.24	0.788	117.1	0.456	1.722	246.6	400.8	0.937	---	-3.97	1.180	102.5	353.2	-18.7	0.321
3-8810	3-8990	0.339	79.2	37.2	6.62	0.766	115.7	0.434	1.628	241.6	405.4	0.921	---	-6.20	1.167	103.3	0.7	-23.1	0.336
3-8810	3-9000	0.359	86.3	54.4	15.52	0.745	114.2	0.415	1.542	236.3	409.6	0.906	---	-14.96	1.155	104.0	13.6	-42.2	0.422
3-8810	3-9010	0.438	97.5	-21.4	-27.65	0.726	112.7	0.402	1.483	230.9	414.5	0.887	---	28.36	1.145	104.9	313.5	46.2	0.610
3-8810	3-9020	0.270	90.5	7.1	-6.81	0.707	110.9	0.389	1.426	225.4	418.4	0.871	---	7.67	1.135	105.4	358.2	25.4	0.361
3-8810	3-9030	0.238	93.9	14.4	-3.45	0.689	109.0	0.381	1.378	219.8	422.6	0.853	---	4.46	1.127	106.0	10.1	19.6	0.348
3-8810	3-9040	0.213	99.0	17.6	-2.04	0.673	107.0	0.375	1.336	214.1	426.7	0.835	---	3.21	1.119	106.7	19.0	18.7	0.351
3-8810	3-9050	0.191	105.5	19.1	-1.22	0.657	104.8	0.373	1.299	208.3	430.8	0.815	---	2.56	1.112	107.4	27.1	19.3	0.357
3-8810	3-9060	0.172	113.8	19.7	-0.66	0.642	102.4	0.374	1.268	202.6	435.0	0.794	---	2.18	1.106	108.2	35.1	20.6	0.366
3-8810	3-9070	0.155	124.3	19.2	-0.24	0.628	99.7	0.379	1.239	196.8	439.2	0.770	---	1.95	1.100	109.2	43.2	22.1	0.378
3-8810	3-9080	0.144	137.1	17.4	0.12	0.614	96.9	0.388	1.214	191.1	443.6	0.744	---	1.81	1.095	110.3	51.5	23.6	0.394
3-8810	3-9090	0.141	151.6	13.9	0.44	0.602	93.7	0.401	1.192	185.5	448.1	0.714	---	1.74	1.090	111.6	59.9	24.9	0.413
3-8810	3-9100	0.148	166.7	9.1	0.75	0.590	90.1	0.420	1.172	180.1	452.8	0.680	---	1.73	1.085	113.2	68.4	25.9	0.437
3-8810	3-9110	0.168	180.0	4.0	1.06	0.579	86.0	0.446	1.155	175.0	457.8	0.639	1.670	1.77	1.080	115.2	77.0	26.6	0.468
3-8810	3-9120	0.200	190.8	-0.5	1.40	0.568	81.2	0.481	1.139	170.2	463.2	0.591	1.688	1.88	1.075	117.8	85.4	26.9	0.509
3-8810	3-9130	0.247	198.8	-3.9	1.79	0.559	75.4	0.528	1.125	166.1	469.3	0.531	1.720	2.06	1.070	121.1	93.5	26.8	0.563
3-8810	3-9140	0.309	204.3	-6.3	2.30	0.551	68.4	0.590	1.114	162.9	476.3	0.457	1.771	2.38	1.066	125.6	101.2	26.3	0.636
3-8810	3-9150	0.392	207.5	-7.8	3.00	0.544	59.4	0.671	1.105	161.2	484.8	0.364	1.845	2.91	1.061	131.7	107.9	25.6	0.737
3-8810	3-9160	0.502	208.4	-8.4	4.16	0.539	47.8	0.773	1.099	161.8	495.5	0.249	1.948	3.90	1.058	140.4	113.3	24.	0.876
3-8810	3-9200	0.575	161.1	6.3	-6.24	0.166	98.6	0.955	0.852	180.4	554.5	0.038	1.666	-7.11	0.915	17.5	32.1	11.2	1.152
3-8810	3-9200	0.578	141.9	13.0	-6.24	0.301	137.6	0.934	0.901	184.6	558.7	0.059	1.742	-7.11	0.949	21.0	29.5	9.8	1.123
3-8810	3-9280	0.597	223.1	-16.3	0.72	0.707	41.8	0.754	1.427	146.7	238.6	---	2.502	-1.73	1.127	43.4	86.4	21.8	0.855
3-8810	3-9290	0.564	225.3	-16.6	1.02	0.716	44.9	0.716	1.452	143.4	245.0	---	2.492	-1.76	1.132	47.1	93.5	21.6	0.793
3-8810	3-9300	0.533	227.5	-16.8	1.33	0.724	47.7	0.679	1.476	140.3	251.3	---	2.479	-1.85	1.136	50.6	100.5	20.9	0.733
3-8810	3-9310	0.504	229.6	-16.8	1.69	0.731	50.4	0.643	1.500	137.2	257.8	---	2.464	-2.01	1.140	54.0	107.2	19.7	0.675
3-8810	3-9320	0.478	231.7	-16.6	2.12	0.737	52.8	0.609	1.521	134.3	264.4	---	2.449	-2.26	1.145	57.2	113.7	18.1	0.619
3-8810	3-9330	0.453	233.8	-16.0	2.70	0.743	55.0	0.577	1.542	131.5	271.2	---	2.432	-2.67	1.149	60.3	119.9	15.8	0.566
3-8810	3-9340	0.431	235.8	-14.9	3.56	0.748	57.0	0.547	1.561	128.9	278.1	---	2.415	-3.37	1.153	63.3	125.4	12.5	0.516
3-8810	3-9350	0.412	237.9	-12.4	5.11	0.753	58.8	0.520	1.576	126.4	285.2	---	2.398	-4.77	1.158	66.2	130.2	7.2	0.471

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8810	3-9360	0.404	240.0	-5.9	9.05	0.757	60.4	0.495	1.593	124.1	292.5	---	2.381	-8.56	1.162	69.0	133.2	-4.7	0.444
3-8810	3-9380	0.384	232.5	-41.3	-11.73	0.763	63.2	0.452	1.618	120.1	308.1	---	2.349	12.51	1.170	74.5	168.4	46.5	0.400
3-8810	3-9390	0.348	239.3	-30.6	-4.77	0.766	64.2	0.435	1.627	118.5	316.2	---	2.336	5.70	1.174	77.1	158.8	32.5	0.306
3-8810	3-9400	0.334	241.5	-27.0	-2.67	0.768	65.1	0.421	1.635	117.2	324.6	---	2.325	3.75	1.177	79.7	157.4	27.7	0.261
3-8810	3-9410	0.325	242.8	-25.1	-1.61	0.769	65.8	0.411	1.642	116.1	333.3	---	2.316	2.85	1.181	82.3	155.6	26.2	0.226
3-8810	3-9420	0.319	243.7	-23.8	-0.94	0.770	66.2	0.403	1.646	115.3	342.4	---	2.311	2.36	1.184	85.0	151.6	26.6	0.201
3-8810	3-9430	0.317	244.2	-22.9	-0.45	0.771	66.4	0.400	1.650	114.8	351.9	---	2.309	2.04	1.187	87.7	144.8	28.1	0.186
3-8810	3-9440	0.317	244.4	-22.0	-0.06	0.772	66.4	0.401	1.652	114.7	361.8	0.990	2.313	1.81	1.189	90.5	135.8	29.5	0.185
3-8810	3-9450	0.322	244.3	-21.2	0.27	0.772	66.0	0.406	1.653	114.9	372.2	0.982	2.324	1.77	1.191	93.5	126.9	30.1	0.199
3-8810	3-9460	0.331	243.9	-20.5	0.58	0.772	65.3	0.417	1.653	115.6	382.9	0.963	2.342	1.73	1.193	96.7	120.5	29.7	0.229
3-8810	3-9470	0.345	243.1	-19.8	0.89	0.772	64.2	0.435	1.652	116.8	394.2	0.933	2.370	1.74	1.194	100.2	117.2	28.7	0.273
3-8810	3-9470	0.243	131.7	20.4	0.89	0.554	104.7	0.537	1.118	193.5	830.9	0.578	1.718	1.74	1.066	121.8	64.6	24.1	0.580
3-8810	3-9470	0.496	107.5	23.8	0.89	0.622	132.2	0.721	1.228	206.4	843.9	0.342	2.114	1.74	1.103	135.1	58.6	22.0	0.823
3-8810	3-9480	0.367	241.9	-19.1	1.21	0.771	62.5	0.462	1.650	118.5	406.1	0.888	2.412	1.81	1.195	104.2	116.6	27.7	0.330
3-8810	3-9480	0.209	154.6	14.1	1.21	0.535	94.8	0.528	1.094	184.4	832.0	0.517	1.671	1.81	1.058	121.4	74.9	25.6	0.567
3-8810	3-9490	0.398	240.2	-18.4	1.58	0.771	60.1	0.499	1.648	121.0	418.8	0.826	2.471	1.95	1.195	108.7	117.7	26.6	0.403
3-8810	3-9490	0.220	174.4	6.6	1.58	0.524	86.5	0.546	1.079	177.1	834.9	0.490	1.668	1.95	1.052	122.7	84.6	26.3	0.586
3-8810	3-9500	0.402	237.9	-17.7	2.02	0.771	56.6	0.551	1.647	124.4	432.4	0.740	2.554	2.19	1.194	114.2	119.8	25.5	0.496
3-8810	3-9500	0.262	188.7	0.4	2.02	0.515	78.0	0.585	1.068	171.2	839.2	0.443	1.693	2.19	1.048	125.5	93.5	26.4	0.630
3-8810	3-9510	0.504	234.8	-16.8	2.60	0.770	51.6	0.621	1.645	129.3	447.5	0.624	2.666	2.59	1.194	121.1	122.1	24.6	0.614
3-8810	3-9510	0.329	197.9	-3.7	2.60	0.508	68.5	0.645	1.060	166.9	845.1	0.376	1.744	2.59	1.044	130.0	101.7	26.0	0.702
3-8810	3-9520	0.591	230.6	-13.7	3.47	0.770	44.5	0.713	1.645	136.2	464.5	0.472	2.817	3.29	1.193	130.0	124.1	23.8	0.769
3-8810	3-9520	0.423	203.0	-6.1	3.47	0.503	57.1	0.729	1.055	164.7	853.1	0.286	1.823	3.29	1.040	134.7	108.6	25.3	0.809
3-8810	3-9530	0.547	209.4	-7.0	5.05	0.500	42.8	0.834	1.052	165.6	864.0	0.175	1.929	4.71	1.038	146.4	113.8	24.5	0.963
3-8810	3-9570	0.534	132.9	15.6	-4.42	0.398	135.0	0.878	0.959	188.6	927.4	0.117	1.802	-5.37	0.983	28.6	29.1	9.3	1.030
3-8810	3-9580	0.584	95.1	21.7	-2.50	0.748	136.8	0.730	1.560	219.6	608.2	0.421	2.698	-3.60	1.167	47.1	19.2	4.1	0.826
3-8810	3-9580	0.502	179.9	-1.4	-2.50	0.303	59.9	0.888	0.902	175.7	924.4	0.101	1.702	-3.60	0.945	27.6	40.4	14.1	1.025
3-8810	3-9580	0.411	142.7	12.8	-2.50	0.388	113.5	0.795	0.952	186.6	935.3	0.195	1.708	-3.60	0.976	37.4	34.8	11.4	0.892
3-8810	3-9590	0.486	90.5	22.2	-1.51	0.748	128.7	0.627	1.559	226.5	625.0	0.582	2.537	-2.77	1.164	56.5	21.1	4.5	0.661
3-8810	3-9600	0.415	87.2	22.6	-0.88	0.748	122.9	0.546	1.558	231.0	639.3	0.707	2.408	-2.31	1.162	63.6	23.7	5.1	0.535
3-8810	3-9610	0.362	84.9	23.2	-0.41	0.747	118.8	0.485	1.555	233.9	651.9	0.801	2.309	-2.04	1.159	69.1	26.4	5.5	0.439
3-8820	3-8880	0.783	65.2	21.5	-0.41	1.169	132.2	1.159	-0.053	282.4	336.5	---	---	-2.06	1.467	77.4	349.5	-10.3	0.554
3-8820	3-8890	0.714	64.9	21.9	-0.03	1.117	129.9	1.045	21.983	282.3	346.1	---	---	-1.86	1.423	82.9	346.3	-12.0	0.464
3-8820	3-8900	0.661	65.3	22.4	0.30	1.074	128.2	0.951	20.704	281.2	356.6	---	---	-1.74	1.389	87.4	342.7	-13.8	0.408
3-8820	3-8910	0.618	66.2	22.9	0.59	1.036	127.0	0.869	7.753	279.2	362.2	1.013	---	-1.68	1.358	91.0	339.6	-15.2	0.373
3-8820	3-8920	0.580	67.4	23.6	0.87	1.000	126.0	0.797	4.963	276.5	369.1	1.009	---	-1.67	1.330	94.0	337.4	-16.2	0.354
3-8820	3-8930	0.545	68.9	24.2	1.16	0.967	125.1	0.732	3.733	275.3	375.4	1.001	---	-1.71	1.304	96.5	336.5	-16.7	0.345
3-8820	3-8940	0.513	70.7	25.0	1.46	0.934	124.1	0.674	3.034	269.6	381.3	0.989	---	-1.80	1.280	98.5	337.1	-16.8	0.341
3-8820	3-8950	0.482	72.6	25.9	1.81	0.903	123.1	0.623	2.586	265.5	386.7	0.975	---	-1.95	1.257	100.2	339.0	-16.5	0.341
3-8820	3-8960	0.452	74.6	26.9	2.24	0.873	122.1	0.578	2.275	261.1	391.9	0.960	---	-2.21	1.236	101.6	342.2	-16.0	0.342
3-8820	3-8970	0.424	76.9	28.3	2.81	0.845	120.9	0.539	2.047	256.4	396.8	0.945	---	-2.62	1.217	102.7	346.4	-15.7	0.344
3-8820	3-8980	0.396	79.3	30.2	3.68	0.818	119.7	0.504	1.875	251.5	401.4	0.929	---	-3.33	1.200	103.6	351.7	-15.8	0.348
3-8820	3-8990	0.371	82.0	33.7	5.26	0.792	118.3	0.475	1.740	246.4	405.9	0.913	---	-4.76	1.184	104.4	358.2	-17.8	0.355
3-8820	3-9000	0.357	86.1	42.3	9.44	0.768	116.8	0.450	1.633	241.1	410.2	0.898	---	-8.89	1.169	105.0	7.6	-26.3	0.382
3-8820	3-9020	0.311	93.3	1.8	-10.17	0.724	113.4	0.414	1.474	230.1	418.8	0.863	---	11.09	1.145	106.3	352.8	31.4	0.406
3-8820	3-9030	0.264	95.7	13.3	-4.23	0.704	111.5	0.401	1.414	224.4	422.8	0.847	---	5.30	1.135	106.8	9.1	21.1	0.368
3-8820	3-9040	0.236	100.3	17.3	-2.32	0.685	109.4	0.392	1.364	218.6	426.8	0.829	---	3.54	1.126	107.3	18.6	19.2	0.366
3-8820	3-9050	0.212	106.1	19.1	-1.34	0.667	107.2	0.387	1.320	212.8	430.9	0.810	---	2.71	1.118	108.0	27.0	19.5	0.369
3-8820	3-9060	0.190	113.4	19.8	-0.71	0.650	104.8	0.385	1.283	206.9	435.0	0.790	---	2.25	1.110	108.7	35.1	20.7	0.376
3-8820	3-9070	0.170	122.7	19.6	-0.25	0.634	102.2	0.386	1.250	201.1	439.1	0.767	---	1.97	1.104	109.5	43.3	22.1	0.385
3-8820	3-9080	0.155	134.2	18.2	0.12	0.620	99.4	0.392	1.222	195.2	443.3	0.743	---	1.80	1.097	110.4	51.6	23.6	0.397
3-8820	3-9090	0.147	148.0	15.2	0.44	0.606	96.3	0.402	1.197	189.5	447.6	0.715	---	1.71	1.091	111.6	60.1	24.9	0.413
3-8820	3-9100	0.148	162.8	10.7	0.74	0.593	92.8	0.418	1.175	183.9	452.2	0.684	---	1.67	1.086	113.0	68.7	25.9	0.434
3-8820	3-9110	0.161	177.1	5.4	1.04	0.580	88.8	0.440	1.156	178.5	456.9	0.647	1.664	1.69	1.080	114.8	77.4	26.6	0.460
3-8820	3-9120	0.187	189.3	0.4	1.36	0.569	84.2	0.470	1.138	173.4	462.1	0.603	1.673	1.76	1.075	117.0	86.0	26.8	0.495
3-8820	3-9130	0.226	198.7	-3.6	1.71	0.558	78.8	0.510	1.123	168.9	467.7	0.550	1.696	1.91	1.069	119.9	94.4	26.7	0.541
3-8820	3-9140	0.281	205.6	-6.6	2.15	0.549	72.3	0.564	1.110	165.1	474.1	0.484	1.736	2.15	1.064	123.8	102.3	26.1	0.604
3-8820	3-9150	0.355	210.0	-8.5	2.73	0.541	64.2	0.635	1.099	162.5	481.7	0.401	1.798	2.56	1.059	129.0	109.5	25.3	0.690
3-8820	3-9160	0.452	212.1	-9.6	3.61	0.535	53.7	0.727	1.092	161.8	491.1	0.298	1.885	3.28	1.055	136.4	115.6	24.4	0.804
3-8820	3-9170	0.580	211.7	-9.9	5.25	0.532	39.9	0.839	1.088	164.0	503.4	0.176	2.000	4.76	1.052	146.8	120.0	23.4	0.975
3-8820	3-9290	0.580	228.9	-17.6	1.00	0.710	43.8	0.730	1.433	145.0	242.1	---	2.480	-1.68	1.128	45.6	94.9	21.7	0.816
3-8820	3-9300	0.549	231.1	-17.8	1.30	0.719	46.8	0.693	1.458	141.8	248.5	---	2.468	-1.74	1.132	49.2	101.9	21.0	0.755
3-8820	3-9310	0.519	233.3	-17.8	1.62	0.726	49.5	0.656	1.482	138.7	254.9	---	2.454	-1.86	1.137	52.6	108.8	19.9	0.696
3-8820	3-9320	0.492	235.4	-17.7	2.00	0.733	52.0	0.622	1.504	135.7	261.5	---	2.439	-2.06	1.141	55.9	115.3	18.3	0.640
3-8820	3-9330	0.466	237.4	-17.3	2.48	0.739	54.3	0.588	1.525	132.9	268.2	---	2.423	-2.38	1.146	59.1	121.5	16.2	0.585
3-8820	3-9340	0.443	239.4	-16.4	3.17	0.745	56.4	0.558	1.545	130.2	275.1	---	2.406	-2.90	1.150	62.1	127.3	13.3	0.534
3-8820	3-9350	0.422	241.4	-14.7	4.29	0.750	58.3	0.529	1.563	127.7	282.1	---	2.389	-3.87	1.155	65.0	132.4	9.1	0.486
3-8820	3-9360	0.407	243.3	-10.8	6.63	0.754	60.0	0.503	1.579	125.3	289.3	---	2.373	-6.07	1.159	67.9	136.2	1.3	0.447
3-8820	3-9370	0.427	244.5	3.4	15.66	0.758	61.4	0.479	1.593	123.2	296.7	---	2.357	-14.96	1.164	70.6	137.2	-22.3	0.473
3-8820	3-9380	0.477	220.3	-55.4	-25.11	0.761	62.9	0.457	1.605	121.2	305.0	---	2.339	25.96	1.168	73.5	201.8	55.4	0.584
3-8820	3-9390	0.360	242.8	-33.9	-6.30	0.764	64.0	0.439	1.616	119.5	312.8	---	2.326	7.29	1.172	76.1	164.4	34.8	0.330
3-8820	3-9400	0.342	245.6	-28.5	-3.14	0.766	64.9	0.424	1.624	118.0	321.1	---	2.314	4.27	1.176	78.7	161.8	27.4	0.276
3-8820	3-9410	0.332	247.1	-26.1	-1.79	0.768	65.7	0.412	1.631	116.8	329.7	---	2.304	3.08	1.179	81.3	160.5	24.7	0.238
3-8820	3-9420	0.325	248.1	-24.6	-1.01	0.769	66.2	0.404	1.637	115.9	338.7	---	2.298	2.46	1.183	83.9	157.6	24.5	0.208
3-8820	3-9430	0.321	248.7	-23.6	-0.48	0.770	66.5	0.399	1.641	115.3	348.1	---	2.295	2.10	1.185	86.6	152.0	25.7	0.189
3-8820	3-9440	0.320	249.0	-22.7	-0.06	0.770	66.6	0.397	1.643	115.1	357.8	---	2.296	1.88	1.188	89.4	143.8	27.4	0.182
3-8820	3-9450	0.323	249.0	-21.9	0.28	0.771	66.4	0.401	1.645	115.1	368.0	0.985	2.304	1.75	1.190	92.3	134.7	28.6	0.190
3-8820	3-9460	0.330	248.7	-21.2	0.59	0.771	65.8	0.410	1.645	115.6	378.6	0.971	2.318	1.68	1.192	95.4	127.2	28.7	0.213
3-8820	3-9470	0.342	248.0	-20.6	0.89	0.771	64.9	0.424	1.644	116.6	389.7	0.946	2.342	1.67	1.193	98.7	122.7	28.3	0.251
3-8820	3-9470	0.314	122.9	22.0	0.89	0.573	114.6	0.586	1.145	200.7	833.8	0.474	1.815	1.67	1.076	125.1	63.3	23.5	0.640

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8820	3-9470	0.391	116.3	22.9	0.89	0.594	122.8	0.643	1.178	204.6	837.7	0.420	1.935	1.67	1.087	129.1	61.5	22.9	0.714
3-8820	3-9480	0.361	247.0	-20.0	1.19	0.770	[illegible]	0.447	1.643	118.0	401.3	0.908	2.378	1.72	1.193	102.5	121.1	27.1	0.303
3-8820	3-9480	0.221	148.6	16.1	1.19	0.541	94.8	0.534	1.099	188.8	832.1	0.513	1.686	1.72	1.060	121.8	74.9	25.4	0.574
3-8820	3-9480	0.547	112.8	23.3	1.19	0.632	137.2	0.768	1.245	205.5	848.8	0.289	2.202	1.72	1.109	139.1	67.0	23.2	0.891
3-8820	3-9490	0.387	245.5	-19.4	1.52	0.770	61.3	0.480	1.641	120.1	413.6	0.854	2.429	1.82	1.194	106.7	121.6	26.1	0.369
3-8820	3-9490	0.213	170.2	8.4	1.52	0.526	90.9	0.540	1.081	180.7	834.2	0.497	1.664	1.82	1.053	122.3	84.9	26.2	0.579
3-8820	3-9500	0.425	243.5	-18.7	1.91	0.770	58.3	0.525	1.639	123.0	426.7	0.779	2.500	2.01	1.193	111.8	123.4	25.0	0.451
3-8820	3-9500	0.242	187.0	1.3	1.91	0.516	82.4	0.568	1.068	174.1	837.8	0.461	1.675	2.01	1.048	124.4	94.3	26.2	0.610
3-8820	3-9510	0.478	240.8	-18.0	2.40	0.769	58.1	0.586	1.638	127.2	441.0	0.677	2.598	2.32	1.193	117.9	125.7	23.9	0.557
3-8820	3-9510	0.299	198.4	-3.8	2.40	0.508	73.3	0.618	1.059	169.0	842.8	0.404	1.713	2.32	1.043	128.0	102.9	25.8	0.667
3-8820	3-9520	0.553	237.1	-17.2	3.09	0.769	48.0	0.669	1.636	133.0	457.0	0.542	2.731	2.84	1.191	125.9	127.9	23.0	0.694
3-8820	3-9520	0.381	205.3	-6.9	3.09	0.502	62.8	0.690	1.052	165.7	849.7	0.326	1.778	2.84	1.029	133.5	110.3	25.0	0.757
3-8820	3-9530	0.492	208.3	-8.4	4.24	0.498	49.8	0.786	1.048	165.0	859.1	0.224	1.872	3.83	1.036	141.8	116.3	24.0	0.888
3-8820	3-9570	0.595	137.3	14.5	-5.72	0.393	144.2	0.920	0.954	187.6	922.0	0.076	1.833	-6.73	0.980	23.1	31.7	10.4	1.110
3-8820	3-9580	0.548	185.1	-3.5	-2.91	0.282	52.3	0.920	0.891	176.0	920.3	0.071	1.710	-4.07	0.938	23.3	42.6	14.9	1.082
3-8820	3-9580	0.455	143.0	12.8	-2.91	0.387	122.2	0.829	0.950	187.8	932.1	0.162	1.738	-4.07	0.975	34.0	36.3	11.9	0.943
3-8820	3-9590	0.518	97.5	22.0	-1.67	0.747	131.7	0.668	1.552	223.6	617.8	0.516	2.588	-2.98	1.163	52.8	24.2	6.0	0.726
3-8820	3-9590	0.400	172.8	1.6	-1.67	0.343	84.6	0.806	0.922	178.7	932.8	0.179	1.665	-2.98	0.955	36.5	45.7	15.3	0.896
3-8820	3-9590	0.387	168.8	3.3	-1.67	0.352	89.8	0.794	0.927	179.9	934.1	0.191	1.664	-2.98	0.958	37.6	45.0	15.0	0.880
3-8820	3-9600	0.435	93.7	22.6	-0.94	0.746	125.0	0.577	1.550	229.0	632.9	0.656	2.445	-2.41	1.160	60.8	26.6	6.5	0.585
3-8820	3-9610	0.375	91.0	23.2	-0.44	0.746	130.2	0.508	1.548	232.5	646.1	0.762	2.334	-2.07	1.158	66.8	29.3	7.1	0.477
3-8820	3-9620	0.598	217.0	-15.0	-0.05	0.601	39.2	0.815	1.189	158.8	582.1	0.220	2.158	-1.87	1.068	35.9	69.1	20.8	0.951
3-8820	3-9620	0.331	89.1	23.9	-0.05	0.745	116.8	0.455	1.545	234.6	657.9	0.842	2.249	-1.87	1.155	71.7	32.0	7.4	0.393
3-8830	3-8090	0.856	66.3	22.1	-0.03	1.260	132.6	1.383	-2.601	288.1	347.5	---	---	-1.86	1.538	82.7	343.2	-12.5	0.576
3-8830	3-8900	0.778	66.9	22.6	0.31	1.191	130.9	1.218	-4.642	286.7	355.7	---	---	-1.72	1.481	87.7	340.2	-13.9	0.498
3-8830	3-8910	0.717	68.1	23.2	0.60	1.135	129.6	1.084	11.988	284.5	363.2	1.013	---	-1.64	1.434	91.6	337.6	-15.0	0.449
3-8830	3-8920	0.667	69.6	23.8	0.87	1.085	128.5	0.973	37.367	281.7	369.9	1.008	---	-1.61	1.394	94.9	335.8	-15.8	0.421
3-8830	3-8930	0.622	71.3	24.4	1.14	1.040	127.6	0.877	8.127	278.3	376.1	0.997	---	-1.62	1.358	97.5	335.3	-16.1	0.403
3-8830	3-8940	0.581	73.2	25.0	1.42	0.998	126.7	0.795	4.791	274.6	381.9	0.984	---	-1.68	1.326	99.7	336.1	-16.0	0.394
3-8830	3-8950	0.543	75.3	25.8	1.73	0.958	125.7	0.723	3.500	270.4	387.3	0.969	---	-1.80	1.297	101.4	338.2	-15.5	0.388
3-8830	3-8960	0.507	77.5	26.6	2.10	0.921	124.7	0.662	2.817	266.0	392.4	0.953	---	-1.99	1.270	102.8	341.3	-14.8	0.384
3-8830	3-8970	0.473	79.8	27.7	2.58	0.887	123.5	0.609	2.394	261.3	397.2	0.937	---	-2.31	1.246	103.9	345.5	-14.1	0.382
3-8830	3-8980	0.440	82.2	29.1	3.26	0.854	122.3	0.563	2.109	256.3	401.8	0.921	---	-2.83	1.224	104.8	350.6	-13.7	0.381
3-8830	3-8990	0.410	85.0	31.5	4.38	0.824	120.9	0.525	1.904	251.2	406.2	0.905	---	-3.81	1.204	105.5	356.6	-14.2	0.383
3-8830	3-9000	0.384	88.3	36.3	6.79	0.795	119.4	0.492	1.750	245.8	410.5	0.889	---	-6.09	1.187	106.1	4.3	-17.0	0.391
3-8830	3-9010	0.403	97.9	53.4	16.98	0.769	117.7	0.465	1.632	240.4	414.6	0.873	---	-16.14	1.171	106.6	16.8	-37.9	0.476
3-8830	3-9020	0.400	98.9	-11.4	-20.09	0.744	116.0	0.444	1.538	234.7	419.1	0.855	---	21.07	1.157	107.3	335.6	42.4	0.537
3-8830	3-9030	0.295	97.8	11.4	-5.51	0.721	114.0	0.426	1.462	229.0	423.0	0.839	---	6.63	1.145	107.6	7.4	23.5	0.394
3-8830	3-9040	0.262	101.9	16.8	-2.72	0.700	112.0	0.413	1.399	223.1	427.0	0.822	---	3.97	1.134	108.1	18.2	19.8	0.384
3-8830	3-9050	0.235	107.1	19.0	-1.49	0.679	109.8	0.403	1.347	217.2	430.9	0.804	---	2.89	1.124	108.6	26.9	19.7	0.384
3-8830	3-9060	0.210	113.7	19.9	-0.76	0.661	107.4	0.398	1.303	211.3	434.9	0.785	---	2.33	1.116	109.2	35.1	20.7	0.389
3-8830	3-9070	0.188	121.8	19.8	-0.26	0.643	104.8	0.396	1.265	205.3	439.0	0.764	---	1.99	1.108	109.9	43.4	22.1	0.394
3-8830	3-9080	0.169	132.0	18.8	0.13	0.627	102.0	0.399	1.232	199.4	443.1	0.741	---	1.75	1.100	110.7	51.8	23.5	0.403
3-8830	3-9090	0.156	144.6	16.3	0.45	0.611	98.9	0.406	1.204	193.5	447.3	0.716	---	1.67	1.094	111.7	60.4	24.8	0.416
3-8830	3-9100	0.151	158.9	12.3	0.75	0.597	95.5	0.418	1.179	187.7	451.6	0.687	---	1.61	1.087	112.9	69.0	25.8	0.432
3-8830	3-9110	0.157	173.6	7.0	1.03	0.583	91.6	0.436	1.158	182.1	456.2	0.653	---	1.61	1.081	114.4	77.8	26.5	0.455
3-8830	3-9120	0.176	186.9	1.6	1.33	0.571	87.3	0.461	1.139	176.8	461.0	0.614	1.663	1.66	1.075	116.4	86.5	26.7	0.484
3-8830	3-9130	0.209	197.9	-3.0	1.65	0.559	82.2	0.495	1.122	171.9	466.3	0.566	1.677	1.76	1.069	118.9	95.1	26.5	0.524
3-8830	3-9140	0.257	206.1	-6.6	2.03	0.549	76.1	0.542	1.107	167.6	472.2	0.507	1.707	1.95	1.063	122.2	105.3	25.9	0.577
3-8830	3-9150	0.324	211.9	-9.0	2.51	0.539	68.6	0.604	1.095	164.2	479.0	0.434	1.756	2.26	1.058	126.7	110.8	25.0	0.650
3-8830	3-9160	0.407	215.2	-10.6	3.21	0.532	59.2	0.606	1.086	162.4	487.4	0.341	1.830	2.79	1.053	133.0	117.5	24.0	0.752
3-8830	3-9170	0.521	216.1	-11.3	4.37	0.527	46.8	0.789	1.079	163.0	498.1	0.228	1.931	3.81	1.048	141.9	122.7	22.9	0.894
3-8830	3-9290	0.597	232.4	-18.6	1.00	0.705	42.6	0.745	1.414	146.5	239.3	---	2.467	-1.61	1.123	44.0	96.4	21.8	0.839
3-8830	3-9300	0.565	234.7	-18.8	1.27	0.714	45.7	0.707	1.439	143.3	245.6	---	2.457	-1.64	1.128	47.7	103.8	21.1	0.777
3-8830	3-9310	0.535	236.9	-18.8	1.56	0.722	48.5	0.670	1.463	140.2	252.0	---	2.444	-1.73	1.133	51.2	110.3	20.0	0.718
3-8830	3-9320	0.506	239.0	-18.7	1.90	0.729	51.1	0.634	1.487	137.2	258.5	---	2.429	-1.88	1.138	54.6	116.9	18.5	0.660
3-8830	3-9330	0.480	241.1	-18.4	2.31	0.736	53.5	0.600	1.508	134.3	265.2	---	2.414	-2.12	1.143	57.8	123.2	16.5	0.605
3-8830	3-9340	0.456	243.1	-17.7	2.87	0.742	55.7	0.568	1.529	131.5	272.0	---	2.397	-2.52	1.147	60.9	129.1	13.9	0.553
3-8830	3-9350	0.434	245.0	-16.5	3.71	0.747	57.7	0.538	1.547	129.0	279.0	---	2.381	-3.22	1.152	63.9	134.4	10.3	0.503
3-8830	3-9360	0.416	246.9	-14.0	5.25	0.752	59.4	0.511	1.564	126.5	286.2	---	2.364	-4.62	1.157	66.7	138.8	4.7	0.458
3-8830	3-9370	0.408	248.5	-7.0	9.39	0.756	61.0	0.487	1.579	124.3	293.6	---	2.348	-8.62	1.161	69.5	141.1	-8.3	0.433
3-8830	3-9390	0.378	245.3	-39.3	-9.33	0.762	63.7	0.444	1.604	120.4	309.4	---	2.316	10.38	1.170	75.0	173.0	39.8	0.370
3-8830	3-9400	0.351	249.7	-30.3	-3.84	0.764	64.7	0.428	1.613	118.9	317.6	---	2.303	5.02	1.174	77.6	166.3	27.7	0.293
3-8830	3-9410	0.339	251.4	-27.1	-2.04	0.766	65.5	0.415	1.621	117.6	326.1	---	2.293	3.36	1.178	80.2	165.0	23.5	0.250
3-8830	3-9420	0.331	252.5	-25.4	-1.10	0.768	66.2	0.405	1.627	116.6	335.0	---	2.285	2.58	1.181	82.9	163.0	22.4	0.218
3-8830	3-9430	0.326	253.2	-24.2	-0.51	0.769	66.6	0.398	1.631	115.8	344.2	---	2.280	2.15	1.184	85.5	158.7	23.2	0.194
3-8830	3-9440	0.324	253.6	-23.3	-0.07	0.770	66.7	0.395	1.634	115.4	353.8	---	2.280	1.88	1.187	88.3	151.6	24.9	0.181
3-8830	3-9450	0.325	253.7	-22.5	0.29	0.770	66.7	0.396	1.636	115.4	363.8	0.987	2.285	1.73	1.189	91.1	142.7	26.6	0.183
3-8830	3-9460	0.330	253.5	-21.8	0.60	0.770	66.3	0.403	1.637	115.7	374.3	0.977	2.296	1.64	1.190	94.1	134.4	27.4	0.200
3-8830	3-9470	0.340	253.0	-21.2	0.88	0.770	65.5	0.415	1.636	116.4	385.1	0.957	2.315	1.61	1.192	97.3	128.7	27.2	0.232
3-8830	3-9480	0.355	252.1	-20.6	1.17	0.770	64.3	0.434	1.635	117.6	396.5	0.925	2.345	1.62	1.192	100.8	126.0	26.4	0.277
3-8830	3-9480	0.249	141.8	18.0	1.17	0.551	106.0	0.551	1.110	194.0	832.9	0.499	1.721	1.62	1.064	122.9	74.6	25.1	0.595
3-8830	3-9480	0.482	118.8	22.4	1.17	0.615	131.7	0.721	1.211	205.7	844.6	0.338	2.085	1.62	1.099	135.1	69.0	23.6	0.820
3-8830	3-9490	0.378	250.8	-20.1	1.48	0.769	62.5	0.462	1.634	119.3	408.4	0.879	2.389	1.70	1.192	104.8	125.8	25.4	0.337
3-8830	3-9490	0.215	164.9	10.5	1.48	0.531	95.5	0.538	1.084	184.7	833.8	0.500	1.688	1.70	1.054	122.2	85.2	24.0	0.577
3-8830	3-9490	0.59	118.3	22.4	1.48	0.640	141.5	0.807	1.259	204.3	853.3	0.243	2.275	1.70	1.113	142.8	75.8	24.0	0.952
3-8830	3-9500	0.4	249.0	-19.6	1.82	0.769	59.9	0.501	1.632	121.8	421.1	0.814	2.450	1.84	1.192	109.5	127.1	24.3	0.411
3-8830	3-9500	0.229	10.2	2.6	1.82	0.518	86.7	0.556	1.069	177.4	836.7	0.474	1.663	1.84	1.048	123.5	94.9	26.1	0.595
3-8830	3-9510	0.457	246.6	-19.0	2.24	0.769	56.3	0.555	1.630	125.4	434.8	0.725	2.536	2.08	1.191	115.1	129.2	23.2	0.806
3-8830	3-9510	0.274	198.1	-3.4	2.24	0.509	77.9	0.596	1.058	171.5	840.9	0.428	1.688	2.08	1.043	126.4	103.8	25.6	0.639

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8830	3-9520	0.521	243.4	-18.4	2.81	0.768	51.3	0.620	1.629	130.3	449.9	0.605	2.652	2.48	1.190	122.1	131.5	22.1	0.627
3-8830	3-9520	0.344	206.9	-7.3	2.81	0.502	68.0	0.657	1.050	167.2	846.9	0.360	1.740	2.48	1.038	130.9	111.8	24.7	0.712
3-8830	3-9530	0.442	211.6	-9.5	3.67	0.497	56.2	0.742	1.044	165.2	854.9	0.269	1.819	3.19	1.034	137.8	118.5	23.6	0.823
3-8830	3-9540	0.571	212.6	-10.3	5.29	0.494	41.2	0.848	1.042	166.3	866.1	0.158	1.925	4.66	1.031	148.0	123.4	22.6	0.981
3-8830	3-9580	0.593	189.5	-5.4	-3.52	0.261	44.6	0.946	0.880	176.6	916.5	0.048	1.713	-4.72	0.931	19.1	44.7	15.6	1.136
3-8830	3-9580	0.508	144.9	12.2	-3.52	0.386	131.1	0.868	0.948	188.1	928.0	0.125	1.770	-4.72	0.973	29.8	38.3	12.7	1.007
3-8830	3-9590	0.556	108.6	21.5	-1.89	0.746	135.3	0.713	1.544	220.4	610.1	0.443	2.645	-3.24	1.165	48.5	27.4	7.5	0.799
3-8830	3-9590	0.477	186.0	-3.9	-1.89	0.305	67.7	0.869	0.900	176.4	926.2	0.118	1.683	-3.24	0.941	29.8	49.3	16.6	0.988
3-8830	3-9590	0.398	158.5	7.4	-1.89	0.370	107.3	0.795	0.937	184.6	934.4	0.192	1.682	-3.24	0.964	37.4	44.8	14.8	0.886
3-8830	3-9600	0.461	100.4	22.3	-1.03	0.746	127.5	0.612	1.543	226.8	626.3	0.598	2.488	-2.52	1.159	57.5	29.5	7.9	0.640
3-8830	3-9610	0.392	97.3	23.1	-0.46	0.745	122.0	0.534	1.541	230.9	640.2	0.718	2.364	-2.12	1.156	64.3	32.2	8.5	0.519
3-8830	3-9620	0.341	95.2	23.8	-0.05	0.744	118.0	0.474	1.538	233.5	652.4	0.809	2.268	-1.87	1.154	69.6	35.0	8.9	0.426
3-8830	3-9630	0.572	222.7	-16.6	0.29	0.605	42.3	0.785	1.194	157.3	585.9	0.257	2.131	-1.72	1.047	38.8	77.5	21.7	0.902
3-8830	3-9630	0.304	93.7	24.6	0.29	0.744	115.0	0.422	1.536	235.1	663.6	0.876	2.195	-1.72	1.151	73.9	37.5	9.1	0.353
3-8840	3-8910	0.844	69.9	23.4	0.61	1.262	131.9	1.392	-2.586	289.3	363.6	1.013	---	-1.59	1.536	92.1	336.5	-14.6	0.552
3-8840	3-8920	0.773	71.7	23.9	0.88	1.192	130.9	1.214	-4.693	286.5	370.3	1.006	---	-1.54	1.478	95.7	335.1	-15.2	0.506
3-8840	3-8930	0.714	73.6	24.5	1.13	1.130	130.0	1.071	14.072	283.1	376.5	0.995	---	-1.53	1.428	98.5	334.8	-15.3	0.477
3-8840	3-8940	0.662	75.8	25.1	1.39	1.076	129.1	0.952	20.241	279.3	382.2	0.980	---	-1.57	1.385	100.8	335.7	-15.1	0.458
3-8840	3-8950	0.615	78.0	25.7	1.67	1.026	128.2	0.851	6.475	275.1	387.6	0.964	---	-1.66	1.346	102.7	337.7	-14.6	0.445
3-8840	3-8960	0.571	80.3	26.4	2.00	0.980	127.2	0.767	4.055	270.7	392.7	0.947	---	-1.80	1.312	104.1	340.9	-13.8	0.435
3-8840	3-8970	0.530	82.7	27.2	2.40	0.937	126.1	0.695	3.050	265.9	397.5	0.930	---	-2.04	1.281	105.2	348.9	-12.8	0.428
3-8840	3-8980	0.491	85.2	28.3	2.94	0.898	124.9	0.635	2.501	261.0	402.1	0.913	---	-2.44	1.254	106.1	349.8	-12.0	0.421
3-8840	3-8990	0.455	88.0	29.9	3.77	0.862	123.5	0.585	2.157	255.8	406.5	0.896	---	-3.13	1.230	106.8	355.6	-11.6	0.417
3-8840	3-9000	0.422	91.1	32.9	5.32	0.828	122.0	0.542	1.922	250.5	410.8	0.880	---	-4.54	1.208	107.4	2.4	-12.8	0.416
3-8840	3-9010	0.401	95.8	40.7	9.69	0.797	120.3	0.507	1.752	245.0	414.9	0.864	---	-8.78	1.189	107.8	11.6	-20.6	0.435
3-8840	3-9030	0.333	100.2	7.6	-7.98	0.742	116.6	0.455	1.524	233.5	423.2	0.830	---	9.14	1.157	108.6	4.1	27.9	0.432
3-8840	3-9040	0.291	104.7	15.9	-3.30	0.717	114.6	0.437	1.445	227.6	427.1	0.814	---	4.60	1.144	109.0	17.6	20.8	0.406
3-8840	3-9050	0.261	108.6	18.7	-1.69	0.695	112.3	0.423	1.381	221.7	431.0	0.797	---	3.13	1.132	109.4	26.8	20.0	0.401
3-8840	3-9060	0.233	114.4	19.8	-0.83	0.673	110.0	0.413	1.328	215.7	434.9	0.779	---	2.42	1.122	109.8	35.2	20.8	0.402
3-8840	3-9070	0.208	121.7	19.9	-0.26	0.654	107.4	0.408	1.283	209.6	438.9	0.759	---	2.02	1.113	110.4	43.5	22.1	0.405
3-8840	3-9080	0.186	130.7	19.1	0.13	0.635	104.6	0.407	1.245	203.6	442.9	0.738	---	1.78	1.104	111.0	51.9	23.5	0.411
3-8840	3-9090	0.169	141.8	17.1	0.46	0.618	101.5	0.411	1.213	197.6	447.0	0.715	---	1.63	1.096	111.9	60.6	24.7	0.420
3-8840	3-9100	0.159	155.1	13.7	0.76	0.602	98.2	0.419	1.185	191.7	451.2	0.688	---	1.56	1.089	112.9	69.3	25.7	0.434
3-8840	3-9110	0.156	169.7	9.7	1.03	0.588	94.5	0.433	1.161	185.9	455.6	0.658	---	1.53	1.082	114.2	78.2	26.4	0.452
3-8840	3-9120	0.170	183.9	3.1	1.31	0.574	90.3	0.454	1.140	180.3	460.2	0.622	---	1.55	1.075	115.9	87.0	26.6	0.476
3-8840	3-9130	0.195	196.2	-2.1	1.60	0.561	85.4	0.483	1.121	175.1	465.1	0.579	1.683	1.63	1.069	118.1	95.7	26.4	0.509
3-8840	3-9140	0.236	205.9	-6.2	1.93	0.549	79.7	0.5[illegible]	1.105	170.4	470.6	0.527	1.683	1.77	1.062	121.0	104.1	25.7	0.554
3-8840	3-9150	0.292	213.1	-9.2	2.34	0.539	72.9	0.[illegible]	1.091	166.4	476.8	0.462	1.721	2.01	1.056	124.8	112.0	24.8	0.616
3-8840	3-9160	0.367	217.7	-11.2	2.90	0.530	64.3	0.648	1.080	163.7	484.2	0.380	1.780	2.41	1.050	130.2	119.0	23.6	0.702
3-8840	3-9170	0.468	219.9	-12.4	3.76	0.523	58.2	0.741	1.072	162.9	493.6	0.277	1.867	3.12	1.045	137.7	125.0	22.3	0.824
3-8840	3-9180	0.600	219.4	-12.7	5.42	0.520	38.7	0.853	1.069	165.1	505.8	0.157	1.980	4.64	1.042	148.4	129.2	21.2	0.992
3-8840	3-9300	0.582	238.3	-19.6	1.25	0.709	44.6	0.722	1.420	144.8	242.7	---	2.445	-1.54	1.124	46.2	104.9	21.2	0.800
3-8840	3-9310	0.551	240.6	-19.7	1.52	0.717	47.5	0.684	1.445	141.6	249.1	---	2.433	-1.60	1.129	49.8	111.8	20.0	0.740
3-8840	3-9320	0.522	242.7	-19.6	1.82	0.725	50.2	0.648	1.468	138.6	255.6	---	2.419	-1.72	1.134	53.2	118.4	18.5	0.682
3-8840	3-9330	0.494	244.8	-19.3	2.17	0.732	52.7	0.613	1.491	135.7	262.2	---	2.404	-1.90	1.139	56.5	124.8	16.6	0.626
3-8840	3-9340	0.469	246.8	-18.8	2.63	0.738	55.0	0.580	1.512	132.9	268.9	---	2.388	-2.21	1.144	59.6	130.8	14.2	0.572
3-8840	3-9350	0.446	248.7	-17.9	3.20	0.744	57.0	0.549	1.531	130.2	275.9	---	2.372	-2.71	1.149	62.7	136.4	11.1	0.521
3-8840	3-9360	0.426	250.5	-16.1	4.36	0.749	58.9	0.520	1.549	127.7	283.0	---	2.355	-3.66	1.154	65.6	141.2	6.7	0.474
3-8840	3-9370	0.411	252.2	-12.1	6.71	0.753	60.5	0.494	1.565	125.4	290.3	---	2.338	-5.87	1.159	68.4	144.5	-1.4	0.435
3-8840	3-9380	0.438	252.2	3.7	16.95	0.757	62.0	0.471	1.579	123.3	297.8	---	2.323	-15.98	1.163	71.1	144.0	-28.0	0.476
3-8840	3-9390	0.432	242.2	-51.3	-18.08	0.760	63.4	0.449	1.591	121.4	306.0	---	2.308	19.18	1.168	74.0	194.3	49.6	0.484
3-8840	3-9400	0.362	253.8	-32.7	-4.98	0.763	64.5	0.432	1.601	119.8	314.0	---	2.293	6.21	1.172	76.6	171.3	29.0	0.314
3-8840	3-9410	0.347	255.7	-28.1	-2.38	0.765	65.4	0.418	1.609	119.3	322.5	---	2.282	3.75	1.176	79.2	169.3	22.6	0.265
3-8840	3-9420	0.337	256.9	-26.0	-1.23	0.767	66.1	0.406	1.616	117.2	331.2	---	2.272	2.73	1.179	81.8	167.9	20.5	0.229
3-8840	3-9430	0.331	257.7	-24.7	-0.55	0.768	66.6	0.398	1.621	116.4	340.3	---	2.266	2.20	1.182	84.4	164.8	20.6	0.201
3-8840	3-9440	0.328	258.1	-23.7	-0.07	0.769	66.9	0.393	1.625	115.8	349.8	---	2.264	1.89	1.185	87.1	158.9	22.1	0.183
3-8840	3-9450	0.327	258.3	-22.9	0.30	0.770	66.9	0.393	1.627	115.6	359.7	---	2.266	1.70	1.187	89.9	150.7	24.1	0.179
3-8840	3-9460	0.331	258.2	-22.2	0.61	0.770	66.6	0.397	1.628	115.7	369.9	0.982	2.275	1.59	1.189	92.8	142.0	25.5	0.189
3-8840	3-9470	0.339	257.8	-21.7	0.89	0.770	66.0	0.406	1.628	116.3	380.6	0.967	2.290	1.54	1.190	95.9	135.2	25.9	0.215
3-8840	3-9480	0.352	257.1	-21.1	1.16	0.770	65.0	0.422	1.628	117.2	391.7	0.940	2.315	1.53	1.191	99.3	131.4	25.4	0.254
3-8840	3-9490	0.371	256.0	-20.7	1.44	0.769	63.5	0.446	1.626	118.7	403.4	0.901	2.352	1.58	1.191	103.0	130.2	24.5	0.307
3-8840	3-9490	0.227	158.9	12.7	1.44	0.538	100.6	0.544	1.090	189.2	833.8	0.497	1.683	1.58	1.057	122.5	85.2	25.8	0.584
3-8840	3-9490	0.538	123.6	21.5	1.44	0.627	137.2	0.770	1.230	205.0	849.7	0.282	2.177	1.58	1.105	139.4	77.5	24.2	0.892
3-8840	3-9500	0.399	254.5	-20.2	1.75	0.769	61.3	0.480	1.625	120.8	415.7	0.844	2.405	1.69	1.191	107.3	130.9	23.5	0.374
3-8840	3-9500	0.221	180.2	4.4	1.75	0.522	91.2	0.549	1.070	181.0	835.9	0.483	1.658	1.69	1.049	123.0	95.3	25.9	0.586
3-8840	3-9510	0.439	252.4	-19.8	2.11	0.768	58.2	0.527	1.623	123.8	428.8	0.767	2.478	1.87	1.190	112.5	132.7	22.3	0.459
3-8840	3-9510	0.253	196.6	-2.7	2.11	0.511	82.4	0.578	1.057	174.4	839.4	0.447	1.668	1.87	1.043	125.1	104.6	25.4	0.617
3-8840	3-9520	0.494	249.6	-19.4	2.58	0.768	53.8	0.592	1.621	128.0	443.2	0.662	2.580	2.17	1.189	118.8	135.0	21.2	0.567
3-8840	3-9520	0.313	207.6	-7.4	2.58	0.503	73.0	0.628	1.048	169.3	844.5	0.390	1.706	2.17	1.038	128.8	113.0	24.4	0.675
3-8840	3-9530	0.572	245.8	-18.8	3.25	0.768	47.4	0.677	1.620	134.0	459.4	0.523	2.716	2.69	1.187	126.9	137.2	20.2	0.707
3-8840	3-9530	0.398	214.2	-10.2	3.25	0.497	62.1	0.702	1.042	166.1	851.4	0.311	1.772	2.69	1.033	134.5	120.3	23.2	0.767
3-8840	3-9540	0.512	216.9	-11.6	4.39	0.493	48.5	0.799	1.037	165.5	861.0	0.208	1.867	3.68	1.029	143.0	126.0	21.9	0.902
3-8840	3-9580	0.569	148.2	11.2	-4.46	0.383	140.6	0.910	0.944	187.5	923.1	0.085	1.802	-5.73	0.971	24.6	40.8	13.6	1.082
3-8840	3-9590	0.532	192.5	-6.6	-2.19	0.281	58.1	0.907	0.887	176.3	921.6	0.082	1.692	-3.58	0.932	25.1	51.8	17.4	1.052
3-8840	3-9590	0.437	156.4	8.3	-2.19	0.374	117.6	0.823	0.938	186.7	932.0	0.166	1.709	-3.58	0.965	34.7	46.0	15.1	0.927
3-8840	3-9600	0.492	107.2	21.7	-1.14	0.745	130.5	0.652	1.536	224.2	619.3	0.535	2.536	-2.66	1.158	53.9	32.5	9.4	0.702
3-8840	3-9610	0.412	103.8	22.6	-0.50	0.745	124.0	0.563	1.534	229.2	634.0	0.670	2.398	-2.17	1.155	61.6	35.0	9.9	0.566
3-8840	3-9620	0.354	101.4	23.5	-0.05	0.744	119.4	0.496	1.532	232.3	646.8	0.772	2.291	-1.88	1.152	67.5	37.9	10.4	0.463
3-8840	3-9630	0.598	226.4	-17.6	0.30	0.601	40.2	0.807	1.182	158.6	582.8	0.228	2.136	-1.70	1.063	36.6	79.1	21.9	0.935
3-8840	3-9630	0.311	99.7	24.3	0.30	0.743	116.0	0.445	1.529	234.2	658.4	0.848	2.209	-1.70	1.150	72.1	40.6	10.7	0.382

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8840	3-9640	0.547	228.6	-18.0	0.60	0.610	45.4	0.753	1.199	155.8	589.6	0.296	2.102	-1.59	1.067	41.7	85.9	22.1	0.852
3-8840	3-9640	0.279	98.5	25.2	0.60	0.743	113.5	0.407	1.526	235.3	669.1	0.905	2.147	-1.59	1.148	75.9	42.9	10.6	0.317
3-8850	3-8930	0.827	75.9	24.6	1.13	1.245	132.3	1.337	-2.946	287.5	376.5	0.992	---	-1.45	1.519	99.5	334.8	-14.5	0.571
3-8850	3-8940	0.759	78.2	25.1	1.37	1.172	131.5	1.160	-6.093	283.7	382.3	0.976	---	-1.46	1.460	102.0	335.7	-14.3	0.558
3-8850	3-8950	0.699	80.7	25.7	1.63	1.108	130.6	1.017	55.653	279.6	387.6	0.958	---	-1.52	1.409	103.9	337.8	-13.7	0.514
3-8850	3-8960	0.646	83.1	26.2	1.91	1.051	129.7	0.901	9.466	275.1	392.7	0.940	---	-1.63	1.365	105.5	340.8	-12.8	0.496
3-8850	3-8970	0.596	85.7	26.9	2.25	0.999	128.6	0.804	4.702	270.4	397.5	0.922	---	-1.81	1.326	106.7	344.7	-11.7	0.482
3-8850	3-8980	0.550	88.3	27.7	2.69	0.951	127.4	0.724	3.274	265.5	402.2	0.904	---	-2.11	1.291	107.5	349.4	-10.6	0.469
3-8850	3-8990	0.507	91.0	28.8	3.32	0.908	126.1	0.657	2.589	260.3	406.6	0.887	---	-2.60	1.261	108.2	354.9	-9.6	0.459
3-8850	3-9000	0.468	94.0	30.6	4.39	0.868	124.6	0.602	2.189	255.0	410.9	0.870	---	-3.54	1.234	108.7	1.2	-9.5	0.451
3-8850	3-9010	0.434	97.7	34.7	6.77	0.831	122.9	0.557	1.927	249.4	415.0	0.854	---	-5.60	1.211	109.1	8.9	-12.4	0.451
3-8850	3-9020	0.450	109.4	51.6	18.37	0.798	121.1	0.519	1.746	243.8	418.9	0.839	---	-17.23	1.190	109.3	21.0	-33.5	0.534
3-8850	3-9030	0.397	103.6	-1.8	-14.54	0.767	119.3	0.490	1.609	238.0	423.3	0.821	---	15.3	1.172	109.7	354.4	37.0	0.514
3-8850	3-9040	0.325	105.8	14.5	-4.23	0.739	117.2	0.465	1.506	232.1	427.1	0.806	---	5.58	1.156	109.9	16.7	22.4	0.432
3-8850	3-9050	0.290	110.3	18.2	-1.96	0.713	115.0	0.446	1.425	226.1	431.0	0.789	---	3.43	1.142	110.2	26.6	20.4	0.422
3-8850	3-9060	0.259	115.7	19.6	-0.92	0.689	112.6	0.432	1.360	220.1	434.9	0.772	---	2.53	1.130	110.6	35.2	20.8	0.418
3-8850	3-9070	0.231	122.1	19.8	-0.30	0.667	110.0	0.423	1.307	214.0	438.8	0.754	---	2.05	1.119	111.0	43.6	22.0	0.418
3-8850	3-9080	0.206	130.0	19.2	0.14	0.646	107.2	0.418	1.262	207.9	442.7	0.734	---	1.77	1.109	111.5	52.1	23.4	0.421
3-8850	3-9090	0.185	139.9	17.7	0.48	0.627	104.2	0.418	1.225	201.8	446.7	0.712	---	1.59	1.100	112.2	60.7	24.6	0.427
3-8850	3-9100	0.169	151.9	14.8	0.77	0.610	101.0	0.423	1.193	195.7	450.8	0.688	---	1.50	1.092	113.1	69.5	25.6	0.437
3-8850	3-9110	0.162	165.7	10.3	1.04	0.593	97.3	0.434	1.166	189.8	455.0	0.660	---	1.45	1.084	114.2	78.5	26.2	0.451
3-8850	3-9120	0.167	180.2	4.8	1.29	0.578	93.3	0.450	1.142	184.0	459.5	0.628	---	1.45	1.076	115.6	87.4	26.4	0.471
3-8850	3-9130	0.185	193.6	-0.8	1.56	0.564	88.7	0.474	1.122	178.5	464.1	0.590	1.653	1.50	1.069	117.5	96.2	26.2	0.498
3-8850	3-9140	0.218	204.9	-5.6	1.85	0.551	83.3	0.508	1.104	173.4	469.2	0.543	1.664	1.61	1.062	119.9	104.8	25.5	0.536
3-8850	3-9150	0.266	213.5	-9.2	2.20	0.540	78.9	0.554	1.088	168.9	474.9	0.486	1.691	1.79	1.055	123.2	132.9	24.5	0.588
3-8850	3-9160	0.333	219.5	-11.6	2.66	0.529	69.0	0.616	1.076	165.4	481.6	0.413	1.738	2.09	1.049	127.7	120.4	23.2	0.660
3-8850	3-9170	0.421	223.1	-13.2	3.32	0.521	59.1	0.698	1.066	163.5	489.8	0.322	1.810	2.60	1.043	134.1	126.8	21.8	0.763
3-8850	3-9180	0.538	224.0	-14.0	4.45	0.516	46.1	0.802	1.060	164.1	500.4	0.210	1.910	3.60	1.038	143.2	131.9	20.4	0.908
3-8850	3-9300	0.600	242.0	-20.4	1.24	0.704	43.4	0.737	1.400	146.3	239.8	---	2.432	-1.45	1.120	44.7	106.4	23.2	0.824
3-8850	3-9310	0.568	244.3	-20.5	1.49	0.713	46.4	0.699	1.425	143.1	246.1	---	2.421	-1.48	1.125	48.3	113.3	20.1	0.763
3-8850	3-9320	0.538	246.5	-20.4	1.76	0.721	49.2	0.662	1.449	140.0	252.6	---	2.408	-1.56	1.130	51.8	120.0	18.6	0.704
3-8850	3-9330	0.510	248.6	-20.2	2.06	0.729	51.8	0.626	1.473	137.0	259.1	---	2.394	-1.71	1.136	55.1	126.4	16.7	0.647
3-8850	3-9340	0.484	250.6	-19.7	2.44	0.735	54.2	0.592	1.494	134.2	265.8	---	2.379	-1.93	1.141	58.3	132.6	14.4	0.592
3-8850	3-9350	0.459	252.5	-19.0	2.96	0.741	56.3	0.560	1.515	131.5	272.7	---	2.362	-2.31	1.146	61.4	138.3	11.6	0.540
3-8850	3-9360	0.438	254.3	-17.7	3.75	0.747	58.3	0.530	1.533	128.9	279.8	---	2.346	-2.97	1.151	64.4	143.4	7.9	0.491
3-8850	3-9370	0.420	256.0	-15.2	5.23	0.752	60.0	0.503	1.550	126.6	287.0	---	2.329	-4.33	1.156	67.3	147.5	2.1	0.446
3-8850	3-9380	0.413	257.2	-8.0	9.49	0.756	61.6	0.478	1.565	124.4	294.5	---	2.313	-8.45	1.161	70.0	149.1	-11.3	0.422
3-8850	3-9400	0.376	257.4	-36.7	-7.16	0.762	64.2	0.437	1.589	120.6	310.5	---	2.283	8.44	1.170	75.5	178.0	32.6	0.345
3-8850	3-9410	0.355	260.1	-29.3	-2.88	0.764	65.2	0.421	1.598	119.1	318.8	---	2.270	4.29	1.174	78.1	173.6	22.3	0.281
3-8850	3-9420	0.344	261.3	-26.6	-1.39	0.766	66.0	0.408	1.605	117.8	327.4	---	2.260	2.93	1.177	80.7	172.5	18.8	0.241
3-8850	3-9430	0.337	262.1	-25.0	-0.59	0.768	66.6	0.398	1.611	116.9	336.4	---	2.253	2.27	1.181	83.3	170.3	18.1	0.210
3-8850	3-9440	0.332	262.7	-24.0	-0.08	0.769	66.9	0.392	1.615	116.2	345.8	---	2.249	1.90	1.184	86.0	165.8	19.1	0.188
3-8850	3-9450	0.331	263.0	-23.2	0.31	0.769	67.1	0.390	1.618	115.8	355.5	---	2.249	1.67	1.186	88.7	158.6	21.1	0.177
3-8850	3-9460	0.332	263.0	-22.5	0.62	0.770	67.0	0.392	1.620	115.8	365.6	0.985	2.254	1.54	1.188	91.6	150.0	23.1	0.181
3-8850	3-9470	0.338	262.7	-21.9	0.90	0.770	66.5	0.399	1.620	116.1	376.1	0.974	2.267	1.47	1.189	94.6	142.2	24.1	0.200
3-8850	3-9480	0.349	262.1	-21.5	1.16	0.770	65.7	0.412	1.620	116.9	387.0	0.953	2.287	1.44	1.190	97.8	137.2	24.1	0.233
3-8850	3-9490	0.365	261.2	-21.0	1.42	0.770	64.4	0.432	1.619	118.1	398.4	0.919	2.318	1.47	1.190	101.3	134.9	23.4	0.280
3-8850	3-9490	0.255	151.9	14.9	1.42	0.549	107.0	0.582	1.101	194.3	834.6	0.482	1.719	1.47	1.061	123.7	84.8	25.5	0.605
3-8850	3-9490	0.472	129.7	20.3	1.42	0.611	131.5	0.722	1.195	205.1	845.4	0.332	2.058	1.47	1.094	135.3	79.6	24.5	0.818
3-8850	3-9500	0.389	259.9	-20.7	1.69	0.769	62.6	0.461	1.617	119.9	410.3	0.871	2.363	1.54	1.190	105.3	134.9	22.5	0.340
3-8850	3-9500	0.221	175.2	6.5	1.69	0.520	95.9	0.547	1.073	185.0	835.4	0.487	1.660	1.54	1.050	122.8	95.5	25.7	0.584
3-8850	3-9500	0.585	121.9	20.3	1.69	0.637	141.6	0.810	1.244	203.8	854.2	0.236	2.252	1.54	1.109	143.2	86.4	24.5	0.953
3-8850	3-9510	0.423	258.1	-20.4	2.01	0.769	59.9	0.502	1.615	122.4	423.1	0.804	2.426	1.68	1.189	110.0	136.4	21.4	0.416
3-8850	3-9510	0.238	194.0	-1.4	2.01	0.514	86.9	0.564	1.058	177.6	838.3	0.461	1.655	1.68	1.043	124.1	105.2	25.1	0.601
3-8850	3-9520	0.471	255.6	-20.0	2.40	0.768	56.1	0.558	1.613	126.0	436.8	0.713	2.514	1.91	1.188	115.7	138.5	20.2	0.512
3-8850	3-9520	0.286	207.5	-7.2	2.40	0.505	77.8	0.604	1.047	171.7	842.5	0.415	1.679	1.91	1.037	127.0	114.0	24.1	0.645
3-8850	3-9530	0.538	252.3	-19.7	2.94	0.768	59.7	0.634	1.612	131.1	452.0	0.590	2.633	2.29	1.186	122.9	140.8	19.1	0.637
3-8850	3-9530	0.359	216.0	-10.7	2.94	0.498	67.6	0.666	1.059	167.5	848.4	0.347	1.731	2.29	1.032	131.7	121.8	22.8	0.719
3-8850	3-9540	0.480	220.5	-12.6	3.77	0.493	55.3	0.753	1.034	165.6	856.6	0.255	1.812	2.98	1.028	138.8	128.2	21.3	0.832
3-8850	3-9550	0.593	221.2	-13.3	5.38	0.490	39.8	0.860	1.031	166.9	868.0	0.144	1.918	4.46	1.024	149.3	132.8	20.1	0.995
3-8850	3-9590	0.582	197.7	-8.7	-2.63	0.261	49.2	0.937	0.876	176.6	917.5	0.055	1.696	-4.05	0.925	20.6	54.1	18.1	1.110
3-8850	3-9590	0.487	156.7	8.2	-2.63	0.377	127.3	0.859	0.936	187.6	928.5	0.132	1.741	-4.05	0.964	30.9	47.8	15.7	0.984
3-8850	3-9600	0.530	114.2	0.8	-1.28	0.745	133.9	0.696	1.528	221.2	611.9	0.464	2.592	-2.83	1.156	49.8	35.8	10.8	0.771
3-8850	3-9600	0.449	191.2	5.9	-1.28	0.314	76.7	0.846	0.900	177.5	928.2	0.138	1.661	-2.83	0.938	32.5	58.1	18.7	0.946
3-8850	3-9600	0.397	175.4	3.8	-1.28	0.352	99.4	0.801	0.921	182.4	933.1	0.183	1.659	-2.83	0.952	37.0	55.4	17.8	0.885
3-8850	3-9610	0.437	110.3	21.9	-0.54	0.745	126.4	0.597	1.527	227.2	627.7	0.615	2.439	-2.23	1.154	58.5	37.9	11.2	0.618
3-8850	3-9620	0.370	107.6	22.9	-0.05	0.745	121.1	0.521	1.525	231.0	641.1	0.731	2.320	-1.88	1.151	55.1	40.7	11.7	0.503
3-8850	3-9630	0.321	105.7	23.8	0.31	0.744	117.2	0.463	1.522	233.3	653.1	0.817	2.228	-1.67	1.149	70.2	43.6	12.1	0.413
3-8850	3-9640	0.574	232.3	-18.9	0.61	0.606	43.2	0.777	1.186	157.0	586.4	0.265	2.108	-1.54	1.063	39.5	87.6	22.2	0.886
3-8850	3-9640	0.285	104.5	24.8	0.61	0.743	114.3	0.420	1.520	234.7	664.0	0.882	2.157	-1.54	1.147	74.3	46.2	12.2	0.342
3-8850	3-9650	0.522	234.5	-19.1	0.87	0.616	48.3	0.721	1.204	154.4	593.3	0.336	2.071	-1.47	1.068	44.6	94.3	22.0	0.803
3-8850	3-9650	0.258	103.6	25.7	0.87	0.742	112.2	0.387	1.517	235.4	674.3	0.930	2.104	-1.47	1.145	77.7	48.0	11.9	0.286
3-8860	3-8950	0.802	83.3	25.6	1.59	1.210	132.9	1.239	-3.990	283.8	387.4	0.954	---	-1.39	1.489	105.2	338.2	-12.7	0.600
3-8860	3-8960	0.734	85.9	26.1	1.84	1.138	132.0	1.075	12.499	279.4	392.5	0.934	---	-1.47	1.431	106.9	341.1	-11.8	0.570
3-8860	3-8970	0.674	88.6	26.5	2.13	1.073	131.1	0.943	15.913	274.7	397.4	0.914	---	-1.61	1.381	108.1	344.8	-10.7	0.546
3-8860	3-8980	0.619	91.3	27.1	2.49	1.015	129.9	0.835	5.429	269.8	402.1	0.895	---	-1.83	1.337	109.0	349.3	-9.4	0.526
3-8860	3-8990	0.568	94.0	27.9	2.98	0.962	120.7	0.747	3.474	264.7	406.5	0.877	---	-2.19	1.299	109.7	354.6	-8.1	0.509
3-8860	3-9000	0.521	97.0	29.1	3.75	0.915	127.2	0.676	2.653	259.3	410.8	0.860	---	-2.83	1.266	110.2	0.5	-7.2	0.494
3-8860	3-9010	0.479	100.3	31.4	5.22	0.872	125.6	0.617	2.204	253.9	415.0	0.844	---	-4.18	1.237	110.5	7.4	-7.8	0.484
3-8860	3-9020	0.449	105.4	38.3	9.64	0.833	123.8	0.569	1.921	248.2	419.0	0.828	---	-8.48	1.212	110.7	16.5	-14.6	0.491

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8860	3-9040	0.363	108.1	11.9	-5.98	0.765	119.9	0.499	1.589	236.5	427.1	0.796	---	7.36	1.171	111.0	14.9	25.3	0.467
3-8860	3-9050	0.322	112.3	17.5	-2.36	0.735	117.6	0.474	1.484	230.5	431.0	0.781	---	3.87	1.155	111.2	26.4	21.0	0.446
3-8860	3-9060	0.288	117.2	19.2	-1.04	0.708	115.3	0.455	1.403	224.4	434.8	0.765	---	2.67	1.140	111.4	35.3	20.9	0.438
3-8860	3-9070	0.257	123.0	19.6	-0.33	0.683	112.7	0.441	1.337	218.3	438.7	0.747	---	2.09	1.127	111.7	43.7	21.9	0.435
3-8860	3-9080	0.228	130.1	19.2	0.15	0.660	109.9	0.432	1.284	212.1	442.6	0.729	---	1.75	1.115	112.1	52.3	23.2	0.434
3-8860	3-9090	0.203	138.7	17.9	0.50	0.639	107.0	0.429	1.241	206.0	446.5	0.709	---	1.55	1.105	112.6	60.9	24.5	0.437
3-8860	3-9100	0.184	149.4	15.5	0.79	0.619	103.8	0.430	1.204	199.9	450.5	0.687	---	1.43	1.095	113.3	69.8	25.4	0.443
3-8860	3-9110	0.171	162.1	11.7	1.05	0.601	100.2	0.436	1.173	195.8	454.6	0.661	---	1.37	1.086	114.2	78.7	26.0	0.453
3-8860	3-9120	0.168	176.3	6.5	1.29	0.584	96.3	0.448	1.146	187.8	458.8	0.632	---	1.35	1.078	115.4	87.7	26.2	0.468
3-8860	3-9130	0.179	190.4	0.7	1.53	0.569	91.9	0.468	1.123	182.1	463.3	0.598	---	1.38	1.069	117.0	96.7	26.0	0.490
3-8860	3-9140	0.204	202.9	-4.6	1.79	0.555	86.8	0.490	1.103	176.7	468.1	0.557	1.650	1.45	1.062	119.1	105.4	25.3	0.521
3-8860	3-9150	0.245	213.1	-8.8	2.09	0.542	80.8	0.534	1.086	171.8	473.3	0.506	1.667	1.59	1.054	121.9	113.7	24.2	0.565
3-8860	3-9160	0.302	220.6	-11.8	2.47	0.530	73.6	0.587	1.072	167.6	479.3	0.442	1.702	1.81	1.047	125.7	121.4	22.8	0.625
3-8860	3-9170	0.379	225.6	-13.8	2.98	0.521	64.5	0.659	1.060	164.8	486.6	0.361	1.759	2.19	1.040	131.1	128.4	21.3	0.711
3-8860	3-9180	0.483	228.0	-14.9	3.79	0.513	52.9	0.753	1.052	163.9	495.8	0.260	1.845	2.87	1.035	138.8	134.1	19.7	0.834
3-8860	3-9310	0.586	248.0	-23.1	1.47	0.709	45.3	0.714	1.405	144.6	243.2	---	2.409	-1.37	1.121	46.8	114.0	20.0	0.786
3-8860	3-9320	0.555	250.3	-21.3	1.71	0.717	48.2	0.676	1.430	141.4	249.6	---	2.397	-1.42	1.126	50.3	121.6	18.5	0.726
3-8860	3-9330	0.526	252.4	-20.9	1.97	0.725	50.9	0.639	1.454	138.4	256.1	---	2.383	-1.53	1.132	53.7	128.0	16.7	0.669
3-8860	3-9340	0.499	254.4	-20.5	2.29	0.733	53.3	0.604	1.476	135.5	262.7	---	2.369	-1.70	1.137	57.0	134.3	14.5	0.613
3-8860	3-9350	0.474	256.4	-19.9	2.70	0.739	55.6	0.571	1.497	132.7	269.5	---	2.353	-1.97	1.143	60.1	140.1	11.9	0.560
3-8860	3-9360	0.451	258.2	-18.9	3.30	0.745	57.6	0.541	1.517	130.1	276.5	---	2.337	-2.48	1.148	63.2	145.5	8.6	0.509
3-8860	3-9370	0.431	259.8	-17.2	4.31	0.750	59.5	0.512	1.534	127.7	283.7	---	2.320	-3.33	1.153	66.1	150.1	4.1	0.462
3-8860	3-9380	0.416	261.2	-13.2	6.58	0.754	61.1	0.486	1.550	125.4	291.1	---	2.304	-5.48	1.158	68.9	153.1	-4.0	0.423
3-8860	3-9390	0.450	259.8	4.0	18.06	0.758	62.5	0.464	1.564	123.4	298.7	---	2.289	-16.85	1.163	71.6	150.9	-33.5	0.479
3-8860	3-9400	0.408	259.1	-45.6	-12.90	0.761	63.9	0.442	1.575	121.4	307.0	---	2.272	14.22	1.168	74.4	191.7	41.1	0.416
3-8860	3-9410	0.365	264.4	-30.9	-3.70	0.764	64.9	0.425	1.585	119.8	315.1	---	2.260	5.14	1.172	77.0	178.0	22.7	0.299
3-8860	3-9420	0.352	265.8	-27.1	-1.62	0.766	65.8	0.411	1.594	118.5	323.6	---	2.248	3.18	1.176	79.6	176.7	17.3	0.255
3-8860	3-9430	0.343	266.6	-25.3	-0.66	0.768	66.5	0.400	1.600	117.4	332.5	---	2.240	2.35	1.179	82.2	175.4	15.7	0.220
3-8860	3-9440	0.337	267.2	-24.1	-0.08	0.769	67.0	0.392	1.605	116.6	341.7	---	2.234	1.91	1.182	84.9	172.1	16.1	0.194
3-8860	3-9450	0.334	267.6	-23.3	0.32	0.770	67.2	0.388	1.609	116.1	351.3	---	2.232	1.65	1.184	87.6	166.1	17.9	0.178
3-8860	3-9460	0.335	267.7	-22.6	0.64	0.770	67.2	0.388	1.611	115.9	361.2	0.986	2.235	1.49	1.186	90.3	158.0	20.1	0.175
3-8860	3-9470	0.339	267.5	-22.1	0.91	0.770	66.9	0.392	1.612	116.1	371.5	0.979	2.244	1.40	1.188	93.2	149.7	21.8	0.188
3-8860	3-9480	0.347	267.1	-21.6	1.16	0.770	66.3	0.403	1.613	116.6	382.2	0.963	2.260	1.35	1.189	96.3	143.5	22.3	0.215
3-8860	3-9490	0.361	266.3	-21.2	1.40	0.770	65.2	0.419	1.611	117.6	393.4	0.935	2.286	1.36	1.189	99.7	140.1	22.1	0.256
3-8860	3-9500	0.381	265.2	-20.9	1.65	0.770	63.7	0.444	1.609	119.1	405.1	0.895	2.324	1.41	1.188	103.5	139.3	21.3	0.309
3-8860	3-9500	0.232	169.2	8.9	1.65	0.536	101.2	0.552	1.079	189.4	835.4	0.484	1.675	1.41	1.052	123.1	95.6	25.4	0.590
3-8860	3-9500	0.533	134.1	19.1	1.65	0.625	137.3	0.773	1.215	204.6	850.6	0.276	2.155	1.41	1.100	139.7	88.2	24.6	0.892
3-8860	3-9510	0.410	263.6	-20.7	1.93	0.769	61.4	0.479	1.608	121.2	417.4	0.837	2.378	1.51	1.188	107.8	140.1	20.3	0.377
3-8860	3-9510	0.228	190.3	0.3	1.93	0.520	91.5	0.556	1.059	181.2	837.4	0.471	1.648	1.51	1.043	123.5	105.6	24.9	0.591
3-8860	3-9520	0.451	261.5	-20.5	2.26	0.769	58.1	0.528	1.606	124.3	430.6	0.758	2.454	1.68	1.186	113.0	142.0	19.1	0.463
3-8860	3-9520	0.263	206.3	-6.5	2.26	0.508	82.5	0.584	1.046	174.6	840.9	0.435	1.658	1.68	1.037	125.6	114.8	23.8	0.621
3-8860	3-9530	0.508	258.7	-20.3	2.69	0.768	53.6	0.594	1.604	128.5	445.0	0.650	2.557	1.96	1.185	119.4	144.3	17.9	0.573
3-8860	3-9530	0.326	217.0	-10.8	2.69	0.500	72.8	0.635	1.037	169.4	845.9	0.378	1.696	1.96	1.031	129.3	123.0	22.3	0.680
3-8860	3-9540	0.590	254.8	-20.1	3.31	0.768	47.0	0.683	1.603	134.7	461.3	0.509	2.697	2.45	1.183	127.7	146.3	16.9	0.717
3-8860	3-9540	0.414	223.3	-13.3	3.31	0.498	61.5	0.710	1.031	166.3	852.9	0.299	1.763	2.45	1.026	135.2	130.0	20.7	0.773
3-8860	3-9550	0.532	225.8	-14.6	4.40	0.490	47.5	0.810	1.027	165.9	862.6	0.196	1.858	3.41	1.022	144.0	135.4	19.3	0.911
3-8860	3-9590	0.547	158.8	7.4	-3.31	0.378	137.2	0.899	0.933	187.5	924.0	0.094	1.773	-4.77	0.962	26.0	50.1	16.4	1.054
3-8860	3-9600	0.576	121.4	19.5	-1.48	0.746	138.0	0.746	1.520	217.7	603.9	0.387	2.654	-3.06	1.155	45.1	39.2	12.2	0.851
3-8860	3-9600	0.518	200.3	-9.6	-1.48	0.285	63.2	0.895	0.883	176.5	922.8	0.093	1.673	-3.06	0.927	26.8	61.2	19.5	1.023
3-8860	3-9600	0.424	169.6	3.3	-1.48	0.366	113.2	0.818	0.926	185.6	931.8	0.169	1.683	-3.06	0.954	35.3	56.0	17.9	0.912
3-8860	3-9610	0.468	117.0	20.9	-0.60	0.746	129.2	0.636	1.520	224.9	620.9	0.554	2.486	-2.30	1.152	55.1	41.0	12.5	0.677
3-8860	3-9620	0.391	113.9	22.0	-0.06	0.745	123.0	0.550	1.518	229.5	635.2	0.684	2.353	-1.89	1.150	62.5	43.6	13.0	0.547
3-8860	3-9630	0.334	111.8	23.1	0.33	0.745	118.6	0.484	1.516	232.4	647.7	0.782	2.250	-1.64	1.148	68.1	46.5	13.4	0.447
3-8860	3-9640	0.293	110.4	24.1	0.63	0.744	115.3	0.435	1.513	234.1	659.0	0.855	2.171	-1.49	1.146	72.6	49.3	13.6	0.370
3-8860	3-9650	0.262	109.5	25.1	0.89	0.743	112.9	0.398	1.510	235.0	669.5	0.910	2.111	-1.40	1.144	76.2	51.6	13.5	0.307
3-8860	3-9660	0.498	240.4	-20.0	1.12	0.622	51.2	0.688	1.209	153.1	597.1	0.377	2.040	-1.36	1.088	47.3	102.5	21.5	0.755
3-8860	3-9660	0.239	109.0	26.1	1.12	0.742	111.1	0.370	1.508	235.4	679.5	0.950	2.065	-1.36	1.142	79.4	52.8	12.9	0.257
3-8870	3-8980	0.699	94.3	26.6	2.33	1.092	132.4	0.97738	225	274.0	401.8	0.887	---	-1.58	1.395	110.6	349.5	-8.3	0.595
3-8870	3-8990	0.639	97.1	27.1	2.72	1.028	131.2	0.860	6.200	268.9	406.3	0.868	---	-1.84	1.347	111.3	354.5	-6.8	0.568
3-8870	3-9000	0.583	100.0	27.9	3.29	0.971	129.8	0.766	3.635	263.6	410.6	0.850	---	-2.29	1.306	111.7	0.2	-5.5	0.546
3-8870	3-9010	0.533	103.1	29.2	4.26	0.920	128.2	0.690	2.690	258.2	418.8	0.833	---	-3.15	1.270	112.0	6.6	-4.8	0.527
3-8870	3-9020	0.468	107.0	32.5	6.52	0.874	126.5	0.629	2.201	252.5	418.9	0.818	---	-5.30	1.239	112.1	14.2	-6.8	0.516
3-8870	3-9030	0.500	120.2	49.0	19.52	0.833	124.5	0.578	1.904	246.8	422.8	0.803	---	-18.20	1.212	112.1	25.7	-28.6	0.593
3-8870	3-9040	0.416	110.6	5.7	-10.28	0.795	122.6	0.539	1.706	240.8	427.0	0.786	---	11.71	1.189	112.3	9.8	31.8	0.524
3-8870	3-9050	0.359	114.5	16.5	-3.00	0.761	120.3	0.507	1.564	234.9	430.8	0.772	---	4.54	1.169	112.3	26.0	21.9	0.474
3-8870	3-9060	0.320	119.1	18.8	-1.21	0.730	118.0	0.482	1.459	228.8	434.7	0.756	---	2.86	1.152	112.4	35.3	21.1	0.461
3-8870	3-9070	0.286	124.4	19.3	-0.36	0.702	115.4	0.463	1.377	222.6	438.5	0.740	---	2.13	1.136	112.6	43.9	21.9	0.454
3-8870	3-9080	0.254	130.7	19.1	0.16	0.676	112.7	0.449	1.313	216.4	442.4	0.723	---	1.74	1.123	112.8	52.4	23.1	0.450
3-8870	3-9090	0.226	138.3	18.0	0.52	0.652	109.8	0.441	1.261	210.2	446.3	0.705	---	1.51	1.111	113.2	61.1	24.3	0.449
3-8870	3-9100	0.202	147.6	16.0	0.81	0.631	106.6	0.438	1.218	204.0	450.2	0.684	---	1.36	1.099	113.7	70.0	25.2	0.451
3-8870	3-9110	0.184	159.1	12.7	1.06	0.611	103.1	0.441	1.182	197.9	454.2	0.661	---	1.28	1.089	114.4	79.0	25.9	0.457
3-8870	3-9120	0.174	172.4	8.1	1.29	0.592	99.3	0.449	1.152	191.8	458.3	0.635	---	1.25	1.080	115.4	88.0	26.0	0.468
3-8870	3-9130	0.177	186.6	2.4	1.51	0.575	95.0	0.464	1.126	185.9	462.6	0.604	---	1.26	1.071	116.7	97.0	25.8	0.485
3-8870	3-9140	0.194	200.2	-3.3	1.74	0.560	90.2	0.486	1.104	180.2	467.1	0.567	---	1.30	1.062	118.5	105.8	25.0	0.510
3-8870	3-9150	0.227	211.8	-8.1	2.00	0.545	84.6	0.519	1.085	174.9	472.0	0.522	1.648	1.40	1.054	120.8	114.3	23.9	0.546
3-8870	3-9160	0.275	220.9	-11.6	2.31	0.532	77.9	0.564	1.069	170.2	477.5	0.467	1.672	1.57	1.046	124.0	122.3	22.5	0.596
3-8870	3-9170	0.342	227.3	-14.1	2.72	0.521	69.7	0.625	1.056	166.6	483.9	0.396	1.716	1.84	1.038	128.5	129.7	20.8	0.667
3-8870	3-9180	0.433	231.2	-15.6	3.32	0.512	59.2	0.708	1.046	164.5	491.9	0.305	1.786	2.32	1.032	135.0	136.0	19.1	0.770
3-8870	3-9190	0.554	232.2	-16.4	4.37	0.507	45.6	0.813	1.040	165.0	502.4	0.195	1.884	3.26	1.027	144.3	140.9	17.5	0.917

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8870	3-9320	0.572	254.1	-21.6	1.67	0.714	47.1	0.691	1.410	142.9	246.5	---	2.385	-1.28	1.122	48.8	123.1	18.5	0.750
3-8870	3-9330	0.542	256.3	-21.4	1.90	0.722	49.9	0.654	1.435	139.8	253.0	---	2.372	-1.36	1.128	52.3	129.6	16.7	0.691
3-8870	3-9340	0.514	258.3	-21.1	2.17	0.730	52.4	0.618	1.458	136.8	259.6	---	2.358	-1.48	1.134	55.6	135.9	14.5	0.635
3-8870	3-9350	0.488	260.3	-20.6	2.50	0.737	54.8	0.584	1.480	134.0	266.3	---	2.343	-1.69	1.139	58.8	141.9	12.0	0.581
3-8870	3-9360	0.464	262.1	-19.8	2.96	0.743	56.9	0.552	1.500	131.3	273.3	---	2.327	-2.02	1.145	61.9	147.4	9.0	0.529
3-8870	3-9370	0.443	263.8	-18.5	3.67	0.748	58.8	0.522	1.518	128.8	280.4	---	2.311	-2.62	1.150	64.9	152.4	5.3	0.480
3-8870	3-9380	0.425	265.2	-16.1	5.05	0.753	60.6	0.495	1.535	126.4	287.7	---	2.294	-3.89	1.156	67.7	156.4	-0.4	0.435
3-8870	3-9390	0.418	265.9	-9.0	9.24	0.757	62.1	0.471	1.549	124.3	295.3	---	2.279	-7.97	1.161	70.5	157.5	-14.0	0.411
3-8870	3-9410	0.377	268.8	-33.5	-5.20	0.763	64.6	0.430	1.573	120.6	311.4	---	2.249	6.68	1.170	75.9	183.4	24.9	0.324
3-8870	3-9420	0.360	270.3	-27.8	-1.94	0.766	65.6	0.414	1.582	119.1	319.8	---	2.237	3.54	1.174	78.5	180.8	16.3	0.270
3-8870	3-9430	0.350	271.2	-25.5	-0.74	0.768	66.4	0.402	1.589	117.9	328.5	---	2.227	2.45	1.177	81.1	180.0	13.5	0.233
3-8870	3-9440	0.343	271.8	-24.2	-0.09	0.769	67.0	0.392	1.595	117.0	333.6	---	2.220	1.92	1.180	83.7	177.6	13.1	0.203
3-8870	3-9450	0.339	272.2	-23.2	0.34	0.770	67.3	0.386	1.599	116.3	347.0	---	2.216	1.61	1.183	86.4	173.2	14.4	0.182
3-8870	3-9460	0.338	272.4	-22.6	0.67	0.771	67.4	0.384	1.601	116.0	356.8	---	2.217	1.43	1.185	89.1	166.0	16.7	0.173
3-8870	3-9470	0.340	272.3	-22.0	0.94	0.771	67.3	0.387	1.603	116.0	367.0	0.983	2.223	1.32	1.186	91.9	157.6	18.9	0.178
3-8870	3-9480	0.346	272.0	-21.6	1.17	0.771	66.8	0.394	1.603	116.3	377.5	0.971	2.235	1.26	1.187	94.9	150.4	20.1	0.199
3-8870	3-9490	0.357	271.4	-21.2	1.39	0.771	66.0	0.408	1.603	117.1	388.4	0.949	2.256	1.25	1.187	98.1	145.8	20.4	0.233
3-8870	3-9500	0.374	270.5	-21.0	1.62	0.771	64.6	0.429	1.602	118.3	399.9	0.915	2.288	1.27	1.187	101.7	143.9	19.9	0.281
3-8870	3-9500	0.260	162.0	11.4	1.62	0.549	107.7	0.569	1.090	194.6	836.1	0.470	1.711	1.27	1.057	124.3	95.2	25.2	0.611
3-8870	3-9500	0.467	140.3	17.5	1.62	0.610	131.4	0.724	1.181	204.7	846.3	0.326	2.035	1.27	1.089	135.6	90.3	24.6	0.817
3-8870	3-9510	0.399	269.1	-20.8	1.86	0.771	62.7	0.459	1.600	120.1	411.9	0.866	2.334	1.34	1.186	105.7	144.1	19.0	0.342
3-8870	3-9510	0.227	185.3	2.3	1.86	0.527	96.3	0.552	1.062	185.2	836.9	0.476	1.649	1.34	1.045	123.3	105.9	24.7	0.587
3-8870	3-9510	0.583	139.1	17.6	1.86	0.637	141.9	0.813	1.230	203.4	855.2	0.230	2.230	1.34	1.104	143.6	97.0	24.2	0.954
3-8870	3-9520	0.434	267.3	-20.7	2.14	0.770	60.0	0.501	1.598	122.7	424.6	0.797	2.399	1.47	1.185	110.4	145.6	17.9	0.418
3-8870	3-9520	0.246	203.9	-5.4	2.14	0.513	87.1	0.569	1.047	177.8	839.7	0.451	1.643	1.47	1.037	124.6	115.4	23.5	0.603
11.266.. 33		443388..44		00..77	0044		22..448688			11.. 6688		11..1188444		111166...22		114477..77		1166 ..77	00..55116
3-8870	3-9530	0.297	217.1	-10.6	2.49	0.503	77.7	0.609	1.636	171.9	843.9	0.405	1.667	1.68	1.031	127.4	124.0	22.0	0.647
3-8870	3-9540	0.553	261.5	-20.6	2.97	0.769	50.5	0.637	1.595	131.5	453.7	0.579	2.610	2.03	1.182	123.5	149.9	15.6	0.642
3-8870	3-9540	0.373	225.4	-13.8	2.97	0.496	67.3	0.672	1.028	167.6	849.8	0.337	1.719	2.03	1.025	132.2	131.5	20.2	0.722
3-8870	3-9550	0.478	229.7	-15.5	3.73	0.491	54.6	0.761	1.023	165.8	858.0	0.245	1.801	2.68	1.020	139.5	137.7	18.5	0.838
3-8870	3-9600	0.575	206.4	-11.9	-1.76	0.263	52.8	0.929	0.870	176.6	918.4	0.062	1.679	-3.37	0.918	22.0	63.9	20.2	1.086
3-8870	3-9600	0.471	168.2	3.9	-1.76	0.372	123.9	0.850	0.926	187.1	928.9	0.139	1.713	-3.37	0.954	31.9	57.5	18.3	0.962
3-8870	3-9610	0.506	123.8	19.5	-0.67	0.747	132.6	0.679	1.513	222.2	613.7	0.485	2.541	-2.39	1.151	51.1	44.2	13.8	0.745
3-8870	3-9620	0.416	120.3	20.9	-0.06	0.747	125.3	0.582	1.512	227.8	629.0	0.632	2.392	-1.90	1.149	59.5	46.5	14.2	0.597
3-8870	3-9630	0.351	118.0	22.1	0.35	0.746	120.2	0.508	1.510	231.3	642.2	0.743	2.277	-1.61	1.146	65.8	49.4	14.6	0.485
3-8870	3-9640	0.303	116.4	23.2	0.66	0.745	116.4	0.452	1.507	233.4	653.9	0.826	2.188	-1.44	1.144	70.7	52.3	14.9	0.399
3-8870	3-9650	0.579	242.2	-20.8	0.91	0.608	44.0	0.770	1.178	156.8	586.8	0.271	2.085	-1.33	1.059	40.1	97.7	22.2	0.871
3-8870	3-9650	0.268	115.4	24.2	0.91	0.744	113.7	0.410	1.504	234.6	664.6	0.888	2.121	-1.33	1.143	74.7	54.9	15.0	0.331
3-8870	3-9660	0.527	244.4	-20.8	1.14	0.618	49.0	0.713	1.196	154.2	593.7	0.343	2.049	-1.27	1.064	45.2	104.4	21.6	0.789
3-8870	3-9660	0.242	114.9	25.3	1.14	0.743	111.6	0.378	1.502	235.2	674.8	0.934	2.069	-1.27	1.141	78.0	56.6	14.6	0.276
3-8870	3-9670	0.476	246.4	-20.7	1.35	0.628	53.9	0.659	1.214	151.9	601.0	0.419	2.008	-1.25	1.069	50.0	110.7	20.6	0.708
3-8870	3-9670	0.222	114.6	26.3	1.35	0.743	110.1	0.355	1.499	235.4	684.5	0.967	2.031	-1.25	1.140	80.9	57.0	13.8	0.232
3-8880	3-9010	0.596	106.1	27.7	3.61	0.978	130.8	0.780	3.742	262.4	414.5	0.823	---	-2.43	1.310	113.6	6.2	-2.8	0.580
3-8880	3-9020	0.543	109.5	29.3	4.93	0.924	129.1	0.701	2.697	256.8	418.6	0.807	---	-3.66	1.272	113.7	13.1	-2.7	0.558
3-8880	3-9030	0.502	114.8	35.0	9.19	0.875	127.2	0.637	2.182	251.1	422.7	0.791	---	-7.81	1.240	113.7	21.9	-8.3	0.552
3-8880	3-9050	0.401	116.8	14.6	-4.15	0.792	123.0	0.546	1.676	239.2	430.6	0.761	---	5.73	1.187	113.6	25.2	23.7	0.509
3-8880	3-9060	0.357	121.3	18.1	-1.44	0.757	120.7	0.513	1.535	233.1	434.5	0.747	---	3.12	1.167	113.5	35.4	21.3	0.488
3-8880	3-9070	0.318	126.1	18.9	-0.40	0.725	118.2	0.488	1.430	227.0	438.3	0.732	---	2.18	1.148	113.5	44.1	21.8	0.476
3-8880	3-9080	0.283	131.8	18.8	0.17	0.695	115.5	0.470	1.350	220.7	442.2	0.716	---	1.72	1.132	113.6	52.6	22.9	0.468
3-8880	3-9090	0.251	138.5	17.9	-0.56	0.669	112.6	0.457	1.287	214.5	446.0	0.699	---	1.45	1.118	113.8	61.3	24.1	0.463
3-8880	3-9100	0.223	146.7	16.2	0.85	0.645	109.4	0.450	1.237	208.2	449.9	0.680	---	1.29	1.105	114.2	70.2	25.0	0.462
3-8880	3-9110	0.200	156.8	13.5	1.09	0.622	106.0	0.448	1.195	202.0	453.8	0.659	---	1.20	1.093	114.7	79.2	25.6	0.464
3-8880	3-9120	0.185	168.9	9.4	1.30	0.602	102.3	0.452	1.160	195.8	457.8	0.636	---	1.15	1.082	115.5	88.3	25.8	0.471
3-8880	3-9130	0.180	182.6	4.1	1.50	0.583	98.2	0.462	1.131	189.8	461.9	0.608	---	1.14	1.072	116.6	97.4	25.5	0.483
3-8880	3-9140	0.189	196.6	-1.7	1.71	0.566	93.6	0.480	1.106	183.9	466.2	0.575	---	1.16	1.063	118.0	106.3	24.8	0.502
3-8880	3-9150	0.213	209.5	-7.0	1.93	0.550	88.3	0.506	1.085	178.3	470.8	0.536	1.635	1.23	1.054	120.0	114.9	23.6	0.531
3-8880	3-9160	0.253	220.2	-11.2	2.19	0.536	82.0	0.544	1.067	173.2	475.9	0.487	1.648	1.35	1.045	122.7	123.1	22.1	0.572
3-8880	3-9170	0.310	228.2	-14.1	2.51	0.523	74.5	0.596	1.052	168.8	481.7	0.425	1.679	1.55	1.037	126.4	130.7	20.3	0.631
3-8880	3-9180	0.389	233.6	-16.1	2.96	0.513	65.1	0.667	1.040	165.8	488.7	0.346	1.734	1.88	1.029	131.8	137.5	18.4	0.716
3-8880	3-9190	0.495	236.3	-17.2	3.69	0.505	52.9	0.763	1.032	164.8	497.7	0.246	1.818	2.50	1.023	139.6	143.1	16.7	0.839
3-8880	3-9320	0.591	257.9	-22.1	1.64	0.710	45.9	0.707	1.390	144.3	243.5	---	2.372	-1.15	1.117	7.3	124.7	18.4	0.773
3-8880	3-9330	0.560	260.1	-21.9	1.84	0.719	48.8	0.669	1.415	141.2	249.9	---	2.361	-1.20	1.123	50.8	131.2	18.5	0.714
3-8880	3-9340	0.531	262.2	-21.6	2.07	0.727	51.5	0.632	1.439	138.2	256.4	---	2.347	-1.29	1.129	54.2	137.6	14.4	0.657
3-8880	3-9350	0.504	264.2	-21.1	2.34	0.735	53.9	0.597	1.461	135.3	263.1	---	2.333	-1.44	1.136	57.5	143.6	12.0	0.602
3-8880	3-9360	0.479	266.1	-20.5	2.70	0.741	56.1	0.564	1.482	132.5	270.0	---	2.317	-1.68	1.141	60.6	149.3	9.2	0.549
3-8880	3-9370	0.456	267.8	-19.5	3.21	0.747	58.2	0.533	1.501	129.9	277.0	---	2.301	-2.09	1.147	63.6	154.6	5.9	0.499
3-8880	3-9380	0.436	269.3	-17.8	4.11	0.752	60.0	0.505	1.519	127.5	284.3	---	2.285	-2.88	1.153	66.5	159.1	1.5	0.452
3-8880	3-9390	0.421	270.4	-14.2	6.20	0.756	61.6	0.479	1.534	125.3	291.7	---	2.269	-4.87	1.158	69.3	162.1	-6.3	0.412
3-8880	3-9400	0.460	267.5	4.2	18.70	0.760	63.0	0.456	1.548	123.2	299.4	---	2.254	-17.27	1.163	72.0	158.0	-38.4	0.478
3-8880	3-9410	0.397	272.6	-39.5	-8.88	0.763	64.3	0.435	1.559	121.3	307.7	---	2.238	10.40	1.167	74.8	192.5	31.3	0.370
3-8880	3-9420	0.369	274.8	-28.6	-2.47	0.766	65.4	0.418	1.569	119.8	315.9	---	2.226	4.09	1.171	77.4	184.9	15.9	0.287
3-8880	3-9430	0.358	275.7	-25.6	-0.86	0.768	66.2	0.404	1.577	118.4	324.5	---	2.215	2.58	1.175	80.0	184.2	11.5	0.246
3-8880	3-9440	0.349	276.3	-24.1	-0.10	0.770	66.9	0.393	1.583	117.3	333.5	---	2.206	1.93	1.178	82.6	183.0	10.3	0.213
3-8880	3-9450	0.344	276.8	-23.1	0.37	0.771	67.4	0.386	1.588	116.6	342.8	---	2.201	1.57	1.181	85.2	179.7	10.9	0.189
3-8880	3-9460	0.341	277.1	-22.4	0.70	0.772	67.6	0.382	1.592	116.1	352.4	---	2.199	1.37	1.183	87.9	173.7	12.9	0.174
3-8880	3-9470	0.342	277.1	-21.8	0.96	0.772	67.6	0.382	1.594	115.9	362.4	0.985	2.203	1.24	1.185	90.7	165.7	15.4	0.172
3-8880	3-9480	0.346	276.9	-21.4	1.19	0.773	67.3	0.387	1.594	116.1	372.7	0.977	2.212	1.17	1.186	93.5	157.8	17.3	0.186
3-8880	3-9490	0.355	276.4	-21.1	1.48	0.773	66.6	0.398	1.594	116.7	383.5	0.960	2.229	1.14	1.186	96.6	152.0	18.2	0.213
3-8880	3-9500	0.369	275.7	-20.8	1.80	0.772	65.5	0.415	1.594	117.7	394.7	0.932	2.255	1.15	1.186	100.0	149.0	18.2	0.255
3-8880	3-9510	0.389	274.6	-20.7	1.81	0.772	63.9	0.441	1.592	119.2	406.4	0.891	2.293	1.19	1.185	103.7	148.4	17.5	0.309

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8890	3-9660	0.253	126.5	23.0	1.18	0.748	113.0	0.400	1.440	234.9	665.3	0.894	2.086	-1.08	1.139	75.2	63.7	17.5	0.319
3-8890	3-9670	0.534	258.5	-22.0	1.37	0.623	49.5	0.701	1.187	153.9	593.9	0.347	2.027	-1.05	1.061	45.6	114.5	20.5	0.778
3-8890	3-9670	0.227	126.2	24.1	1.37	0.747	111.1	0.370	1.487	235.3	675.4	0.938	2.037	-1.03	1.138	78.4	65.3	17.1	0.266
3-8890	3-9680	0.483	256.6	-21.8	1.54	0.633	54.4	0.648	1.205	151.6	601.2	0.424	1.986	-1.02	1.066	50.4	120.7	19.2	0.697
3-8890	3-9680	0.209	126.2	25.1	1.54	0.746	109.6	0.347	1.485	235.5	685.0	0.970	2.000	-1.02	1.137	81.2	65.5	16.3	0.224
3-8890	3-9690	0.433	258.4	-21.4	1.71	0.642	58.9	0.588	1.223	149.7	608.8	0.504	1.942	-1.03	1.073	55.2	126.6	17.7	0.618
3-8890	3-9690	0.196	126.3	26.1	1.71	0.746	108.6	0.331	1.483	235.5	694.6	0.992	1.975	-1.03	1.137	83.8	63.5	15.0	0.191
3-8900	3-9040	0.561	123.7	30.9	8.22	0.926	30.6	0.713	2.629	253.6	425.9	0.753	---	-6.66	1.273	116.8	27.8	-1.7	0.518
3-8900	3-9050	0.555	122.2	-4.9	-19.99	0.872	128.5	0.649	2.101	247.6	430.0	0.739	---	21.63	1.237	116.5	6.8	42.3	0.701
3-8900	3-9060	0.445	126.1	15.9	-2.49	0.825	126.2	0.596	1.798	241.6	433.9	0.726	---	4.21	1.207	116.2	35.2	22.7	0.559
3-8900	3-9070	0.396	130.4	17.8	-0.56	0.783	123.7	0.555	1.603	235.5	437.7	0.713	---	2.35	1.181	115.9	44.5	21.8	0.534
3-8900	3-9080	0.353	135.1	17.8	0.21	0.745	121.1	0.524	1.467	229.3	441.6	0.699	---	1.67	1.158	115.7	53.2	22.6	0.517
3-8900	3-9090	0.313	140.5	17.2	0.65	0.711	118.3	0.500	1.368	223.1	445.4	0.684	---	1.32	1.138	115.6	61.9	23.7	0.503
3-8900	3-9100	0.277	146.8	15.9	0.94	0.681	115.2	0.482	1.293	216.4	449.2	0.669	---	1.12	1.121	115.6	70.7	24.6	0.493
3-8900	3-9110	0.245	154.5	13.9	1.16	0.653	111.9	0.472	1.234	210.4	453.1	0.652	---	1.00	1.105	115.8	79.7	25.2	0.487
3-8900	3-9120	0.219	164.0	11.0	1.35	0.628	108.4	0.467	1.187	204.1	456.9	0.633	---	0.93	1.091	116.2	88.8	25.3	0.485
3-8900	3-9130	0.201	175.4	6.9	1.51	0.605	104.5	0.468	1.148	197.8	460.9	0.611	---	0.90	1.078	116.7	97.9	25.0	0.488
3-8900	3-9140	0.193	188.6	1.6	1.67	0.584	100.2	0.476	1.116	191.7	464.9	0.585	---	0.89	1.067	117.6	106.9	24.2	0.497
3-8900	3-9150	0.199	202.6	-4.1	1.83	0.565	95.4	0.491	1.089	185.7	469.0	0.554	---	0.91	1.055	118.9	115.7	23.0	0.513
3-8900	3-9160	0.221	215.9	-9.3	2.01	0.547	89.9	0.515	1.067	179.9	473.5	0.517	1.617	0.97	1.045	120.7	124.2	21.4	0.538
3-8900	3-9170	0.260	227.2	-13.4	2.21	0.532	83.5	0.551	1.048	174.6	478.3	0.470	1.626	1.07	1.035	123.3	132.2	19.5	0.577
3-8900	3-9180	0.317	235.9	-16.2	2.47	0.518	75.7	0.602	1.032	170.0	483.8	0.411	1.654	1.23	1.026	126.9	139.7	17.3	0.633
3-8900	3-9190	0.397	241.3	-18.1	2.84	0.506	65.9	0.672	1.020	166.7	490.5	0.334	1.705	1.51	1.018	132.2	146.3	15.2	0.716
3-8900	3-9200	0.505	244.9	-19.2	3.43	0.498	53.3	0.767	1.011	165.5	499.3	0.236	1.786	2.01	1.011	140.0	151.8	13.2	0.839
3-8900	3-9330	0.597	268.0	-22.4	4.77	0.713	46.5	0.701	1.374	144.1	243.6	---	2.336	-0.90	1.114	47.7	134.4	16.2	0.763
3-8900	3-9340	0.566	270.2	-22.1	1.93	0.722	49.3	0.662	1.398	141.0	250.0	---	2.324	-0.94	1.121	51.2	140.8	14.1	0.704
3-8900	3-9350	0.537	272.2	-21.7	2.11	0.731	52.0	0.625	1.422	137.9	256.6	---	2.311	-1.01	1.127	54.6	147.0	11.8	0.647
3-8900	3-9360	0.510	274.1	-21.2	2.32	0.738	54.4	0.590	1.445	135.0	263.3	---	2.297	-1.13	1.134	57.8	153.0	9.2	0.593
3-8900	3-9370	0.485	275.9	-20.5	2.61	0.745	56.6	0.557	1.465	132.3	270.2	---	2.282	-1.33	1.140	60.9	158.6	6.3	0.540
3-8900	3-9380	0.462	277.5	-19.6	3.02	0.751	58.6	0.526	1.485	129.7	277.3	---	2.266	-1.66	1.146	63.9	163.9	3.1	0.491
3-8900	3-9390	0.441	278.9	-18.1	3.76	0.756	60.4	0.498	1.502	127.2	284.6	---	2.250	-2.31	1.152	66.8	168.5	-1.1	0.443
3-8900	3-9400	0.425	279.8	-14.9	5.52	0.760	62.1	0.472	1.517	125.0	292.1	---	2.234	-4.00	1.157	69.6	171.6	-8.2	0.402
3-8900	3-9410	0.463	275.7	3.8	18.32	0.764	63.5	0.449	1.531	122.9	298.9	---	2.219	-16.73	1.162	72.3	169.9	-41.7	0.467
3-8900	3-9420	0.393	284.0	-33.4	-5.63	0.767	64.7	0.429	1.542	121.1	308.1	---	2.204	7.01	1.167	75.1	195.6	[illegible]	0.338
3-8900	3-9430	0.374	284.7	-25.7	-1.30	0.770	65.8	0.412	1.552	119.5	316.5	---	2.191	3.05	1.171	77.7	192.0	[illegible]	0.277
3-8900	3-9440	0.383	285.4	-23.5	-0.13	0.772	66.7	0.398	1.560	118.2	325.1	---	2.180	1.96	1.174	80.3	192.0	[illegible]	0.239
3-8900	3-9450	0.355	285.9	-22.3	0.44	0.774	67.3	0.387	1.566	117.1	334.1	---	2.172	1.48	1.177	82.9	191.0	[illegible]	0.208
3-8900	3-9460	0.350	286.3	-21.5	0.80	0.775	67.8	0.379	1.571	116.3	343.5	---	2.167	1.21	1.180	85.5	187.7	[illegible]	0.184
3-8900	3-9470	0.347	286.5	-20.9	1.05	0.776	68.0	0.376	1.574	115.8	353.1	---	2.165	1.06	1.181	86.1	181.7	[illegible]	0.176
3-8900	3-9480	0.348	286.5	-20.5	1.25	0.776	68.0	0.376	1.576	115.7	363.2	0.983	2.169	0.96	1.183	90.9	173.9	[illegible]	0.169
3-8900	3-9490	0.352	286.3	-20.2	1.43	0.776	67.6	0.381	1.577	115.9	373.5	0.976	2.178	0.91	1.183	93.7	166.1	[illegible]	0.182
3-8900	3-9500	0.361	285.8	-20.0	1.59	0.776	67.0	0.392	1.577	116.4	384.3	0.959	2.195	0.89	1.183	96.0	160.5	[illegible]	0.210
3-8900	3-9510	0.375	285.1	-19.9	1.75	0.776	66.9	0.409	1.576	117.4	395.5	0.931	2.221	0.90	1.182	100.1	158.[illegible]	[illegible]	0.251
3-8900	3-9520	0.396	284.1	-20.0	1.91	0.776	66.3	0.435	1.575	118.9	407.1	0.890	2.260	0.94	1.181	103.8	157.[illegible]	[illegible]	0.305
3-8900	3-9520	0.241	189.2	0.5	1.91	0.539	102.0	0.559	1.056	189.8	838.0	0.466	1.647	0.94	1.041	123.8	116.[illegible]	[illegible]	0.591
3-8900	3-9520	0.531	154.2	12.6	1.91	0.629	137.6	0.778	1.188	204.1	852.3	0.264	2.112	0.94	1.090	140.4	109.3	[illegible]	0.892
3-8900	3-9530	0.427	282.6	-20.1	2.10	0.775	61.9	0.472	1.573	121.1	419.4	0.831	2.314	1.01	1.180	108.1	158.5	[illegible]	0.[illegible]
3-8900	3-9530	0.242	210.1	-7.7	2.10	0.522	92.0	0.561	1.036	181.6	839.9	0.455	1.618	1.01	1.031	124.0	125.8	[illegible]	0.[illegible]
3-8900	3-9540	0.470	280.6	-20.3	2.33	0.775	58.6	0.522	1.571	124.2	432.6	0.751	2.391	1.14	1.178	113.3	160.4	[illegible]	0.460
3-8900	3-9540	0.282	225.8	-13.3	2.33	0.510	82.7	0.589	1.024	174.8	843.3	0.421	1.626	1.14	1.023	126.0	134.5	[illegible]	0.618
3-8900	3-9550	0.530	277.8	-20.7	2.63	0.774	53.8	0.592	1.569	128.6	447.1	0.641	2.498	1.34	1.175	119.8	162.5	10.0	0.572
3-8900	3-9550	0.348	236.4	-16.6	2.63	0.501	72.3	0.640	1.015	169.6	848.1	0.365	1.664	1.34	1.017	129.8	142.2	16.5	0.676
3-8900	3-9560	0.441	242.6	-18.5	3.08	0.495	61.0	0.717	1.008	166.4	855.0	0.285	1.731	1.70	1.011	135.8	148.8	14.3	0.771
3-8900	3-9570	0.566	244.8	-19.5	3.88	0.492	44.2	0.820	1.005	166.2	864.7	0.181	1.828	2.43	1.006	145.1	153.7	12.[illegible]	0.915
3-8900	3-9610	0.520	179.2	-0.3	-1.15	0.380	132.2	0.880	0.915	187.6	925.4	0.110	1.720	-2.91	0.945	28.5	69.8	20.8	1.004
3-8900	3-9620	0.533	140.3	15.8	-0.09	0.753	135.2	0.712	1.091	220.0	607.5	0.429	2.554	-1.93	1.145	47.9	56.5	17.8	0.795
3-8900	3-9620	0.507	218.2	-15.4	-0.09	0.300	69.0	0.875	0.872	176.3	924.3	0.109	1.634	-1.93	0.913	29.4	81.2	22.3	0.974
3-8900	3-9620	0.415	194.2	-6.3	-0.09	0.362	106.9	0.807	0.904	184.1	931.6	0.175	1.634	-1.93	0.936	35.5	76.6	21.6	0.880
3-8900	3-9630	0.429	136.7	17.6	0.41	0.753	126.9	0.605	1.491	226.7	623.8	0.589	2.393	-1.47	1.143	57.3	58.5	18.0	0.631
3-8900	3-9640	0.355	134.4	19.1	0.78	0.752	121.1	0.522	1.489	230.8	637.6	0.712	2.267	-1.22	1.141	64.2	61.2	18.3	0.509
3-8900	3-9650	0.301	133.0	20.4	1.03	0.751	117.0	0.460	1.487	233.3	649.6	0.802	2.171	-1.07	1.139	69.4	64.2	18.5	0.416
3-8900	3-9660	0.262	132.2	21.6	1.22	0.750	113.9	0.414	1.484	234.7	660.6	0.870	2.098	-0.97	1.138	73.6	67.0	18.6	0.344
3-8900	3-9670	0.565	258.6	-22.4	1.39	0.620	47.2	0.734	1.174	155.0	590.4	0.312	2.035	-0.92	1.056	43.2	116.3	20.4	0.814
3-8900	3-9670	0.233	131.9	22.7	1.39	0.750	111.7	0.379	1.481	235.4	670.8	0.920	2.043	-0.92	1.137	77.0	69.0	18.4	0.286
3-8900	3-9680	0.513	260.7	-22.2	1.54	0.631	52.1	0.676	1.191	152.5	597.5	0.386	1.996	-0.89	1.062	48.2	122.7	19.1	0.733
3-8900	3-9680	0.211	131.8	23.7	1.54	0.749	110.0	0.353	1.479	235.6	680.6	0.950	2.002	-0.89	1.136	80.0	69.9	17.9	0.239
3-8900	3-9690	0.463	262.6	-21.8	1.69	0.640	56.8	0.616	1.209	150.4	604.9	0.465	1.954	-0.89	1.068	53.0	126.3	17.5	0.653
3-8900	3-9690	0.196	132.0	24.7	1.69	0.748	108.8	0.335	1.477	235.7	690.2	0.983	1.972	-0.89	1.136	82.6	68.9	17.0	0.202
3-8900	3-9700	0.414	264.3	-21.3	1.84	0.650	61.2	0.556	1.228	148.8	612.8	0.546	1.910	-0.92	1.079	57.6	134.4	15.7	0.575
3-8900	3-9700	0.186	132.2	25.6	1.84	0.748	108.0	0.323	1.476	235.7	699.7	1.000	1.953	-0.92	1.137	85.1	65.4	15.5	0.174
3-8910	3-9060	0.499	128.5	13.6	-4.00	0.869	129.0	0.651	2.045	245.8	433.4	0.714	---	5.74	1.234	117.9	34.5	24.8	0.606
3-8910	3-9070	0.443	132.9	17.0	-0.70	0.820	126.6	0.599	1.750	239.7	437.3	0.702	---	2.50	1.203	117.3	44.8	21.9	0.571
3-8910	3-9080	0.394	137.3	17.2	0.24	0.777	123.9	0.559	1.561	233.6	441.2	0.689	---	1.63	1.176	117.0	53.5	22.4	0.548
3-8910	3-9090	0.350	142.1	16.6	0.71	0.739	121.1	0.528	1.431	227.3	445.0	0.676	---	1.23	1.152	116.7	62.2	23.4	0.529
3-8910	3-9100	0.310	147.7	15.5	1.00	0.704	118.1	0.505	1.335	221.0	448.8	0.662	---	1.02	1.132	116.5	71.0	24.3	0.514
3-8910	3-9110	0.274	154.5	13.8	1.22	0.673	114.9	0.468	1.263	214.7	452.7	0.646	---	0.89	1.114	116.5	80.0	24.9	0.504
3-8910	3-9120	0.243	162.[illegible]	11.3	1.39	0.645	111.4	0.479	1.207	208.3	456.5	0.629	---	0.81	1.098	116.7	89.1	25.0	0.497
3-8910	3-9130	0.218	172.8	7.7	1.53	0.619	107.7	0.475	1.161	202.0	460.4	0.610	---	0.77	1.083	117.1	98.2	24.7	0.496
3-8910	3-9140	0.203	184.9	3.1	1.67	0.596	103.5	0.478	1.125	195.7	464.3	0.587	---	0.76	1.070	117.7	107.[illegible]	23.9	0.499
3-8910	3-9150	0.200	198.5	-2.5	1.80	0.575	98.9	0.498	1.094	189.6	468.3	0.580	---	0.76	1.[illegible]	[illegible]	116.1	22.7	0.509

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8910	3-9160	0.212	212.4	-8.0	1.95	0.516	93.7	0.507	1.069	183.6	472.5	0.527	---	0.80	1.046	120.1	124.6	21.0	0.528
3-8910	3-9170	0.241	225.1	-12.6	2.11	0.538	87.7	0.535	1.048	178.0	477.0	0.487	1.608	0.86	1.035	122.2	132.8	19.1	0.558
3-8910	3-9180	0.289	235.5	-15.9	2.30	0.523	80.5	0.577	1.030	172.9	482.0	0.436	1.624	0.97	1.025	125.2	140.5	16.8	0.603
3-8910	3-9190	0.356	243.2	-18.1	2.56	0.510	71.7	0.636	1.015	168.7	487.9	0.370	1.661	1.15	1.016	129.5	147.5	14.5	0.670
3-8910	3-9200	0.450	248.1	-19.5	2.95	0.499	60.5	0.718	1.005	166.2	495.3	0.284	1.725	1.47	1.008	135.8	153.6	12.4	0.770
3-8910	3-9210	0.576	249.8	-20.4	3.66	0.492	45.8	0.823	0.998	166.3	505.4	0.177	1.819	2.11	1.002	145.4	158.3	10.5	0.917
3-8910	3-9340	0.585	274.2	-22.2	1.88	0.720	48.2	0.678	1.378	142.4	246.8	---	2.312	-0.78	1.116	49.6	142.4	13.9	0.728
3-8910	3-9350	0.555	276.2	-21.8	2.02	0.729	50.9	0.641	1.402	139.3	253.3	---	2.300	-0.83	1.123	53.1	148.7	11.5	0.671
3-8910	3-9360	0.527	278.2	-21.3	2.19	0.737	53.4	0.604	1.425	136.3	259.9	---	2.286	-0.91	1.130	56.4	154.7	9.0	0.616
3-8910	3-9370	0.500	280.0	-20.7	2.40	0.744	55.8	0.570	1.447	133.5	266.7	---	2.271	-1.04	1.136	59.5	160.5	6.3	0.563
3-8910	3-9380	0.476	281.6	-19.9	2.69	0.750	57.9	0.538	1.467	130.8	273.8	---	2.256	-1.25	1.142	62.6	166.0	3.3	0.512
3-8910	3-9390	0.454	283.1	-18.9	3.15	0.756	59.9	0.508	1.485	128.3	281.0	---	2.240	-1.65	1.148	65.5	171.0	-0.2	0.463
3-8910	3-9400	0.435	284.3	-17.0	4.08	0.760	61.5	0.481	1.501	125.9	288.4	---	2.224	-2.51	1.154	68.4	175.2	-5.0	0.418
3-8910	3-9410	0.424	284.5	-11.4	7.31	0.765	63.0	0.457	1.516	123.8	296.1	---	2.208	-5.67	1.159	71.1	176.5	-16.4	0.385
3-8910	3-9420	0.449	287.2	-49.2	-16.50	0.768	64.4	0.435	1.528	121.8	304.2	---	2.193	18.20	1.164	73.9	216.6	37.4	0.469
3-8910	3-9430	0.384	289.3	-26.1	-1.78	0.771	65.5	0.417	1.539	120.1	312.4	---	2.180	3.55	1.168	76.5	195.8	8.2	0.296
3-8910	3-9440	0.371	289.9	-23.7	-0.15	0.773	66.4	0.401	1.548	118.6	320.9	---	2.168	1.99	1.172	79.1	195.9	3.0	0.254
3-8910	3-9450	0.362	290.4	-21.6	0.50	0.775	67.2	0.389	1.555	117.4	329.8	---	2.159	1.41	1.175	81.7	195.8	1.3	0.220
3-8910	3-9460	0.355	290.9	-20.8	0.86	0.777	67.8	0.379	1.560	116.5	339.0	---	2.152	1.12	1.178	84.3	193.8	1.5	0.193
3-8910	3-9470	0.351	291.1	-20.2	1.11	0.778	68.1	0.374	1.564	115.8	348.5	---	2.148	0.95	1.180	86.9	189.3	3.0	0.173
3-8910	3-9480	0.350	291.2	-19.8	1.30	0.778	68.2	0.372	1.566	115.5	358.3	---	2.149	0.85	1.181	89.5	182.3	5.6	0.155
3-8910	3-9490	0.352	291.1	-19.5	1.46	0.779	68.0	0.375	1.568	115.5	368.5	0.980	2.155	0.79	1.182	92.3	174.4	8.4	0.172
3-8910	3-9500	0.359	290.8	-19.3	1.60	0.779	67.6	0.382	1.568	115.9	379.1	0.968	2.168	0.76	1.182	95.2	167.8	10.3	0.193
3-8910	3-9510	0.370	290.3	-19.3	1.73	0.779	66.7	0.396	1.568	116.6	390.0	0.947	2.189	0.76	1.181	98.4	163.7	11.1	0.227
3-8910	3-9520	0.388	289.4	-19.3	1.87	0.779	65.4	0.418	1.567	117.9	401.4	0.912	2.221	0.78	1.180	101.9	162.2	11.1	0.274
3-8910	3-9520	0.268	181.8	3.2	1.87	0.555	108.7	0.576	1.067	195.1	838.6	0.453	1.682	0.78	1.046	124.9	115.9	22.4	0.612
3-8910	3-9530	0.466	160.4	10.5	1.87	0.614	131.7	0.727	1.153	204.5	848.0	0.315	1.992	0.78	1.079	136.0	111.3	22.7	0.814
3-8910	3-9530	0.413	288.2	-19.5	2.02	0.778	63.4	0.448	1.565	119.7	413.4	0.863	2.267	0.82	1.178	105.8	162.5	10.4	0.334
3-8910	3-9530	0.238	205.2	-5.9	2.02	0.531	96.9	0.556	1.039	185.6	839.3	0.462	1.617	0.82	1.032	123.6	126.1	20.6	0.583
3-8910	3-9530	0.585	158.8	10.6	2.02	0.643	142.3	0.818	1.203	203.1	856.8	0.219	2.187	0.82	1.094	144.2	117.9	21.5	0.954
3-8910	3-9540	0.449	286.6	-19.8	2.19	0.778	60.6	0.491	1.563	122.3	426.0	0.795	2.331	0.91	1.176	110.5	164.0	9.5	0.411
3-8910	3-9540	0.262	223.6	-12.5	2.19	0.517	87.5	0.571	1.024	178.1	841.9	0.439	1.608	0.91	1.023	124.8	135.1	18.3	0.597
3-8910	3-9550	0.500	284.3	-20.2	2.41	0.777	56.6	0.551	1.561	125.9	439.8	0.701	2.422	1.05	1.174	116.3	166.0	8.3	0.508
3-8910	3-9550	0.315	236.7	-16.5	2.41	0.507	78.0	0.610	1.013	172.1	845.9	0.395	1.631	1.05	1.016	127.6	143.2	15.9	0.639
3-8910	3-9560	0.573	281.0	-20.7	2.72	0.777	50.8	0.632	1.560	131.3	455.2	0.574	2.547	1.28	1.172	123.7	168.0	7.3	0.636
3-8910	3-9560	0.395	245.0	-18.7	2.72	0.500	67.2	0.674	1.005	167.7	851.6	0.328	1.683	1.28	1.010	132.4	150.3	13.6	0.715
3-8910	3-9570	0.505	249.3	-20.0	3.23	0.495	54.1	0.765	1.000	165.9	859.7	0.235	1.766	1.71	1.004	139.9	156.0	11.4	0.833
3-8910	3-9610	0.593	181.3	-1.2	-1.54	0.385	143.6	0.923	0.912	187.1	920.2	0.070	1.754	-3.32	0.943	22.7	72.5	21.3	1.086
3-8910	3-9620	0.591	147.4	13.4	-0.10	0.755	140.0	0.768	1.484	216.0	598.8	0.344	2.624	-1.95	1.143	82.5	60.6	19.0	0.884
3-8910	3-9620	0.578	226.1	-17.8	-0.10	0.277	55.6	0.918	0.856	176.4	919.3	0.070	1.642	-1.95	0.902	23.8	84.4	22.7	1.048
3-8910	3-9620	0.454	189.6	-4.3	-0.10	0.377	119.4	0.832	0.907	186.8	929.6	0.152	1.663	-1.95	0.938	33.9	77.7	21.8	0.919
3-8910	3-9630	0.468	148.1	15.6	0.50	0.756	130.2	0.648	1.485	224.3	616.7	0.523	2.447	-1.41	1.142	53.5	61.9	19.0	0.695
3-8910	3-9640	0.381	140.4	17.3	0.85	0.755	123.3	0.554	1.483	229.5	631.5	0.662	2.305	-1.13	1.140	61.4	64.3	19.3	0.556
3-8910	3-9650	0.319	138.8	18.7	1.09	0.755	118.5	0.483	1.481	232.6	644.3	0.766	2.196	-0.96	1.138	67.3	67.2	19.5	0.451
3-8910	3-9660	0.274	137.9	20.0	1.27	0.754	115.0	0.430	1.479	234.4	655.7	0.843	2.114	-0.86	1.137	71.9	70.1	19.7	0.371
3-8910	3-9670	0.597	262.7	-22.8	1.43	0.618	44.7	0.761	1.160	156.2	586.9	0.277	2.043	-0.80	1.051	40.8	118.2	20.3	0.850
3-8910	3-9670	0.240	137.5	21.1	1.43	0.753	112.4	0.390	1.476	235.4	666.2	0.900	2.052	-0.80	1.136	75.6	72.6	19.6	0.307
3-8910	3-9680	0.545	264.9	-22.5	1.56	0.629	49.8	0.703	1.178	153.6	593.9	0.349	2.008	-0.77	1.057	45.8	124.6	18.9	0.769
3-8910	3-9680	0.215	137.4	22.1	1.56	0.752	110.5	0.361	1.473	235.9	676.1	0.942	2.005	-0.77	1.135	78.8	74.0	19.3	0.256
3-8910	3-9690	0.493	266.9	-22.2	1.69	0.639	54.6	0.644	1.195	151.3	601.1	0.426	1.965	-0.76	1.064	50.7	130.7	17.3	0.689
3-8910	3-9690	0.198	137.6	23.1	1.69	0.752	109.2	0.340	1.471	236.0	685.8	0.972	1.971	-0.76	1.135	81.5	73.9	18.6	0.215
3-8910	3-9700	0.443	268.7	-21.7	1.81	0.648	59.1	0.583	1.214	149.3	608.7	0.505	1.922	-0.77	1.070	55.4	136.5	15.5	0.610
3-8910	3-9700	0.185	137.9	23.9	1.81	0.751	108.2	0.325	1.470	236.0	695.4	0.993	1.948	-0.77	1.136	84.0	71.4	17.6	0.183
3-8910	3-9710	0.395	270.2	-21.1	1.95	0.658	63.4	0.524	1.232	147.9	616.9	0.586	1.877	-0.80	1.077	59.9	141.9	13.5	0.534
3-8910	3-9710	0.178	138.2	24.8	1.95	0.751	107.6	0.316	1.470	236.0	704.9	1.006	1.934	-0.80	1.137	86.4	66.1	15.9	0.162
3-8920	3-9060	0.573	130.3	5.4	-10.54	0.921	131.8	0.717	2.476	249.9	432.8	0.702	---	12.30	1.268	119.5	29.3	33.6	0.685
3-8920	3-9070	0.497	135.5	16.0	-0.95	0.865	129.4	0.652	1.981	243.5	436.8	0.690	---	2.76	1.230	118.9	45.1	22.1	0.615
3-8920	3-9080	0.442	139.7	16.5	0.29	0.815	126.8	0.601	1.699	237.8	440.7	0.678	---	1.58	1.197	118.4	53.9	22.2	0.584
3-8920	3-9090	0.392	144.1	16.0	0.80	0.771	124.0	0.561	1.518	231.6	444.5	0.666	---	1.13	1.169	117.9	62.5	23.2	0.559
3-8920	3-9100	0.347	149.1	15.0	1.09	0.731	121.1	0.531	1.393	225.3	448.4	0.653	---	0.90	1.145	117.6	71.3	24.0	0.549
3-8920	3-9110	0.306	155.0	13.4	1.29	0.696	117.9	0.509	1.302	219.0	452.2	0.639	---	0.77	1.124	117.4	80.3	24.6	0.524
3-8920	3-9120	0.271	162.2	11.2	1.44	0.665	114.5	0.494	1.233	212.6	456.0	0.624	---	0.69	1.106	117.4	89.4	24.8	0.513
3-8920	3-9130	0.241	171.0	8.2	1.57	0.636	110.8	0.486	1.179	206.2	459.9	0.607	---	0.64	1.089	117.6	98.5	24.4	0.506
3-8920	3-9140	0.219	181.7	4.2	1.68	0.610	106.8	0.484	1.137	199.9	463.7	0.587	---	0.62	1.074	118.0	107.5	23.6	0.505
3-8920	3-9150	0.207	194.4	-0.9	1.79	0.587	102.4	0.489	1.102	193.6	467.6	0.563	---	0.62	1.060	118.7	116.4	22.4	0.520
3-8920	3-9160	0.210	208.3	-6.4	1.90	0.566	97.4	0.501	1.073	187.5	471.7	0.535	---	0.63	1.047	119.8	125.0	20.7	0.522
3-8920	3-9170	0.229	221.9	-11.5	2.02	0.547	91.8	0.523	1.049	181.6	475.9	0.500	---	0.67	1.035	121.4	133.3	18.7	0.544
3-8920	3-9180	0.265	234.0	-15.4	2.16	0.530	85.1	0.557	1.029	176.1	480.5	0.456	1.601	0.74	1.024	123.8	141.1	16.4	0.578
3-8920	3-9190	0.322	243.5	-18.0	2.35	0.514	77.2	0.605	1.012	171.3	485.7	0.400	1.625	0.86	1.014	127.2	148.4	14.8	0.632
3-8920	3-9200	0.401	250.2	-19.7	2.60	0.502	67.2	0.674	0.999	167.7	492.1	0.326	1.673	1.05	1.005	132.4	155.0	11.6	0.712
3-8920	3-9210	0.510	253.9	-20.8	3.02	0.493	54.2	0.768	0.990	166.1	500.5	0.230	1.750	1.42	0.998	140.1	160.4	9.4	0.833
3-8920	3-9350	0.574	280.3	-21.7	1.96	0.727	49.8	0.657	1.381	140.7	250.0	---	2.288	-0.65	1.118	51.5	150.3	11.2	0.696
3-8920	3-9360	0.544	282.3	-21.3	2.08	0.735	52.4	0.620	1.405	137.7	256.5	---	2.275	-0.70	1.125	54.0	156.4	8.8	0.639
3-8920	3-9370	0.517	284.1	-20.7	2.23	0.743	54.8	0.584	1.427	134.7	263.4	---	2.261	-0.78	1.132	58.1	162.3	6.1	0.585
3-8920	3-9380	0.491	285.8	-20.0	2.43	0.750	57.0	0.551	1.448	132.0	270.2	---	2.246	-0.92	1.139	61.2	168.0	3.3	0.534
3-8920	3-9390	0.468	287.3	-19.2	2.73	0.756	59.0	0.520	1.467	129.3	277.3	---	2.[illegible]	-1.16	1.145	64.2	173.3	0.2	0.484
3-8920	3-9400	0.447	288.7	-18.0	3.25	0.761	60.8	0.492	1.485	126.9	284.7	---	2.[illegible]	-1.62	1.151	67.1	178.2	-3.5	0.437
3-8920	3-9410	0.429	289.5	-15.5	4.55	0.765	62.5	0.466	1.500	124.6	292.2	---	2.199	-2.87	1.156	69.9	181.7	-9.4	0.394
3-8920	3-9420	0.456	290.2	1.5	15.96	0.769	63.9	0.443	1.513	122.5	300.0	---	2.184	-14.23	1.161	72.6	175.7	-41.2	0.435
3-8920	3-9430	0.394	291.1	-27.3	-2.87	0.772	65.1	0.423	1.525	120.7	306.3	---	2.169	4.66	1.166	75.3	200.3	9.5	0.318

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8920	3-9440	0.380	294.4	-22.4	-0.19	0.775	66.2	0.405	1.534	119.1	346.7	---	2.157	2.03	1.170	77.9	199.6	1.0	0.271
3-8920	3-9450	0.369	294.9	-20.8	0.57	0.777	67.0	0.391	1.542	117.7	345.4	---	2.146	1.32	1.173	80.5	200.2	-1.5	0.234
3-8920	3-9460	0.361	295.4	-20.0	0.95	0.779	67.7	0.380	1.549	116.6	344.4	---	2.138	1.00	1.175	83.0	199.5	-2.0	0.204
3-8920	3-9470	0.355	295.7	-19.4	1.19	0.780	68.2	0.373	1.553	115.8	343.8	---	2.132	0.83	1.178	85.6	196.3	-1.1	0.180
3-8920	3-9480	0.353	295.9	-19.0	1.36	0.781	68.4	0.369	1.556	115.4	343.5	---	2.131	0.72	1.179	88.2	190.5	1.1	0.166
3-8920	3-9490	0.353	295.9	-18.7	1.50	0.782	68.4	0.369	1.558	115.2	343.3	0.983	2.134	0.66	1.180	90.9	182.8	3.9	0.165
3-8920	3-9500	0.357	295.7	-18.5	1.62	0.782	68.1	0.374	1.559	115.4	343.8	0.976	2.143	0.63	1.180	93.8	175.4	6.5	0.178
3-8920	3-9510	0.366	295.3	-18.4	1.73	0.782	67.4	0.385	1.559	115.9	344.6	0.959	2.159	0.61	1.180	96.8	170.1	8.1	0.205
3-8920	3-9520	0.380	294.7	-18.5	1.84	0.782	66.3	0.402	1.558	116.9	345.7	0.932	2.185	0.62	1.179	100.0	167.4	8.6	0.246
3-8920	3-9530	0.401	293.7	-18.7	1.96	0.781	64.7	0.428	1.557	118.4	407.3	0.891	2.223	0.65	1.177	103.7	166.8	8.3	0.299
3-8920	3-9530	0.246	199.0	-3.6	1.96	0.543	102.3	0.559	1.045	190.1	839.1	0.461	1.628	0.65	1.034	123.8	126.2	20.3	0.587
3-8920	3-9530	0.534	163.9	8.7	1.96	0.633	137.6	0.779	1.175	204.1	853.1	0.259	2.090	0.65	1.084	140.6	119.6	21.2	0.890
3-8920	3-9540	0.432	292.3	-19.0	2.09	0.781	62.4	0.464	1.555	120.5	419.6	0.834	2.277	0.70	1.175	108.0	167.8	7.6	0.366
3-8920	3-9540	0.248	219.9	-11.3	2.09	0.526	92.3	0.559	1.025	181.8	840.9	0.452	1.598	0.70	1.024	123.9	135.6	18.0	0.583
3-8920	3-9550	0.475	290.5	-19.4	2.24	0.780	59.1	0.515	1.654	123.6	432.7	0.754	2.354	0.79	1.173	113.1	169.6	6.5	0.452
3-8920	3-9550	0.288	235.7	-16.1	2.24	0.514	83.0	0.536	1.012	175.0	844.2	0.419	1.605	0.79	1.015	125.9	144.0	15.4	0.610
3-8920	3-9560	0.536	287.8	-20.0	2.45	0.780	54.3	0.585	1.552	128.0	447.2	0.645	2.459	0.94	1.170	119.6	171.6	5.5	0.563
3-8920	3-9560	0.355	246.5	-18.8	2.45	0.506	73.0	0.637	1.003	169.7	848.9	0.364	1.642	0.94	1.008	129.5	151.5	12.9	0.667
3-8920	3-9570	0.450	252.8	-20.3	2.77	0.499	61.2	0.714	0.997	166.4	855.5	0.285	1.709	1.20	1.003	135.6	157.9	10.5	0.762
3-8920	3-9580	0.578	255.0	-21.2	3.35	0.496	46.3	0.819	0.993	166.1	865.2	0.180	1.807	1.71	0.998	145.0	162.7	8.5	0.908
3-8920	3-9620	0.514	188.8	-4.0	-0.13	0.388	130.9	0.871	0.907	187.8	926.0	0.117	1.697	-1.97	0.937	29.6	79.7	22.2	0.982
3-8920	3-9630	0.517	149.8	13.3	0.58	0.759	134.1	0.698	1.478	221.2	809.0	0.447	2.510	-1.32	1.140	49.0	65.7	20.1	0.771
3-8920	3-9630	0.513	229.0	-18.2	0.58	0.308	68.6	0.870	0.864	176.6	924.4	0.112	1.616	-1.32	0.905	30.0	91.8	22.8	0.959
3-8920	3-9630	0.414	204.8	-10.0	0.58	0.370	105.3	0.799	0.896	184.0	931.8	0.181	1.612	-1.32	0.928	37.4	87.0	22.6	0.862
3-8920	3-9640	0.414	146.6	15.3	0.94	0.759	125.9	0.591	1.478	227.7	625.1	0.605	2.350	-1.01	1.139	58.2	67.6	20.2	0.610
3-8920	3-9650	0.341	144.6	16.8	1.17	0.758	120.3	0.509	1.476	231.7	638.7	0.724	2.227	-0.84	1.137	64.9	70.3	20.4	0.491
3-8920	3-9660	0.288	143.5	18.2	1.34	0.757	116.3	0.449	1.473	234.1	650.6	0.812	2.135	-0.74	1.136	70.1	73.3	20.6	0.401
3-8920	3-9670	0.250	143.0	19.3	1.47	0.757	113.3	0.404	1.471	235.4	661.5	0.877	2.065	-0.67	1.135	74.1	76.0	20.6	0.331
3-8920	3-9680	0.277	269.1	-22.7	1.59	0.627	47.3	0.731	1.164	154.7	590.2	0.313	2.015	-0.63	1.053	43.4	126.5	18.6	0.807
3-8920	3-9680	0.222	142.9	20.3	1.59	0.756	111.2	0.370	1.468	236.1	671.7	0.923	2.012	-0.63	1.134	[illegible]	77.9	20.4	0.275
3-8920	3-9690	0.525	271.2	-22.4	1.69	0.637	52.2	0.673	1.181	152.2	597.3	0.387	1.976	-0.62	1.059	48.4	132.6	17.0	0.726
3-8920	3-9690	0.201	143.1	21.3	1.69	0.755	109.6	0.346	1.466	236.3	681.5	0.959	1.973	-0.62	1.134	80.4	78.5	20.0	0.230
3-8920	3-9700	0.474	273.1	-21.9	1.80	0.647	56.9	0.612	1.199	150.0	604.7	0.465	1.934	-0.62	1.066	53.1	138.5	15.2	0.647
3-8920	3-9700	0.186	143.5	22.1	1.80	0.755	108.5	0.328	1.464	236.4	691.0	0.984	1.945	-0.62	1.134	83.0	77.1	19.3	0.194
3-8920	3-9710	0.424	274.7	-21.3	1.90	0.657	61.3	0.552	1.218	148.3	612.6	0.545	1.890	-0.63	1.073	57.7	144.1	13.2	0.569
3-8920	3-9710	0.177	143.8	22.9	1.90	0.755	107.7	0.317	1.464	236.4	700.6	1.000	1.927	-0.63	1.135	85.4	72.9	18.2	0.168
3-8920	3-9720	0.377	276.0	-20.6	2.02	0.666	65.4	0.494	1.235	147.2	621.0	0.626	1.845	-0.67	1.080	62.1	149.3	11.1	0.495
3-8920	3-9720	0.173	144.0	23.6	2.02	0.755	107.4	0.311	1.464	236.5	710.3	1.009	1.919	-0.67	1.137	87.7	65.9	16.5	0.153
3-8930	3-9070	0.559	138.2	14.6	-1.51	0.917	132.2	0.715	2.380	248.1	436.1	0.677	---	3.33	1.264	120.7	45.3	22.8	0.666
3-8930	3-9080	0.496	142.3	15.7	0.36	0.859	129.7	0.652	1.912	242.0	440.1	0.666	---	1.50	1.224	120.0	54.4	22.0	0.627
3-8930	3-9090	0.440	146.3	15.3	0.92	0.808	126.9	0.602	1.645	235.8	444.0	0.655	---	0.99	1.191	119.4	63.0	22.9	0.596
3-8930	3-9100	0.389	150.9	14.3	1.20	0.763	124.0	0.563	1.474	229.5	447.9	0.644	---	0.75	1.162	118.9	71.7	23.7	0.570
3-8930	3-9110	0.344	156.1	12.9	1.38	0.723	120.9	0.534	1.355	223.2	451.7	0.631	---	0.62	1.138	118.5	80.7	24.3	0.548
3-8930	3-9120	0.303	162.4	11.0	1.51	0.688	117.6	0.513	1.269	216.9	455.5	0.618	---	0.55	1.116	118.3	89.7	24.5	0.532
3-8930	3-9130	0.268	170.0	8.4	1.61	0.656	114.0	0.499	1.204	210.5	459.4	0.603	---	0.50	1.097	118.2	98.8	24.1	0.521
3-8930	3-9140	0.240	179.4	4.9	1.70	0.627	110.1	0.492	1.153	204.1	463.2	0.585	---	0.47	1.080	118.4	107.8	23.3	0.514
3-8930	3-9150	0.221	190.7	0.4	1.78	0.602	105.8	0.492	1.112	197.8	467.0	0.565	---	0.47	1.064	118.8	116.7	22.0	0.514
3-8930	3-9160	0.214	203.9	-4.9	1.87	0.578	101.1	0.499	1.079	191.6	470.9	0.540	---	0.47	1.050	119.6	125.3	20.3	0.520
3-8930	3-9170	0.222	218.0	-10.1	1.96	0.557	95.7	0.515	1.052	185.5	475.0	0.510	---	0.49	1.037	120.8	133.6	18.3	0.534
3-8930	3-9180	0.248	231.3	-14.5	2.05	0.538	89.6	0.541	1.029	179.6	479.2	0.473	1.586	0.54	1.024	122.7	141.6	15.9	0.560
3-8930	3-9190	0.293	242.6	-17.7	2.18	0.521	82.3	0.580	1.011	174.3	484.0	0.424	1.597	0.60	1.013	125.4	149.2	13.4	0.601
3-8930	3-9200	0.359	251.2	-19.7	2.34	0.506	73.3	0.637	0.995	169.9	489.5	0.362	1.629	0.72	1.003	129.6	156.1	10.9	0.665
3-8930	3-9210	0.452	256.9	-20.9	2.58	0.495	61.9	0.717	0.984	167.0	496.5	0.279	1.689	0.92	0.994	135.8	162.1	8.5	0.762
3-8930	3-9220	0.580	259.1	-21.7	3.03	0.487	46.8	0.822	0.977	166.8	506.2	0.174	1.780	1.33	0.988	145.3	166.8	6.5	0.907
3-8930	3-9350	.593	284.3	-21.6	1.91	0.725	48.5	0.674	1.360	142.1	246.6	---	2.276	-0.48	1.113	49.8	152.0	10.9	0.721
3-8930	3-9360	0.563	286.3	-21.1	2.00	0.734	51.3	0.636	1.384	139.0	253.1	---	2.264	-0.51	1.120	53.3	158.1	8.4	0.664
3-8930	3-9370	0.534	288.2	-20.5	2.10	0.742	53.8	0.599	1.407	136.0	259.8	---	2.251	-0.56	1.128	56.6	164.1	5.8	0.609
3-8930	3-9380	0.507	290.0	-19.9	2.23	0.749	56.1	0.565	1.429	133.2	266.6	---	2.236	-0.64	1.135	59.7	169.9	3.1	0.557
3-8930	3-9390	0.483	291.6	-19.2	2.41	0.756	58.2	0.533	1.450	130.4	273.7	---	2.221	-0.78	1.141	62.8	175.5	0.3	0.506
3-8930	3-9400	0.460	293.0	-18.3	2.71	0.761	60.1	0.503	1.467	127.9	280.9	---	2.205	-1.03	1.147	65.7	180.7	-2.9	0.458
3-8930	3-9410	0.440	294.1	-17.0	3.30	0.766	61.9	0.476	1.483	125.5	288.4	---	2.189	-1.58	1.153	68.6	185.3	-6.8	0.412
3-8930	3-9420	0.425	294.4	-15.0	5.47	0.770	63.4	0.451	1.498	123.3	296.1	---	2.174	-3.71	1.158	71.3	187.7	-15.3	0.373
3-8930	3-9430	0.415	299.6	-34.5	-7.74	0.774	64.7	0.429	1.510	121.3	304.1	---	2.159	9.54	1.163	74.0	210.2	20.0	0.369
3-8930	3-9440	0.389	298.8	-21.9	-0.26	0.777	65.9	0.411	1.521	119.6	312.4	---	2.145	2.10	1.167	76.6	202.9	-0.6	0.288
3-8930	3-9450	0.377	299.3	-19.9	0.69	0.779	66.8	0.395	1.530	118.1	321.0	---	2.134	1.20	1.171	79.2	204.2	-4.1	0.250
3-8930	3-9460	0.367	299.8	-19.0	1.07	0.781	67.6	0.382	1.537	116.8	329.8	---	2.124	0.86	1.174	81.8	204.5	-5.3	0.217
3-8930	3-9470	0.360	300.3	-18.4	1.29	0.783	68.2	0.373	1.542	115.9	339.0	---	2.117	0.68	1.176	84.3	202.8	-5.0	0.190
3-8930	3-9480	0.356	300.5	-17.9	1.44	0.784	68.5	0.367	1.546	115.2	348.5	---	2.113	0.58	1.177	86.9	198.4	-3.5	0.170
3-8930	3-9490	0.355	300.6	-17.7	1.56	0.784	68.6	0.365	1.549	114.9	358.4	---	2.114	0.52	1.178	89.6	191.5	-0.8	0.162
3-8930	3-9500	0.357	300.6	-17.5	1.65	0.785	68.5	0.367	1.550	114.9	368.6	0.980	2.120	0.49	1.178	92.3	183.7	2.1	0.167
3-8930	3-9510	0.363	300.3	-17.4	1.74	0.785	68.0	0.375	1.550	115.2	379.1	0.969	2.132	0.47	1.178	95.2	177.2	4.4	0.187
3-8930	3-9520	0.374	299.8	-17.5	1.82	0.785	67.2	0.388	1.550	116.0	390.0	0.948	2.152	0.47	1.177	98.3	173.2	5.6	0.221
3-8930	3-9530	0.391	299.1	-17.7	1.91	0.785	65.9	0.409	1.549	117.2	401.4	0.915	2.183	0.48	1.176	101.7	171.6	5.9	0.267
3-8930	3-9530	0.273	191.4	-1.0	1.91	0.560	109.0	0.576	1.056	195.5	839.7	0.448	1.664	0.48	1.039	125.0	125.9	20.1	0.608
3-8930	3-9530	0.468	170.1	6.4	1.91	0.620	131.8	0.727	1.140	204.6	848.8	0.311	1.969	0.48	1.073	136.2	121.6	20.7	0.810
3-8930	3-9540	0.416	298.0	-18.0	2.00	0.784	64.0	0.440	1.548	118.9	413.2	0.867	2.228	0.51	1.174	105.6	171.9	5.4	0.326
3-8930	3-9540	0.244	244.8	-9.6	2.00	0.537	97.3	0.554	1.028	186.0	840.3	0.459	1.597	0.51	1.025	123.6	135.8	17.6	0.576
3-8930	3-9540	0.589	168.3	6.6	2.00	0.649	148.5	0.819	1.190	203.2	857.5	0.216	2.164	0.51	1.088	144.4	128.0	19.2	0.950
3-8930	3-9550	0.453	296.5	-18.5	2.11	0.784	61.2	0.482	1.546	121.5	425.9	0.800	2.292	0.56	1.171	110.2	173.3	4.6	0.401
3-8930	3-9550	0.267	232.4	-15.4	2.11	0.523	97.9	0.568	1.012	178.4	842.8	0.438	1.587	0.56	1.015	124.6	144.6	15.0	0.588

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8930	3-9560	0.504	294.3	-19.1	2.25	0.783	57.2	0.542	1.544	125.2	439.6	0.707	2.381	C.65	1.169	115.9	175.2	3.6	0.497
3-8930	3-9560	0.321	246.7	-18.7	2.25	0.513	78.5	0.005	1.002	172.2	846.6	0.395	1.608	C.65	1.008	127.3	152.5	12.2	0.629
3-8930	3-9570	0.577	291.2	-19.9	2.44	0.783	51.4	0.624	1.543	130.5	454.9	0.581	2.505	C.80	1.166	125.3	177.2	2.6	0.624
3-8930	3-9570	0.401	255.3	-20.4	2.44	0.505	67.7	0.669	0.994	167.7	852.1	0.329	1.659	C.80	1.001	132.0	159.4	9.6	0.703
3-8930	3-9580	0.512	259.7	-21.8	2.76	0.500	58.5	0.760	0.989	165.7	860.0	C.237	1.741	1.07	0.996	139.5	165.0	7.3	0.821
3-8930	3-9620	0.590	190.5	-4.7	-0.18	0.395	142.6	0.917	0.905	187.5	920.8	C.075	1.734	-2.02	0.936	23.7	82.6	22.6	1.065
3-8930	3-9630	0.578	156.8	10.6	0.69	0.762	138.9	0.755	1.471	217.2	600.2	0.360	2.582	-1.19	1.139	43.6	69.9	21.1	0.861
3-8930	3-9630	0.590	237.2	-20.2	0.69	C.286	54.4	C.916	0.848	176.2	919.1	0.071	1.625	-1.19	C.893	24.1	95.1	22.9	1.036
3-8930	3-9630	0.451	199.4	-2.8	0.69	0.387	116.7	0.823	0.900	187.0	930.0	C.159	1.641	-1.19	0.930	34.9	88.0	22.7	0.899
3-8930	3-9640	0.455	152.9	13.0	1.06	0.763	129.1	0.634	1.471	225.4	607.0	0.539	2.404	-C.87	1.137	54.5	71.2	21.1	0.674
3-8930	3-9650	0.368	150.5	14.8	1.28	0.762	122.4	C.541	1.470	230.5	632.7	0.675	2.265	-C.69	1.136	62.2	73.6	21.3	0.537
3-8930	3-9660	0.307	149.1	16.2	1.42	0.762	117.8	C.471	1.468	233.6	645.3	0.777	2.160	-C.59	1.135	68.0	76.5	21.4	0.435
3-8930	3-9670	0.263	148.5	17.4	1.53	0.761	114.4	0.419	1.466	235.4	656.6	0.851	2.080	-C.53	1.134	72.5	79.3	21.5	0.357
3-8930	3-9680	0.230	148.4	18.5	1.63	0.760	111.9	C.381	1.463	236.3	667.1	0.905	2.021	-C.49	1.133	76.1	81.7	21.4	0.295
3-8930	3-9690	0.558	275.5	-22.4	1.71	0.636	49.7	C.702	1.167	153.2	593.5	0.348	1.986	-C.47	1.054	45.9	134.6	16.7	0.764
3-8930	3-9690	0.206	146.5	19.4	1.71	0.759	110.1	C.353	1.461	236.7	677.1	0.945	1.976	-C.47	1.133	79.2	82.9	21.1	0.246
3-8930	3-9700	0.506	277.4	-21.9	1.79	0.646	54.6	C.642	1.185	150.9	600.7	C.424	1.946	-C.47	1.061	50.8	140.6	14.8	0.684
3-8930	3-9700	0.189	148.9	20.2	1.79	0.759	108.8	C.332	1.459	236.9	686.8	0.974	1.984	-C.47	1.133	81.9	82.3	20.7	0.206
3-8930	3-9710	0.455	275.1	-21.4	1.87	0.656	59.1	C.581	1.205	148.9	608.3	C.504	1.903	-C.47	1.068	55.5	146.3	12.8	0.606
3-8930	3-9710	0.178	149.3	20.9	1.87	0.758	107.9	C.318	1.458	236.9	696.3	0.994	1.922	-C.47	1.134	84.3	79.3	20.0	0.176
3-8930	3-9720	0.407	280.6	-20.8	1.95	0.665	61.4	C.522	1.221	147.4	616.4	0.584	1.858	-C.49	1.075	60.0	151.6	10.7	0.530
3-8930	3-9720	0.171	149.5	21.6	1.95	0.758	107.4	C.310	1.458	237.0	706.0	1.005	1.910	-C.49	1.136	86.7	73.3	18.9	0.156
3-8930	3-9730	0.361	281.7	-20.0	2.05	0.674	67.3	C.465	1.239	146.5	625.2	0.663	1.814	-C.53	1.083	64.3	156.6	8.6	0.457
3-8930	3-9730	0.170	149.6	22.1	2.05	0.759	107.3	C.308	1.459	237.1	715.8	1.010	1.909	-C.53	1.138	89.0	64.8	17.3	0.148
3-8930	3-9080	0.559	145.1	14.9	0.49	0.912	132.5	0.713	2.278	246.1	439.3	0.653	---	1.37	1.298	121.8	54.9	21.8	0.678
3-8940	3-9090	0.495	148.9	14.5	1.10	0.853	129.9	0.651	1.841	240.0	443.3	0.643	---	0.79	1.238	121.0	63.5	22.5	0.639
3-8940	3-9100	0.438	153.0	13.6	1.35	0.801	121.0	0.602	1.591	233.8	447.2	0.633	---	0.57	1.184	120.3	72.2	23.4	0.596
3-8940	3-9110	0.386	157.6	12.2	1.50	0.756	124.0	0.565	1.430	227.5	451.1	0.622	---	0.45	1.154	119.7	81.1	24.0	0.578
3-8940	3-9120	0.340	163.1	10.5	1.59	0.715	120.7	0.537	1.318	221.2	455.0	0.610	---	0.39	1.129	119.3	90.1	24.1	0.556
3-8940	3-9130	0.300	169.7	8.2	1.67	0.679	117.2	0.517	1.238	214.8	458.8	0.597	---	0.35	1.107	119.0	99.1	23.8	0.539
3-8940	3-9140	0.266	177.9	5.2	1.73	0.647	113.4	0.505	1.175	208.4	462.6	0.582	---	0.33	1.087	119.0	108.1	23.0	0.527
3-8940	3-9150	0.240	187.9	1.3	1.79	0.619	109.2	0.499	1.127	202.0	466.4	0.564	---	0.31	1.070	119.2	116.9	21.7	0.521
3-8940	3-9160	0.224	199.9	-3.5	1.85	0.593	104.7	0.501	1.088	195.7	470.2	0.543	---	0.31	1.054	119.6	125.6	20.0	0.522
3-8940	3-9170	0.222	213.6	-8.7	1.91	0.569	99.6	0.511	1.057	189.5	474.1	0.537	---	0.32	1.039	120.5	134.0	17.9	0.539
3-8940	3-9180	0.237	227.6	-13.5	1.97	0.548	93.9	0.530	1.031	183.4	478.2	0.485	---	0.34	1.025	121.9	142.1	15.5	0.547
3-8940	3-9190	0.270	240.5	-17.1	2.04	0.530	87.1	0.560	1.010	177.7	482.5	0.444	1.576	0.38	1.013	124.1	149.7	12.9	0.578
3-8940	3-9200	0.324	251.0	-19.5	2.13	0.513	79.0	0.606	0.993	172.7	487.4	0.391	1.594	0.44	1.002	127.3	156.9	10.2	0.627
3-8940	3-9210	0.402	258.7	-20.9	2.27	0.499	68.9	0.672	0.979	168.7	493.4	0.321	1.637	0.54	0.992	132.2	163.5	7.6	0.703
3-8940	3-9220	0.511	263.1	-21.9	2.48	0.489	55.7	0.764	0.969	166.7	501.3	0.229	1.710	0.73	0.984	139.8	168.9	5.4	0.820
3-8940	3-9360	0.582	290.4	-20.7	1.93	0.733	50.1	0.653	1.363	140.4	249.7	---	2.252	-0.33	1.115	51.6	159.8	8.1	0.690
3-8940	3-9370	0.552	292.3	-20.2	2.00	0.741	52.7	0.615	1.387	137.4	256.3	---	2.240	-0.36	1.123	55.0	165.9	5.5	0.634
3-8940	3-9380	0.524	294.1	-19.6	2.07	0.749	55.1	0.580	1.409	134.4	263.0	---	2.226	-0.40	1.130	58.2	171.8	2.8	0.580
3-8940	3-9390	0.498	295.8	-19.0	2.18	0.756	57.4	0.546	1.430	131.6	270.0	---	2.211	-0.47	1.137	61.4	177.5	0.1	0.529
3-8940	3-9400	0.474	297.3	-18.3	2.33	0.762	59.4	0.515	1.449	128.9	277.1	---	2.195	-0.59	1.144	64.3	183.1	-2.7	0.480
3-8940	3-9410	0.453	298.6	-17.4	2.60	0.767	61.2	0.486	1.466	126.4	284.5	---	2.179	-0.84	1.150	67.2	188.2	-5.8	0.433
3-8940	3-9420	0.434	299.5	-15.8	3.29	0.772	62.8	0.460	1.482	124.1	292.1	---	2.164	-1.50	1.155	70.0	192.6	-9.9	0.388
3-8940	3-9430	0.435	297.0	-8.5	10.39	0.776	64.2	0.437	1.495	122.0	299.9	---	2.149	-8.57	1.160	72.7	189.7	-32.5	0.379
3-8940	3-9440	0.398	303.3	-21.2	-0.42	0.779	65.5	0.417	1.507	120.1	308.1	---	2.135	2.26	1.165	75.4	206.2	-1.9	0.307
3-8940	3-9450	0.385	303.7	-18.7	0.86	0.782	66.5	0.399	1.516	118.5	316.5	---	2.122	1.01	1.168	78.0	207.7	-6.8	0.267
3-8940	3-9460	0.374	304.2	-17.7	1.24	0.784	67.4	0.385	1.524	117.1	325.2	---	2.111	0.66	1.171	80.5	209.1	-8.4	0.232
3-8940	3-9470	0.366	304.7	-17.2	1.43	0.785	68.1	0.374	1.531	116.0	334.3	---	2.103	0.50	1.174	83.1	208.7	-8.7	0.202
3-8940	3-9480	0.360	305.1	-16.8	1.55	0.787	68.6	0.366	1.535	115.1	343.6	---	2.097	0.42	1.175	85.6	205.8	-7.7	0.178
3-8940	3-9490	0.357	305.3	-16.5	1.63	0.788	68.8	0.362	1.538	114.6	353.3	---	2.095	0.37	1.176	88.2	200.2	-5.7	0.163
3-8940	3-9500	0.357	305.3	-16.3	1.70	0.788	68.8	0.362	1.541	114.4	363.3	0.983	2.098	0.34	1.177	90.9	192.6	-2.7	0.161
3-8940	3-9510	0.361	305.2	-16.3	1.76	0.788	68.5	0.366	1.542	114.6	373.6	0.977	2.106	0.32	1.176	93.6	185.1	0.1	0.173
3-8940	3-9520	0.369	304.9	-16.3	1.82	0.788	67.9	0.376	1.542	115.1	384.3	0.961	2.122	0.31	1.176	96.6	179.8	2.1	0.199
3-8940	3-9530	0.383	304.3	-16.5	1.87	0.788	66.9	0.393	1.541	116.0	395.4	0.935	2.147	0.32	1.174	99.8	176.9	3.0	0.238
3-8940	3-9540	0.403	303.5	-16.8	1.93	0.788	65.3	0.418	1.540	117.5	406.9	0.896	2.183	0.33	1.172	103.4	176.3	3.0	0.289
3-8940	3-9540	0.251	208.4	-7.5	1.93	0.550	102.7	0.557	1.033	190.6	840.1	0.458	1.608	0.33	1.027	123.8	135.9	17.3	0.580
3-8940	3-9540	0.538	173.4	4.6	1.93	0.640	137.9	0.779	1.161	204.3	853.7	0.256	2.066	0.33	1.078	140.7	129.7	18.7	0.885
3-8940	3-9550	0.433	302.2	-17.3	2.00	0.788	63.0	0.454	1.538	119.4	419.1	0.840	2.236	0.36	1.170	107.5	177.2	2.4	0.355
3-8940	3-9550	0.253	229.5	-14.3	2.00	0.532	92.8	C.555	1.013	182.7	841.8	0.451	1.576	C.36	1.016	123.7	145.0	14.9	0.574
3-8940	3-9560	0.476	300.5	-17.9	2.08	0.787	59.8	C.504	1.536	122.7	432.2	0.762	2.310	0.41	1.167	112.6	178.9	1.5	0.439
3-8940	3-9560	0.293	245.6	-18.3	2.08	0.521	83.6	0.580	1.001	175.3	844.9	0.420	1.582	0.41	1.007	125.5	153.2	11.7	0.599
3-8940	3-9570	0.537	298.1	-18.8	2.19	0.787	55.0	0.573	1.535	127.1	446.6	0.655	2.415	0.48	1.165	119.0	180.9	0.6	0.548
3-8940	3-9570	0.360	256.6	-20.4	2.19	0.512	73.7	0.630	0.952	169.8	849.3	0.347	1.617	0.48	1.000	129.0	160.5	8.8	0.654
3-8940	3-9580	0.454	263.2	-21.5	2.35	0.506	61.9	0.707	0.986	166.3	855.7	0.289	1.682	0.61	0.994	134.9	166.8	6.3	0.747
3-8940	3-9590	0.584	265.7	-22.3	2.65	0.502	47.0	0.812	0.982	165.9	865.1	0.184	1.780	0.88	0.989	144.3	171.6	4.2	0.893
3-8940	3-9630	0.513	198.1	-7.3	0.87	0.399	130.4	0.863	0.900	188.3	926.4	0.123	1.677	-1.01	0.931	30.6	90.0	22.9	0.962
3-8940	3-9640	0.506	159.4	10.4	1.23	0.767	133.1	0.685	1.465	222.4	610.1	0.461	2.469	-C.67	1.136	50.0	75.1	22.0	0.750
3-8940	3-9640	0.530	241.1	-20.6	1.23	0.316	65.9	0.871	0.854	176.1	923.9	0.110	1.598	-0.67	0.896	30.0	102.7	22.6	0.952
3-8940	3-9640	0.414	214.2	-12.9	1.23	0.383	105.7	0.788	0.890	184.4	932.1	0.188	1.592	-0.67	0.922	38.4	97.3	22.8	0.841
3-8940	3-9650	0.403	156.5	12.5	1.41	0.767	125.1	0.578	1.465	228.8	626.2	0.619	2.311	-C.52	1.135	59.1	77.0	22.1	0.591
3-8940	3-9660	0.330	154.8	14.1	1.53	0.766	119.5	0.497	1.463	232.8	639.7	0.735	2.191	-C.43	1.134	65.7	79.8	22.2	0.474
3-8940	3-9670	0.279	154.0	15.4	1.62	0.765	115.6	0.438	1.461	235.2	651.6	0.821	2.101	-C.38	1.133	70.7	82.7	22.2	0.386
3-8940	3-9680	0.241	153.7	16.4	1.68	0.765	112.8	0.394	1.458	236.5	662.4	0.883	2.033	-0.34	1.132	74.6	85.2	22.2	0.318
3-8940	3-9690	0.591	279.7	-22.3	1.74	0.635	47.1	0.731	1.155	154.3	589.8	0.310	1.996	-0.32	1.049	43.4	136.5	16.3	0.803
3-8940	3-9690	0.214	153.8	17.4	1.74	0.764	110.7	0.342	1.456	237.1	672.6	0.929	1.983	-0.32	1.132	77.9	87.0	22.1	0.264
3-8940	3-9700	0.539	281.7	-21.8	1.80	0.645	52.1	0.622	1.171	151.8	596.8	0.384	1.958	-0.31	1.056	48.3	142.6	14.4	0.723
3-8940	3-9700	0.194	154.2	18.2	1.80	0.763	109.2	0.335	1.454	237.4	682.4	0.962	1.940	-0.31	1.132	80.8	87.2	21.8	0.220

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8940	3-9710	0.487	283.5	-21.3	1.85	0.655	56.8	0.612	1.189	149.6	604.2	0.462	1.916	-0.31	1.063	53.1	148.4	12.4	0.644
3-8940	3-9710	0.180	154.6	18.8	1.85	0.763	108.2	0.322	1.453	237.5	692.1	0.986	1.920	-0.31	1.133	83.3	85.2	21.5	0.186
3-8940	3-9720	0.437	285.1	-20.7	1.90	0.665	61.0	0.551	1.207	147.8	612.0	0.541	1.872	-0.32	1.071	87.7	153.9	10.3	0.567
3-8940	3-9720	0.171	154.9	19.4	1.90	0.763	107.5	0.311	1.452	237.5	701.7	1.000	1.904	-0.32	1.134	85.7	80.4	20.9	0.162
3-8940	3-9730	0.390	286.4	-20.0	1.90	0.674	65.2	0.493	1.224	146.5	620.4	0.621	1.828	-0.34	1.078	62.1	159.1	8.1	0.493
3-8940	3-9730	0.168	155.1	19.8	1.96	0.763	107.2	0.306	1.453	237.7	711.5	1.008	1.898	-0.34	1.136	88.0	72.6	19.8	0.149
3-8940	3-9740	0.346	287.4	-.0.2	2.03	0.682	69.0	0.438	1.241	145.9	629.4	0.698	1.785	-0.38	1.086	66.3	163.8	6.0	0.422
3-8940	3-9740	0.169	154.9	20.2	2.03	0.764	107.3	0.307	1.455	238.0	721.5	1.008	1.902	-0.38	1.139	90.3	63.4	18.3	0.149
3-8950	3-9140	0.297	177.2	5.2	1.78	0.671	116.7	0.521	1.204	212.7	462.0	0.577	---	0.17	1.097	119.8	108.4	22.7	0.545
3-8950	3-9150	0.265	185.9	1.8	1.81	0.639	112.7	0.510	1.146	206.3	465.8	0.561	---	0.16	1.077	119.7	117.3	21.4	0.533
3-8950	3-9160	0.241	196.5	-2.4	1.84	0.610	108.3	0.507	1.101	200.0	469.6	0.543	---	0.16	1.059	119.9	125.9	19.6	0.528
3-8950	3-9170	0.229	209.2	-7.3	1.87	0.584	103.4	0.510	1.065	193.6	473.4	0.521	---	0.16	1.042	120.4	134.3	17.5	0.529
3-8950	3-9180	0.233	223.2	-12.2	1.90	0.561	98.0	0.523	1.035	187.4	477.3	0.494	---	0.17	1.027	121.4	142.4	15.1	0.539
3-8950	3-9190	0.254	237.2	-16.3	1.93	0.540	91.8	0.545	1.011	181.5	481.3	0.460	---	0.18	1.014	123.0	150.2	12.4	0.561
3-8950	3-9200	0.295	249.5	-19.1	1.97	0.521	84.4	0.581	0.992	175.9	485.8	0.415	1.568	0.20	1.001	125.5	157.6	9.7	0.597
3-8950	3-9450	0.394	307.9	-17.1	1.18	0.784	86.2	0.405	1.503	118.9	312.1	---	2.111	0.68	1.166	75.7	210.9	-9.6	0.285
3-8950	3-9460	0.381	308.5	-16.3	1.48	0.786	87.2	0.389	1.511	117.4	320.6	---	2.099	0.39	1.169	79.3	213.2	-11.4	0.248
3-8950	3-9470	0.372	309.1	-15.8	1.61	0.788	88.0	0.376	1.518	116.1	329.5	---	2.089	0.28	1.172	81.8	214.1	-12.0	0.216
3-8950	3-9480	0.364	309.6	-15.4	1.68	0.790	88.6	0.366	1.524	115.1	338.7	---	2.082	0.23	1.173	84.3	212.7	-11.7	0.188
3-8950	3-9490	0.359	309.9	-15.2	1.73	0.791	88.9	0.360	1.528	114.4	348.1	---	2.078	0.19	1.175	86.9	208.6	-10.3	0.168
3-8950	3-9500	0.358	310.0	-15.0	1.77	0.792	89.1	0.358	1.531	114.0	357.9	---	2.078	0.17	1.175	89.5	201.8	-7.8	0.159
3-8950	3-9510	0.359	310.0	-15.0	1.80	0.792	89.0	0.360	1.532	114.0	368.1	0.981	2.083	0.16	1.175	92.1	194.0	-4.7	0.163
3-8950	3-9520	0.365	309.8	-15.0	1.83	0.792	88.5	0.366	1.533	114.3	378.5	0.971	2.094	0.16	1.174	94.9	187.3	-2.0	0.181
3-8950	3-9530	0.376	309.4	-15.2	1.86	0.792	87.7	0.379	1.533	115.0	389.4	0.952	2.114	0.16	1.173	98.0	183.1	-0.4	0.212
3-8950	3-9540	0.392	308.8	-15.5	1.88	0.792	86.5	0.399	1.532	116.1	400.7	0.920	2.143	0.16	1.171	101.3	181.3	0.2	0.256
3-8950	3-9540	0.279	200.5	-5.0	1.88	0.568	109.6	0.575	1.044	196.1	840.6	0.444	1.645	0.16	1.033	125.0	135.6	17.1	0.603
3-8950	3-9550	0.249	224.1	-12.9	1.91	0.544	97.8	0.559	1.016	186.5	841.1	0.458	1.575	0.17	1.017	123.3	145.2	14.2	0.567
3-8950	3-9560	0.271	243.0	-17.7	1.95	0.530	88.6	0.561	1.001	178.9	843.5	0.439	1.563	0.19	1.007	124.1	153.7	11.2	0.577
3-8950	3-9570	0.298	259.4	-13.2	1.72	0.770	117.1	0.460	1.456	234.8	645.2	0.786	2.126	-0.20	1.132	68.6	86.0	22.9	0.420
3-8950	3-9680	0.255	159.0	14.3	1.76	0.769	113.8	0.410	1.453	236.5	657.6	0.858	2.049	-0.18	1.131	73.0	88.8	22.9	0.344
3-8950	3-9690	0.223	159.1	15.2	1.79	0.769	111.4	0.372	1.451	237.5	668.1	0.911	1.992	-0.16	1.131	76.6	90.9	22.8	0.284
3-8950	3-9700	0.200	159.4	16.0	1.82	0.768	109.7	0.345	1.449	238.0	678.3	0.949	1.949	-0.16	1.131	79.6	91.8	22.7	0.236
3-8950	3-9710	0.184	159.8	16.7	1.84	0.768	108.5	0.326	1.447	238.2	687.8	0.976	1.919	-0.16	1.132	82.3	90.8	22.6	0.198
3-8950	3-9720	0.173	160.2	17.2	1.87	0.767	107.7	0.313	1.447	238.2	697.5	0.994	1.899	-0.16	1.133	84.7	87.2	22.4	0.169
3-8950	3-9730	0.167	160.4	17.5	1.90	0.767	107.2	0.306	1.447	238.3	707.2	1.005	1.889	-0.16	1.135	87.0	80.4	21.9	0.151
3-8950	3-9740	0.166	160.3	17.8	1.93	0.768	107.1	0.304	1.448	238.5	717.1	1.008	1.889	-0.18	1.137	89.3	71.3	20.9	0.145
3-8950	3-9750	0.170	159.9	17.9	1.97	0.769	107.5	0.309	1.452	238.9	727.2	1.004	1.900	-0.20	1.140	91.7	62.2	19.5	0.154
3-9000	3-9190	0.296	216.0	-11.2	1.68	0.627	112.9	0.543	1.061	202.8	476.8	0.485	---	-0.67	1.036	122.7	152.0	10.4	0.562
3-9000	3-9200	0.275	227.9	-14.9	1.56	0.595	107.6	0.540	1.020	196.5	480.5	0.469	---	-0.68	1.015	122.7	159.7	7.4	0.553
3-9000	3-9210	0.269	241.9	-18.4	1.43	0.567	101.8	0.547	0.987	190.1	484.1	0.447	---	-0.73	0.996	123.1	167.2	4.3	0.554
3-9000	3-9220	0.282	256.8	-21.0	1.28	0.542	95.1	0.564	0.961	183.9	487.7	0.419	---	-0.80	0.979	124.3	174.5	1.1	0.568
3-9000	3-9480	0.396	330.2	-4.8	3.81	0.806	67.5	0.384	1.461	114.1	313.8	---	2.022	-2.18	1.161	77.6	238.3	-29.5	0.274
3-9000	3-9490	0.382	331.5	-5.7	2.98	0.809	68.4	0.368	1.469	114.4	322.3	---	2.010	-1.42	1.163	80.1	241.9	-27.9	0.238
3-9000	3-9500	0.371	332.3	-6.0	2.57	0.811	69.2	0.355	1.476	113.1	331.1	---	2.001	-1.08	1.165	82.5	243.3	-27.3	0.207
3-9000	3-9510	0.363	332.9	-6.2	2.32	0.812	69.8	0.346	1.481	112.0	340.3	---	1.993	-0.89	1.165	85.0	242.0	-26.8	0.181
3-9000	3-9520	0.357	333.3	-6.4	2.13	0.813	70.2	0.339	1.485	111.2	349.7	---	1.989	-0.78	1.165	87.4	237.5	-25.9	0.161
3-9000	3-9530	0.355	333.6	-6.6	1.99	0.814	70.3	0.337	1.488	110.8	359.4	---	1.989	-0.71	1.164	89.8	230.0	-24.0	0.152
3-9000	3-9540	0.357	333.8	-6.8	1.86	0.815	70.2	0.339	1.489	110.7	369.4	0.985	1.994	-0.68	1.163	92.4	221.4	-21.3	0.155
3-9000	3-9550	0.362	333.8	-7.2	1.74	0.815	69.8	0.345	1.490	111.0	379.8	0.976	2.005	-0.66	1.161	95.0	214.3	-18.5	0.172
3-9000	3-9560	0.373	333.6	-7.6	1.62	0.815	69.0	0.358	1.490	111.8	390.5	0.957	2.023	-0.67	1.159	97.9	209.8	-16.2	0.202
3-9000	3-9570	0.390	333.2	-8.2	1.50	0.815	67.8	0.378	1.489	113.0	401.8	0.927	2.052	-0.70	1.156	101.1	208.0	-15.0	0.245
3-9000	3-9570	0.273	233.4	-16.5	1.50	0.581	105.5	0.546	1.003	193.8	842.5	0.455	1.550	-0.70	1.005	123.1	163.1	6.0	0.557
3-9000	3-9580	0.262	255.4	-20.4	1.36	0.563	95.7	0.532	0.982	185.1	843.7	0.459	1.505	-0.76	0.992	122.1	171.7	2.3	0.536
3-9000	3-9590	0.290	273.3	-21.7	1.20	0.551	87.0	0.547	0.969	177.5	846.0	0.439	1.500	-0.85	0.983	123.1	179.6	-1.2	0.549
3-9000	3-9700	0.270	184.8	4.4	2.20	0.796	114.2	0.413	1.427	239.5	653.7	0.838	2.016	0.82	1.126	72.0	212.3	24.4	0.352
3-9000	3-9710	0.233	184.9	5.0	2.05	0.796	111.6	0.371	1.425	241.0	664.9	0.897	1.954	0.74	1.127	75.9	114.4	24.4	0.287
3-9000	3-9720	0.207	185.1	5.3	1.92	0.795	109.7	0.341	1.423	241.9	675.4	0.938	1.909	0.69	1.128	79.1	115.5	24.7	0.236
3-9000	3-9730	0.189	185.5	5.5	1.81	0.795	108.4	0.320	1.422	242.5	685.5	0.967	1.877	0.67	1.130	81.8	114.7	25.4	0.196
3-9000	3-9740	0.177	185.7	5.4	1.69	0.795	107.5	0.306	1.422	242.8	695.5	0.987	1.856	0.67	1.132	84.3	111.2	26.6	0.166
3-9000	3-9750	0.170	185.7	5.2	1.58	0.795	107.1	0.298	1.422	243.0	705.4	0.998	1.845	0.68	1.134	86.7	104.4	28.1	0.147
3-9000	3-9760	0.168	185.4	4.8	1.46	0.795	107.0	0.296	1.423	243.2	715.5	1.002	1.844	0.72	1.137	89.0	96.8	29.2	0.140
3-9000	3-9770	0.172	184.7	4.3	1.31	0.796	107.2	0.300	1.426	243.5	725.6	0.999	1.853	0.78	1.140	91.3	89.9	29.5	0.146
3-9000	3-9780	0.180	183.7	3.6	1.13	0.797	107.8	0.309	1.431	243.8	735.8	0.988	1.874	0.89	1.143	93.7	77.4	29.1	0.166
3-9000	3-9790	0.194	182.5	2.6	0.88	0.800	108.9	0.326	1.438	244.1	746.0	0.969	1.906	1.08	1.147	96.3	73.7	28.9	0.197
3-9000	3-9800	0.278	320.1	-14.6	0.48	0.729	75.9	0.314	1.245	143.0	654.9	0.855	1.636	1.41	1.102	75.9	208.9	-5.7	0.262
3-9000	3-9800	0.214	181.1	1.4	0.48	0.803	110.3	0.349	1.447	244.3	756.2	0.942	1.953	1.41	1.152	99.1	73.1	29.4	0.237
3-9050	3-9510	0.383	353.0	8.1	5.03	0.829	68.5	0.366	1.421	113.1	313.3	---	1.941	-4.07	1.153	78.0	275.8	-40.0	0.279
3-9050	3-9520	0.366	354.9	6.2	3.61	0.832	69.6	0.349	1.429	111.3	321.6	---	1.929	-2.78	1.154	80.3	279.4	-36.4	0.243
3-9050	3-9530	0.353	356.1	5.2	2.85	0.834	70.4	0.336	1.436	109.7	330.2	---	1.919	-2.16	1.154	82.6	281.3	-35.0	0.209
3-9050	3-9540	0.344	356.9	4.6	2.36	0.836	71.0	0.326	1.442	108.5	339.0	---	1.911	-1.81	1.153	84.9	280.8	-34.4	0.182
3-9050	3-9550	0.337	357.6	4.1	2.00	0.837	71.4	0.318	1.446	107.5	348.1	---	1.906	-1.61	1.152	87.1	277.1	-34.8	0.161
3-9050	3-9560	0.333	358.1	3.6	1.70	0.838	71.7	0.315	1.449	106.9	357.5	---	1.904	-1.48	1.150	89.4	269.8	-35.0	0.149
3-9050	3-9570	0.333	358.4	3.1	1.44	0.838	71.7	0.315	1.451	106.7	367.3	0.994	1.907	-1.42	1.148	91.7	260.0	-34.3	0.148
3-9050	3-9580	0.337	358.6	2.5	1.20	0.838	71.4	0.320	1.452	106.9	377.4	0.988	1.916	-1.40	1.146	94.2	250.8	-32.5	0.159
3-9050	3-9590	0.346	358.7	1.8	0.95	0.838	70.7	0.330	1.452	107.6	387.9	0.973	1.931	-1.42	1.144	96.8	244.3	-30.3	0.184
3-9050	3-9600	0.362	358.6	1.0	0.70	0.838	69.7	0.348	1.452	108.8	398.9	0.947	1.956	-1.49	1.141	99.7	241.1	-28.5	0.221
3-9050	3-9600	0.289	260.0	-22.3	0.70	0.604	105.3	0.529	0.974	194.6	844.7	0.489	1.489	-1.49	0.902	121.9	189.0	-6.4	0.528
3-9050	3-9610	0.386	358.5	0.1	0.40	0.838	68.0	0.375	1.451	110.6	410.5	0.907	1.995	-1.61	1.139	103.1	240.3	-27.4	0.272
3-9050	3-9610	0.271	280.9	-22.7	0.40	0.588	96.3	0.512	0.956	186.0	845.9	0.466	1.445	-1.61	0.969	120.7	197.4	-10.3	0.506
3-9050	3-9620	0.291	298.7	-21.2	0.05	0.577	88.1	0.523	0.944	178.3	847.8	0.450	1.438	-1.82	0.960	121.3	205.6	-13.7	0.515

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9050	3-9730	0.269	210.8	-6.2	2.19	0.824	112.4	0.382	1.402	244.1	659.0	0.867	1.937	1.71	1.125	74.3	140.1	21.9	0.308
3-9050	3-9740	0.236	210.8	-6.3	1.87	0.823	110.1	0.345	1.400	245.8	670.3	0.917	1.884	1.55	1.127	77.9	141.5	22.3	0.250
3-9050	3-9750	0.214	210.9	-6.6	1.60	0.823	108.6	0.320	1.399	246.8	681.1	0.951	1.847	1.45	1.129	80.9	141.6	23.4	0.205
3-9050	3-9760	0.199	210.9	-6.2	1.35	0.823	107.6	0.303	1.399	247.4	691.5	0.974	1.823	1.41	1.131	83.5	139.5	25.5	0.171
3-9050	3-9770	0.190	210.8	-7.9	1.21	0.823	107.0	0.293	1.399	247.9	701.8	0.988	1.809	1.40	1.134	85.9	134.3	28.5	0.148
3-9050	3-9780	0.187	210.4	-8.8	0.86	0.823	106.7	0.289	1.400	248.2	712.0	0.995	1.804	1.44	1.137	88.2	125.8	31.8	0.137
3-9050	3-9790	0.188	209.8	-9.8	0.59	0.824	106.9	0.291	1.402	248.4	722.1	0.994	1.809	1.53	1.140	90.5	115.6	34.2	0.139
3-9050	3-9800	0.194	208.8	-10.9	0.27	0.825	107.3	0.298	1.405	248.6	732.3	0.986	1.825	1.68	1.143	92.8	106.9	35.2	0.154
3-9050	3-9810	0.206	207.6	-12.2	-0.13	0.826	108.1	0.312	1.411	248.7	742.4	0.971	1.851	1.94	1.146	95.3	101.9	39.5	0.180
3-9050	3-9820	0.223	206.2	-13.8	-0.71	0.829	109.3	0.331	1.419	248.6	752.4	0.949	1.889	2.38	1.150	97.9	100.6	35.8	0.215
3-9050	3-9830	0.286	347.2	-10.3	-1.66	0.756	75.2	0.308	1.219	138.9	652.9	0.844	1.594	3.19	1.100	75.8	242.1	-8.2	0.273
3-9050	3-9830	0.248	204.6	-16.1	-1.66	0.832	110.9	0.358	1.429	248.2	762.2	0.918	1.940	3.19	1.153	100.8	102.2	37.1	0.260
3-9050	3-9840	0.263	349.3	-16.2	-3.72	0.760	77.2	0.276	1.229	139.5	663.7	0.989	1.568	5.13	1.104	78.7	248.3	2.1	0.240
3-9050	3-9840	0.281	202.5	-20.7	-3.72	0.836	113.0	0.390	1.442	247.5	771.6	0.880	2.004	5.13	1.157	103.8	106.1	41.2	0.317
3-9050	3-9850	0.297	357.3	-38.6	-12.71	0.763	78.7	0.252	1.236	140.4	674.6	0.925	1.548	13.98	1.107	81.3	261.9	34.2	0.314
3-9100	3-9540	0.349	17.9	20.8	5.27	0.845	69.6	0.349	1.386	111.3	311.0	---	1.876	-5.26	1.141	78.0	316.1	-38.6	0.287
3-9100	3-9550	0.330	20.4	17.9	3.45	0.847	70.6	0.332	1.395	109.3	319.6	---	1.850	-3.61	1.141	80.2	318.2	-33.6	0.246
3-9100	3-9560	0.315	21.8	16.3	2.46	0.849	71.5	0.318	1.402	107.5	327.8	---	1.848	-2.81	1.140	82.4	320.1	-31.4	0.214
3-9100	3-9570	0.305	22.9	15.1	1.85	0.851	72.2	0.307	1.408	106.1	336.3	---	1.839	-2.37	1.139	84.5	320.4	-30.8	0.186
3-9100	3-9580	0.297	23.7	14.2	1.38	0.852	72.7	0.298	1.412	104.9	345.1	---	1.834	-2.10	1.138	86.6	318.3	-31.5	0.164
3-9100	3-9590	0.292	24.3	13.4	1.00	0.853	73.0	0.293	1.416	104.2	354.2	---	1.831	-1.94	1.136	88.7	312.9	-33.2	0.148
3-9100	3-9600	0.290	24.8	12.6	0.66	0.854	73.1	0.292	1.418	103.8	363.6	1.004	1.832	-1.85	1.134	90.8	304.4	-34.9	0.143
3-9100	3-9610	0.293	25.2	11.8	0.35	0.855	72.9	0.295	1.419	103.8	373.3	1.001	1.837	-1.82	1.132	93.0	294.5	-35.7	0.149
3-9100	3-9620	0.300	25.5	11.0	0.04	0.855	72.4	0.303	1.420	104.3	383.5	0.990	1.850	-1.84	1.130	95.4	286.0	-35.2	0.167
3-9100	3-9630	0.313	25.6	10.1	-0.29	0.855	71.5	0.317	1.420	105.3	394.2	0.970	1.870	-1.92	1.128	98.0	280.6	-34.0	0.198
3-9100	3-9640	0.334	25.5	9.2	-0.65	0.855	70.1	0.340	1.419	107.0	405.5	0.937	1.902	-2.07	1.126	101.1	278.3	-32.8	0.241
3-9100	3-9640	0.290	299.7	-22.5	-0.65	0.607	99.5	0.507	0.938	189.5	848.0	0.463	1.414	-2.07	0.953	129.1	224.8	-20.5	0.497
3-9100	3-9650	0.287	317.5	-19.1	-1.09	0.595	91.5	0.506	0.926	181.4	849.5	0.457	1.394	-2.31	0.943	120.0	233.7	-23.2	0.495
3-9100	3-9760	0.295	239.0	-16.3	1.67	0.842	111.6	0.369	1.377	246.8	660.4	0.869	1.885	2.26	1.126	75.0	169.1	13.8	0.293
3-9100	3-9770	0.263	238.8	-17.0	1.24	0.841	109.5	0.334	1.376	248.4	672.0	0.917	1.835	2.03	1.129	78.5	170.4	14.5	0.236
3-9100	3-9780	0.241	238.8	-17.8	0.88	0.841	108.0	0.309	1.375	249.6	683.0	0.950	1.800	1.90	1.131	81.5	170.5	16.1	0.193
3-9100	3-9790	0.227	238.7	-18.8	0.55	0.841	107.1	0.294	1.375	250.3	693.7	0.971	1.778	1.83	1.133	84.1	168.5	19.0	0.161
3-9100	3-9800	0.219	238.6	-19.9	0.23	0.841	106.5	0.285	1.375	250.8	704.2	0.983	1.766	1.82	1.136	86.5	163.5	23.1	0.141
3-9100	3-9810	0.216	238.2	-21.1	-0.10	0.841	106.4	0.282	1.376	251.1	714.5	0.988	1.764	1.87	1.138	88.8	155.7	27.7	0.132
3-9100	3-9820	0.218	237.7	-22.3	-0.46	0.842	106.5	0.284	1.378	251.3	724.8	0.986	1.770	1.98	1.140	91.1	146.6	31.3	0.136
3-9100	3-9830	0.226	236.9	-23.7	-0.88	0.843	107.0	0.292	1.382	251.4	735.1	0.978	1.786	2.15	1.143	93.4	139.1	33.2	0.153
3-9100	3-9840	0.239	236.0	-25.1	-1.41	0.845	107.8	0.306	1.388	251.3	745.2	0.962	1.813	2.52	1.145	95.8	135.1	33.9	0.180
3-9100	3-9850	0.258	235.0	-27.0	-2.17	0.847	109.1	0.327	1.395	251.1	755.1	0.940	1.851	3.10	1.148	98.4	134.6	34.4	0.216
3-9100	3-9860	0.272	12.3	-4.4	-3.42	0.774	75.1	0.301	1.197	136.6	650.8	0.836	1.558	4.18	1.095	75.7	274.2	-7.6	0.284
3-9100	3-9860	0.284	233.8	-29.7	-3.42	0.850	110.7	0.353	1.406	250.6	764.7	0.909	1.902	4.18	1.150	101.2	137.0	35.6	0.262
3-9100	3-9870	0.255	15.8	-13.4	-6.16	0.779	77.2	0.268	1.207	137.0	661.4	0.884	1.531	6.74	1.098	78.7	278.6	6.1	0.258
3-9100	3-9900	0.215	353.2	26.4	7.15	0.787	81.0	0.207	1.226	139.8	694.6	0.971	1.480	-7.05	1.100	85.8	298.3	-70.4	0.180
3-9150	3-9570	0.295	46.6	30.5	4.43	0.844	70.7	0.331	1.359	112.6	310.7	---	1.809	-5.38	1.128	78.3	348.2	-28.6	0.282
3-9150	3-9580	0.275	49.0	26.2	2.50	0.847	71.7	0.314	1.368	110.0	318.6	---	1.798	-3.61	1.128	80.5	349.2	-23.0	0.241
3-9150	3-9590	0.261	50.4	23.8	1.51	0.849	72.6	0.306	1.376	108.2	326.7	---	1.788	-2.78	1.127	82.5	350.5	-20.5	0.209
3-9150	3-9600	0.250	51.4	22.1	0.88	0.851	73.2	0.288	1.382	106.8	335.0	---	1.780	-2.31	1.126	84.5	350.7	-19.7	0.181
3-9150	3-9610	0.243	52.1	20.8	0.41	0.852	73.7	0.280	1.386	105.6	343.6	---	1.774	-2.04	1.125	86.4	349.3	-20.5	0.159
3-9150	3-9620	0.238	52.7	19.6	0.04	0.853	74.1	0.275	1.390	104.8	352.5	---	1.771	-1.87	1.123	88.4	348.6	-22.5	0.144
3-9150	3-9630	0.237	53.1	18.6	-0.28	0.854	74.2	0.273	1.392	104.4	361.7	1.012	1.772	-1.77	1.122	90.4	347.4	-25.2	0.137
3-9150	3-9640	0.239	53.5	17.6	-0.57	0.854	74.0	0.275	1.393	104.3	371.2	1.010	1.777	-1.73	1.120	92.4	328.7	-27.4	0.142
3-9150	3-9650	0.245	53.8	16.8	-0.86	0.854	73.6	0.283	1.394	104.7	381.2	1.000	1.788	-1.74	1.119	94.6	320.8	-28.3	0.158
3-9150	3-9660	0.257	53.9	16.0	-1.16	0.854	72.8	0.296	1.394	105.6	391.6	0.982	1.806	-1.80	1.119	97.1	315.5	-28.2	0.186
3-9150	3-9670	0.276	54.0	15.3	-1.49	0.854	71.5	0.317	1.394	107.0	402.6	0.952	1.835	-1.91	1.118	99.9	312.8	-27.4	0.226
3-9150	3-9680	0.305	53.8	14.7	-1.88	0.854	69.6	0.348	1.393	109.2	414.3	0.907	1.878	-2.11	1.118	103.2	312.3	-26.3	0.280
3-9150	3-9800	0.303	270.9	-23.3	0.26	0.840	109.5	0.335	1.349	246.5	668.3	0.897	1.800	1.96	1.129	77.7	201.3	0.5	0.247
3-9150	3-9810	0.279	271.0	-24.3	-0.10	0.840	107.8	0.307	1.347	247.6	679.5	0.933	1.761	1.82	1.131	80.8	202.4	1.5	0.201
3-9150	3-9820	0.262	271.2	-25.3	-0.42	0.839	106.7	0.288	1.346	248.3	690.2	0.958	1.735	1.74	1.133	83.5	201.9	3.6	0.166
3-9150	3-9830	0.252	271.4	-26.3	-0.73	0.839	106.0	0.277	1.346	248.7	700.8	0.974	1.718	1.73	1.134	86.9	199.0	7.0	0.142
3-9150	3-9840	0.247	271.4	-27.4	-1.04	0.839	105.6	0.271	1.346	249.0	711.2	0.982	1.711	1.77	1.136	88.1	193.2	11.7	0.127
3-9150	3-9850	0.247	271.3	-28.5	-1.38	0.840	105.6	0.270	1.348	249.2	721.7	0.983	1.713	1.87	1.137	90.4	185.3	16.5	0.125
3-9150	3-9860	0.252	271.0	-29.7	-1.77	0.841	105.9	0.276	1.351	249.5	732.1	0.979	1.723	2.05	1.137	92.6	177.6	20.1	0.136
3-9150	3-9870	0.299	36.8	9.1	-2.27	0.763	70.7	0.378	1.156	138.4	631.2	0.720	1.593	2.35	1.081	69.5	294.7	-15.2	0.385
3-9150	3-9870	0.263	270.6	-30.9	-2.27	0.842	106.6	0.287	1.356	249.7	742.5	0.967	1.745	2.35	1.138	95.0	172.3	22.1	0.158
3-9150	3-9880	0.259	36.5	5.9	-2.96	0.770	73.9	0.327	1.171	138.0	641.0	0.788	1.554	2.87	1.085	73.2	299.7	-11.3	0.325
3-9150	3-9880	0.280	270.1	-32.5	-2.96	0.845	107.7	0.304	1.363	249.8	752.7	0.948	1.777	2.87	1.139	97.5	170.3	23.1	0.190
3-9150	3-9890	0.227	36.3	0.3	-4.07	0.776	76.5	0.284	1.184	138.4	651.5	0.848	1.520	3.82	1.088	76.6	303.3	-4.7	0.274
3-9150	3-9890	0.305	269.7	-34.7	-4.07	0.848	105.2	0.329	1.372	249.6	762.8	0.921	1.734	3.82	1.140	100.2	171.3	24.2	0.232
3-9150	3-9900	0.212	37.0	-10.1	-6.39	0.781	78.7	0.249	1.194	139.5	662.7	0.897	1.492	5.98	1.090	79.5	304.7	-8.5	0.243
3-9150	3-9900	0.341	269.7	-39.0	-6.39	0.851	111.1	0.360	1.384	249.2	772.4	0.886	1.883	5.98	1.142	103.2	175.4	27.8	0.290
3-9150	3-9910	0.278	40.9	-33.9	-15.21	0.785	80.3	0.223	1.203	140.9	674.0	0.934	1.471	14.64	1.091	82.1	302.8	40.9	0.320
3-9150	3-9930	0.173	6.9	37.3	6.53	0.789	82.5	0.190	1.213	144.0	697.5	0.982	1.444	-7.40	1.089	86.5	345.8	-64.3	0.179
3-9150	3-9940	0.146	13.1	25.5	3.32	0.791	83.0	0.182	1.216	144.9	708.3	0.994	1.438	-4.35	1.088	88.2	325.3	-57.5	0.126
3-9150	3-9950	0.138	15.7	19.1	1.97	0.791	83.2	0.179	1.218	145.3	718.6	1.000	1.435	-3.15	1.086	89.8	310.5	-54.1	0.105
3-9200	3-9570	0.294	77.4	6.6	-6.46	0.811	68.5	0.374	1.304	122.6	289.8	---	1.791	5.12	1.114	72.7	344.8	9.5	0.365
3-9200	3-9590	0.263	73.6	46.1	7.55	0.820	71.2	0.326	1.331	118.0	305.2	---	1.775	-9.08	1.116	77.3	16.1	-28.4	0.322
3-9200	3-9600	0.227	77.9	31.3	2.25	0.824	72.3	0.307	1.342	116.1	313.0	---	1.754	-3.88	1.116	79.5	10.8	-14.0	0.253
3-9200	3-9610	0.212	78.9	26.5	0.78	0.827	73.2	0.292	1.351	114.4	321.0	---	1.745	-2.62	1.116	81.5	11.5	-9.1	0.217
3-9200	3-9620	0.201	79.5	23.9	0.07	0.829	73.9	0.279	1.358	113.0	329.3	---	1.736	-1.90	1.116	83.4	12.1	-7.2	0.187
3-9200	3-9630	0.192	79.8	22.1	-0.38	0.831	74.5	0.269	1.363	111.8	337.8	---	1.730	-1.57	1.115	85.3	11.2	-6.9	0.163
3-9200	3-9640	0.187	80.1	20.7	-0.69	0.832	74.8	0.263	1.367	111.0	346.5	---	1.726	-1.37	1.114	87.2	8.0	-8.1	0.144

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9200	3-9650	0.185	80.4	19.6	-0.94	0.833	75.0	0.259	1.370	110.4	355.5	---	1.725	-1.24	1.114	89.1	2.3	-10.4	0.133
3-9200	3-9660	0.185	80.6	18.6	-1.16	0.833	75.0	0.260	1.372	110.1	364.8	1.015	1.728	-1.17	1.113	91.0	354.7	-13.1	0.132
3-9200	3-9670	0.189	80.9	17.9	-1.35	0.834	74.7	0.264	1.372	110.2	374.4	1.010	1.735	-1.13	1.113	93.0	347.0	-15.3	0.141
3-9200	3-9680	0.197	81.2	17.4	-1.54	0.834	74.2	0.273	1.373	110.5	384.3	0.997	1.748	-1.13	1.113	95.1	341.3	-16.3	0.162
3-9200	3-9690	0.211	81.5	17.2	-1.73	0.834	73.3	0.288	1.372	111.3	394.6	0.976	1.769	-1.16	1.113	97.5	338.0	-16.4	0.193
3-9200	3-9700	0.231	81.8	17.1	-1.94	0.833	71.9	0.311	1.371	112.4	405.2	0.944	1.798	-1.22	1.114	100.3	337.0	-15.8	0.234
3-9200	3-9710	0.260	81.9	17.2	-2.18	0.833	69.9	0.345	1.370	114.1	416.5	0.898	1.842	-1.34	1.114	103.6	337.7	-14.8	0.289
3-9200	3-9830	0.340	305.0	-22.0	-0.84	0.814	109.9	0.346	1.315	239.4	660.1	0.859	1.770	1.29	1.126	75.7	235.6	-14.5	0.282
3-9200	3-9840	0.310	305.3	-22.7	-1.08	0.813	107.7	0.312	1.312	239.8	670.8	0.903	1.721	1.19	1.127	78.9	238.7	-14.5	0.231
3-9200	3-9850	0.288	305.9	-23.4	-1.29	0.813	106.1	0.287	1.310	239.8	681.0	0.935	1.686	1.14	1.127	81.6	240.9	-13.9	0.191
3-9200	3-9860	0.272	306.5	-24.1	-1.49	0.812	105.0	0.268	1.308	239.6	690.9	0.957	1.659	1.13	1.127	84.0	241.5	-12.7	0.159
3-9200	3-9870	0.261	307.0	-24.8	-1.70	0.812	104.2	0.256	1.307	239.4	700.8	0.973	1.642	1.15	1.126	86.1	239.6	-10.7	0.135
3-9200	3-9880	0.255	307.5	-25.6	-1.91	0.811	103.8	0.249	1.307	239.2	710.9	0.982	1.632	1.21	1.125	88.2	234.8	-7.6	0.119
3-9200	3-9890	0.269	60.1	15.4	-2.17	0.737	70.7	0.399	1.135	143.5	625.3	0.681	1.588	1.33	1.071	67.6	318.3	-12.8	0.418
3-9200	3-9890	0.253	307.7	-26.4	-2.17	0.812	103.6	0.246	1.308	239.3	721.3	0.986	1.630	1.33	1.124	90.2	227.1	-3.2	0.113
3-9200	3-9900	0.220	57.2	12.2	-2.48	0.746	74.7	0.338	1.153	143.9	635.8	0.763	1.543	1.52	1.076	72.0	322.8	-9.9	0.345
3-9200	3-9900	0.257	307.7	-27.3	-2.48	0.813	103.9	0.250	1.310	239.9	731.8	0.983	1.657	1.52	1.124	92.3	218.4	0.2	0.119
3-9200	3-9910	0.181	52.7	7.1	-2.91	0.754	76.1	0.285	1.170	146.5	647.6	0.836	1.503	1.83	1.080	75.9	326.1	-6.3	0.280
3-9200	3-9910	0.268	307.4	-28.4	-2.91	0.815	104.6	0.260	1.315	240.8	742.8	0.974	1.657	1.83	1.123	94.6	211.4	3.3	0.138
3-9200	3-9920	0.153	47.1	-0.6	-3.59	0.761	80.9	0.243	1.184	148.5	660.6	0.897	1.471	2.41	1.083	79.5	327.4	-0.9	0.224
3-9200	3-9920	0.286	306.9	-29.8	-3.59	0.817	105.8	0.278	1.323	241.9	754.0	0.955	1.692	2.41	1.123	97.2	207.6	5.7	0.171
3-9200	3-9930	0.142	42.2	-12.3	-4.95	0.766	83.1	0.212	1.195	152.2	674.3	0.942	1.448	3.66	1.084	82.5	325.2	9.3	0.185
3-9200	3-9930	0.316	306.9	-32.3	-4.95	0.821	107.6	0.306	1.335	243.0	765.1	0.926	1.744	3.66	1.123	100.1	207.6	8.9	0.218
3-9200	3-9940	0.175	42.7	-32.0	-9.46	0.770	84.6	0.192	1.203	155.9	687.8	0.973	1.434	8.07	1.084	85.0	315.3	35.5	0.199
3-9200	3-9940	0.368	310.0	-39.9	-9.46	0.826	110.0	0.344	1.350	243.7	775.6	0.886	1.814	8.07	1.125	103.4	212.2	20.1	0.299
3-9200	3-9960	0.118	4.5	31.5	3.95	0.774	86.1	0.173	1.212	160.5	712.3	1.002	1.421	-5.53	1.081	88.9	350.4	-60.5	0.136
3-9200	3-9970	0.104	11.3	16.3	1.39	0.774	84.2	0.171	1.213	161.0	722.5	1.006	1.420	-3.68	1.079	90.4	325.4	-50.8	0.102
3-9200	3-9980	0.103	15.1	9.8	0.39	0.774	86.1	0.171	1.213	160.5	731.7	1.005	1.421	-2.18	1.077	91.7	310.9	-44.6	0.095
3-9200	3-9990	0.104	19.0	6.9	-0.16	0.774	85.8	0.174	1.213	159.1	740.0	1.002	1.424	-1.72	1.074	92.9	302.2	-39.7	0.099
3-9200	4- 0	0.106	23.3	5.8	-0.64	0.774	85.3	0.179	1.212	157.2	747.7	0.995	1.429	-1.46	1.072	94.1	298.1	-35.7	0.109
3-9250	3-9570	0.277	100.0	18.4	-2.11	0.754	66.6	0.427	1.242	155.1	272.7	---	1.772	0.38	1.097	67.3	357.8	-0.0	0.439
3-9250	3-9580	0.251	100.8	17.3	-2.23	0.763	68.5	0.393	1.263	132.6	280.2	---	1.759	0.47	1.100	70.1	3.2	2.7	0.392
3-9250	3-9590	0.229	101.4	15.8	-2.44	0.771	70.1	0.363	1.282	130.4	287.8	---	1.747	0.66	1.103	72.7	8.1	5.7	0.349
3-9250	3-9600	0.210	101.6	13.1	-2.95	0.777	71.6	0.337	1.298	128.4	295.6	---	1.735	1.14	1.105	75.2	12.3	9.6	0.308
3-9250	3-9610	0.210	99.9	-0.3	-6.53	0.782	72.8	0.314	1.312	126.7	303.6	---	1.723	4.71	1.106	77.4	11.3	24.7	0.283
3-9250	3-9620	0.175	103.6	24.9	0.35	0.786	73.8	0.295	1.323	125.2	311.8	---	1.713	-2.20	1.107	79.6	25.4	-0.3	0.239
3-9250	3-9630	0.163	103.0	18.9	-0.96	0.790	74.7	0.279	1.333	123.9	320.2	---	1.704	-0.90	1.107	81.6	25.8	5.5	0.204
3-9250	3-9640	0.154	102.8	16.9	-1.31	0.792	75.3	0.267	1.340	122.9	328.7	---	1.697	-0.58	1.108	83.6	26.1	6.9	0.176
3-9250	3-9650	0.147	102.7	15.7	-1.48	0.794	75.8	0.257	1.346	122.0	337.5	---	1.692	-0.44	1.108	85.4	24.7	6.9	0.153
3-9250	3-9660	0.143	102.7	14.9	-1.58	0.796	76.1	0.251	1.350	121.4	346.4	---	1.689	-0.36	1.108	87.3	20.8	5.6	0.145
3-9250	3-9670	0.141	102.8	14.3	-1.65	0.797	76.3	0.249	1.352	121.0	355.5	---	1.689	-0.31	1.108	89.1	14.5	3.2	0.126
3-9250	3-9680	0.142	103.0	14.0	-1.71	0.797	76.2	0.250	1.354	120.7	364.8	1.016	1.692	-0.28	1.108	91.0	7.0	0.3	0.126
3-9250	3-9690	0.146	103.6	14.0	-1.76	0.798	75.9	0.254	1.354	120.6	374.2	1.010	1.699	-0.26	1.109	92.9	0.3	-2.2	0.137
3-9250	3-9700	0.153	104.3	14.2	-1.80	0.797	75.3	0.263	1.354	120.6	383.8	0.998	1.710	-0.26	1.110	94.9	355.8	-3.8	0.158
3-9250	3-9710	0.165	105.3	14.6	-1.84	0.797	74.5	0.277	1.353	120.8	393.5	0.978	1.728	-0.25	1.110	97.1	353.8	-4.3	0.186
3-9250	3-9720	0.182	306.3	15.7	-1.89	0.796	73.2	0.298	1.351	121.1	403.4	0.949	1.753	-0.26	1.111	99.6	353.8	-4.1	0.224
3-9250	3-9730	0.206	107.4	15.9	-1.93	0.796	71.5	0.326	1.349	121.7	413.7	0.909	1.789	-0.27	1.113	102.4	355.3	-3.2	0.271
3-9250	3-9740	0.240	108.2	16.7	-1.99	0.795	69.0	0.366	1.347	122.8	424.5	0.854	1.839	-0.30	1.114	105.9	357.6	-2.1	0.330
3-9250	3-9750	0.287	108.7	17.6	-2.06	0.794	65.6	0.420	1.344	124.7	436.1	0.779	1.909	-0.34	1.116	110.3	0.4	-0.8	0.407
3-9250	3-9870	0.312	337.8	-14.0	-1.75	0.765	106.8	0.322	1.267	227.0	658.8	0.860	1.674	0.27	1.115	76.3	279.9	-22.1	0.276
3-9250	3-9880	0.282	339.0	-14.2	-1.80	0.763	104.5	0.290	1.262	224.9	666.9	0.896	1.629	0.26	1.113	78.8	285.5	-21.5	0.235
3-9250	3-9890	0.257	340.5	-14.2	-1.84	0.761	102.5	0.266	1.258	222.2	674.3	0.923	1.592	0.25	1.111	80.9	290.9	-20.7	0.202
3-9250	3-9900	0.278	83.3	19.5	-1.89	0.882	66.5	0.474	1.099	150.9	613.2	0.578	1.621	0.26	1.056	62.2	334.3	-10.2	0.509
3-9250	3-9900	0.235	342.3	-14.2	-1.89	0.759	100.8	0.246	1.252	218.9	681.2	0.944	1.560	0.26	1.108	82.6	296.0	-19.6	0.176
3-9250	3-9910	0.214	77.1	17.3	-1.94	0.696	74.2	0.393	1.124	151.9	624.3	0.682	1.566	0.27	1.064	67.9	338.7	-8.3	0.415
3-9250	3-9910	0.218	344.6	-14.0	-1.94	0.756	99.2	0.230	1.247	214.9	687.3	0.960	1.533	0.27	1.104	84.1	300.9	-18.4	0.155
3-9250	3-9920	0.157	63.6	12.7	-1.99	0.711	79.9	0.314	1.151	156.1	638.5	0.790	1.512	0.30	1.071	73.5	341.5	-6.8	0.320
3-9250	3-9920	0.197	347.6	-13.7	-1.99	0.754	97.6	0.217	1.240	209.9	692.3	0.972	1.509	0.30	1.100	85.2	306.2	-16.9	0.139
3-9250	3-9930	0.124	36.1	1.0	-2.06	0.727	86.0	0.241	1.182	167.2	659.5	0.897	1.467	0.34	1.079	79.4	340.3	-6.5	0.222
3-9250	3-9950	0.175	352.7	-12.9	-2.06	0.750	95.5	0.205	1.231	202.4	694.7	0.978	1.483	0.34	1.095	85.8	313.6	-14.4	0.130
3-9250	3-9980	0.206	336.5	21.1	7.59	0.756	96.1	0.202	1.241	205.6	747.1	0.990	1.491	-9.43	1.085	94.5	270.1	-83.2	0.205
3-9250	3-9980	0.296	329.3	8.1	7.59	0.773	104.2	0.277	1.287	221.4	770.0	0.930	1.643	-9.43	1.098	100.2	228.3	-62.2	0.263
3-9250	3-9990	0.157	353.1	-5.9	-0.55	0.750	94.1	0.195	1.231	191.3	748.5	0.991	1.471	-1.30	1.080	94.8	285.1	-30.0	0.116
3-9250	3-9990	0.351	333.1	12.6	-0.55	0.785	109.7	0.353	1.320	234.3	785.5	0.857	1.783	-1.30	1.105	105.6	244.7	-26.2	0.295
3-9250	4- 0	0.144	359.3	-6.9	-1.17	0.747	92.7	0.194	1.225	191.2	752.1	0.988	1.462	-0.71	1.076	95.0	289.9	-28.6	0.120
3-9250	4- 10	0.134	5.0	-6.3	-1.40	0.745	91.4	0.194	1.220	185.8	756.2	0.983	1.457	-0.50	1.073	95.7	294.4	-25.8	0.128
3-9250	4- 20	0.126	11.1	-5.0	-1.53	0.743	90.2	0.197	1.215	180.6	760.6	0.975	1.455	-0.39	1.071	96.4	299.2	-23.8	0.138
3-9250	4- 30	0.120	17.9	-3.1	-1.62	0.741	88.9	0.202	1.211	175.6	765.2	0.966	1.456	-0.33	1.069	97.2	304.2	-22.1	0.151
3-9250	4- 40	0.325	130.6	14.3	-1.68	0.912	64.5	0.471	1.843	91.7	330.8	---	2.711	-0.30	1.194	80.8	53.1	17.8	0.274
3-9250	4- 40	0.115	25.6	-0.8	-1.68	0.739	87.6	0.210	1.207	170.8	769.8	0.954	1.460	-0.30	1.067	98.0	309.6	-20.4	0.166
3-9250	4- 50	0.315	131.4	13.7	-1.73	0.913	65.2	0.462	1.848	90.1	338.7	---	2.701	-0.27	1.194	83.3	52.0	17.5	0.245
3-9250	4- 50	0.113	34.4	2.1	-1.73	0.737	86.2	0.219	1.204	166.0	774.6	0.940	1.467	-0.27	1.066	99.0	315.2	-18.6	0.183
3-9300	3-9580	0.275	119.0	17.8	-1.52	0.681	66.0	0.488	1.173	147.6	251.8	---	1.745	-0.66	1.075	62.0	5.1	0.9	0.524
3-9300	3-9580	0.245	120.0	17.3	-1.38	0.696	68.3	0.444	1.201	145.3	260.5	---	1.735	-0.72	1.082	65.3	10.9	3.0	0.469
3-9300	3-9590	0.217	120.8	17.1	-1.22	0.708	70.3	0.405	1.227	143.3	273.3	---	1.724	-0.81	1.087	68.4	16.5	4.9	0.417
3-9300	3-9600	0.193	121.3	17.2	-1.01	0.719	72.0	0.371	1.250	141.6	281.3	---	1.713	-0.96	1.091	71.3	22.0	6.3	0.369
3-9300	3-9610	0.172	121.6	17.9	-0.69	0.727	73.5	0.341	1.270	140.1	289.4	---	1.702	-1.22	1.095	73.9	27.3	7.0	0.324
3-9300	3-9620	0.154	122.0	20.1	-0.11	0.734	74.8	0.315	1.287	138.8	298.0	---	1.692	-1.74	1.097	76.4	32.6	6.2	0.284
3-9300	3-9630	0.140	123.5	27.7	1.40	0.740	75.9	0.293	1.301	137.8	306.6	---	1.683	-3.20	1.099	78.7	38.8	0.6	0.251
3-9300	3-9640	0.298	140.8	78.3	20.26	0.745	76.7	0.276	1.313	136.9	315.3	---	1.675	-22.01	1.101	80.8	73.7	-43.5	0.448

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9300	3-9650	0.143	112.8	-11.1	-6.11	0.748	77.4	0.262	1.322	136.3	324.4	---	1.668	4.41	1.102	88.8	28.6	38.8	0.197
3-9300	3-9660	0.121	115.0	-1.4	-3.69	0.751	77.9	0.252	1.329	135.8	333.5	---	1.663	2.05	1.103	84.8	31.8	28.0	0.160
3-9300	3-9670	0.113	115.6	1.9	-2.95	0.753	78.3	0.245	1.334	135.5	342.6	---	1.660	1.36	1.103	86.6	29.4	23.6	0.130
3-9300	3-9680	0.109	116.0	3.8	-2.57	0.754	78.4	0.241	1.337	135.1	351.8	---	1.660	1.04	1.104	88.4	23.9	19.8	0.125
3-9300	3-9690	0.108	116.8	5.2	-2.34	0.755	78.4	0.241	1.339	134.0	361.0	1.016	1.661	0.86	1.105	90.2	16.9	15.6	0.122
3-9300	3-9700	0.110	118.0	6.5	-2.16	0.755	78.1	0.244	1.339	134.4	370.2	1.012	1.668	0.75	1.106	92.0	10.5	11.5	0.129
3-9300	3-9710	0.115	119.7	7.7	-2.03	0.755	77.7	0.251	1.339	134.0	379.3	1.003	1.674	0.68	1.107	93.8	6.3	8.4	0.145
3-9300	3-9720	0.123	121.8	8.9	-1.91	0.754	77.0	0.262	1.337	133.5	388.4	0.987	1.687	0.64	1.108	95.8	4.6	6.6	0.168
3-9300	3-9730	0.135	124.1	10.1	-1.80	0.753	76.0	0.277	1.335	133.0	397.5	0.965	1.704	0.62	1.109	97.9	4.9	5.9	0.198
3-9300	3-9740	0.151	126.6	11.2	-1.70	0.752	74.6	0.298	1.332	132.5	406.7	0.935	1.728	0.62	1.111	100.2	6.7	6.1	0.234
3-9300	3-9750	0.173	129.0	12.3	-1.59	0.751	72.9	0.325	1.328	132.1	416.1	0.896	1.760	0.64	1.112	102.9	9.6	6.8	0.278
3-9300	3-9760	0.203	131.1	13.2	-1.47	0.749	70.5	0.362	1.325	132.0	425.7	0.846	1.803	0.68	1.114	106.0	13.2	8.0	0.332
3-9300	3-9770	0.244	132.7	14.2	-1.33	0.748	67.3	0.410	1.321	132.4	436.0	0.779	1.862	0.74	1.115	109.9	17.1	9.4	0.399
3-9300	3-9900	0.270	10.4	-0.7	-1.91	0.699	103.2	0.340	1.207	209.1	644.0	0.797	1.617	-0.64	1.094	73.1	320.9	-17.4	0.332
3-9300	3-9910	0.287	104.4	19.7	-1.80	0.615	67.8	0.546	1.065	158.4	603.4	0.483	1.647	-0.62	1.041	57.1	348.5	-5.9	0.594
3-9300	3-9910	0.228	15.0	0.7	-1.80	0.693	99.4	0.312	1.197	202.1	647.1	0.823	1.570	-0.62	1.089	74.7	329.2	-14.8	0.303
3-9300	3-9920	0.205	92.3	18.8	-1.69	0.638	76.3	0.440	1.100	161.1	616.1	0.616	1.583	-0.62	1.054	64.5	352.2	-4.7	0.472
3-9300	3-9920	0.184	24.8	3.8	-1.69	0.685	94.7	0.298	1.180	191.3	646.3	0.828	1.531	-0.62	1.081	75.2	339.1	-11.2	0.293
3-9300	4- 40	0.268	6.9	-4.8	-2.75	0.722	103.4	0.308	1.257	215.5	787.1	0.870	1.644	1.18	1.083	104.2	295.5	-16.8	0.274
3-9300	4- 50	0.202	15.1	-2.7	-2.45	0.709	97.5	0.268	1.229	201.7	782.9	0.900	1.558	0.94	1.071	102.0	307.8	-14.6	0.236
3-9300	4- 60	0.315	155.7	4.3	-2.25	0.876	63.7	0.467	1.819	97.9	328.6	---	2.669	0.80	1.191	80.1	74.4	26.1	0.275
3-9300	4- 60	0.171	22.4	-0.4	-2.25	0.703	94.3	0.260	1.216	192.6	783.4	0.901	1.532	0.80	1.071	101.7	316.9	-12.7	0.252
3-9300	4- 70	0.305	156.6	4.1	-2.10	0.877	64.4	0.458	1.824	96.4	336.7	---	2.660	0.71	1.191	82.7	73.3	26.0	0.245
3-9300	4- 70	0.158	30.7	2.3	-2.10	0.699	91.7	0.260	1.207	185.0	785.3	0.893	1.521	0.71	1.069	102.0	325.0	-10.7	0.238
3-9300	4- 80	0.298	157.3	4.1	-1.97	0.877	64.9	0.451	1.828	95.3	345.2	---	2.654	0.66	1.194	85.4	69.4	25.7	0.222
3-9300	4- 80	0.135	40.7	5.5	-1.97	0.695	89.3	0.266	1.200	178.1	788.0	0.880	1.519	0.66	1.066	102.7	332.4	-8.4	0.250
3-9300	4- 90	0.295	157.7	4.1	-1.86	0.878	65.1	0.449	1.831	94.7	354.2	---	2.653	0.63	1.196	88.2	62.6	24.7	0.209
3-9300	4- 90	0.127	52.7	9.0	-1.86	0.692	86.9	0.278	1.193	171.8	791.3	0.862	1.525	0.63	1.067	103.6	339.5	-6.0	0.268
3-9300	4- 100	0.296	157.8	4.4	-1.75	0.878	65.0	0.450	1.834	94.8	363.9	1.000	2.659	0.62	1.198	91.2	54.1	23.0	0.211
3-9300	4- 100	0.126	66.6	12.5	-1.75	0.689	84.3	0.294	1.198	966.1	795.2	0.838	1.536	0.62	1.068	104.8	346.4	-3.4	0.290
3-9350	3-9570	0.279	132.6	15.2	-1.43	0.595	67.5	0.559	1.097	159.3	244.3	---	1.710	-1.31	1.047	56.4	11.3	2.8	0.610
3-9350	3-9580	0.243	133.7	14.8	-1.20	0.619	70.2	0.503	1.134	157.4	252.4	---	1.704	-1.31	1.058	60.5	10.9	4.8	0.544
3-9350	3-9590	0.211	134.3	14.7	-0.97	0.639	72.4	0.453	1.167	155.8	260.6	---	1.696	-1.35	1.068	64.2	22.4	6.5	0.483
3-9350	3-9600	0.182	134.5	15.0	-0.72	0.656	74.4	0.409	1.198	154.5	269.1	---	1.688	-1.43	1.075	67.6	27.9	7.9	0.426
3-9350	3-9610	0.158	134.3	15.8	-0.43	0.670	76.1	0.370	1.226	153.5	277.8	---	1.679	-1.58	1.082	70.7	33.2	8.8	0.374
3-9350	3-9620	0.137	133.9	17.5	-0.06	0.682	77.6	0.337	1.250	152.7	286.7	---	1.671	-1.81	1.087	73.6	38.4	9.0	0.326
3-9350	3-9630	0.121	133.3	20.6	0.46	0.691	78.8	0.309	1.270	152.2	295.9	---	1.663	-2.20	1.091	76.2	43.2	7.9	0.283
3-9350	3-9640	0.108	133.1	26.5	1.27	0.698	79.8	0.287	1.287	152.0	305.2	---	1.656	-2.89	1.094	78.6	47.8	4.6	0.246
3-9350	3-9650	0.103	134.8	38.4	2.90	0.704	80.6	0.269	1.301	151.9	314.7	---	1.650	-4.41	1.096	80.9	52.9	-3.8	0.220
3-9350	3-9660	0.139	147.8	64.7	8.37	0.709	81.2	0.255	1.311	151.8	324.1	---	1.645	-9.77	1.098	82.9	53.3	-28.0	0.248
3-9350	3-9680	0.127	111.5	-26.6	-7.69	0.714	81.9	0.238	1.324	151.8	343.4	---	1.640	6.51	1.101	86.8	18.8	57.8	0.176
3-9350	3-9690	0.098	115.3	-15.0	-4.70	0.715	81.9	0.235	1.327	151.6	352.6	---	1.640	3.63	1.102	88.6	21.0	42.0	0.137
3-9350	3-9700	0.090	118.1	-8.2	-3.52	0.716	81.8	0.236	1.329	151.1	361.7	1.015	1.642	2.56	1.103	90.3	17.1	31.8	0.128
3-9350	3-9710	0.088	121.2	-3.5	-2.86	0.716	81.5	0.239	1.328	150.5	370.6	1.011	1.646	2.02	1.104	92.0	13.1	24.2	0.132
3-9350	3-9720	0.090	125.1	0.0	-2.42	0.715	81.0	0.245	1.327	149.6	379.3	1.001	1.652	1.71	1.105	93.8	11.0	18.9	0.146
3-9350	3-9730	0.095	129.5	2.7	-2.09	0.714	80.3	0.255	1.324	148.5	387.9	0.987	1.661	1.51	1.106	95.5	10.9	15.6	0.166
3-9350	3-9740	0.103	134.3	4.7	-1.81	0.712	79.4	0.268	1.320	147.2	396.2	0.967	1.673	1.36	1.108	97.4	12.5	14.1	0.192
3-9350	3-9750	0.115	139.0	6.3	-1.57	0.711	78.2	0.285	1.316	145.8	404.5	0.941	1.690	1.33	1.109	99.4	15.4	13.6	0.222
3-9350	3-9760	0.132	143.6	7.3	-1.35	0.709	76.6	0.306	1.311	144.3	412.8	0.910	1.712	1.30	1.110	101.6	19.2	14.0	0.258
3-9350	3-9770	0.155	147.6	8.1	-1.12	0.706	74.6	0.334	1.306	142.9	421.3	0.870	1.742	1.32	1.111	104.2	23.6	14.9	0.300
3-9350	3-9780	0.184	151.1	8.7	-0.88	0.704	72.1	0.369	1.300	141.7	429.9	0.820	1.781	1.37	1.112	107.1	28.5	16.1	0.350
3-9350	3-9790	0.223	153.8	9.2	-0.62	0.702	68.9	0.415	1.295	140.9	439.1	0.758	1.833	1.48	1.114	110.1	33.5	17.4	0.412
3-9350	3-9800	0.275	155.6	9.7	-0.29	0.700	64.6	0.475	1.290	140.8	449.0	0.678	1.905	1.66	1.115	115.2	38.6	18.7	0.490
3-9350	3-9910	0.295	39.7	11.4	-2.07	0.633	105.9	0.447	1.157	201.9	621.7	0.640	1.674	-1.51	1.076	64.1	341.2	-11.3	0.475
3-9350	3-9920	0.234	48.8	13.6	-1.79	0.623	99.3	0.414	1.140	193.6	623.4	0.668	1.619	-1.39	1.068	66.6	349.7	-7.8	0.440
3-9350	4- 80	0.314	178.1	-6.1	-2.63	0.841	63.3	0.462	1.793	103.5	328.2	---	2.621	1.89	1.190	80.1	96.0	31.4	0.271
3-9350	4- 90	0.305	179.2	-5.8	-2.25	0.842	64.0	0.452	1.798	102.1	336.5	---	2.612	1.60	1.192	82.7	94.6	31.3	0.241
3-9350	4- 90	0.244	35.4	8.0	-2.25	0.672	102.3	0.352	1.229	205.0	799.4	0.797	1.662	1.60	1.079	108.0	334.6	-5.5	0.348
3-9350	4- 100	0.299	180.1	-5.5	-1.95	0.843	64.4	0.446	1.803	101.2	345.2	---	2.606	1.45	1.195	85.4	90.1	31.4	0.218
3-9350	4- 100	0.191	45.0	10.9	-1.95	0.661	96.9	0.330	1.208	194.4	798.4	0.810	1.606	1.45	1.074	106.8	343.9	-1.9	0.328
3-9350	4- 110	0.296	180.6	-5.1	-1.70	0.843	64.6	0.443	1.806	100.7	354.4	---	2.606	1.36	1.197	88.3	82.5	31.2	0.206
3-9350	4- 110	0.160	56.4	13.2	-1.70	0.654	92.9	0.327	1.194	185.9	799.6	0.803	1.585	1.36	1.072	106.9	352.2	1.2	0.329
3-9350	4- 120	0.298	180.8	-4.5	-1.46	0.844	64.5	0.445	1.808	100.8	364.2	1.003	2.612	1.31	1.200	91.3	73.2	30.1	0.209
3-9350	4- 120	0.142	70.8	16.0	-1.46	0.649	89.2	0.335	1.185	178.5	801.9	0.788	1.581	1.31	1.071	107.6	359.9	4.2	0.342
3-9350	4- 130	0.304	180.7	-3.7	-1.24	0.844	64.0	0.452	1.809	101.5	374.7	0.991	2.627	1.30	1.202	94.6	64.8	28.3	0.230
3-9350	4- 130	0.137	88.1	18.1	-1.24	0.644	85.7	0.351	1.176	171.9	805.1	0.763	1.590	1.30	1.071	108.8	7.4	7.2	0.362
3-9350	4- 140	0.316	180.1	-2.7	-1.01	0.844	63.1	0.466	1.809	102.9	386.0	0.966	2.652	1.34	1.204	98.2	59.0	26.8	0.269
3-9350	4- 140	0.146	106.0	18.7	-1.01	0.640	81.9	0.376	1.170	166.0	809.1	0.730	1.609	1.34	1.072	110.5	14.7	10.0	0.392
3-9350	4- 150	0.170	121.5	17.9	-0.76	0.637	77.6	0.411	1.164	160.9	813.9	0.686	1.642	1.41	1.072	112.8	21.8	12.6	0.434
3-9400	3-9570	0.294	139.6	13.3	-1.62	0.496	73.5	0.641	1.020	170.2	231.8	---	1.673	-1.95	1.614	50.2	11.2	5.0	0.704
3-9400	3-9580	0.250	140.5	13.0	-1.26	0.535	75.9	0.571	1.064	168.9	240.4	---	1.672	-1.81	1.031	55.3	22.4	6.7	0.623
3-9400	3-9590	0.211	140.7	13.1	-0.95	0.568	78.0	0.508	1.106	167.9	249.2	---	1.668	-1.74	1.045	59.9	27.7	8.3	0.549
3-9400	3-9600	0.178	140.0	13.7	-0.65	0.595	79.9	0.451	1.146	167.2	258.4	---	1.664	-1.72	1.058	64.1	32.8	9.6	0.482
3-9400	3-9610	0.150	138.6	14.9	-0.36	0.618	81.5	0.402	1.183	166.9	267.8	---	1.659	-1.75	1.068	67.8	37.1	10.6	0.420
3-9400	3-9620	0.127	136.2	16.9	-0.04	0.636	82.9	0.380	1.216	167.0	277.6	---	1.654	-1.83	1.076	71.2	42.1	11.0	0.364
3-9400	3-9630	0.109	133.0	19.9	0.31	0.650	84.1	0.326	1.244	167.5	287.7	---	1.649	-1.99	1.083	74.2	47.2	10.8	0.313
3-9400	3-9640	0.096	129.3	24.3	0.74	0.662	85.1	0.298	1.263	168.1	297.9	---	1.645	-2.24	1.088	77.0	51.2	9.5	0.268
3-9400	3-9650	0.087	125.4	30.4	1.32	0.670	85.8	0.276	1.287	168.9	308.3	---	1.642	-2.64	1.092	79.5	54.4	6.6	0.229
3-9400	3-9660	0.083	122.3	39.0	2.16	0.677	86.4	0.260	1.302	169.7	318.6	---	1.640	-3.33	1.096	81.8	56.9	1.0	0.198
3-9400	3-9670	0.087	121.8	51.7	3.66	0.682	86.8	0.248	1.313	170.3	328.7	---	1.638	-4.68	1.098	83.9	59.0	-9.8	0.181

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MAR
ARRIVAL PLANET= EARTI

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEE
3-9400	3-9680	0.116	131.9	70.0	7.36	0.685	87.1	0.240	1.320	170.6	338.5	---	1.637	-P.23	1.106	85.9	63.5	-30.6	0.20
3-9400	3-9700	0.190	102.7	-39.1	-14.18	0.687	87.1	0.234	1.326	170.5	357.8	---	1.637	13.60	1.103	89.6	321.3	70.7	0.27
3-9400	3-9710	0.105	306.6	-23.9	-6.40	0.687	86.8	0.236	1.326	169.6	366.4	1.013	1.639	5.96	1.104	91.2	2.5	51.0	0.16
3-9400	3-9720	0.086	112.0	-13.2	-4.16	0.686	86.4	0.240	1.324	168.4	374.7	1.006	1.641	3.87	1.105	92.8	8.7	36.4	0.15
3-9400	3-9730	0.081	118.6	-6.1	-3.06	0.685	85.8	0.246	1.320	166.8	382.7	0.995	1.645	2.93	1.105	94.4	11.5	27.6	0.15
3-9400	3-9740	0.081	126.4	-1.4	-2.37	0.683	85.0	0.255	1.315	164.9	390.5	0.980	1.650	2.40	1.106	96.1	14.5	22.7	0.17
3-9400	3-9750	0.085	135.0	1.6	-1.88	0.680	83.9	0.266	1.309	162.7	398.0	0.961	1.657	2.09	1.107	97.7	18.1	20.3	0.19
3-9400	3-9760	0.093	143.5	3.4	-1.48	0.677	82.7	0.280	1.302	160.3	405.5	0.937	1.668	1.89	1.108	99.5	22.5	19.4	0.22
3-9400	3-9770	0.105	151.5	4.2	-1.15	0.674	81.2	0.298	1.295	157.9	412.8	0.909	1.682	1.78	1.108	101.4	27.4	19.5	0.25
3-9400	3-9780	0.123	158.5	4.3	-0.84	0.671	79.3	0.320	1.288	155.3	420.2	0.875	1.701	1.72	1.109	103.5	32.9	20.1	0.28
3-9400	3-9790	0.146	164.4	4.2	-0.54	0.668	77.1	0.348	1.281	152.9	427.7	0.835	1.726	1.72	1.110	105.9	38.7	21.1	0.32
3-9400	3-9800	0.175	169.1	3.9	-0.24	0.664	74.3	0.382	1.273	150.7	435.4	0.786	1.760	1.78	1.110	108.7	44.8	22.2	0.37
3-9400	3-9810	0.214	172.7	3.6	0.11	0.661	70.8	0.426	1.266	148.8	443.6	0.726	1.806	1.89	1.110	112.0	51.1	23.7	0.43
3-9400	3-9820	0.264	175.2	3.4	0.51	0.658	66.4	0.482	1.259	147.6	452.5	0.652	1.867	2.09	1.110	116.2	57.2	24.3	0.50
3-9400	3-9830	0.259	83.6	20.0	-1.83	0.552	100.7	0.528	1.085	189.9	606.2	0.513	1.658	-2.06	1.044	58.5	6.3	-0.8	0.57
3-9400	4- 100	0.321	199.7	-15.2	-2.70	0.812	63.3	0.454	1.764	108.1	328.6	---	2.565	2.64	1.190	80.3	118.0	32.9	0.26
3-9400	4- 110	0.313	201.0	-14.4	-2.12	0.813	63.9	0.445	1.770	106.9	337.1	---	2.557	2.23	1.192	83.0	116.0	32.8	0.23
3-9400	4- 120	0.307	201.9	-13.8	-1.68	0.814	64.3	0.439	1.774	106.1	346.1	---	2.552	1.98	1.195	85.8	110.9	33.4	0.21
3-9400	4- 130	0.305	202.5	-13.1	-1.32	0.815	64.5	0.437	1.777	105.7	355.5	---	2.553	1.83	1.198	88.6	102.6	33.9	0.20
3-9400	4- 130	0.227	65.5	18.4	-1.32	0.630	102.1	0.404	1.205	199.2	809.0	0.718	1.692	1.83	1.081	111.9	5.4	7.1	0.42
3-9400	4- 140	0.307	202.7	-12.3	-1.00	0.815	64.3	0.439	1.778	105.8	365.5	0.997	2.560	1.75	1.200	91.7	92.9	33.6	0.20
3-9400	4- 140	0.178	80.1	20.2	-1.00	0.618	95.9	0.389	1.184	189.4	809.1	0.723	1.645	1.75	1.076	111.1	14.3	10.8	0.40
3-9400	4- 150	0.314	202.5	-11.4	-0.70	0.815	63.8	0.447	1.779	106.5	376.0	0.984	2.575	1.72	1.203	94.9	84.4	32.3	0.23
3-9400	4- 150	0.155	98.3	21.0	-0.70	0.610	90.9	0.393	1.170	181.4	810.9	0.710	1.631	1.72	1.075	111.6	22.7	14.0	0.41
3-9400	4- 160	0.326	202.0	-10.4	-0.40	0.815	62.9	0.462	1.779	107.8	387.3	0.958	2.601	1.74	1.205	98.5	78.9	30.8	0.27
3-9400	4- 160	0.151	118.6	19.7	-0.40	0.604	86.2	0.410	1.160	174.4	813.9	0.684	1.636	1.74	1.074	112.8	30.9	16.8	0.43
3-9400	4- 170	0.168	137.1	16.6	-0.08	0.599	81.2	0.438	1.152	168.4	817.9	0.647	1.657	1.82	1.073	114.8	38.8	19.2	0.46
3-9400	4- 180	0.204	150.9	13.1	0.29	0.594	75.8	0.479	1.145	163.4	822.9	0.596	1.693	1.97	1.073	117.6	46.6	21.3	0.51
3-9400	4- 190	0.258	160.2	10.3	0.74	0.591	69.4	0.536	1.139	159.5	829.2	0.529	1.749	2.23	1.072	121.6	54.0	22.9	0.58
3-9450	3-9580	0.286	139.0	13.6	-1.58	0.455	90.1	0.656	1.002	180.1	229.2	---	---	-2.44	1.002	49.0	27.8	8.7	0.71
3-9450	3-9590	0.235	138.1	14.1	-1.09	0.506	90.1	0.574	1.054	180.1	239.1	---	---	-2.16	1.024	55.0	32.4	10.0	0.62
3-9450	3-9600	0.194	135.7	15.2	-0.70	0.548	90.6	0.502	1.105	180.6	249.4	---	---	-1.98	1.042	60.3	36.9	11.1	0.54
3-9450	3-9610	0.162	133.9	17.0	-0.36	0.582	91.2	0.439	1.154	181.6	260.1	---	---	-1.89	1.058	64.9	41.4	11.9	0.46
3-9450	3-9620	0.139	126.7	19.5	-0.04	0.608	91.9	0.387	1.198	183.1	271.3	---	---	-1.85	1.071	69.0	45.6	12.4	0.39
3-9450	3-9630	0.122	120.2	22.5	0.27	0.630	92.6	0.345	1.237	185.0	282.9	---	---	-1.87	1.081	72.7	49.5	12.3	0.33
3-9450	3-9640	0.111	113.3	25.7	0.60	0.646	93.2	0.312	1.269	187.1	294.6	---	---	-1.94	1.089	75.9	52.7	11.6	0.28
3-9450	3-9650	0.105	106.8	29.1	0.96	0.658	93.7	0.288	1.295	189.2	306.3	---	---	-2.08	1.095	78.8	55.0	10.0	0.24
3-9450	3-9660	0.102	101.3	32.7	1.39	0.667	94.0	0.270	1.315	191.1	317.7	---	---	-2.30	1.099	81.4	56.0	7.0	0.20
3-9450	3-9670	0.102	97.4	36.7	1.94	0.673	94.3	0.258	1.330	192.5	328.6	---	---	-2.67	1.102	83.7	55.6	2.1	0.17
3-9450	3-9680	0.103	95.4	42.1	2.73	0.677	94.4	0.251	1.339	193.3	338.9	---	---	-3.28	1.105	85.8	53.7	-5.6	0.15
3-9450	3-9690	0.108	95.5	50.0	4.02	0.679	94.3	0.246	1.343	193.4	348.6	---	---	-4.41	1.106	87.8	51.3	-16.9	0.15
3-9450	3-9700	0.126	100.4	63.4	6.78	0.679	94.1	0.245	1.344	192.9	357.5	---	---	-7.01	1.107	89.5	51.4	-33.4	0.17
3-9450	3-9710	0.240	156.1	80.6	18.08	0.678	93.7	0.245	1.342	191.6	365.7	1.013	---	-18.16	1.108	91.1	66.7	-60.5	0.35
3-9450	3-9730	0.126	102.5	-21.4	-7.59	0.673	92.7	0.251	1.331	188.0	381.7	0.996	---	7.83	1.108	94.3	354.3	49.8	0.20
3-9450	3-9740	0.098	108.6	-8.2	-4.28	0.670	91.8	0.257	1.322	185.3	388.7	0.983	---	4.68	1.108	95.7	9.2	35.3	0.18
3-9450	3-9750	0.088	117.2	-0.9	-2.83	0.666	90.9	0.264	1.313	182.4	395.4	0.967	---	3.40	1.108	97.2	16.8	28.1	0.19
3-9450	3-9760	0.084	127.7	3.1	-1.98	0.662	89.7	0.273	1.304	179.2	402.0	0.947	1.660	2.72	1.108	98.6	22.9	24.8	0.21
3-9450	3-9770	0.085	139.5	4.7	-1.40	0.657	88.3	0.285	1.293	175.8	408.4	0.925	1.661	2.33	1.108	100.2	29.0	23.5	0.23
3-9450	3-9780	0.091	151.6	4.7	-0.95	0.652	86.8	0.299	1.283	172.3	414.8	0.900	1.666	2.09	1.108	101.8	35.3	23.3	0.25
3-9450	3-9790	0.103	162.7	3.7	-0.57	0.647	84.9	0.316	1.272	168.8	421.2	0.870	1.674	1.94	1.107	103.5	41.8	23.8	0.28
3-9450	3-9800	0.120	172.2	2.1	-0.23	0.642	82.7	0.337	1.262	165.2	427.7	0.836	1.687	1.87	1.107	105.5	48.6	24.5	0.31
3-9450	3-9810	0.143	179.8	0.5	0.10	0.637	80.2	0.364	1.252	161.8	434.3	0.797	1.707	1.85	1.106	107.7	55.6	25.4	0.35
3-9450	3-9820	0.173	185.8	-0.9	0.43	0.632	77.1	0.396	1.242	158.6	441.2	0.750	1.735	1.90	1.105	110.3	62.8	26.2	0.39
3-9450	3-9830	0.212	190.3	-2.1	0.79	0.628	73.4	0.438	1.233	155.8	448.5	0.693	1.773	2.01	1.104	113.4	70.0	26.8	0.44
3-9450	3-9840	0.261	193.5	-3.6	1.21	0.623	68.8	0.491	1.224	153.7	456.5	0.623	1.826	2.20	1.102	117.3	77.1	27.1	0.51
3-9450	4- 110	0.345	220.2	-23.5	-3.48	0.791	62.9	0.457	1.725	112.9	320.9	---	2.513	3.95	1.186	78.0	140.0	32.1	0.29
3-9450	4- 120	0.334	221.9	-21.9	-2.38	0.792	63.7	0.445	1.731	111.6	329.2	---	2.502	3.03	1.189	80.6	139.6	30.3	0.25
3-9450	4- 130	0.326	223.1	-20.8	-1.68	0.793	64.2	0.436	1.737	110.5	337.9	---	2.495	2.51	1.192	83.3	137.1	30.3	0.22
3-9450	4- 140	0.321	223.9	-19.9	-1.17	0.794	64.6	0.431	1.741	109.8	347.1	---	2.491	2.20	1.195	86.1	131.7	31.3	0.20
3-9450	4- 150	0.320	224.4	-19.1	-0.76	0.795	64.7	0.429	1.744	109.5	356.7	---	2.492	2.01	1.198	89.0	123.4	32.5	0.19
3-9450	4- 160	0.322	224.6	-18.3	-0.40	0.795	64.5	0.432	1.745	109.6	366.8	0.991	2.500	1.90	1.201	92.0	113.8	33.0	0.20
3-9450	4- 160	0.242	92.2	23.0	-0.40	0.605	105.7	0.464	1.193	200.0	817.1	0.639	1.746	1.90	1.084	116.0	29.5	16.1	0.49
3-9450	4- 170	0.329	224.3	-17.4	-0.07	0.795	64.0	0.441	1.746	110.2	377.4	0.976	2.515	1.85	1.203	95.3	105.5	32.5	0.22
3-9450	4- 170	0.184	111.7	22.2	-0.07	0.589	97.4	0.440	1.165	189.6	816.8	0.652	1.678	1.85	1.078	114.8	39.4	19.5	0.47
3-9450	4- 180	0.342	223.7	-16.5	0.25	0.795	63.0	0.456	1.746	111.5	388.7	0.950	2.541	1.86	1.205	98.9	100.4	31.4	0.26
3-9450	4- 180	0.165	133.2	18.9	0.25	0.579	91.1	0.445	1.149	181.4	818.7	0.638	1.660	1.86	1.074	115.2	48.6	22.0	0.47
3-9450	4- 190	0.174	153.2	13.4	0.60	0.571	85.3	0.465	1.138	174.5	821.9	0.609	1.666	1.94	1.072	116.7	57.5	23.9	0.49
3-9450	4- 200	0.205	168.5	8.0	0.98	0.565	79.2	0.499	1.129	168.7	826.2	0.566	1.692	2.09	1.070	119.1	66.2	25.3	0.51
3-9450	4- 210	0.256	178.7	3.9	1.45	0.560	72.3	0.549	1.121	164.1	831.8	0.506	1.737	2.34	1.068	122.6	74.4	26.2	0.55
3-9500	3-9570	0.559	131.6	16.0	-4.75	0.419	139.3	0.887	0.975	189.4	206.8	---	---	-5.71	0.991	27.5	29.5	9.3	1.05
3-9500	3-9580	0.437	130.9	16.3	-2.61	0.456	124.0	0.779	1.007	191.9	219.2	---	---	-3.73	1.005	38.9	32.6	10.3	0.86
3-9500	3-9590	0.349	128.6	17.1	-1.55	0.507	115.3	0.670	1.060	194.3	231.5	---	---	-2.83	1.026	48.0	36.0	11.2	0.74
3-9500	3-9600	0.286	124.7	18.4	-0.89	0.556	110.5	0.573	1.121	197.1	244.1	---	---	-2.34	1.048	55.5	39.4	12.0	0.62
3-9500	3-9610	0.243	119.5	20.2	-0.42	0.597	107.8	0.492	1.184	200.5	257.2	---	---	-2.05	1.068	61.7	42.7	12.6	0.57
3-9500	3-9620	0.214	113.4	22.1	-0.04	0.631	106.2	0.428	1.245	204.5	270.9	---	---	-1.87	1.085	67.0	45.8	12.8	0.43
3-9500	3-9630	0.196	107.2	23.9	0.28	0.657	105.4	0.380	1.298	208.9	284.9	---	---	-1.76	1.098	71.5	48.3	12.7	0.36
3-9500	3-9640	0.186	101.7	25.6	0.57	0.676	104.9	0.346	1.343	213.1	298.7	---	---	-1.72	1.108	75.4	49.9	12.1	0.30
3-9500	3-9650	0.180	97.4	27.0	0.86	0.689	104.6	0.323	1.378	216.7	311.9	---	---	-1.72	1.116	78.8	50.5	10.7	0.25
3-9500	3-9660	0.177	94.3	28.4	1.15	0.699	104.4	0.307	1.402	219.4	324.2	---	---	-1.77	1.120	81.8	49.4	8.5	0.20
3-9500	3-9670	0.174	92.5	29.8	1.48	0.704	104.1	0.297	1.417	221.1	335.3	---	---	-1.88	1.123	84.4	46.6	5.1	0.15

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9500	3-9680	0.171	91.8	31.4	1.85	0.706	103.9	0.291	1.423	221.6	345.4	---	---	-2.06	1.125	86.7	42.2	0.7	0.158
3-9500	3-9690	0.168	92.1	33.5	2.32	0.706	103.5	0.286	1.423	221.2	354.5	---	---	-2.35	1.125	88.8	37.1	-4.5	0.149
3-9500	3-9700	0.164	93.4	36.4	2.97	0.704	103.1	0.283	1.417	219.9	362.8	1.015	---	-2.83	1.124	90.6	32.8	-9.9	0.150
3-9500	3-9710	0.161	96.0	41.0	3.98	0.700	102.5	0.281	1.407	217.9	370.3	1.011	---	-3.70	1.123	92.3	30.8	-16.0	0.161
3-9500	3-9720	0.164	100.8	49.3	5.98	0.695	101.9	0.281	1.393	215.3	377.3	1.002	---	-5.54	1.122	93.8	32.3	-24.9	0.187
3-9500	3-9730	0.2(	118.4	67.1	12.28	0.690	101.1	0.280	1.370	212.2	383.7	0.992	---	-11.70	1.120	95.1	41.0	-44.5	0.273
3-9500	3-9750	0.156	107.3	-13.6	-7.94	0.676	99.2	0.284	1.344	204.9	396.2	0.963	---	8.81	1.116	97.8	0.9	46.3	0.257
3-9500	3-9760	0.152	113.8	1.0	-3.77	0.669	98.0	0.288	1.327	200.9	401.8	0.946	---	4.79	1.114	99.9	18.6	33.0	0.233
3-9500	3-9770	0.149	122.7	7.0	-2.17	0.662	96.6	0.293	1.310	196.6	407.3	0.927	---	3.35	1.112	100.2	27.9	27.9	0.241
3-9500	3-9780	0.101	133.5	9.2	-1.29	0.654	95.1	0.299	1.293	192.2	412.8	0.906	---	2.63	1.111	101.4	35.6	25.1	0.256
3-9500	3-9790	0.090	146.2	9.0	-0.70	0.647	93.4	0.309	1.277	187.7	418.2	0.883	---	2.21	1.109	102.7	43.1	25.7	0.274
3-9500	3-9800	0.099	159.7	7.0	-0.26	0.639	91.5	0.320	1.262	183.1	423.7	0.858	---	1.96	1.107	104.1	50.6	26.0	0.294
3-9500	3-9810	0.107	172.9	3.8	0.10	0.632	89.3	0.335	1.247	178.6	429.2	0.829	1.645	1.81	1.105	105.7	58.3	26.5	0.317
3-9500	3-9820	0.122	184.5	0.4	0.42	0.625	86.8	0.354	1.233	174.2	434.9	0.796	1.670	1.73	1.102	107.4	66.2	27.0	0.344
3-9500	3-9830	0.144	194.0	-2.8	0.73	0.618	84.0	0.378	1.220	169.9	440.7	0.759	1.681	1.71	1.100	109.4	74.2	27.4	0.375
3-9500	3-9840	0.174	201.5	-5.4	1.04	0.611	80.6	0.406	1.207	165.8	446.8	0.715	1.700	1.74	1.097	111.7	82.2	27.6	0.413
3-9500	3-9850	0.211	207.2	-7.4	1.37	0.604	76.6	0.446	1.196	162.1	453.3	0.663	1.729	1.83	1.094	114.6	90.1	27.4	0.459
3-9500	3-9860	0.260	211.3	-8.9	1.75	0.598	71.8	0.495	1.186	159.1	460.4	0.599	1.773	2.00	1.091	118.1	97.7	27.0	0.518
3-9500	3-9870	0.321	214.0	-10.0	2.22	0.593	65.8	0.558	1.177	156.9	468.4	0.520	1.834	2.29	1.088	122.7	104.8	26.3	0.595
3-9500	3-9880	0.401	215.3	-10.6	2.87	0.588	58.0	0.640	1.169	156.1	477.8	0.421	1.918	2.76	1.085	128.9	111.1	25.4	0.699
3-9500	3-9890	0.506	214.8	-10.7	3.90	0.585	47.7	0.744	1.164	157.6	489.4	0.298	2.031	3.63	1.082	137.4	116.2	24.5	0.839
3-9500	3-9940	0.550	179.0	-1.0	-3.50	0.255	55.4	0.928	0.880	176.9	559.0	0.064	1.697	-4.54	0.932	22.1	38.3	13.5	1.096
3-9500	3-9940	0.503	128.9	16.7	-3.50	0.453	132.5	0.832	1.004	191.8	573.9	0.168	1.839	-4.54	1.005	33.7	30.2	9.5	0.964
3-9500	3-9950	0.444	176.0	0.2	-2.03	0.319	73.5	0.845	0.910	176.9	568.9	0.141	1.679	-3.23	0.949	32.5	42.7	14.6	0.956
3-9500	3-9950	0.382	138.6	14.2	-2.03	0.436	114.3	0.747	0.989	189.1	581.1	0.251	1.727	-3.23	0.994	41.7	36.2	11.7	0.832
3-9500	4- 30	0.571	229.1	-17.3	1.30	0.739	45.2	0.708	1.527	140.0	249.3	---	2.608	-1.81	1.146	48.5	101.0	21.0	0.773
3-9500	4- 40	0.542	231.2	-17.4	1.65	0.746	47.8	0.673	1.550	136.8	256.6	---	2.593	-1.95	1.150	51.9	107.9	19.9	0.714
3-9500	4- 50	0.514	233.3	-17.2	2.06	0.752	50.3	0.640	1.571	133.8	262.1	---	2.577	-2.18	1.154	55.2	114.5	18.4	0.658
3-9500	4- 60	0.489	235.3	-16.8	2.60	0.757	52.6	0.609	1.591	130.9	268.7	---	2.560	-2.55	1.158	58.3	120.8	16.2	0.604
3-9500	4- 70	0.465	237.3	-15.9	3.38	0.762	54.7	0.579	1.610	128.1	275.5	---	2.542	-3.18	1.162	61.4	126.6	13.2	0.553
3-9500	4- 80	0.445	239.4	-14.0	4.73	0.766	56.6	0.551	1.627	125.4	282.4	---	2.524	-4.37	1.166	64.3	131.6	8.5	0.506
3-9500	4- 90	0.432	241.4	-9.1	7.87	0.770	58.3	0.526	1.643	123.0	289.5	---	2.506	-7.36	1.170	67.1	135.2	-0.8	0.471
3-9500	4- 100	0.508	240.5	14.0	25.43	0.773	59.8	0.503	1.657	120.7	296.6	---	2.490	-24.78	1.174	69.8	137.7	-36.7	0.605
3-9500	4- 110	0.429	232.0	-44.7	-15.18	0.776	61.3	0.481	1.669	118.5	304.7	---	2.471	15.97	1.178	72.8	176.0	48.4	0.464
3-9500	4- 120	0.378	241.0	-31.3	-5.34	0.778	62.4	0.463	1.679	116.7	312.5	---	2.456	6.28	1.182	75.4	161.6	31.3	0.339
3-9500	4- 130	0.362	243.7	-27.4	-2.87	0.780	63.4	0.448	1.687	115.1	320.7	---	2.443	3.96	1.185	78.1	160.7	25.6	0.289
3-9500	4- 140	0.351	245.1	-25.4	-1.70	0.782	64.2	0.436	1.694	113.8	329.2	---	2.433	2.95	1.189	80.8	160.0	23.5	0.251
3-9500	4- 150	0.344	246.1	-24.2	-0.99	0.783	64.8	0.427	1.700	112.8	338.1	---	2.425	2.41	1.192	83.5	157.6	23.4	0.220
3-9500	4- 160	0.339	246.7	-23.3	-0.48	0.784	65.1	0.421	1.704	112.1	347.4	---	2.422	2.00	1.195	86.3	152.6	24.7	0.199
3-9500	4- 170	0.338	247.1	-22.5	-0.08	0.784	65.2	0.420	1.706	111.8	357.1	---	2.423	1.88	1.197	89.1	144.7	26.6	0.191
3-9500	4- 180	0.341	247.1	-21.7	0.26	0.785	65.0	0.423	1.708	111.9	367.3	0.986	2.430	1.77	1.199	92.2	135.7	28.1	0.198
3-9500	4- 190	0.348	246.8	-21.1	0.57	0.785	64.5	0.431	1.708	112.4	377.9	0.972	2.445	1.72	1.201	95.4	127.9	28.5	0.222
3-9500	4- 190	0.229	126.0	21.2	0.57	0.584	105.5	0.494	1.163	197.2	822.7	0.588	1.738	1.72	1.081	118.4	57.4	23.2	0.528
3-9500	4- 190	0.447	106.1	23.8	0.57	0.636	127.6	0.662	1.260	209.7	835.2	0.426	2.093	1.72	1.111	129.8	51.7	20.8	0.739
3-9500	4- 200	0.360	246.1	-20.4	0.87	0.785	63.5	0.446	1.708	113.5	389.2	0.946	2.470	1.72	1.202	98.9	123.0	28.0	0.261
3-9500	4- 200	0.184	148.7	15.9	0.87	0.567	96.6	0.476	1.137	187.4	823.0	0.596	1.677	1.72	1.073	117.4	67.9	25.2	0.506
3-9500	4- 200	0.554	105.9	23.9	0.87	0.661	136.9	0.754	1.308	208.8	844.4	0.322	2.295	1.72	1.125	137.3	58.0	21.7	0.872
3-9500	4- 210	0.379	244.9	-19.7	1.19	0.785	62.1	0.469	1.702	115.3	401.1	0.907	2.508	1.78	1.203	102.8	120.9	27.2	0.315
3-9500	4- 210	0.183	169.7	8.5	1.19	0.556	89.6	0.485	1.121	179.6	845.4	0.577	1.665	1.78	1.068	118.2	77.8	26.2	0.516
3-9500	4- 220	0.407	243.3	-19.1	1.54	0.786	59.9	0.502	1.706	117.8	413.8	0.849	2.563	1.90	1.203	107.3	121.0	26.2	0.385
3-9500	4- 220	0.210	186.1	1.7	1.54	0.548	82.8	0.512	1.110	173.0	829.0	0.542	1.678	1.90	1.064	120.1	87.1	26.6	0.545
3-9500	4- 230	0.447	241.0	-18.3	1.96	0.784	56.7	0.549	1.704	121.7	427.4	0.769	2.640	2.12	1.203	112.7	122.4	25.2	0.474
3-9500	4- 230	0.258	197.3	-3.2	1.96	0.541	75.6	0.555	1.101	167.7	833.9	0.490	1.712	2.12	1.061	123.2	95.9	26.5	0.595
3-9500	4- 240	0.504	238.0	-17.5	2.50	0.784	52.2	0.613	1.703	123.2	442.5	0.659	2.747	2.48	1.202	119.4	124.3	24.2	0.388
3-9500	4- 240	0.327	204.3	-6.3	2.50	0.536	67.2	0.617	1.094	163.9	840.3	0.419	1.770	2.48	1.058	127.7	103.8	26.0	0.369
3-9500	4- 250	0.585	233.9	-16.5	3.29	0.783	45.7	0.699	1.702	133.0	459.6	0.512	2.892	3.10	1.201	127.9	126.1	23.4	0.737
3-9500	4- 250	0.418	208.0	-8.0	3.29	0.532	57.1	0.701	1.090	162.1	848.6	0.325	1.854	3.10	1.055	134.3	110.5	25.2	0.775
3-9500	4- 260	0.538	208.7	-8.6	4.67	0.530	44.1	0.808	1.087	163.2	859.8	0.209	1.965	4.32	1.052	143.7	115.7	24.3	0.927
3-9500	4- 270	0.583	172.8	5.6	7.96	0.177	66.4	0.956	0.855	178.9	1245.6	0.037	1.672	7.46	0.924	162.8	109.8	24.0	1.143
3-9500	4- 300	0.579	128.2	16.8	-4.92	0.452	142.2	0.888	1.003	190.7	927.6	0.113	1.893	-5.88	1.006	27.4	28.3	8.9	1.060
3-9510	3-9580	0.503	129.2	16.8	-3.07	0.493	133.6	0.813	1.042	194.4	217.4	---	---	-4.24	1.021	35.6	33.3	10.5	0.941
3-9510	3-9590	0.397	126.7	17.6	-1.73	0.531	122.4	0.698	1.087	197.7	230.5	---	---	-3.05	1.038	45.9	36.4	11.4	0.782
3-9510	3-9600	0.324	122.7	18.9	-0.97	0.575	115.9	0.595	1.147	201.3	243.9	---	---	-2.44	1.058	54.1	39.5	12.0	0.652
3-9510	3-9610	0.275	117.5	20.6	-0.44	0.615	112.1	0.509	1.213	205.5	257.8	---	---	-2.09	1.078	60.9	42.5	12.5	0.544
3-9510	3-9620	0.243	111.7	22.4	-0.05	0.648	109.8	0.443	1.277	210.2	272.2	---	---	-1.87	1.094	66.5	45.2	12.8	0.452
3-9510	3-9630	0.223	105.9	24.0	0.28	0.673	108.5	0.394	1.334	215.1	286.7	---	---	-1.74	1.108	71.5	47.3	12.6	0.374
3-9510	3-9640	0.212	101.0	25.4	0.58	0.692	107.7	0.361	1.381	219.7	300.9	---	---	-1.67	1.118	75.4	48.5	11.9	0.308
3-9510	3-9650	0.205	97.1	26.6	0.86	0.705	107.1	0.338	1.417	223.5	314.3	---	---	-1.65	1.125	78.9	48.5	10.6	0.255
3-9510	3-9660	0.200	94.5	27.8	1.14	0.713	106.7	0.324	1.441	226.2	326.6	---	---	-1.68	1.129	82.0	46.9	8.3	0.212
3-9510	3-9670	0.196	93.1	29.0	1.43	0.718	106.4	0.314	1.455	227.7	337.6	---	---	-1.76	1.131	84.7	43.6	5.2	0.181
3-9510	3-9680	0.192	92.7	30.3	1.77	0.719	106.0	0.307	1.459	228.0	347.5	---	---	-1.90	1.132	87.1	38.8	1.1	0.162
3-9510	3-9690	0.187	93.1	32.0	2.17	0.718	105.6	0.302	1.455	227.3	356.3	---	---	-2.12	1.132	89.1	33.6	-3.4	0.153
3-9510	3-9700	0.182	94.5	34.2	2.70	0.715	105.1	0.298	1.446	225.8	364.3	1.015	---	-2.49	1.131	91.0	29.4	-7.8	0.155
3-9510	3-9710	0.177	96.8	37.5	3.46	0.710	104.5	0.295	1.432	223.6	371.6	1.009	---	-3.12	1.129	92.6	27.3	-12.3	0.164
3-9510	3-9720	0.174	100.6	43.1	4.85	0.704	103.8	0.293	1.415	220.7	378.4	1.001	---	-4.35	1.126	94.1	28.2	-18.3	0.183
3-9510	3-9730	0.184	108.7	54.7	8.14	0.698	103.0	0.291	1.397	217.4	384.6	0.990	---	-7.49	1.124	95.5	33.5	-30.2	0.224
3-9510	3-9740	0.390	175.8	71.8	29.70	0.690	102.0	0.290	1.377	213.6	390.2	0.977	---	-28.91	1.122	96.7	50.3	-68.0	0.558
3-9510	3-9750	0.208	108.1	-23.5	-12.89	0.682	101.0	0.292	1.357	209.8	396.7	0.960	---	13.82	1.119	98.1	344.3	54.7	0.326
3-9510	3-9760	0.138	112.9	-1.4	-4.72	0.674	99.8	0.294	1.337	205.5	402.1	0.944	---	5.75	1.117	99.2	16.1	36.2	0.245
3-9510	3-9770	0.120	120.9	6.7	-2.50	0.666	98.4	0.298	1.318	201.1	407.4	0.926	---	3.72	1.114	100.3	27.2	29.1	0.247

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9510	3-9780	0.109	130.8	9.8	-1.42	0.658	96.9	0.303	1.299	196.5	412.7	0.905	---	2.79	1.112	101.5	35.5	26.6	0.259
3-9510	3-9790	0.103	142.6	10.1	-0.75	0.650	95.2	0.310	1.281	191.8	418.0	0.883	---	2.29	1.110	102.7	43.2	26.0	0.275
3-9510	3-9800	0.101	155.9	8.4	-0.27	0.642	93.3	0.320	1.264	187.1	423.3	0.859	---	1.99	1.107	104.0	50.9	26.1	0.293
3-9510	3-9810	0.106	169.5	5.3	0.11	0.634	91.2	0.333	1.248	182.4	428.6	0.832	---	1.80	1.105	105.5	58.7	26.6	0.314
3-9510	3-9820	0.117	182.2	1.6	0.43	0.626	88.8	0.350	1.233	177.7	434.0	0.802	1.664	1.70	1.102	107.0	66.7	27.1	0.338
3-9510	3-9830	0.135	192.9	-2.1	0.73	0.618	86.0	0.370	1.218	173.2	439.6	0.767	1.670	1.63	1.100	108.9	74.8	27.4	0.366
3-9510	3-9840	0.161	201.6	-5.1	1.02	0.611	82.8	0.397	1.205	168.8	445.5	0.727	1.684	1.66	1.097	111.0	82.9	27.6	0.400
3-9510	3-9850	0.195	208.3	-7.6	1.33	0.604	79.1	0.431	1.193	164.8	451.6	0.679	1.707	1.73	1.093	113.6	91.0	27.4	0.441
3-9510	3-9860	0.239	213.3	-9.4	1.67	0.597	74.6	0.474	1.182	161.3	458.3	0.621	1.742	1.85	1.090	116.7	98.8	26.9	0.493
3-9510	3-9870	0.294	216.8	-10.8	2.09	0.591	69.1	0.530	1.172	158.6	465.7	0.551	1.793	2.07	1.086	120.6	106.2	26.1	0.560
3-9510	3-9880	0.365	218.8	-11.7	2.63	0.586	62.1	0.603	1.163	156.9	474.3	0.462	1.865	2.44	1.083	126.2	112.9	25.1	0.650
3-9510	3-9890	0.458	219.2	-12.1	3.43	0.582	52.9	0.697	1.157	157.1	484.6	0.351	1.963	3.07	1.079	133.5	118.6	24.0	0.771
3-9510	3-9900	0.581	217.6	-11.9	4.84	0.580	40.7	0.810	1.154	160.1	497.6	0.219	2.089	4.34	1.077	143.7	122.8	23.1	0.937
3-9510	3-9940	0.588	182.3	-2.4	-4.33	0.223	50.6	0.951	0.867	177.6	555.3	0.042	1.693	-5.42	0.923	18.1	40.4	14.3	1.146
3-9510	3-9940	0.559	134.0	15.4	-4.33	0.443	139.9	0.879	0.994	190.6	568.3	0.120	1.868	-5.42	1.000	28.4	32.9	10.6	1.041
3-9510	3-9950	0.485	180.9	-1.8	-2.33	0.287	69.1	0.882	0.893	177.0	564.7	0.106	1.680	-3.56	0.938	28.4	45.0	15.4	1.008
3-9510	3-9950	0.424	140.1	13.8	-2.35	0.432	120.9	0.783	0.984	190.1	577.7	0.213	1.756	-3.56	0.992	38.4	37.9	12.3	0.883
3-9510	4- 30	0.588	232.7	-18.4	1.21	0.735	44.1	0.722	1.509	141.5	246.4	---	2.597	-1.71	1.142	47.1	102.5	21.1	0.795
3-9510	4- 40	0.558	234.9	-18.4	1.58	0.742	46.9	0.686	1.532	138.3	252.8	---	2.584	-1.81	1.146	50.5	109.4	20.0	0.736
3-9510	4- 50	0.529	237.0	-18.3	1.95	0.748	49.4	0.653	1.554	135.2	259.2	---	2.568	-1.99	1.151	53.9	116.1	18.5	0.679
3-9510	4- 60	0.503	239.0	-18.0	2.40	0.753	51.8	0.620	1.575	132.3	265.8	---	2.552	-2.28	1.155	57.1	122.4	16.5	0.625
3-9510	4- 70	0.479	241.0	-17.3	3.03	0.759	54.0	0.589	1.594	129.4	272.5	---	2.534	-2.75	1.159	60.1	128.4	13.8	0.572
3-9510	4- 80	0.457	242.9	-15.9	4.02	0.763	55.9	0.561	1.612	126.7	279.3	---	2.516	-3.59	1.163	63.1	133.7	10.0	0.523
3-9510	4- 90	0.439	244.8	-12.9	5.98	0.767	57.7	0.534	1.629	124.2	286.4	---	2.498	-5.41	1.168	66.0	138.0	3.5	0.479
3-9510	4- 100	0.441	246.4	-3.2	12.30	0.771	59.3	0.510	1.643	121.8	293.6	---	2.481	-11.59	1.172	68.8	139.8	-13.6	0.472
3-9510	4- 120	0.392	244.6	-35.0	-7.33	0.776	62.1	0.468	1.667	117.7	309.2	---	2.447	8.33	1.180	74.3	167.7	34.4	0.367
3-9510	4- 130	0.371	247.8	-28.9	-3.42	0.778	63.1	0.452	1.676	116.0	317.2	---	2.434	4.57	1.184	77.0	164.8	25.5	0.306
3-9510	4- 140	0.359	249.4	-26.4	-1.91	0.780	64.0	0.439	1.684	114.6	325.6	---	2.422	3.20	1.187	79.7	154.4	22.2	0.264
3-9510	4- 150	0.350	250.5	-24.9	-1.07	0.782	64.7	0.428	1.690	113.4	334.4	---	2.413	2.51	1.190	82.4	162.9	21.4	0.230
3-9510	4- 160	0.345	251.2	-23.9	-0.51	0.783	65.1	0.421	1.694	112.6	343.5	---	2.408	2.13	1.193	85.1	159.1	22.2	0.205
3-9510	4- 170	0.342	251.6	-23.1	-0.08	0.783	65.3	0.418	1.698	112.1	353.1	---	2.407	1.89	1.196	88.0	152.4	24.1	0.191
3-9510	4- 180	0.343	251.7	-22.4	0.26	0.784	65.3	0.419	1.700	112.1	363.1	0.988	2.411	1.75	1.198	90.9	143.7	26.0	0.192
3-9510	4- 190	0.348	251.5	-21.7	0.57	0.784	64.9	0.425	1.700	112.4	373.5	0.978	2.423	1.67	1.200	94.0	135.3	27.0	0.208
3-9510	4- 200	0.358	251.0	-21.1	0.87	0.784	64.1	0.437	1.700	113.3	384.5	0.958	2.443	1.65	1.201	97.4	129.2	27.1	0.241
3-9510	4- 200	0.201	142.7	17.7	0.87	0.573	101.0	0.486	1.143	192.2	823.5	0.588	1.698	1.65	1.075	118.0	67.8	24.9	0.517
3-9510	4- 200	0.500	111.2	23.4	0.87	0.649	132.7	0.713	1.279	209.3	840.5	0.367	2.191	1.65	1.118	133.9	59.8	22.2	0.811
3-9510	4- 210	0.374	250.0	-20.5	1.17	0.784	62.9	0.456	1.700	114.7	396.1	0.925	2.475	1.69	1.202	101.1	126.0	26.4	0.289
3-9510	4- 210	0.182	164.9	10.5	1.17	0.559	93.3	0.793	1.123	183.5	825.0	0.581	1.666	1.69	1.069	118.1	78.0	26.1	0.513
3-9510	4- 210	0.592	111.7	23.3	1.17	0.667	140.6	0.790	1.320	207.4	848.8	0.278	2.363	1.69	1.129	140.6	66.6	23.0	0.928
3-9510	4- 220	0.398	248.6	-19.9	1.49	0.784	61.0	0.485	1.698	116.8	408.4	0.875	2.522	1.78	1.202	105.3	125.3	25.5	0.351
3-9510	4- 220	0.198	183.6	-2.9	1.49	0.549	86.4	0.501	1.110	176.4	828.0	0.554	1.666	1.78	1.064	119.4	87.7	26.5	0.533
3-9510	4- 230	0.432	246.6	-19.3	1.86	0.783	58.3	0.525	1.697	119.8	421.6	0.806	2.588	1.94	1.202	110.3	126.2	24.5	0.431
3-9510	4- 230	0.237	197.0	-2.9	1.86	0.542	79.3	0.536	1.100	170.4	832.2	0.510	1.690	1.94	1.061	121.9	96.7	26.4	0.572
3-9510	4- 240	0.481	244.0	-18.7	2.32	0.783	54.5	0.581	1.695	124.0	436.0	0.710	2.681	2.22	1.201	116.3	128.0	23.5	0.533
3-9510	4- 240	0.297	205.8	-6.7	2.32	0.536	71.4	0.589	1.092	165.8	837.8	0.449	1.736	2.22	1.057	125.7	105.1	25.8	0.633
3-9510	4- 250	0.550	240.3	-17.9	2.96	0.783	48.9	0.657	1.694	129.9	452.0	0.580	2.808	2.69	1.200	123.9	129.9	22.6	0.665
3-9510	4- 250	0.378	211.0	-9.0	2.96	0.531	62.1	0.662	1.087	162.9	845.1	0.367	1.807	2.69	1.054	131.2	112.3	24.8	0.723
3-9510	4- 260	0.484	213.0	-10.1	3.98	0.528	50.4	0.759	1.083	162.5	854.8	0.261	1.905	3.55	1.051	139.2	118.2	23.8	0.853
3-9510	4- 270	0.548	169.0	7.1	6.04	0.194	95.9	0.938	0.858	180.4	1242.7	0.053	1.664	5.46	0.927	159.5	111.5	23.6	1.099
3-9510	4- 310	0.492	134.9	15.2	-3.17	0.446	131.3	0.830	0.996	191.4	933.8	0.170	1.822	-4.33	0.999	33.9	34.7	11.2	0.957
3-9520	3-9580	0.593	127.7	17.2	-3.76	0.558	143.5	0.853	1.120	196.9	215.4	---	---	-4.97	1.053	31.6	33.8	10.7	1.020
3-9520	3-9590	0.462	125.0	18.1	-1.97	0.572	130.0	0.732	1.140	201.4	229.8	---	---	-3.33	1.058	43.3	36.6	11.4	0.834
3-9520	3-9600	0.374	121.0	19.4	-1.06	0.606	121.7	0.622	1.194	206.0	244.2	---	---	-2.56	1.074	52.5	39.3	12.0	0.686
3-9520	3-9610	0.316	115.9	20.9	-0.47	0.641	116.7	0.531	1.260	211.0	259.0	---	---	-2.13	1.092	59.9	41.9	12.4	0.566
3-9520	3-9620	0.279	110.3	22.5	-0.05	0.672	113.6	0.462	1.327	216.5	274.1	---	---	-1.88	1.108	65.9	44.2	12.9	0.467
3-9520	3-9630	0.256	105.0	24.0	0.29	0.695	111.8	0.414	1.387	222.0	289.2	---	---	-1.72	1.121	71.0	45.9	12.4	0.384
3-9520	3-9640	0.242	100.6	25.2	0.59	0.713	110.6	0.381	1.436	226.9	303.7	---	---	-1.63	1.130	75.3	46.6	11.6	0.316
3-9520	3-9650	0.233	97.3	26.3	0.86	0.725	109.8	0.359	1.473	230.7	317.2	---	---	-1.59	1.136	79.1	46.1	10.2	0.260
3-9520	3-9660	0.227	95.1	27.3	1.12	0.732	109.2	0.345	1.496	233.3	329.3	---	---	-1.59	1.140	82.3	43.9	8.1	0.217
3-9520	3-9670	0.221	94.0	28.3	1.40	0.736	108.7	0.335	1.506	234.5	340.1	---	---	-1.64	1.142	85.0	40.1	5.0	0.186
3-9520	3-9680	0.216	93.9	29.4	1.70	0.736	108.3	0.328	1.507	234.6	349.6	---	---	-1.75	1.142	87.4	35.0	1.3	0.168
3-9520	3-9690	0.210	94.5	30.8	2.05	0.733	107.8	0.322	1.498	233.6	358.2	---	---	-1.92	1.140	89.6	29.8	-2.5	0.161
3-9520	3-9700	0.203	95.9	32.5	2.49	0.729	107.2	0.317	1.484	231.8	365.9	1.014	---	-2.21	1.138	91.4	25.9	-6.1	0.162
3-9520	3-9710	0.196	98.1	34.9	3.11	0.723	106.5	0.312	1.465	229.3	373.0	1.008	---	-2.67	1.136	93.1	24.1	-9.4	0.171
3-9520	3-9720	0.189	101.3	38.7	4.10	0.716	105.8	0.308	1.443	226.2	379.5	0.999	---	-3.52	1.133	94.6	24.8	-13.3	0.185
3-9520	3-9730	0.188	106.7	46.0	6.10	0.708	104.9	0.305	1.420	222.7	385.6	0.987	---	-5.38	1.129	95.9	28.6	-20.5	0.211
3-9520	3-9740	0.227	125.2	63.7	13.00	0.699	103.9	0.302	1.396	218.8	391.2	0.974	---	-12.14	1.126	97.1	38.5	-40.9	0.298
3-9520	3-9750	0.429	118.1	-39.2	-33.07	0.690	103.0	0.303	1.373	214.8	397.6	0.957	---	34.06	1.123	98.5	296.9	54.7	0.652
3-9520	3-9760	0.159	112.4	-5.7	-6.37	0.681	101.7	0.302	1.350	210.2	402.5	0.942	---	7.50	1.120	99.5	11.6	41.1	0.266
3-9520	3-9770	0.133	119.8	5.9	-2.96	0.672	100.3	0.304	1.328	205.6	407.6	0.924	---	4.23	1.117	100.6	26.2	30.8	0.254
3-9520	3-9780	0.119	128.8	10.1	-1.59	0.663	98.7	0.308	1.306	200.9	412.7	0.904	---	3.00	1.114	101.7	35.2	27.3	0.263
3-9520	3-9790	0.110	139.6	11.0	-0.81	0.654	97.1	0.313	1.286	196.0	417.8	0.883	---	2.38	1.111	102.8	43.2	26.3	0.277
3-9520	3-9800	0.105	152.2	9.8	-0.29	0.645	95.2	0.321	1.267	191.1	422.9	0.860	---	2.01	1.108	104.0	51.0	26.3	0.293
3-9520	3-9810	0.106	165.8	6.9	0.11	0.636	93.1	0.332	1.250	186.2	428.1	0.835	---	1.80	1.105	105.3	59.0	26.7	0.312
3-9520	3-9820	0.114	179.2	3.0	0.44	0.628	90.7	0.346	1.233	181.4	433.3	0.806	---	1.67	1.102	106.8	67.1	27.1	0.333
3-9520	3-9830	0.128	191.1	-1.0	0.74	0.619	88.1	0.365	1.218	176.6	438.7	0.774	1.662	1.60	1.099	108.5	75.3	27.4	0.359
3-9520	3-9840	0.151	201.0	-4.6	1.02	0.611	85.0	0.388	1.203	172.0	444.3	0.737	1.670	1.58	1.096	110.4	83.6	27.5	0.389
3-9520	3-9850	0.181	208.8	-7.5	1.31	0.604	81.5	0.418	1.190	167.7	450.1	0.693	1.687	1.62	1.092	112.7	91.8	27.3	0.425
3-9520	3-9860	0.220	214.8	-9.7	1.62	0.597	77.3	0.456	1.178	163.8	456.4	0.641	1.715	1.71	1.089	115.5	99.8	26.7	0.471
3-9520	3-9870	0.269	219.1	-11.3	1.98	0.590	72.2	0.505	1.167	160.5	463.3	0.577	1.757	1.88	1.085	119.1	107.5	25.9	0.530

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9520	3-9880	0.333	222.0	-12.5	2.43	0.584	65.8	0.570	1.158	158.2	471.1	0.498	1.817	2.16	1.081	125.8	114.5	24.8	0.607
3-9520	3-9890	0.416	223.3	-13.2	3.07	0.579	57.6	0.653	1.150	157.3	480.4	0.399	1.902	2.64	1.077	130.1	120.7	23.6	0.712
3-9520	3-9900	0.525	222.7	-13.4	4.10	0.576	46.8	0.758	1.146	158.8	492.0	0.277	2.014	3.51	1.074	136.8	125.6	22.4	0.858
3-9520	3-9950	0.527	185.2	-3.6	-2.73	0.254	64.7	0.913	0.877	177.4	560.7	0.076	1.678	-4.01	0.927	24.3	47.3	16.2	1.062
3-9520	3-9950	0.472	142.9	13.0	-2.73	0.427	128.1	0.825	0.976	190.3	573.5	0.171	1.786	-4.07	0.989	34.4	39.9	13.1	0.944
3-9520	3-9960	0.401	176.5	0.2	-1.48	0.341	87.8	0.807	0.919	179.5	572.5	0.178	1.660	-2.90	0.952	36.4	50.5	16.6	0.895
3-9520	3-9960	0.369	161.1	6.6	-1.48	0.391	104.3	0.795	0.951	184.6	577.6	0.225	1.677	-2.90	0.971	40.3	47.6	15.5	0.843
3-9520	4- 40	0.574	238.5	-19.3	1.53	0.738	45.8	0.700	1.514	139.8	249.9	---	2.573	-1.69	1.143	49.1	110.9	20.1	0.759
3-9520	4- 50	0.545	240.7	-19.3	1.86	0.744	46.5	0.665	1.536	136.7	256.3	---	2.559	-1.82	1.147	52.5	117.6	18.6	0.701
3-9520	4- 60	0.518	242.7	-19.0	2.24	0.750	50.9	0.632	1.558	133.7	262.8	---	2.543	-2.04	1.152	55.7	124.0	16.7	0.645
3-9520	4- 70	0.493	244.7	-18.5	2.76	0.756	53.2	0.601	1.578	130.8	269.4	---	2.526	-2.40	1.156	58.9	130.1	14.2	0.592
3-9520	4- 80	0.470	246.6	-17.5	3.51	0.761	55.3	0.571	1.597	128.0	276.2	---	2.508	-3.01	1.161	61.9	135.6	10.9	0.541
3-9520	4- 90	0.450	248.5	-15.5	4.84	0.765	57.1	0.543	1.614	125.4	283.2	---	2.490	-4.20	1.165	64.8	140.4	6.0	0.494
3-9520	4- 100	0.437	250.2	-10.4	8.08	0.769	58.8	0.518	1.629	123.0	290.4	---	2.473	-7.29	1.170	67.6	143.5	-3.9	0.460
3-9520	4- 110	0.553	245.7	16.7	30.64	0.772	60.3	0.496	1.643	120.8	297.6	---	2.457	-29.73	1.174	70.3	145.2	-46.4	0.668
3-9520	4- 120	0.418	246.3	-41.9	-11.77	0.775	61.7	0.474	1.654	118.7	305.8	---	2.438	12.82	1.178	73.3	178.3	41.0	0.422
3-9520	4- 130	0.382	251.9	-30.8	-4.28	0.777	62.8	0.457	1.664	116.9	313.7	---	2.424	5.47	1.182	75.9	169.1	26.1	0.325
3-9520	4- 140	0.367	253.7	-27.3	-2.20	0.779	63.8	0.442	1.673	115.3	322.0	---	2.412	3.53	1.186	78.6	168.5	21.1	0.279
3-9520	4- 150	0.357	254.8	-25.6	-1.18	0.781	64.5	0.430	1.679	114.1	330.7	---	2.401	2.66	1.189	81.3	167.7	19.4	0.242
3-9520	4- 160	0.351	255.6	-24.4	-0.54	0.782	65.1	0.421	1.685	113.1	339.7	---	2.395	2.18	1.192	84.0	165.0	19.7	0.213
3-9520	4- 170	0.347	256.2	-23.5	-0.09	0.783	65.4	0.417	1.688	112.5	349.1	---	2.392	1.90	1.195	86.8	159.6	21.2	0.194
3-9520	4- 180	0.346	256.4	-22.8	0.27	0.783	65.5	0.416	1.691	112.3	358.9	---	2.393	1.72	1.197	89.7	151.8	23.4	0.188
3-9520	4- 190	0.349	256.3	-22.2	0.58	0.783	65.2	0.419	1.692	112.4	369.2	0.983	2.402	1.63	1.199	92.7	143.0	25.1	0.198
3-9520	4- 200	0.357	255.9	-21.6	0.87	0.784	64.6	0.429	1.692	113.0	379.9	0.967	2.418	1.59	1.200	95.9	135.9	25.7	0.224
3-9520	4- 200	0.236	136.1	19.3	0.87	0.583	106.8	0.508	1.156	197.9	824.8	0.568	1.743	1.59	1.080	119.5	67.2	24.6	0.544
3-9520	4- 200	0.432	117.5	22.6	0.87	0.632	127.1	0.660	1.243	209.0	835.8	0.423	2.062	1.59	1.107	129.8	62.0	22.8	0.735
3-9520	4- 210	0.370	255.1	-21.1	1.15	0.783	63.6	0.444	1.692	114.2	391.2	0.940	2.444	1.60	1.201	99.5	131.5	25.4	0.265
3-9520	4- 210	0.189	159.4	12.6	1.15	0.564	97.3	0.486	1.127	187.8	824.9	0.580	1.675	1.60	1.070	118.2	78.1	25.9	0.516
3-9520	210	0.545	116.7	22.6	1.15	0.657	136.9	0.756	1.293	208.2	845.3	0.316	2.271	1.60	1.122	137.6	68.3	23.3	0.873
3-9520	4- 220	0.390	253.9	-20.6	1.45	0.783	62.1	0.469	1.691	116.0	403.2	0.898	2.484	1.66	1.201	103.5	129.9	24.7	0.320
3-9520	4- 220	0.190	180.1	4.6	1.45	0.552	90.0	0.494	1.111	180.0	827.2	0.562	1.660	1.66	1.065	118.9	88.1	26.4	0.524
3-9520	4- 230	0.419	252.2	-20.1	1.78	0.783	59.8	0.504	1.690	118.5	415.9	0.838	2.541	1.78	1.201	108.0	130.3	23.7	0.392
3-9520	4- 230	0.220	195.9	-2.2	1.78	0.543	82.9	0.521	1.100	173.4	830.8	0.527	1.672	1.78	1.060	120.8	97.5	26.2	0.553
3-9520	4- 240	0.461	249.8	-19.6	2.18	0.783	56.5	0.553	1.688	122.1	429.7	0.755	2.621	2.00	1.200	113.5	131.7	22.7	0.483
3-9520	4- 240	0.271	206.6	-6.8	2.18	0.537	75.4	0.564	1.091	168.1	835.7	0.475	1.707	2.00	1.056	124.0	106.1	25.5	0.603
3-9520	4- 250	0.521	246.7	-19.0	2.70	0.782	51.7	0.620	1.687	127.1	444.9	0.642	2.732	2.36	1.199	120.3	133.6	21.7	0.600
3-9520	4- 250	0.342	213.3	-9.6	2.70	0.531	66.7	0.628	1.084	164.3	642.0	0.403	1.765	2.36	1.053	128.6	113.9	24.5	0.678
3-9520	4- 260	0.437	216.8	-11.2	3.48	0.528	56.2	0.714	1.079	162.6	850.5	0.309	1.850	2.98	1.049	135.4	120.4	23.4	0.788
3-9520	4- 270	0.561	217.1	-11.8	4.88	0.525	42.7	0.822	1.077	163.9	861.9	0.192	1.962	4.23	1.046	145.1	125.3	22.2	0.944
3-9520	4- 310	0.551	139.0	14.1	-3.90	0.444	139.1	0.875	0.992	190.6	928.7	0.124	1.860	-5.31	0.997	28.9	37.2	12.2	1.032
3-9520	4- 320	0.588	105.7	21.4	-2.03	0.763	137.5	0.737	1.606	220.7	608.7	0.422	2.790	-3.38	1.172	46.8	27.6	7.6	0.833
3-9520	4- 320	0.558	196.5	-8.2	-2.03	0.331	46.5	0.909	0.913	174.3	922.2	0.083	1.743	-3.38	0.950	24.7	50.6	17.2	1.065
3-9520	4- 320	0.413	144.5	12.5	-2.03	0.439	120.9	0.777	0.988	190.4	938.3	0.220	1.756	-3.38	0.992	39.0	42.0	13.7	0.874
3-9530	3-9590	0.549	123.6	18.5	-2.31	0.637	138.0	0.775	1.248	205.6	229.6	---	---	-3.70	1.093	40.1	36.5	11.4	0.903
3-9530	3-9600	0.439	119.6	19.7	-1.17	0.652	127.9	0.657	1.279	211.3	245.1	---	---	-2.71	1.100	50.5	38.8	11.9	0.731
3-9530	3-9610	0.369	114.6	21.2	-0.51	0.679	121.6	0.561	1.339	217.4	260.9	---	---	-2.19	1.113	58.7	41.0	12.2	0.596
3-9530	3-9620	0.324	109.4	22.7	-0.05	0.705	117.7	0.490	1.406	223.6	276.8	---	---	-1.88	1.127	65.3	42.9	12.3	0.487
3-9530	3-9630	0.296	104.6	24.0	0.30	0.725	115.2	0.441	1.468	229.5	292.4	---	---	-1.69	1.138	70.7	44.1	12.0	0.398
3-9530	3-9640	0.279	100.6	25.1	0.60	0.741	113.6	0.409	1.518	234.6	307.1	---	---	-1.58	1.146	75.3	44.3	11.2	0.326
3-9530	3-9650	0.267	97.8	26.0	0.86	0.751	112.5	0.388	1.553	238.3	320.4	---	---	-1.52	1.152	79.2	43.1	9.8	0.268
3-9530	3-9660	0.259	96.1	26.9	1.12	0.756	111.8	0.374	1.573	240.6	332.2	---	---	-1.51	1.154	82.5	40.4	7.6	0.225
3-9530	3-9670	0.251	95.3	27.8	1.37	0.758	111.1	0.363	1.578	241.6	342.7	---	---	-1.53	1.155	85.4	36.1	4.7	0.194
3-9530	3-9680	0.243	95.3	28.7	1.64	0.756	110.6	0.355	1.572	241.3	351.9	---	---	-1.61	1.154	87.9	31.0	1.4	0.177
3-9530	3-9690	0.235	96.1	29.7	1.95	0.752	110.0	0.347	1.556	240.0	360.2	1.016	---	-1.74	1.151	90.0	26.1	-1.9	0.171
3-9530	3-9700	0.227	97.6	31.0	2.33	0.745	109.3	0.340	1.534	237.9	367.6	1.013	---	-1.96	1.148	91.9	22.5	-4.7	0.173
3-9530	3-9710	0.218	99.7	32.8	2.83	0.738	108.6	0.333	1.508	235.1	374.4	1.006	---	-2.31	1.144	93.6	21.1	-7.0	0.181
3-9530	3-9720	0.209	102.6	35.5	3.57	0.729	107.8	0.327	1.480	231.8	380.7	0.996	---	-2.91	1.140	95.0	21.9	-9.6	0.193
3-9530	3-9730	0.201	106.8	40.2	4.90	0.720	106.9	0.321	1.450	228.1	386.6	0.984	---	-4.11	1.136	96.4	25.1	-13.8	0.211
3-9530	3-9740	0.207	115.3	50.7	8.25	0.710	105.9	0.317	1.421	224.0	392.1	0.971	---	-7.33	1.132	97.6	31.9	-24.8	0.249
3-9530	3-9750	0.481	184.7	66.3	37.18	0.700	104.7	0.313	1.393	219.5	397.0	0.957	---	-36.13	1.128	98.6	42.3	-70.5	0.289
3-9530	3-9760	0.196	112.6	-14.1	-9.90	0.690	103.6	0.313	1.366	215.1	402.9	0.939	---	11.08	1.124	99.8	1.6	48.9	0.311
3-9530	3-9770	0.148	119.2	4.2	-3.67	0.679	102.2	0.312	1.340	210.3	407.9	0.921	---	4.98	1.120	100.8	24.6	33.0	0.465
3-9530	3-9780	0.131	127.4	10.0	-1.82	0.669	100.6	0.314	1.316	205.4	412.8	0.903	---	3.26	1.116	101.9	34.8	28.1	0.369
3-9530	3-9790	0.120	137.3	11.7	-0.89	0.659	99.0	0.318	1.293	200.4	417.8	0.882	---	2.48	1.113	102.9	43.2	26.6	0.280
3-9530	3-9800	0.112	148.9	11.6	-0.31	0.649	97.1	0.324	1.272	195.3	422.7	0.860	---	2.04	1.110	104.1	51.2	26.4	0.295
3-9530	3-9810	0.109	162.1	8.5	0.11	0.640	95.0	0.333	1.253	190.2	427.7	0.836	---	1.79	1.106	105.3	59.2	26.7	0.311
3-9530	3-9820	0.112	175.7	4.7	0.45	0.631	92.7	0.344	1.235	185.2	432.7	0.809	---	1.63	1.103	106.6	67.4	27.1	0.330
3-9530	3-9830	0.123	188.6	0.3	0.75	0.622	90.1	0.360	1.218	180.2	437.9	0.779	---	1.54	1.099	108.1	75.7	27.4	0.353
3-9530	3-9840	0.142	199.7	-3.8	1.02	0.613	87.2	0.380	1.202	175.4	443.2	0.745	1.659	1.51	1.096	109.9	84.1	27.4	0.379
3-9530	3-9850	0.168	208.7	-7.1	1.29	0.605	83.8	0.406	1.188	170.8	448.8	0.705	1.671	1.52	1.092	111.9	92.5	27.2	0.412
3-9530	3-9860	0.203	215.7	-9.7	1.57	0.597	79.9	0.440	1.175	166.6	454.8	0.658	1.692	1.58	1.088	114.5	100.7	26.6	0.452
3-9530	3-9870	0.247	221.0	-11.7	1.89	0.590	75.1	0.482	1.163	162.8	461.2	0.601	1.725	1.71	1.083	117.6	108.5	25.6	0.503
3-9530	3-9880	0.304	224.7	-13.1	2.28	0.583	69.3	0.540	1.153	159.8	468.4	0.530	1.775	1.92	1.079	121.7	115.9	24.5	0.570
3-9530	3-9890	0.378	226.9	-14.1	2.79	0.578	62.0	0.614	1.144	158.1	476.8	0.442	1.846	2.28	1.075	127.1	122.5	23.1	0.661
3-9530	3-9900	0.474	227.3	-14.6	3.56	0.573	52.4	0.709	1.138	158.2	487.0	0.331	1.944	2.91	1.071	134.7	128.0	21.8	0.784
3-9530	3-9950	0.569	189.0	-5.2	-3.34	0.220	59.8	0.941	0.863	177.9	556.7	0.051	1.674	-4.46	0.917	20.1	49.6	16.9	1.115
3-9530	3-99	0.528	146.6	11.8	-3.34	0.421	135.8	0.870	0.970	189.7	568.5	0.126	1.815	-4.46	0.985	29.5	42.4	14.0	1.015
3-9530	3-9960	0.455	185.1	-3.5	-1.68	0.298	80.2	0.857	0.894	178.4	567.0	0.128	1.660	-3.14	0.936	31.2	53.6	17.6	0.964
3-9530	3-9960	0.403	157.5	8.0	-1.68	0.400	114.4	0.786	0.955	187.3	575.9	0.204	1.705	-3.14	0.973	38.2	48.5	15.8	0.876
3-9530	4- 40	0.591	242.3	-20.2	1.50	0.734	44.8	0.714	1.495	141.3	247.0	---	2.563	-1.56	1.139	47.6	112.3	20.2	0.782

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9530	4- 50	0.561	244.4	-20.1	1.78	0.741	47.5	0.679	1.518	138.2	253.5	---	2.549	-1.66	1.144	51.1	119.1	18.7	0.723
3-9530	4- 60	0.533	246.5	-19.9	2.12	0.747	50.0	0.645	1.540	135.1	259.8	---	2.534	-1.83	1.149	54.4	125.6	16.8	0.667
3-9530	4- 70	0.507	248.5	-19.5	2.54	0.753	52.4	0.612	1.561	132.1	266.4	---	2.517	-2.10	1.153	57.6	131.8	14.5	0.612
3-9530	4- 80	0.483	250.4	-18.7	3.14	0.758	54.5	0.582	1.581	129.3	273.1	---	2.500	-2.55	1.158	60.6	137.5	11.5	0.560
3-9530	4- 90	0.462	252.2	-17.3	4.09	0.763	56.5	0.553	1.598	126.6	280.1	---	2.482	-3.37	1.163	63.6	142.6	7.5	0.511
3-9530	4- 100	0.444	253.9	-14.2	6.02	0.767	58.2	0.527	1.614	124.1	287.2	---	2.465	-5.17	1.167	66.5	146.6	0.8	0.468
3-9530	4- 110	0.448	254.7	-3.8	12.85	0.770	59.8	0.503	1.629	121.8	294.5	---	2.448	-11.87	1.172	69.3	147.4	-17.8	0.466
3-9530	4- 120	0.538	231.4	-58.8	-29.28	0.774	61.3	0.480	1.641	119.6	302.6	---	2.429	30.39	1.176	72.2	214.7	50.8	0.663
3-9530	4- 130	0.394	255.8	-32.5	-5.75	0.776	62.5	0.462	1.652	117.8	310.2	---	2.415	6.99	1.180	74.9	174.2	28.1	0.349
3-9530	4- 140	0.376	258.0	-28.4	-2.60	0.778	63.5	0.446	1.661	116.1	318.4	---	2.401	3.97	1.184	77.5	172.4	20.5	0.295
3-9530	4- 150	0.365	259.2	-26.2	-1.32	0.780	64.4	0.433	1.668	114.7	326.9	---	2.390	2.83	1.187	80.2	172.1	17.7	0.255
3-9530	4- 160	0.357	260.1	-24.8	-0.59	0.781	65.0	0.422	1.674	113.7	335.8	---	2.382	2.24	1.191	82.9	170.4	17.2	0.223
3-9530	4- 170	0.352	260.7	-23.9	-0.09	0.782	65.4	0.416	1.679	112.9	345.0	---	2.377	1.91	1.193	85.6	166.3	18.3	0.199
3-9530	4- 180	0.350	261.0	-23.1	0.28	0.783	65.6	0.413	1.682	112.5	354.7	---	2.377	1.70	1.196	88.5	159.5	20.4	0.187
3-9530	4- 190	0.351	261.0	-22.5	0.60	0.783	65.5	0.415	1.684	112.4	364.8	0.985	2.382	1.58	1.197	91.4	151.0	22.5	0.190
3-9530	4- 200	0.357	260.8	-22.0	0.88	0.784	65.1	0.421	1.684	112.8	375.3	0.974	2.394	1.52	1.199	94.5	143.1	23.8	0.209
3-9530	4- 210	0.367	260.1	-21.5	1.15	0.783	64.3	0.434	1.684	113.7	386.4	0.953	2.416	1.51	1.200	97.9	137.6	24.0	0.243
3-9530	4- 220	0.206	153.3	14.6	1.15	0.571	101.8	0.495	1.134	192.6	825.3	0.572	1.695	1.51	1.073	118.8	77.9	25.7	0.527
3-9530	4- 230	0.491	122.0	21.8	1.15	0.645	132.6	0.715	1.263	208.7	841.4	0.360	2.167	1.91	1.114	134.2	70.2	23.7	0.811
3-9530	4- 240	0.384	259.1	-21.0	1.42	0.783	63.0	0.455	1.683	115.2	398.0	0.918	2.449	1.54	1.200	101.7	134.9	23.6	0.292
3-9530	4- 220	0.188	175.5	6.6	1.42	0.556	93.7	0.491	1.113	183.9	826.7	0.566	1.660	1.54	1.066	118.7	88.4	26.2	0.520
3-9530	4- 220	0.586	122.3	21.6	1.42	0.665	140.7	0.793	1.306	206.9	849.7	0.271	2.341	1.54	1.126	161.0	77.1	24.1	0.930
3-9530	4- 230	0.409	357.6	-20.6	1.72	0.783	61.0	0.485	1.682	117.4	410.4	0.867	2.497	1.64	1.200	105.9	134.5	22.7	0.356
3-9530	4- 230	0.206	193.7	-1.1	1.72	0.546	86.5	0.509	1.100	176.7	829.7	0.540	1.659	1.64	1.060	120.0	98.1	26.0	0.539
3-9530	4- 240	0.445	255.6	-20.2	2.06	0.783	58.2	0.527	1.680	120.4	423.6	0.795	2.566	1.80	1.199	110.9	135.5	21.7	0.438
3-9530	4- 240	0.249	206.6	-6.6	2.06	0.538	79.2	0.544	1.090	170.7	833.9	0.497	1.682	1.80	1.056	122.5	107.1	25.7	0.578
3-9530	4- 250	0.496	252.8	-19.8	2.50	0.782	54.2	0.585	1.679	124.7	438.1	0.696	2.662	2.07	1.198	117.1	137.3	20.6	0.542
3-9530	4- 250	0.311	215.1	-10.0	2.50	0.532	71.1	0.598	1.082	166.1	839.4	0.435	1.728	2.07	1.052	126.4	115.2	24.2	0.640
3-9530	4- 260	0.508	249.1	-19.3	3.11	0.782	48.4	0.664	1.678	130.8	454.3	0.563	2.793	2.53	1.197	124.9	139.2	19.7	0.677
3-9530	4- 260	0.395	220.0	-12.1	3.11	0.528	61.4	0.673	1.076	163.3	846.8	0.352	1.800	2.53	1.048	132.1	122.3	22.9	0.732
3-9530	4- 270	0.505	221.7	-13.1	4.11	0.525	49.3	0.772	1.073	163.0	856.6	0.245	1.900	3.39	1.045	140.3	127.9	21.6	0.865
3-9530	4- 280	0.563	177.5	3.3	6.21	0.182	98.4	0.946	0.851	180.5	1244.1	0.046	1.657	5.35	0.919	160.9	121.3	21.8	1.111
3-9530	4- 320	0.468	146.5	11.9	-2.39	0.439	128.3	0.818	0.985	190.9	934.4	0.179	1.792	-3.78	0.991	35.1	44.0	14.3	0.933
3-9530	4- 330	0.521	107.9	21.6	-1.22	0.763	132.4	0.675	1.598	225.3	618.6	0.520	2.677	-2.74	1.169	52.7	32.4	9.4	0.730
3-9530	4- 330	0.499	199.9	-9.4	-1.22	0.347	57.1	0.864	0.920	174.0	927.2	0.125	1.715	-2.74	0.951	30.3	57.8	18.8	0.983
3-9530	4- 330	0.361	157.8	8.1	-1.22	0.429	110.3	0.738	0.977	187.7	941.0	0.256	1.699	-2.74	0.984	42.5	50.4	16.2	0.814
3-9540	3-9600	0.527	118.5	20.0	-1.33	0.722	134.4	0.707	1.450	217.5	246.9	---	---	-2.89	1.141	48.0	38.0	11.7	0.794
3-9540	3-9610	0.437	113.7	21.4	-0.56	0.733	126.7	0.605	1.483	224.6	263.7	---	---	-2.25	1.145	57.2	39.7	11.9	0.637
3-9540	3-9620	0.380	108.8	22.7	-0.05	0.750	121.9	0.531	1.541	231.6	280.3	---	---	-1.88	1.154	64.5	41.1	11.9	0.514
3-9540	3-9630	0.345	104.5	23.9	0.32	0.765	118.8	0.482	1.599	237.8	296.2	---	---	-1.66	1.162	70.4	41.8	11.5	0.417
3-9540	3-9640	0.323	101.0	24.9	0.62	0.777	116.7	0.450	1.645	242.8	310.8	---	---	-1.53	1.168	75.3	41.4	10.7	0.340
3-9540	3-9650	0.307	98.6	25.8	0.88	0.783	115.4	0.429	1.674	246.3	323.9	---	---	-1.45	1.172	79.4	39.7	9.2	0.280
3-9540	3-9660	0.295	97.2	26.5	1.12	0.786	114.4	0.413	1.695	248.2	335.3	---	---	-1.42	1.173	82.8	36.4	7.0	0.236
3-9540	3-9670	0.285	96.7	27.3	1.35	0.785	113.6	0.401	1.681	248.7	345.4	---	---	-1.43	1.171	85.8	31.9	4.3	0.206
3-9540	3-9680	0.275	97.0	28.0	1.60	0.781	112.9	0.389	1.663	248.0	354.2	---	---	-1.48	1.169	88.4	26.8	1.3	0.190
3-9540	3-9690	0.265	98.0	28.9	1.87	0.774	112.2	0.379	1.635	246.4	362.1	1.016	---	-1.57	1.165	90.6	22.3	-1.4	0.184
3-9540	3-9700	0.254	99.5	29.9	2.19	0.766	111.5	0.368	1.602	244.0	369.3	1.012	---	-1.74	1.160	92.5	19.3	-3.6	0.186
3-9540	3-9710	0.243	101.5	31.2	2.60	0.756	110.8	0.358	1.565	241.0	375.8	1.004	---	-2.00	1.155	94.2	18.3	-5.2	0.193
3-9540	3-9720	0.231	104.3	33.0	3.17	0.746	109.9	0.349	1.527	237.4	381.9	0.994	---	-2.44	1.149	95.6	19.3	-6.7	0.204
3-9540	3-9730	0.220	107.9	36.1	4.11	0.735	109.0	0.341	1.489	233.5	387.6	0.981	---	-3.24	1.144	96.9	22.3	-9.1	0.218
3-9540	3-9740	0.214	113.5	42.3	6.05	0.723	107.9	0.334	1.453	229.2	392.9	0.967	---	-5.06	1.138	98.1	27.7	-14.9	0.240
3-9540	3-9750	0.249	132.0	59.6	13.45	0.711	106.8	0.328	1.419	224.7	398.0	0.953	---	-12.35	1.133	99.1	38.2	-35.9	0.324
3-9540	3-9760	0.322	116.5	-31.7	-22.13	0.700	105.6	0.326	1.386	220.0	403.5	0.935	---	23.36	1.129	100.3	326.0	57.9	0.492
3-9540	3-9770	0.168	118.9	1.2	-4.87	0.688	104.1	0.323	1.356	215.0	408.2	0.918	---	6.22	1.124	101.2	22.0	36.5	0.281
3-9540	3-9780	0.146	126.7	9.6	-2.15	0.677	102.6	0.322	1.328	209.9	413.0	0.900	---	3.62	1.120	102.2	34.2	29.1	0.276
3-9540	3-9790	0.132	135.6	12.1	-1.00	0.666	100.9	0.324	1.302	204.8	417.8	0.881	---	2.60	1.115	103.1	43.1	26.9	0.285
3-9540	3-9800	0.121	146.2	12.0	-0.33	0.655	99.0	0.328	1.279	199.6	422.5	0.860	---	2.08	1.111	104.2	51.3	26.5	0.297
3-9540	3-9810	0.115	158.5	10.0	0.12	0.645	97.0	0.334	1.257	194.3	427.3	0.837	---	1.77	1.107	105.3	59.5	26.7	0.312
3-9540	3-9820	0.114	172.0	6.4	0.47	0.635	94.7	0.344	1.237	189.1	432.2	0.812	---	1.59	1.104	106.5	67.7	27.0	0.329
3-9540	3-9830	0.120	185.4	1.9	0.76	0.625	92.2	0.357	1.219	184.0	437.2	0.784	---	1.48	1.100	107.9	76.1	27.3	0.348
3-9540	3-9840	0.135	197.6	-2.6	1.02	0.616	89.4	0.374	1.202	178.9	442.3	0.752	1.651	1.43	1.095	109.5	84.6	27.3	0.372
3-9540	3-9850	0.157	207.9	-6.5	1.28	0.607	86.1	0.397	1.186	174.1	447.7	0.715	1.657	1.42	1.091	111.3	93.1	27.0	0.400
3-9540	3-9860	0.188	216.1	-9.5	1.54	0.598	82.4	0.426	1.172	169.5	453.3	0.673	1.672	1.46	1.087	113.6	101.4	26.4	0.436
3-9540	3-9870	0.228	222.4	-11.9	1.82	0.590	78.0	0.464	1.159	165.4	459.3	0.621	1.698	1.55	1.082	116.4	109.5	25.4	0.480
3-9540	3-9880	0.279	227.0	-13.6	2.15	0.583	72.6	0.514	1.148	161.9	466.0	0.558	1.738	1.71	1.077	119.9	117.1	24.1	0.538
3-9540	3-9890	0.344	230.1	-14.8	2.57	0.577	66.0	0.579	1.138	159.3	473.6	0.480	1.797	1.98	1.073	124.6	124.0	22.7	0.616
3-9540	3-9900	0.430	231.5	-15.5	3.17	0.572	57.4	0.663	1.131	158.4	482.7	0.381	1.891	2.44	1.068	131.0	130.1	21.2	0.722
3-9540	3-9910	0.542	230.9	-15.8	4.16	0.568	46.1	0.770	1.126	159.8	494.2	0.259	1.993	3.29	1.065	140.0	134.8	19.8	0.868
3-9540	3-9950	0.891	151.4	10.2	-4.33	0.413	144.5	0.915	0.961	188.3	562.8	0.082	1.840	-5.70	0.979	23.8	45.4	15.0	1.096
3-9540	3-9960	0.504	191.0	-5.9	-1.96	0.260	74.5	0.897	0.875	178.2	562.4	0.090	1.659	-3.46	0.922	26.6	56.3	18.4	1.025
3-9540	3-9960	0.448	157.6	8.0	-1.96	0.401	122.9	0.821	0.952	188.5	572.7	0.170	1.734	-3.46	0.972	34.8	50.1	16.3	0.927
3-9540	4- 50	0.579	248.2	-28.8	1.73	0.738	46.5	0.693	1.500	139.6	250.4	---	2.539	-1.52	1.140	49.6	120.6	18.7	0.746
3-9540	4- 60	0.550	250.3	-20.6	2.02	0.744	49.1	0.658	1.522	136.5	256.8	---	2.524	-1.64	1.145	53.0	127.2	16.8	0.689
3-9540	4- 70	0.523	252.3	-20.3	2.37	0.751	51.5	0.625	1.544	133.5	263.3	---	2.508	-1.85	1.150	56.2	133.5	14.6	0.634
3-9540	4- 80	0.498	254.2	-19.7	2.84	0.756	53.7	0.593	1.564	130.6	270.0	---	2.491	-2.18	1.155	59.3	139.3	11.9	0.580
3-9540	4- 90	0.475	256.0	-18.6	3.55	0.761	55.8	0.563	1.582	127.9	276.9	---	2.474	-2.75	1.160	62.3	144.7	8.4	0.530
3-9540	4- 100	0.455	257.7	-16.6	4.82	0.765	57.6	0.536	1.599	125.3	284.0	---	2.456	-3.90	1.165	65.3	149.2	5.4	0.483
3-9540	4- 110	0.443	259.0	-11.5	8.05	0.769	59.3	0.511	1.614	122.9	291.2	---	2.439	-7.01	1.169	68.1	151.9	-6.8	0.449
3-9540	4- 130	0.413	259.2	-38.5	-8.87	0.775	62.1	0.467	1.639	118.7	306.7	---	2.405	90.15	1.178	73.7	182.0	33.0	0.389
3-9540	4- 140	0.386	262.3	-29.6	-3.22	0.778	67.2	0.450	1.649	116.9	314.8	---	2.391	4.63	1.182	76.4	176.4	20.4	0.313

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9540	4- 150	0.373	263.7	-26.7	-1.57	0.780	64.2	0.436	1.657	115.4	323.2	---	2.379	3.05	1.186	79.0	176.1	16.2	0.269
3-9540	4- 160	0.364	264.6	-25.1	-0.65	0.781	64.9	0.424	1.684	114.2	331.9	---	2.369	2.32	1.189	81.7	175.3	14.8	0.234
3-9540	4- 170	0.358	265.2	-24.1	-0.10	0.782	65.4	0.416	1.669	113.3	341.0	---	2.363	1.92	1.192	84.4	172.4	15.3	0.207
3-9540	4- 180	0.354	265.6	-23.3	0.30	0.783	65.7	0.411	1.672	112.7	350.5	---	2.360	1.68	1.194	87.2	166.9	17.1	0.189
3-9540	4- 190	0.354	265.8	-22.7	0.61	0.784	65.7	0.411	1.675	112.5	360.4	0.986	2.363	1.53	1.196	90.1	159.1	19.5	0.185
3-9540	4- 200	0.358	265.6	-22.2	0.89	0.784	65.5	0.415	1.676	112.7	370.7	0.980	2.372	1.45	1.198	93.1	150.7	21.4	0.197
3-9540	4- 210	0.366	265.1	-21.7	1.14	0.784	64.8	0.425	1.676	113.4	381.6	0.963	2.389	1.42	1.198	96.4	144.1	22.2	0.224
3-9540	4- 210	0.241	146.4	16.6	1.14	0.582	107.9	0.519	1.147	198.4	826.6	0.552	1.742	1.42	1.078	120.3	77.3	25.3	0.555
3-9540	4- 210	0.421	128.6	20.6	1.14	0.629	126.8	0.659	1.227	208.4	836.6	0.418	2.036	1.42	1.104	129.9	72.5	24.1	0.733
3-9540	4- 220	0.380	264.3	-21.3	1.40	0.784	63.8	0.442	1.676	114.5	392.9	0.935	2.416	1.43	1.199	99.9	140.3	22.2	0.267
3-9540	4- 220	0.193	170.1	8.8	1.40	0.582	97.8	0.493	1.117	188.1	826.5	0.566	1.667	1.43	1.067	118.8	88.5	26.0	0.522
3-9540	4- 220	0.539	127.3	20.7	1.40	0.655	137.1	0.759	1.279	207.8	846.2	0.309	2.250	1.43	1.119	138.0	78.8	24.3	0.875
3-9540	4- 230	0.401	263.0	-20.9	1.67	0.784	62.1	0.467	1.674	116.4	405.0	0.892	2.457	1.50	1.199	103.9	139.0	21.5	0.324
3-9540	4- 230	0.197	190.4	0.5	1.67	0.550	90.2	0.501	1.100	180.2	828.8	0.550	1.651	1.50	1.061	119.5	98.5	25.8	0.529
3-9540	4- 240	0.431	261.3	-20.6	1.97	0.783	59.8	0.504	1.673	119.0	417.7	0.830	2.516	1.62	1.198	108.6	139.5	20.6	0.396
3-9540	4- 240	0.230	205.7	-6.0	1.97	0.541	83.0	0.527	1.089	173.6	832.4	0.515	1.663	1.62	1.056	121.4	107.8	25.1	0.558
3-9540	4- 250	0.475	258.9	-20.4	2.33	0.783	56.3	0.554	1.671	122.6	431.6	0.745	2.598	1.82	1.197	114.1	141.0	19.5	0.489
3-9540	4- 250	0.283	216.1	-10.2	2.33	0.534	75.2	0.571	1.080	168.3	837.2	0.463	1.697	1.82	1.051	124.5	116.3	23.9	0.608
3-9540	4- 260	0.537	255.6	-20.1	2.82	0.783	51.4	0.624	1.670	127.8	446.9	0.628	2.712	2.16	1.195	121.1	142.9	18.5	0.608
3-9540	4- 260	0.357	222.6	-12.7	2.82	0.529	66.3	0.636	1.073	164.5	843.6	0.391	1.756	2.16	1.047	129.3	123.9	22.4	0.684
3-9540	4- 270	0.455	225.5	-14.1	3.57	0.525	55.4	0.724	1.069	162.9	852.1	0.295	1.842	2.77	1.043	136.2	130.1	20.9	0.797
3-9540	4- 280	0.583	225.8	-14.7	4.93	0.523	41.4	0.833	1.066	164.4	863.6	0.178	1.955	4.00	1.040	146.4	134.7	19.6	0.957
3-9540	4- 320	0.527	149.6	10.9	-2.91	0.439	136.3	0.863	0.982	190.6	929.7	0.135	1.829	-4.34	0.989	30.4	46.3	15.2	1.004
3-9540	4- 330	0.561	115.1	20.6	-1.39	0.763	136.0	0.720	1.591	221.9	610.7	0.445	2.737	-2.94	1.167	48.3	35.8	10.9	0.804
3-9540	4- 330	0.549	205.1	-11.4	-1.39	0.331	49.7	0.899	0.908	174.3	923.2	0.092	1.724	-2.94	0.943	26.1	60.2	19.4	1.040
3-9540	4- 330	0.400	156.9	8.5	-1.39	0.433	117.9	0.789	0.971	189.6	938.4	0.226	1.728	-2.94	0.984	39.8	51.7	16.6	0.856
3-9540	4- 340	0.464	110.6	21.8	-0.59	0.763	128.2	0.619	1.021	229.0	617.6	0.606	2.575	-2.27	1.165	57.6	37.5	11.1	0.641
3-9540	4- 340	0.422	200.1	-9.2	-0.59	0.371	70.9	0.800	0.732	175.0	933.6	0.187	1.677	-2.27	0.955	37.0	64.9	19.9	0.883
3-9540	4- 340	0.334	177.7	0.2	-0.59	0.414	96.8	0.722	0.962	182.6	941.2	0.267	1.656	-2.27	0.973	43.8	60.2	18.6	0.785
3-9550	3-9610	0.527	113.1	21.5	-0.62	0.810	132.1	0.673	1.787	232.9	267.4	---	---	-2.32	1.194	55.3	37.9	11.5	0.696
3-9550	3-9620	0.453	108.6	22.8	-0.06	0.812	126.2	0.595	1.796	240.3	284.7	---	---	-1.89	1.193	63.4	38.8	11.4	0.554
3-9550	3-9630	0.406	104.6	23.9	0.33	0.818	122.4	0.543	1.830	246.6	300.6	---	---	-1.63	1.196	69.9	39.0	10.9	0.445
3-9550	3-9640	0.373	101.6	24.8	0.64	0.823	119.9	0.509	1.858	251.3	314.9	---	---	-1.48	1.198	75.1	38.0	10.0	0.361
3-9550	3-9650	0.355	99.6	25.5	0.89	0.825	118.2	0.485	1.869	254.3	327.9	---	---	-1.38	1.198	79.5	35.8	8.5	0.298
3-9550	3-9660	0.339	98.6	26.2	1.13	0.823	117.0	0.466	1.861	255.7	338.4	---	---	-1.33	1.196	83.2	32.2	6.3	0.252
3-9550	3-9670	0.325	98.4	26.8	1.35	0.819	116.1	0.450	1.835	255.8	348.0	---	---	-1.32	1.193	86.3	27.5	3.8	0.223
3-9550	3-9680	0.312	98.9	27.4	1.57	0.811	115.3	0.434	1.795	254.7	356.5	---	---	-1.35	1.188	88.9	22.7	1.1	0.207
3-9550	3-9690	0.299	99.9	28.1	1.81	0.802	114.6	0.419	1.748	252.7	364.0	1.016	---	-1.42	1.181	91.2	18.7	-1.1	0.201
3-9550	3-9700	0.285	101.5	28.9	2.08	0.791	113.8	0.404	1.696	250.1	370.9	1.010	---	-1.54	1.175	93.1	16.3	-2.7	0.203
3-9550	3-9710	0.271	103.4	29.3	2.42	0.779	113.0	0.390	1.643	246.8	377.2	1.001	---	-1.73	1.168	94.8	15.8	-3.7	0.210
3-9550	3-9720	0.257	106.2	31.1	2.87	0.766	112.1	0.377	1.590	243.0	383.0	0.990	---	-2.06	1.161	96.3	17.1	-4.5	0.219
3-9550	3-9730	0.243	109.5	33.1	3.55	0.753	111.1	0.366	1.541	238.9	388.5	0.978	---	-2.61	1.154	97.5	20.0	-5.7	0.230
3-9550	3-9740	0.231	113.4	36.9	4.79	0.739	110.0	0.355	1.494	234.5	393.8	0.963	---	-3.74	1.147	98.7	24.8	-8.6	0.245
3-9550	3-9750	0.230	122.2	46.1	8.09	0.726	108.8	0.347	1.452	229.8	398.7	0.948	---	-6.92	1.140	99.7	32.4	-18.3	0.276
3-9550	3-9770	0.197	119.0	-5.0	-7.31	0.699	106.1	0.335	1.376	219.8	408.6	0.915	---	8.71	1.129	101.6	16.4	42.7	0.510
3-9550	3-9780	0.163	126.4	8.5	-2.63	0.686	104.6	0.332	1.344	214.6	413.2	0.897	---	4.15	1.123	102.5	33.4	30.5	0.286
3-9550	3-9790	0.146	134.7	12.2	-1.14	0.674	102.9	0.332	1.314	209.3	417.8	0.878	---	2.77	1.119	103.4	42.9	27.3	0.292
3-9550	3-9800	0.132	144.2	12.7	-0.37	0.662	101.0	0.333	1.287	203.9	422.5	0.858	---	2.12	1.114	104.4	51.3	26.6	0.302
3-9550	3-9810	0.123	155.5	11.2	0.13	0.651	99.0	0.338	1.263	198.6	427.1	0.837	---	1.76	1.109	105.4	59.6	26.7	0.314
3-9550	3-9820	0.118	168.3	8.0	0.49	0.640	96.7	0.345	1.241	193.2	431.8	0.813	---	1.55	1.105	106.5	68.0	27.0	0.329
3-9550	3-9830	0.120	181.8	3.7	0.78	0.629	94.3	0.355	1.220	187.9	436.6	0.787	---	1.42	1.100	107.7	76.5	27.2	0.346
3-9550	3-9840	0.130	194.8	-1.1	1.04	0.619	91.5	0.370	1.202	182.6	441.6	0.758	---	1.35	1.096	109.1	85.1	27.2	0.366
3-9550	3-9850	0.148	206.3	-5.5	1.27	0.610	88.4	0.389	1.185	177.5	446.7	0.724	1.647	1.32	1.091	110.8	93.6	26.9	0.391
3-9550	3-9860	0.174	215.8	-9.1	1.51	0.601	84.9	0.414	1.170	172.7	452.0	0.685	1.655	1.34	1.086	112.8	102.1	26.2	0.422
3-9550	3-9870	0.210	223.2	-11.8	1.76	0.592	80.7	0.448	1.156	168.2	457.7	0.639	1.674	1.40	1.081	115.3	110.3	25.1	0.460
3-9550	3-9880	0.256	228.9	-13.8	2.05	0.584	75.8	0.491	1.144	164.2	463.9	0.583	1.705	1.52	1.076	118.4	118.1	23.8	0.511
3-9550	3-9890	0.314	232.8	-15.3	2.40	0.577	69.7	0.548	1.133	161.0	470.9	0.513	1.754	1.72	1.071	122.4	125.4	22.2	0.577
3-9550	3-9900	0.390	235.2	-16.3	2.87	0.571	62.1	0.622	1.124	159.1	479.0	0.425	1.824	2.05	1.066	127.9	131.8	20.6	0.668
3-9550	3-9910	0.489	235.7	-16.8	3.59	0.566	52.1	0.719	1.118	159.1	489.2	0.314	1.922	2.64	1.062	135.6	137.2	19.0	0.793
3-9550	3-9960	0.551	195.7	-7.8	-2.38	0.223	69.1	0.929	0.858	178.3	558.1	0.081	1.655	-3.91	0.910	22.0	58.9	19.1	1.082
3-9550	3-9960	0.503	159.6	7.3	-2.38	0.399	131.5	0.863	0.947	188.7	568.4	0.130	1.764	-3.91	0.969	30.4	52.4	17.0	0.992
3-9550	4- 50	0.596	252.0	-21.5	1.68	0.735	45.3	0.707	1.481	141.1	247.4	---	2.528	-1.38	1.137	48.1	122.2	18.6	0.769
3-9550	4- 60	0.567	254.1	-21.3	1.93	0.742	48.1	0.672	1.504	137.9	253.7	---	2.514	-1.47	1.142	51.5	128.8	16.8	0.711
3-9550	4- 70	0.539	256.2	-21.0	2.23	0.748	50.6	0.638	1.526	134.9	260.2	---	2.499	-1.62	1.147	54.8	135.1	14.6	0.655
3-9550	4- 80	0.513	258.1	-20.4	2.61	0.754	52.9	0.605	1.546	131.9	266.9	---	2.482	-1.87	1.152	58.0	141.1	12.0	0.601
3-9550	4- 90	0.489	259.9	-19.6	3.15	0.759	55.0	0.575	1.566	129.1	273.7	---	2.465	-2.28	1.157	61.1	146.2	8.9	0.550
3-9550	4- 100	0.467	261.6	-18.2	4.03	0.764	57.0	0.546	1.583	126.5	280.7	---	2.448	-3.04	1.162	64.0	151.6	4.9	0.501
3-9550	4- 110	0.450	263.1	-15.2	5.87	0.768	58.7	0.520	1.599	124.0	287.9	---	2.430	-4.76	1.167	66.9	155.4	-1.8	0.458
3-9550	4- 120	0.455	263.1	-4.4	13.06	0.772	60.3	0.496	1.613	121.7	295.3	---	2.414	-11.83	1.171	69.7	155.2	-21.5	0.458
3-9550	4- 130	0.474	257.1	-52.2	-19.44	0.775	61.7	0.473	1.626	119.5	303.3	---	2.396	20.77	1.176	72.6	204.0	44.7	0.523
3-9550	4- 140	0.397	266.7	-31.4	-4.26	0.777	62.9	0.455	1.636	117.7	311.1	---	2.382	5.71	1.180	75.2	180.8	21.4	0.334
3-9550	4- 150	0.382	268.1	-27.2	-1.77	0.779	63.9	0.439	1.645	116.1	319.4	---	2.368	3.34	1.184	77.9	180.0	15.0	0.285
3-9550	4- 160	0.372	269.1	-25.4	-0.72	0.781	64.8	0.427	1.653	114.7	328.0	---	2.357	2.41	1.187	80.6	179.7	12.6	0.247
3-9550	4- 170	0.364	269.8	-24.2	-0.11	0.783	65.4	0.417	1.658	113.7	336.9	---	2.349	1.93	1.190	83.3	178.0	12.4	0.216
3-9550	4- 180	0.359	270.2	-23.4	0.31	0.783	65.8	0.411	1.662	112.9	346.3	---	2.345	1.65	1.193	86.0	173.8	13.7	0.194
3-9550	4- 190	0.358	270.4	-22.7	0.64	0.784	65.9	0.408	1.665	112.6	356.0	---	2.345	1.48	1.195	88.8	167.0	16.1	0.184
3-9550	4- 200	0.359	270.4	-22.2	0.91	0.785	65.8	0.410	1.667	112.6	366.2	0.983	2.351	1.38	1.196	91.8	158.7	18.4	0.188
3-9550	4- 210	0.365	270.1	-21.7	1.15	0.785	65.3	0.417	1.668	113.0	376.8	0.972	2.364	1.33	1.197	94.9	151.2	20.0	0.208
3-9550	4- 220	0.376	269.4	-21.4	1.39	0.785	64.5	0.431	1.667	113.9	387.9	0.949	2.386	1.32	1.198	98.3	146.2	20.4	0.244
3-9550	4- 220	0.209	163.9	11.0	1.39	0.570	102.4	0.592	1.123	192.9	826.9	0.569	1.688	1.32	1.069	119.4	88.3	25.8	0.533

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9550	4- 220	0.485	132.7	19.5	1.39	0.644	132.7	0.717	1.249	208.3	842.3	0.353	2.145	1.32	1.111	134.5	80.7	24.5	0.812
3-9550	4- 230	0.394	268.4	-21.1	1.63	0.784	63.1	0.452	1.867	115.4	394.6	0.973	2.420	1.36	1.197	102.1	143.9	20.1	0.294
3-9550	4- 230	0.194	186.0	2.4	1.63	0.555	94.0	0.497	1.102	184.1	828.2	0.555	1.650	1.38	1.081	119.2	90.8	25.6	0.524
3-9550	4- 230	0.582	132.7	19.3	1.63	0.664	141.0	0.796	1.292	206.5	850.6	0.264	2.321	1.58	1.122	141.4	87.7	24.5	0.932
3-9550	4- 240	0.420	266.9	-20.9	1.89	0.784	61.1	0.483	1.665	117.6	412.0	0.861	2.476	1.45	1.197	106.3	143.6	19.3	0.359
3-9550	4- 240	0.215	203.7	-5.0	1.89	0.545	86.7	0.514	1.089	176.9	831.2	0.529	1.648	1.45	1.056	120.5	108.4	24.8	0.542
3-9550	4- 250	0.457	264.8	-20.7	2.20	0.784	58.2	0.527	1.664	120.8	425.3	0.787	2.540	1.60	1.190	111.4	144.8	18.3	0.441
3-9550	4- 250	0.260	216.3	-10.0	2.20	0.537	79.2	0.549	1.079	170.9	835.3	0.486	1.671	1.60	1.051	123.0	117.2	23.6	0.581
3-9550	4- 260	0.510	262.0	-20.5	2.60	0.783	54.0	0.587	1.662	125.2	439.8	0.686	2.638	1.86	1.194	117.6	146.5	17.3	0.547
3-9550	4- 260	0.324	224.5	-13.1	2.60	0.531	70.9	0.604	1.071	166.2	840.9	0.425	1.717	1.86	1.046	126.9	125.2	22.0	0.643
3-9550	4- 270	0.585	258.2	-20.4	3.16	0.783	48.0	0.669	1.661	131.4	456.1	0.550	2.773	2.29	1.192	125.6	148.3	16.3	0.685
3-9550	4- 270	0.411	229.2	-14.9	3.16	0.526	60.9	0.680	1.065	163.5	848.2	0.341	1.790	2.29	1.042	132.7	132.0	20.5	0.738
3-9550	4- 280	0.524	230.8	-15.8	4.10	0.523	48.4	0.781	1.062	163.4	858.2	0.233	1.891	3.10	1.038	141.9	137.3	18.8	0.874
3-9550	4- 290	0.578	186.5	-0.9	6.16	0.173	98.8	0.952	0.843	180.4	1245.2	0.040	1.647	5.04	0.910	161.9	130.8	19.5	1.118
3-9550	4- 320	0.593	153.7	9.4	-3.77	0.439	145.1	0.909	0.978	189.4	924.0	0.089	1.866	-5.24	0.987	24.7	49.2	16.1	1.087
3-9550	4- 330	0.597	209.8	-13.1	-1.62	0.318	42.5	0.928	0.897	174.9	919.3	0.065	1.730	-3.20	0.936	22.1	62.4	20.0	1.094
3-9550	4- 330	0.449	157.7	8.2	-1.62	0.436	125.6	0.807	0.975	190.6	935.0	0.168	1.762	-3.20	0.983	36.2	53.4	17.1	0.910
3-9550	4- 340	0.497	117.5	20.8	-0.65	0.764	131.1	0.659	1.583	226.3	620.4	0.541	2.626	-2.35	1.164	53.9	40.7	12.5	0.704
3-9550	4- 340	0.488	208.3	-12.3	-0.65	0.351	60.5	0.851	0.915	174.2	928.3	0.136	1.694	-2.35	0.945	31.9	67.5	20.6	0.956
3-9550	4- 340	0.352	171.5	2.9	-0.65	0.424	106.9	0.734	0.966	186.4	940.6	0.247	1.674	-2.35	0.975	42.9	60.5	18.7	0.802
3-9550	4- 350	0.416	113.8	22.0	-0.08	0.764	124.7	0.570	1.582	232.0	635.8	0.680	2.485	-1.91	1.162	61.8	42.8	12.8	0.565
3-9560	3-9620	0.548	108.6	22.8	-0.06	0.898	130.7	0.695	2.412	249.8	289.6	---	---	-1.90	1.252	62.0	36.0	10.7	0.612
3-9560	3-9630	0.484	105.0	23.8	0.36	0.888	126.4	0.636	2.320	255.8	305.2	---	---	-1.60	1.243	69.2	35.7	10.1	0.486
3-9560	3-9640	0.442	102.4	24.6	0.67	0.883	123.2	0.594	2.271	259.9	319.0	---	---	-1.42	1.236	74.9	34.3	9.1	0.393
3-9560	3-9650	0.413	102.7	25.2	0.92	0.878	121.1	0.564	2.221	262.3	331.0	---	---	-1.31	1.233	79.6	33.6	7.6	0.324
3-9560	3-9660	0.390	100.0	25.9	1.14	0.870	119.7	0.538	2.159	263.2	341.4	---	---	-1.24	1.227	83.5	27.8	5.6	0.276
3-9560	3-9670	0.372	100.1	26.4	1.35	0.861	118.6	0.514	2.084	262.8	350.5	---	---	-1.22	1.220	86.8	23.3	3.2	0.246
3-9560	3-9680	0.354	100.8	26.9	1.55	0.849	117.7	0.492	2.001	261.3	358.6	---	---	-1.23	1.211	89.5	18.0	1.0	0.229
3-9560	3-9690	0.338	102.1	27.4	1.76	0.836	116.9	0.470	1.915	259.0	365.8	1.015	---	-1.27	1.202	91.9	15.5	-0.8	0.223
3-9560	3-9700	0.321	103.8	28.0	2.00	0.821	116.1	0.449	1.831	256.0	372.4	1.008	---	-1.36	1.193	93.8	13.7	-2.0	0.225
3-9560	3-9710	0.304	105.8	28.7	2.28	0.806	115.2	0.430	1.751	252.5	378.5	0.999	---	-1.50	1.184	95.5	13.6	-2.5	0.230
3-9560	3-9720	0.287	108.4	29.6	2.63	0.790	114.3	0.412	1.677	248.6	384.1	0.987	---	-1.73	1.174	97.0	15.2	-2.8	0.237
3-9560	3-9730	0.270	111.4	30.9	3.14	0.774	113.3	0.395	1.610	244.3	389.5	0.973	---	-2.13	1.165	98.2	18.2	-3.1	0.246
3-9560	3-9740	0.254	115.2	33.2	3.98	0.758	112.1	0.381	1.549	239.7	394.5	0.959	---	-2.86	1.157	99.3	22.6	-4.3	0.257
3-9560	3-9750	0.242	120.8	38.1	5.79	0.742	110.9	0.368	1.494	234.9	399.4	0.944	---	-4.56	1.149	100.3	28.9	-8.7	0.273
3-9560	3-9760	0.271	138.3	54.6	13.47	0.727	109.6	0.358	1.446	229.8	404.0	0.928	---	-12.14	1.142	101.2	39.5	-29.7	0.349
3-9560	3-9770	0.268	119.9	-20.1	-14.64	0.712	108.2	0.351	1.402	224.6	409.0	0.911	---	16.27	1.135	102.1	356.3	54.6	0.407
3-9560	3-9780	0.183	126.6	6.5	-3.45	0.648	106.6	0.345	1.364	219.3	413.4	0.894	---	4.99	1.128	102.9	32.1	2.8	0.300
3-9560	3-9790	0.162	134.3	12.0	-1.33	0.684	104.9	0.341	1.329	213.9	417.9	0.875	---	2.99	1.122	103.8	42.7	2.8	0.300
3-9560	3-9800	0.146	142.9	13.1	-0.41	0.671	103.0	0.341	1.299	208.4	422.4	0.856	---	2.17	1.117	104.6	51.4	2.6	0.308
3-9560	3-9810	0.134	153.7	12.1	0.14	0.658	101.0	0.342	1.271	202.9	426.9	0.836	---	1.75	1.111	105.5	59.8	2.6	0.318
3-9560	3-9820	0.125	164.9	9.5	0.52	0.646	98.8	0.347	1.246	197.3	431.5	0.813	---	1.50	1.106	106.5	68.2	2.8	0.330
3-9560	3-9830	0.123	178.0	5.4	0.81	0.635	96.4	0.355	1.224	191.9	436.2	0.789	---	1.35	1.101	107.6	76.8	2.7	0.344
3-9560	3-9840	0.128	191.4	0.6	1.06	0.624	93.7	0.367	1.203	186.5	440.9	0.762	---	1.26	1.096	108.9	85.4	2.7	0.362
3-9560	3-9850	0.141	203.9	-4.2	1.28	0.614	90.7	0.383	1.185	181.2	445.8	0.731	---	1.22	1.091	110.4	94.1	2.6	0.383
3-9560	3-9860	0.163	214.6	-8.3	1.50	0.604	87.3	0.405	1.169	176.1	450.9	0.696	1.642	1.22	1.086	112.2	102.6	2.5	0.430
3-9560	3-9870	0.194	223.3	-11.5	1.72	0.595	83.4	0.433	1.154	171.3	456.3	0.654	1.653	1.24	1.080	114.3	111.0	2.4	0.443
3-9560	3-9880	0.230	230.1	-13.8	1.97	0.586	78.8	0.471	1.140	166.9	462.0	0.604	1.677	1.34	1.075	117.0	119.0	2.3	0.487
3-9560	3-9890	0.287	235.1	-15.6	2.26	0.578	73.3	0.520	1.129	163.1	468.5	0.542	1.715	1.42	1.069	120.6	126.5	2.1	0.544
3-9560	3-9900	0.354	238.4	-16.8	2.63	0.571	66.4	0.585	1.119	160.4	475.8	0.464	1.772	1.73	1.064	125.3	133.3	2.0	0.621
3-9560	3-9910	0.442	240.0	-17.6	3.17	0.566	57.5	0.671	1.111	159.2	484.8	0.366	1.856	2.15	1.059	131.8	139.2	1.8	0.727
3-9560	3-9920	0.558	239.5	-18.0	4.07	0.562	45.7	0.779	1.106	160.6	496.2	0.244	1.968	2.94	1.055	141.0	143.8	1.7	0.876
3-9560	3-9960	0.599	199.8	-9.5	-3.06	0.184	63.2	0.956	0.843	178.7	954.0	0.037	1.649	-4.62	0.899	17.4	81.5	1.9	1.339
3-9560	3-9960	0.566	163.0	6.0	-3.06	0.394	140.8	0.907	0.939	187.9	563.2	0.088	1.781	-4.64	0.964	25.0	55.1	1.7	1.069
3-9560	3-9970	0.480	195.9	-7.7	-1.21	0.278	85.1	0.876	0.874	179.3	564.3	0.108	1.640	-2.87	0.919	29.1	65.4	2.2	0.985
3-9560	3-9970	0.434	173.5	1.9	-1.21	0.372	116.3	0.822	0.924	186.3	571.3	0.164	1.685	-2.87	0.954	34.8	61.0	1.9	0.916
3-9560	4- 60	0.585	258.0	-21.8	1.87	0.739	47.0	0.686	1.485	139.4	250.7	---	2.503	-1.30	1.138	50.0	130.3	16.7	0.735
3-9560	4- 70	0.556	260.1	-21.5	2.12	0.746	49.6	0.651	1.507	136.3	257.1	---	2.489	-1.42	1.143	53.4	136.7	14.6	0.678
3-9560	4- 80	0.529	262.0	-21.0	2.43	0.752	52.0	0.618	1.529	133.3	263.7	---	2.473	-1.60	1.149	56.6	142.8	12.1	0.623
3-9560	4- 90	0.504	263.9	-20.4	2.85	0.758	54.2	0.586	1.549	130.4	270.5	---	2.457	-1.89	1.154	59.7	140.6	9.2	0.571
3-9560	4- 100	0.481	265.6	-19.3	3.48	0.763	56.3	0.557	1.567	127.7	277.4	---	2.439	-2.41	1.159	62.7	153.8	5.7	0.520
3-9560	4- 110	0.461	267.1	-17.4	4.63	0.767	58.1	0.529	1.584	125.1	284.5	---	2.422	-3.46	1.164	65.7	158.3	0.8	0.474
3-9560	4- 120	0.448	268.1	-12.4	7.73	0.771	59.8	0.504	1.599	122.7	291.8	---	2.405	-6.45	1.169	68.5	160.6	-9.3	0.438
3-9560	4- 140	0.412	270.9	-34.7	-6.36	0.777	62.5	0.461	1.623	118.5	307.4	---	2.372	7.85	1.178	74.0	186.7	24.6	0.364
3-9560	4- 150	0.392	272.6	-27.9	-2.18	0.780	63.6	0.444	1.633	116.8	315.6	---	2.358	3.77	1.182	76.7	183.7	19.2	0.302
3-9560	4- 160	0.380	273.5	-25.5	-0.82	0.782	64.6	0.430	1.641	115.3	324.1	---	2.346	2.53	1.185	79.4	183.8	10.7	0.262
3-9560	4- 170	0.371	274.3	-24.2	-0.12	0.783	65.3	0.418	1.647	114.1	332.9	---	2.337	1.94	1.189	82.1	183.0	5.7	0.228
3-9560	4- 180	0.365	274.8	-23.3	0.33	0.784	65.8	0.410	1.652	113.2	342.0	---	2.330	1.61	1.191	84.8	180.1	10.4	0.201
3-9560	4- 190	0.362	275.1	-22.6	0.66	0.785	66.0	0.406	1.656	112.6	351.6	---	2.328	1.42	1.193	87.6	174.5	12.4	0.185
3-9560	4- 200	0.362	275.2	-22.1	0.93	0.786	66.0	0.406	1.658	112.5	361.6	0.985	2.331	1.30	1.195	90.5	166.8	15.6	0.182
3-9560	4- 210	0.366	275.0	-21.6	1.16	0.786	65.8	0.411	1.659	112.7	372.0	0.978	2.340	1.24	1.196	93.5	158.0	17.1	0.195
3-9560	4- 220	0.374	274.5	-21.3	1.38	0.786	65.1	0.421	1.659	113.4	382.8	0.961	2.358	1.22	1.196	96.7	152.6	18.2	0.223
3-9560	4- 220	0.245	156.7	13.4	1.38	0.584	108.6	0.526	1.137	198.7	828.2	0.539	1.735	1.23	1.074	120.9	87.7	25.4	0.561
3-9560	4- 220	0.415	139.3	18.0	1.38	0.629	126.7	0.661	1.212	208.0	837.5	0.412	2.013	1.22	1.100	130.1	83.1	24.7	0.732
3-9560	4- 230	0.389	273.6	-21.0	1.60	0.786	64.0	0.438	1.659	114.6	394.2	0.931	2.386	1.23	1.196	100.3	149.2	18.3	0.267
3-9560	4- 230	0.198	180.6	4.6	1.60	0.562	89.1	0.498	1.106	188.4	828.0	0.656	1.656	1.23	1.063	119.2	98.9	25.4	0.525
3-9560	4- 230	0.536	137.6	18.1	1.60	0.856	137.3	0.762	1.266	207.5	847.1	0.302	2.230	1.23	1.115	138.3	89.5	24.5	0.836
3-9560	4- 240	0.410	272.4	-20.9	1.83	0.785	62.3	0.465	1.657	116.5	406.3	0.888	2.427	1.29	1.196	104.3	148.1	17.9	0.324
3-9560	4- 240	0.204	200.6	-3.6	1.83	0.550	90.4	0.505	1.089	180.4	930.3	0.541	1.639	1.29	1.056	119.8	108.9	20.6	0.531
3-9560	4- 250	0.442	270.6	-20.8	2.10	0.785	59.9	0.502	1.656	119.1	419.1	0.825	2.487	1.40	1.195	108.9	146.7	17.0	0.388

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9560	4- 250	0.239	215.4	-9.5	2.10	0.541	83.1	0.531	1.078	173.8	833.8	0.506	1.650	1.40	1.050	121.7	118.0	23.2	0.599
3-9560	4- 260	0.487	268.2	-20.7	2.42	0.785	56.3	0.554	1.654	122.8	433.0	0.738	2.571	1.59	1.193	114.5	150.2	15.9	0.491
3-9560	4- 260	0.295	225.8	-13.3	2.42	0.934	75.2	0.575	1.069	168.4	838.5	0.454	1.684	1.59	1.045	124.9	126.3	21.6	0.609
3-9560	4- 270	0.551	261.9	-20.7	2.86	0.728	51.3	0.626	1.653	128.1	448.4	0.619	2.688	1.90	1.191	121.6	152.0	14.9	0.612
3-9560	4- 270	0.371	232.1	-15.5	2.86	0.528	66.0	0.641	1.062	164.6	844.9	0.382	1.743	1.90	1.040	129.7	133.6	19.7	0.686
3-9560	4- 280	0.472	235.1	-16.8	3.53	0.524	54.8	0.731	1.058	163.1	853.4	0.285	1.831	2.45	1.036	136.8	139.6	18.0	0.801
3-9560	4- 330	0.507	159.9	7.4	-1.96	0.438	133.8	0.851	0.973	190.7	930.6	0.145	1.800	-3.57	0.981	31.7	55.7	17.8	0.978
3-9560	4- 340	0.538	124.5	19.4	-0.74	0.765	134.7	0.784	1.576	223.0	612.7	0.467	2.685	-2.46	1.163	49.6	44.2	13.9	0.776
3-9560	4- 340	0.545	214.2	-14.4	-0.74	0.335	52.1	0.680	0.902	174.3	923.9	0.099	1.705	-2.46	0.937	27.3	70.0	21.1	1.018
3-9560	4- 340	0.387	169.0	4.0	-0.74	0.431	115.2	0.760	0.967	138.9	938.5	0.232	1.701	-2.46	0.975	40.6	61.6	19.0	0.837
3-9560	4- 350	0.443	120.4	20.9	-0.09	0.765	127.1	0.604	1.576	229.9	629.2	0.624	2.528	-1.92	1.160	58.7	45.9	14.1	0.618
3-9560	4- 350	0.397	206.1	-11.2	-0.09	0.382	77.3	0.774	0.931	176.2	935.5	0.211	1.651	-1.92	0.952	39.5	73.6	21.2	0.842
3-9560	4- 350	0.347	194.8	-6.6	-0.09	0.404	90.5	0.732	0.946	180.2	939.5	0.254	1.639	-1.92	0.962	43.1	71.3	20.7	0.791
3-9560	4- 360	0.375	117.5	22.1	0.34	0.765	121.8	0.528	1.574	234.4	643.4	0.743	2.406	-1.61	1.158	65.4	48.2	14.4	0.499
3-9570	3-9630	0.585	105.6	23.7	0.38	0.984	129.9	0.781	3.893	264.9	309.8	---	---	-1.56	1.311	68.2	32.0	9.3	0.550
3-9570	3-9640	0.525	103.3	26.5	0.70	0.962	126.4	0.722	3.335	268.3	322.9	---	---	-1.35	1.294	74.5	30.2	8.2	0.441
3-9570	3-9650	0.484	102.0	25.1	0.95	0.945	124.0	0.676	3.006	270.1	334.2	---	---	-1.22	1.280	79.6	27.4	6.7	0.3
3-9570	3-9660	0.453	101.6	25.6	1.16	0.929	122.4	0.637	2.756	270.4	344.0	---	---	-1.15	1.267	83.8	23.5	4.8	0.311
3-9570	3-9670	0.427	101.9	26.0	1.36	0.912	121.1	0.601	2.541	269.5	352.7	---	---	-1.11	1.255	87.3	19.3	2.7	0.277
3-9570	3-9680	0.407	102.9	26.4	1.54	0.895	120.1	0.568	2.352	267.7	360.4	1.017	---	-1.10	1.242	90.2	15.4	0.9	0.259
3-9570	3-9690	0.383	104.3	26.8	1.73	0.876	119.2	0.536	2.185	265.1	367.4	1.013	---	-1.13	1.229	92.6	12.7	-0.5	0.252
3-9570	3-9700	0.362	106.1	27.2	1.93	0.857	118.4	0.506	2.038	261.9	373.7	1.006	---	-1.19	1.216	94.6	11.4	-1.3	0.251
3-9570	3-9710	0.342	108.2	27.7	2.16	0.838	117.5	0.479	1.910	258.2	379.6	0.995	---	-1.29	1.204	96.3	11.8	-1.5	0.255
3-9570	3-9720	0.321	110.7	28.2	2.44	0.819	116.5	0.454	1.800	254.1	385.1	0.983	---	-1.46	1.192	97.8	13.6	-1.4	0.260
3-9570	3-9730	0.301	113.6	29.1	2.83	0.799	115.5	0.432	1.704	249.7	390.3	0.969	---	-1.74	1.180	99.0	16.7	-1.1	0.267
3-9570	3-9740	0.282	117.0	30.4	3.42	0.781	114.3	0.412	1.622	245.0	395.2	0.954	---	-2.22	1.170	100.1	21.0	-1.3	0.274
3-9570	3-9750	0.264	121.4	33.1	4.51	0.762	113.1	0.395	1.551	240.0	400.0	0.939	---	-3.22	1.160	101.0	26.6	-2.9	0.284
3-9570	3-9760	0.256	129.1	40.7	7.59	0.745	111.7	0.380	1.490	234.8	404.6	0.923	---	-6.20	1.150	101.9	34.6	-11.0	0.306
3-9570	3-9780	0.208	126.8	2.5	-5.05	0.712	108.7	0.360	1.390	224.1	413.7	0.889	---	6.62	1.134	103.4	29.3	36.9	0.321
3-9570	3-9790	0.181	134.4	11.4	-1.63	0.696	106.9	0.354	1.349	218.5	418.0	0.872	---	3.30	1.127	104.2	42.4	28.5	0.311
3-9570	3-9800	0.162	142.3	13.2	-0.46	0.681	105.1	0.350	1.313	212.9	423.4	0.853	---	2.24	1.121	105.0	51.4	26.7	0.315
3-9570	3-9810	0.147	151.4	12.7	0.15	0.667	103.1	0.349	1.281	207.3	426.8	0.834	---	1.73	1.114	105.8	59.9	26.4	0.323
3-9570	3-9820	0.135	162.1	10.6	0.55	0.654	100.9	0.351	1.253	201.6	431.3	0.813	---	1.45	1.108	106.6	68.4	26.6	0.333
3-9570	3-9830	0.129	174.4	7.0	0.84	0.642	98.5	0.357	1.228	196.0	435.8	0.790	---	1.28	1.102	107.6	77.1	26.8	0.345
3-9570	3-9840	0.129	187.7	2.4	1.08	0.630	95.9	0.366	1.206	190.4	440.3	0.765	---	1.17	1.097	108.8	85.8	26.8	0.360
3-9570	3-9850	0.137	200.8	-3.7	1.29	0.619	93.0	0.379	1.186	184.9	445.0	0.737	---	1.12	1.091	110.1	94.5	26.4	0.378
3-9570	3-9860	0.154	212.7	-7.2	1.49	0.608	89.8	0.397	1.168	179.6	449.9	0.704	1.631	1.10	1.085	111.6	103.1	25.7	0.401
3-9570	3-9870	0.180	222.7	-10.9	1.69	0.598	86.0	0.421	1.152	174.5	455.0	0.667	1.637	1.12	1.079	113.5	111.6	24.6	0.429
3-9570	3-9880	0.216	230.7	-13.7	1.90	0.589	81.7	0.453	1.137	169.8	460.4	0.622	1.653	1.18	1.074	115.9	119.8	23.4	0.466
3-9570	3-9890	0.262	236.8	-15.7	2.14	0.580	76.6	0.496	1.124	165.6	466.4	0.567	1.682	1.28	1.068	119.0	127.5	21.4	0.515
3-9570	3-9900	0.322	241.1	-17.1	2.44	0.572	70.3	0.552	1.113	162.1	473.1	0.498	1.728	1.46	1.062	123.0	134.6	19.5	0.580
3-9570	3-9910	0.399	243.8	-18.1	2.85	0.566	62.4	0.627	1.104	160.6	481.0	0.411	1.797	1.75	1.056	128.5	141.0	17.5	0.671
3-9570	3-9920	0.501	244.5	-18.8	3.48	0.561	52.0	0.725	1.098	159.9	490.9	0.302	1.894	2.28	1.051	136.2	146.2	15.8	0.795
3-9570	3-9970	0.536	202.4	-10.3	-1.46	0.231	77.9	0.917	0.853	178.9	559.4	0.071	1.635	-3.15	0.903	33.9	68.5	20.9	1.053
3-9570	3-9970	0.485	172.8	2.2	-1.46	0.378	126.8	0.859	0.924	187.5	568.0	0.131	1.716	-3.15	0.952	31.1	62.8	19.5	0.971
3-9570	4- 70	0.573	264.0	-21.9	2.03	0.744	48.6	0.666	1.488	137.7	254.0	---	2.479	-1.23	1.140	51.9	138.3	14.4	0.701
3-9570	4- 80	0.545	266.0	-21.5	2.28	0.72	51.1	0.631	1.510	134.6	260.5	---	2.464	-1.36	1.145	55.2	144.5	12.0	0.646
3-9570	4- 90	0.519	267.9	-20.9	2.61	0.75	53.4	0.599	1.531	131.7	267.2	---	2.447	-1.57	1.151	58.4	150.4	9.3	0.592
3-9570	4- 100	0.495	269.6	-20.1	3.07	0.762	55.5	0.568	1.550	128.9	274.1	---	2.431	-1.93	1.156	61.4	155.9	6.2	0.541
3-9570	4- 110	0.474	271.1	-18.7	3.84	0.767	57.4	0.539	1.568	126.2	281.1	---	2.413	-2.40	1.161	64.4	160.8	2.2	0.492
3-9570	4- 120	0.456	272.4	-16.0	5.50	0.771	59.2	0.513	1.583	123.7	288.4	---	2.396	-4.16	1.166	67.3	164.5	-2.2	0.448
3-9570	4- 130	0.440	271.8	-5.1	12.71	0.775	60.7	0.490	1.597	121.5	295.8	---	2.379	-8.27	1.171	70.0	163.6	-24.4	0.447
3-9570	4- 140	0.445	273.9	-43.9	-12.78	0.778	62.1	0.467	1.610	119.3	303.8	---	2.362	14.30	1.176	72.9	199.8	34.5	0.440
3-9570	4- 150	0.402	277.1	-28.8	-2.85	0.780	63.3	0.449	1.620	117.5	311.8	---	2.348	4.47	1.180	75.5	187.6	14.2	0.322
3-9570	4- 160	0.388	278.0	-25.5	-0.96	0.782	64.3	0.433	1.629	115.9	320.1	---	2.335	2.68	1.184	78.2	187.6	9.0	0.277
3-9570	4- 170	0.378	278.3	-24.0	-0.13	0.784	65.1	0.421	1.636	114.5	328.8	---	2.324	1.96	1.187	80.9	187.6	7.1	0.241
3-9570	4- 180	0.371	279.4	-23.0	0.36	0.785	65.7	0.411	1.642	113.5	337.8	---	2.316	1.58	1.190	83.6	185.9	7.1	0.211
3-9570	4- 190	0.366	279.7	-22.3	0.70	0.786	66.1	0.405	1.646	112.8	347.2	---	2.312	1.35	1.192	86.3	181.6	8.6	0.190
3-9570	4- 200	0.365	279.9	-21.8	0.96	0.787	66.3	0.403	1.648	112.4	357.0	---	2.313	1.22	1.193	89.1	174.8	11.1	0.180
3-9570	4- 210	0.367	279.8	-21.3	1.19	0.787	66.1	0.405	1.650	112.4	367.2	0.982	2.319	1.14	1.195	92.1	166.8	13.7	0.185
3-9570	4- 220	0.373	279.5	-21.0	1.39	0.787	65.6	0.413	1.651	112.9	377.0	0.970	2.352	1.11	1.195	95.2	159.7	15.5	0.206
3-9570	4- 230	0.385	278.8	-20.8	1.59	0.787	64.8	0.426	1.650	113.8	388.9	0.947	2.354	1.11	1.195	98.6	155.0	16.2	0.242
3-9570	4- 230	0.212	174.4	7.0	1.59	0.572	102.8	0.506	1.112	193.2	828.3	0.540	1.675	1.11	1.065	119.7	98.8	25.1	0.535
3-9570	4- 230	0.483	142.9	16.6	1.59	0.646	132.9	0.720	1.236	208.1	843.2	0.346	2.126	1.11	1.107	134.8	91.4	24.5	0.813
3-9570	4- 240	0.403	277.8	-20.7	1.79	0.787	63.4	0.448	1.650	115.4	400.7	0.910	2.389	1.14	1.194	102.3	152.9	16.1	0.293
3-9570	4- 240	0.200	196.4	-1.8	1.79	0.556	94.3	0.499	1.091	184.3	829.6	0.546	1.636	1.14	1.057	119.5	109.2	24.3	0.525
3-9570	4- 240	0.581	142.8	16.4	1.79	0.666	141.3	0.799	1.279	206.3	851.6	0.257	2.301	1.14	1.118	141.8	98.4	24.1	0.933
3-9570	4- 250	0.429	276.3	-20.6	2.01	0.787	61.3	0.480	1.648	117.6	413.1	0.857	2.439	1.22	1.193	106.6	152.8	15.4	0.358
3-9570	4- 250	0.223	213.8	-8.7	2.01	0.546	86.8	0.516	1.078	177.0	832.5	0.521	1.634	1.22	1.050	120.7	118.6	22.9	0.541
3-9570	4- 260	0.467	274.3	-20.7	2.28	0.787	58.4	0.525	1.647	120.8	426.4	0.783	2.510	1.36	1.192	111.7	153.9	14.4	0.441
3-9570	4- 260	0.270	226.2	-13.1	2.28	0.538	79.2	0.551	1.068	171.0	836.6	0.479	1.656	1.36	1.044	123.2	127.2	21.2	0.580
3-9570	4- 270	0.521	271.5	-20.8	2.62	0.786	54.1	0.586	1.645	125.2	441.0	0.680	2.610	1.58	1.190	117.9	155.7	13.4	0.548
3-9570	4- 270	0.336	234.2	-15.8	2.62	0.532	70.8	0.606	1.060	166.3	842.0	0.417	1.703	1.58	1.039	127.2	134.9	19.2	0.643
3-9570	4- 280	0.599	267.6	-20.9	3.11	0.786	47.9	0.671	1.645	131.6	457.4	0.542	2.747	1.96	1.188	126.0	157.3	12.4	0.688
3-9570	4- 280	0.425	230.8	-17.4	3.11	0.527	60.6	0.684	1.054	163.6	849.3	0.333	1.776	1.96	1.035	133.1	141.5	17.2	0.730
3-9570	4- 290	0.542	240.2	-18.2	3.94	0.524	47.7	0.787	1.051	163.5	859.3	0.224	1.878	2.69	1.031	141.8	146.6	15.5	0.878
3-9570	4- 300	0.591	196.3	-5.3	5.83	0.196	96.6	0.956	0.834	180.3	1246.1	0.037	1.632	4.48	0.900	162.6	140.2	16.6	1.119
3-9570	4- 330	0.575	168.4	6.0	-2.52	0.440	142.8	0.898	0.969	189.8	925.2	0.099	1.839	-4.15	0.980	26.2	58.5	18.6	1.059
3-9570	4- 340	0.588	131.8	17.6	-0.86	0.767	138.9	0.758	1.569	219.1	604.2	0.386	2.752	-2.60	1.161	44.7	47.9	15.3	0.860
3-9570	4- 340	0.597	219.3	-16.1	-0.86	0.322	44.3	0.922	0.991	174.7	919.9	0.070	1.712	-2.60	0.929	23.0	72.4	21.6	1.074

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9570	4- 340	0.434	168.7	4.2	-0.86	0.436	123.3	0.796	0.966	190.3	933.4	0.197	1.734	-2.60	0.97[illegible]	37.3	63.2	19.4	0.888
3-9570	4- 350	0.473	127.1	19.4	-0.10	0.767	129.9	0.643	1.569	227.3	822.1	0.560	2.578	-1.93	1.159	55.1	49.2	15.4	0.679
3-9570	4- 350	0.483	217.4	-15.2	-0.10	0.357	63.0	0.840	0.910	174.3	929.1	0.146	1.674	-1.93	0.939	33.1	77.4	21.9	0.932
3-9570	4- 350	0.348	184.5	-2.1	-0.10	0.423	104.1	0.729	0.955	185.4	940.2	0.259	1.651	-1.93	0.967	43.3	70.8	20.6	0.789
3-9570	4- 360	0.397	123.8	20.9	-0.36	0.767	123.7	0.556	1.568	232.8	637.[illegible]	0.696	2.440	-1.57	1.157	62.7	51.3	15.6	0.544
3-9570	4- 370	0.341	121.5	22.2	0.69	0.766	119.4	0.492	1.566	236.4	650.5	0.796	2.336	-1.36	1.155	68.5	53.7	15.9	0.442
3-9580	3-9640	0.634	104.3	24.3	0.75	1.069	129.6	0.917	11.178	276.3	326.3	---	---	-1.28	1.373	73.9	26.2	7.3	0.513
3-9580	3-9650	0.574	103.3	24.8	0.99	1.033	126.9	0.839	6.063	277.4	336.9	---	---	-1.14	1.344	79.5	23.3	5.5	0.421
3-9580	3-9660	0.529	103.2	25.3	1.20	1.004	125.0	0.775	4.452	277.2	346.3	---	---	-1.05	1.321	84.0	19.7	4.2	0.359
3-9580	3-9670	0.494	103.8	25.6	1.37	0.977	123.6	0.718	3.603	275.9	354.6	---	---	-1.00	1.300	87.[illegible]	15.9	2.4	0.320
3-9580	3-9680	0.464	105.0	25.9	1.54	0.951	122.5	0.668	3.059	273.8	362.0	1.017	---	-0.98	1.281	90.8	12.6	0.8	0.298
3-9580	3-9690	0.433	106.5	26.2	1.70	0.926	121.6	0.621	2.672	271.0	368.7	1.012	---	-0.99	1.262	93.3	10.4	-0.2	0.288
3-9580	3-9700	0.410	108.4	26.5	1.87	0.901	120.7	0.579	2.383	267.6	374.9	1.003	---	-1.03	1.245	95.4	9.6	-0.7	0.284
3-9580	3-9710	0.385	110.6	26.7	2.06	0.877	119.7	0.541	2.159	263.8	380.6	0.991	---	-1.10	1.228	97.2	10.3	-0.7	0.285
3-9580	3-9720	0.361	113.1	27.1	2.29	0.853	118.8	0.507	1.982	259.5	385.9	0.978	---	-1.22	1.213	98.7	12.3	-0.2	0.288
3-9580	3-9730	0.337	115.9	27.5	2.59	0.830	117.7	0.476	1.840	255.0	391.0	0.964	---	-1.41	1.198	99.9	15.5	0.4	0.292
3-9580	3-9740	0.314	119.1	28.3	3.01	0.807	116.5	0.450	1.723	250.1	395.9	0.949	---	-1.74	1.185	100.9	19.8	0.9	0.296
3-9580	3-9750	0.292	122.9	29.8	3.71	0.786	115.3	0.427	1.628	245.1	400.5	0.933	---	-2.36	1.173	101.8	25.1	0.7	0.302
3-9580	3-9760	0.274	126.1	33.4	5.28	0.766	113.9	0.407	1.548	239.8	405.0	0.918	---	-3.84	1.161	102.6	31.8	-2.2	0.311
3-9580	3-9770	0.291	143.7	48.5	12.77	0.746	112.4	0.391	1.480	234.4	409.4	0.902	---	-11.25	1.151	103.3	42.2	-21.9	0.370
3-9580	3-9780	0.252	126.8	-8.0	-9.58	0.728	110.8	0.379	1.423	228.9	413.9	0.884	---	11.19	1.142	104.0	20.0	46.8	0.373
3-9580	3-9790	0.202	134.9	10.2	-2.11	0.710	109.0	0.369	1.374	223.2	418.2	0.868	---	3.80	1.133	104.7	41.8	29.7	0.324
3-9580	3-9800	0.181	142.3	13.1	-0.54	0.694	107.2	0.362	1.332	217.5	422.5	0.850	---	2.33	1.125	105.4	51.4	26.8	0.325
3-9580	3-9810	0.163	150.5	13.1	0.17	0.678	105.2	0.358	1.295	211.8	426.7	0.831	---	1.71	1.118	106.1	60.1	26.3	0.330
3-9580	3-9820	0.148	160.0	11.4	0.59	0.664	103.0	0.357	1.263	206.0	431.1	0.812	---	1.38	1.111	106.9	68.6	26.4	0.338
3-9580	3-9830	0.138	171.2	8.4	0.89	0.650	100.7	0.360	1.235	200.2	435.4	0.790	---	1.19	1.104	107.7	77.3	26.6	0.347
3-9580	3-9840	0.133	183.9	4.1	1.12	0.637	98.1	0.366	1.210	194.5	439.9	0.767	---	1.08	1.098	108.7	86.1	26.5	0.359
3-9580	3-9850	0.136	197.2	-0.9	1.32	0.625	95.3	0.376	1.188	188.9	444.4	0.741	---	1.01	1.092	109.9	94.8	26.1	0.374
3-9580	3-9860	0.148	209.9	-5.9	1.50	0.613	92.1	0.391	1.168	183.4	449.1	0.711	---	0.98	1.085	111.2	103.6	25.4	0.393
3-9580	3-9870	0.169	221.2	-10.1	1.67	0.603	88.6	0.411	1.151	178.0	453.9	0.677	1.624	0.98	1.079	112.9	112.1	24.3	0.418
3-9580	3-9880	0.200	230.5	-13.3	1.85	0.592	84.6	0.439	1.135	173.0	459.0	0.637	1.633	1.02	1.073	115.0	120.4	22.8	0.449
3-9580	3-9890	0.240	237.8	-15.6	2.05	0.583	79.8	0.475	1.121	168.3	464.6	0.588	1.653	1.09	1.066	117.6	128.3	21.0	0.490
3-9580	3-9900	0.293	243.2	-17.3	2.29	0.[illegible]5	74.1	0.524	1.109	164.3	470.7	0.528	1.689	1.22	1.060	121.0	135.7	19.0	0.546
3-9580	3-9910	0.361	247.0	-18.5	2.60	0.567	66.9	0.589	1.098	161.4	477.8	0.452	1.745	1.42	1.054	125.7	142.4	16.9	0.621
3-9580	3-9920	0.451	248.8	-19.3	3.05	0.561	57.7	0.675	1.090	160.0	486.5	0.355	1.826	1.77	1.049	132.2	148.2	14.9	0.728
3-9580	3-9930	0.570	248.5	-19.8	3.82	0.558	45.5	0.785	1.086	161.2	497.7	0.234	1.938	2.45	1.044	141.5	152.6	13.2	0.878
3-9580	3-9970	0.590	207.4	-12.2	-1.86	0.188	71.3	0.949	0.836	178.9	554.9	0.043	1.628	-3.57	0.890	18.9	71.4	21.4	1.112
3-9580	3-9970	0.549	174.7	1.4	-1.86	0.378	137.1	0.900	0.918	187.4	563.3	0.092	1.745	-3.57	0.948	26.0	65.3	20.1	1.044
3-9580	4- 70	0.592	268.0	-22.2	1.96	0.742	47.5	0.680	1.469	139.1	250.9	---	2.468	-1.05	1.136	50.4	139.9	14.3	0.725
3-9580	4- 80	0.563	270.0	-21.8	2.17	0.749	50.1	0.645	1.491	136.0	257.3	---	2.454	-1.15	1.142	53.7	146.1	11.9	0.669
3-9580	4- 90	0.536	271.9	-21.3	2.42	0.756	52.5	0.612	1.513	133.0	263.9	---	2.438	-1.30	1.147	57.0	152.1	9.3	0.615
3-9580	4- 100	0.511	273.6	-20.6	2.76	0.761	54.7	0.580	1.533	130.1	270.7	---	2.422	-1.54	1.153	60.1	157.8	6.3	0.562
3-9580	4- 110	0.488	275.3	-19.6	3.29	0.766	56.7	0.550	1.551	127.4	277.7	---	2.405	-1.98	1.158	63.1	163.1	2.9	0.512
3-9580	4- 120	0.467	276.6	-17.8	4.27	0.771	58.5	0.523	1.568	124.8	284.9	---	2.387	-2.87	1.164	66.0	167.5	-1.8	0.465
3-9580	4- 130	0.453	277.4	-13.3	7.05	0.775	60.2	0.498	1.582	122.4	292.2	---	2.370	-5.56	1.169	68.8	169.9	-11.2	0.428
3-9580	4- 150	0.414	281.6	-30.6	-4.16	0.781	62.9	0.455	1.607	118.2	307.9	---	2.338	5.81	1.178	74.3	192.2	15.9	0.346
3-9580	4- 160	0.398	282.5	-25.6	-1.17	0.783	64.0	0.438	1.616	116.5	316.1	---	2.324	2.91	1.181	77.0	191.[illegible]	7.6	0.294
3-9580	4- 170	0.386	283.3	-23.7	-0.15	0.785	64.9	0.424	1.624	115.0	324.7	---	2.312	1.98	1.185	79.7	191.8	4.8	0.255
3-9580	4- 180	0.378	283.9	-22.6	0.39	0.787	65.6	0.413	1.630	113.8	333.5	---	2.303	1.53	1.188	82.4	191.1	4.1	0.223
3-9580	4- 190	0.372	284.3	-21.9	0.74	0.788	66.1	0.405	1.635	112.9	342.8	---	2.297	1.28	1.190	85.1	188.2	4.9	0.197
3-9580	4- 200	0.368	284.6	-21.3	1.00	0.789	66.4	0.401	1.639	112.4	352.4	---	2.295	1.13	1.192	87.8	182.6	7.0	0.181
3-9580	4- 210	0.369	284.6	-20.9	1.22	0.789	66.4	0.401	1.641	112.2	362.4	0.984	2.298	1.04	1.193	90.7	175.0	9.7	0.179
3-9580	4- 220	0.373	284.4	-20.6	1.40	0.789	66.1	0.405	1.642	112.4	372.8	0.976	2.308	0.99	1.194	93.7	167.3	12.2	0.192
3-9580	4- 230	0.382	283.9	-20.4	1.58	0.789	65.4	0.416	1.642	113.1	383.7	0.959	2.325	0.98	1.194	96.9	161.4	13.6	0.221
3-9580	4- 230	0.247	167.0	9.6	1.58	0.586	109.0	0.530	1.126	199.0	829.5	0.529	1.722	0.98	1.070	121.3	98.2	24.8	0.563
3-9580	4- 230	0.413	149.6	14.7	1.58	0.631	126.8	0.662	1.199	207.9	838.5	0.405	1.993	0.98	1.095	130.4	93.7	24.5	0.732
3-9580	4- 240	0.396	283.1	-20.3	1.76	0.789	64.3	0.434	1.642	114.3	395.1	0.930	2.353	1.00	1.193	100.4	158.2	13.9	0.264
3-9580	4- 240	0.202	191.1	0.4	1.76	0.564	98.4	0.500	1.094	108.6	829.3	0.548	1.641	1.00	1.058	119.5	109.3	24.0	0.525
3-9580	4- 240	0.536	147.6	15.0	1.76	0.659	137.6	0.765	1.253	207.3	848.0	0.295	2.210	1.00	1.111	138.7	100.1	14.0	0.877
3-9580	4- 250	0.418	281.9	-20.3	1.94	0.789	62.6	0.460	1.640	116.2	407.1	0.886	2.395	1.05	1.192	104.4	157.2	13.6	0.322
3-9580	4- 250	0.211	210.8	-7.4	1.94	0.552	90.6	0.506	1.078	180.6	831.5	0.533	1.623	1.05	1.050	120.0	119.1	22.6	0.529
3-9580	4- 260	0.450	280.2	-20.4	2.16	0.789	60.1	0.498	1.639	118.9	419.9	0.823	2.455	1.14	1.191	109.0	157.9	12.8	0.395
3-9580	4- 260	0.248	225.6	-12.7	2.16	0.543	83.2	0.532	1.067	173.9	835.0	0.500	1.633	1.14	1.044	121.9	128.0	20.8	0.556
3-9580	4- 270	0.496	277.0	-20.6	2.43	0.788	56.6	0.551	1.637	122.7	433.8	0.735	2.540	1.30	1.189	114.7	159.3	11.8	0.489
3-9580	4- 270	0.305	235.6	-15.9	2.43	0.536	75.2	0.576	1.058	168.5	839.6	0.448	1.667	1.30	1.039	125.0	136.0	18.7	0.606
3-9580	4- 280	0.562	274.6	-20.9	2.79	0.788	51.4	0.624	1.636	128.1	449.3	0.615	2.658	1.56	1.187	121.8	161.1	10.8	0.612
3-9580	4- 280	0.383	241.9	-17.8	2.79	0.530	65.9	0.642	1.051	164.7	845.9	0.376	1.727	1.56	1.033	129.9	143.1	16.5	0.684
3-9580	4- 290	0.486	244.8	-18.9	3.35	0.526	54.5	0.734	1.047	163.1	854.4	0.279	1.815	2.04	1.029	137.1	148.9	14.5	0.800
3-9580	4- 340	0.492	170.0	3.7	-1.05	0.441	131.8	0.839	0.964	190.8	933.3	0.155	1.772	-2.79	0.974	33.0	65.4	19.9	0.953
3-9580	4- 350	0.517	154.0	17.6	-0.11	0.769	133.4	0.688	1.562	224.3	614.5	0.488	2.636	-1.95	1.158	50.9	52.8	16.7	0.750
3-9580	4- 350	0.546	224.0	-17.2	-0.11	0.341	53.5	0.883	0.896	174.1	924.4	0.105	1.687	-1.95	0.930	28.3	80.2	22.3	0.998
3-9580	4- 350	0.378	180.5	-0.3	-0.11	0.433	113.1	0.751	0.957	188.4	938.6	0.238	1.676	-1.95	0.968	41.4	71.7	20.8	0.819
3-9580	4- 360	0.424	130.2	19.4	0.40	0.769	126.0	0.589	1.562	230.9	630.7	0.641	2.482	-1.53	1.156	59.7	54.6	16.8	0.596
3-9580	4- 370	0.358	127.6	20.8	0.73	0.769	120.9	0.515	1.560	235.2	644.7	0.756	2.364	-1.29	1.154	66.2	56.9	17.1	0.481
3-9580	4- 380	0.311	125.8	22.1	0.98	0.768	117.3	0.460	1.558	238.1	657.1	0.847	2.275	-1.14	1.153	71.5	59.1	17.2	0.392
3-9590	3-9650	0.691	104.6	24.8	1.05	1.150	129.7	1.082	11.937	284.2	339.1	---	---	-1.04	1.433	79.1	19.7	5.2	0.506
3-9590	3-9660	0.626	104.8	25.0	1.24	1.100	127.6	0.972	35.511	283.6	348.1	---	---	-0.94	1.393	84.1	16.5	3.7	0.428
3-9590	3-9670	0.576	105.7	25.3	1.40	1.059	126.0	0.880	8.468	282.0	356.0	---	---	-0.88	1.360	88.1	13.1	2.2	0.379
3-9590	3-9680	0.535	107.1	25.5	1.55	1.022	124.9	0.802	5.125	279.6	363.[illegible]	1.016	---	-0.86	1.331	91.4	10.4	0.9	0.349
3-9590	3-9690	0.499	108.8	25.6	1.69	0.987	123.9	0.733	3.785	276.6	369.7	1.010	---	-0.85	1.305	94.1	8.7	0.1	0.333

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9590	3-9700	0.466	110.9	25.8	1.83	0.955	122.9	0.673	3.055	273.1	375.7	1.000	---	-0.87	1.282	96.3	8.3	-0.1	0.325
3-9590	3-9710	0.436	113.2	25.9	1.99	0.924	122.0	0.619	2.593	269.1	381.3	0.988	---	-0.92	1.260	98.1	9.2	0.1	0.322
3-9590	3-9720	0.407	115.7	26.0	2.17	0.894	121.0	0.572	2.275	264.8	386.6	0.973	---	-1.00	1.239	99.6	11.4	0.7	0.321
3-9590	3-9730	0.378	118.4	26.2	2.39	0.866	119.9	0.531	2.044	260.2	391.6	0.958	---	-1.13	1.221	100.8	14.6	1.7	0.321
3-9590	3-9740	0.351	121.4	26.6	2.70	0.839	118.8	0.496	1.870	255.3	396.4	0.943	---	-1.35	1.204	101.9	18.8	2.6	0.323
3-9590	3-9750	0.325	124.9	27.3	3.17	0.814	117.5	0.465	1.734	250.1	401.0	0.927	---	-1.74	1.189	102.7	25.0	3.3	0.324
3-9590	3-9760	0.301	129.1	29.0	4.06	0.790	116.1	0.440	1.626	244.8	405.4	0.911	---	-2.56	1.175	103.5	30.1	2.7	0.328
3-9590	3-9770	0.284	135.8	3406	6.68	0.768	114.6	0.418	1.539	239.3	409.2	0.896	---	-5.11	1.162	104.1	38.1	-3.2	0.339
3-9590	3-9790	0.227	135.6	7.8	-3.03	0.727	111.2	0.387	1.407	228.0	418.3	0.862	---	4.75	1.141	105.3	40.7	32.0	0.342
3-9590	3-9800	0.202	142.8	12.8	-0.66	0.708	109.5	0.376	1.356	222.2	422.5	0.846	---	2.45	1.131	105.9	51.4	26.9	0.337
3-9590	3-9810	0.182	150.2	13.2	0.19	0.691	107.3	0.369	1.313	216.4	426.7	0.828	---	1.68	1.123	106.5	60.2	28.9	0.339
3-9590	3-9820	0.164	158.7	12.0	0.65	0.675	105.2	0.366	1.276	210.5	430.9	0.809	---	1.31	1.115	107.2	68.8	26.1	0.344
3-9590	3-9830	0.150	168.7	9.4	0.94	0.660	102.8	0.365	1.244	204.6	435.2	0.789	---	1.10	1.107	107.9	77.5	26.3	0.351
3-9590	3-9840	0.141	180.4	5.6	1.17	0.645	100.3	0.369	1.216	198.7	439.5	0.768	---	0.97	1.100	108.8	86.3	26.2	0.360
3-9590	3-9850	0.139	193.3	0.8	1.35	0.632	97.6	0.376	1.191	192.9	443.8	0.744	---	0.90	1.093	109.7	95.1	25.8	0.373
3-9590	3-9860	0.145	206.5	-4.3	1.51	0.620	94.5	0.387	1.169	187.2	448.3	0.717	---	0.86	1.086	110.9	103.9	25.1	0.388
3-9590	3-9870	0.161	218.8	-8.9	1.66	0.608	91.2	0.404	1.150	181.7	453.0	0.686	---	0.85	1.079	112.4	112.6	23.9	0.408
3-9590	3-9880	0.186	229.4	-12.6	1.82	0.597	87.3	0.426	1.133	176.4	457.8	0.650	1.616	0.87	1.072	114.2	121.0	22.4	0.435
3-9590	3-9890	0.221	238.0	-15.3	1.98	0.587	82.9	0.457	1.118	171.4	463.0	0.607	1.629	0.91	1.065	116.4	129.0	20.5	0.469
3-9590	3-9900	0.268	244.7	-17.3	2.17	0.578	77.6	0.499	1.105	166.9	468.6	0.554	1.656	1.00	1.059	119.3	136.6	18.5	0.516
3-9590	3-9910	0.328	249.6	-18.6	2.40	0.570	71.2	0.554	1.093	163.2	475.0	0.487	1.700	1.14	1.052	123.3	143.6	16.2	0.580
3-9590	3-9920	0.406	252.6	-19.6	2.73	0.563	63.0	0.629	1.084	160.8	482.7	0.402	1.766	1.38	1.046	128.7	149.9	14.1	0.668
3-9590	3-9930	0.511	253.6	-20.3	3.23	0.558	52.3	0.728	1.077	160.5	492.4	0.293	1.861	1.80	1.041	136.5	155.0	12.1	0.795
3-9590	3-9940	0.523	209.3	-12.6	-0.57	0.244	85.8	0.904	0.848	179.6	560.6	0.081	1.614	-2.57	0.897	25.8	78.3	22.1	1.019
3-9590	3-9950	0.476	186.5	-3.3	-0.57	0.358	121.8	0.855	0.900	386.2	567.2	0.130	1.670	-2.37	0.934	31.4	73.7	21.4	0.956
3-9590	4- 80	0.581	274.0	-21.9	2.07	0.748	49.0	0.660	1.472	137.4	254.1	---	2.443	-0.95	1.138	52.2	147.8	1.7	0.693
3-9590	4- 90	0.553	275.9	-21.4	2.27	0.755	51.5	0.626	1.494	134.3	260.6	---	2.429	-1.06	1.144	55.5	153.9	9.1	0.638
3-9590	4- 100	0.527	277.7	-20.8	2.52	0.761	53.8	0.593	1.514	131.3	267.4	---	2.413	-1.22	1.150	58.7	159.7	6.3	0.585
3-9590	4- 110	0.502	279.4	-20.0	2.89	0.766	55.9	0.562	1.534	128.5	274.2	---	2.396	-1.51	1.155	61.7	165.2	3.2	0.539
3-9590	4- 120	0.480	280.8	-18.8	3.50	0.771	57.8	0.534	1.551	125.9	281.3	---	2.379	-2.05	1.161	64.7	170.1	-0.6	0.485
3-9590	4- 130	0.462	282.0	-16.4	4.87	0.775	59.6	0.507	1.567	123.4	288.6	---	2.362	-3.34	1.166	67.4	174.0	-6.3	0.440
3-9590	4- 140	0.462	280.9	-6.4	11.52	0.779	61.1	0.484	1.581	121.1	296.1	---	2.345	-9.91	1.171	70.3	172.9	-25.6	0.431
3-9590	4- 150	0.433	286.3	-35.9	-2.89	0.782	62.5	0.462	1.593	119.0	304.1	---	2.329	9.57	1.175	73.1	200.2	29.6	0.390
3-9590	4- 160	0.408	287.1	-25.7	-1.52	0.785	63.7	0.443	1.603	117.1	312.1	---	2.314	3.28	1.179	75.8	194.7	6.8	0.312
3-9590	4- 170	0.395	287.8	-23.3	-0.18	0.787	64.7	0.428	1.612	115.5	320.5	---	2.301	2.01	1.183	78.4	195.6	2.7	0.271
3-9590	4- 180	0.385	288.4	-22.1	0.43	0.788	65.5	0.415	1.619	114.1	329.2	---	2.291	1.48	1.186	81.1	195.8	1.2	0.236
3-9590	4- 190	0.377	288.9	-21.3	0.80	0.790	66.1	0.405	1.624	113.1	338.3	---	2.283	1.20	1.188	83.8	194.2	1.4	0.207
3-9590	4- 200	0.373	289.2	-20.7	1.06	0.791	66.5	0.399	1.629	112.3	347.7	---	2.278	1.03	1.190	86.5	190.6	2.9	0.196
3-9590	4- 210	0.371	289.4	-20.3	1.26	0.791	66.6	0.397	1.631	112.0	357.5	---	2.277	0.93	1.192	89.3	183.3	5.5	0.176
3-9590	4- 220	0.373	289.3	-20.0	1.43	0.792	66.5	0.399	1.633	112.0	367.7	0.981	2.285	0.88	1.192	92.2	175.4	8.3	0.182
3-9590	4- 230	0.380	288.9	-19.8	1.58	0.792	66.0	0.407	1.633	112.5	378.4	0.969	2.296	0.85	1.192	95.3	168.5	10.4	0.203
3-9590	4- 240	0.391	288.3	-19.7	1.73	0.792	65.1	0.421	1.633	113.4	389.5	0.948	2.320	0.85	1.192	98.6	164.0	11.4	0.239
3-9590	4- 240	0.216	184.8	2.8	1.73	0.575	103.1	0.507	1.101	193.4	829.5	0.542	1.659	0.85	1.060	119.9	109.2	23.8	0.534
3-9590	4- 240	0.484	152.9	13.3	1.73	0.649	133.1	0.722	1.223	208.8	844.1	0.340	2.107	0.85	1.102	135.2	102.0	23.8	0.813
3-9590	4- 250	0.409	287.3	-19.7	1.89	0.792	63.7	0.443	1.632	114.9	401.2	0.910	2.355	0.89	1.191	102.3	162.1	11.5	0.289
3-9590	4- 259	0.205	206.6	-5.8	1.89	0.559	94.5	0.500	1.080	184.5	830.8	0.540	1.619	0.89	1.051	119.6	119.4	22.3	0.522
3-9590	4- 259	0.583	152.6	13.0	1.89	0.670	141.6	0.862	1.266	206.1	852.4	0.251	2.291	0.89	1.114	142.2	108.9	22.0	0.934
3-9590	4- 260	0.436	285.9	-19.8	2.07	0.791	61.7	0.474	1.631	117.2	413.6	0.857	2.405	0.95	1.189	106.6	162.0	10.9	0.354
3-9590	4- 260	0.230	223.9	-12.0	2.07	0.549	87.0	0.516	1.066	177.2	833.6	0.516	1.616	0.95	1.044	120.8	128.6	20.4	0.538
3-9590	4- 270	0.475	284.0	-20.1	2.27	0.791	58.7	0.520	1.630	120.4	426.9	0.783	2.477	1.06	1.187	111.7	163.1	10.1	0.437
3-9590	4- 270	0.278	236.1	-15.8	2.27	0.541	79.4	0.551	1.056	171.1	837.6	0.475	1.638	1.06	1.038	123.2	136.9	18.2	0.575
3-9590	4- 280	0.530	281.3	-20.5	2.54	0.791	54.4	0.583	1.628	124.9	441.5	0.680	2.577	1.24	1.185	118.0	164.8	9.1	0.544
3-9590	4- 280	0.346	244.2	-18.1	2.54	0.535	70.9	0.606	1.049	166.4	843.0	0.414	1.684	1.24	1.032	127.2	144.4	15.9	0.638
3-9590	4- 290	0.436	248.8	-19.4	2.93	0.530	60.6	0.684	1.043	163.5	850.2	0.329	1.757	1.54	1.027	133.1	150.8	13.6	0.734
3-9590	4- 300	0.556	250.1	-20.2	3.61	0.527	47.5	0.789	1.040	163.6	860.1	0.220	1.861	2.14	1.023	142.0	155.6	11.8	0.875
3-9590	4- 340	0.562	172.8	2.4	-1.34	0.445	141.0	0.887	0.961	190.2	926.1	0.108	1.813	-3.10	0.972	27.5	68.2	20.6	1.033
3-9590	4- 350	0.568	141.2	15.5	-0.13	0.772	137.6	0.739	1.555	220.4	606.1	0.407	2.704	-1.97	1.157	46.1	56.7	17.9	0.832
3-9590	4- 350	0.424	179.2	0.2	-0.13	0.441	121.6	0.785	0.857	190.3	935.9	0.206	1.708	-1.97	0.968	34.4	73.2	21.2	0.866
3-9590	4- 360	0.458	156.8	17.5	0.44	0.772	128.8	0.628	1.555	228.5	623.7	0.579	2.532	-1.47	1.155	56.2	58.0	18.0	0.656
3-9590	4- 360	0.484	227.4	-17.8	0.44	0.364	64.0	0.831	0.904	174.2	929.4	0.152	1.655	-1.47	0.933	34.0	87.7	22.6	0.913
3-9590	4- 360	0.346	196.6	-6.7	0.44	0.426	102.2	0.722	0.946	184.8	940.1	0.263	1.629	-1.47	0.959	43.9	81.3	21.9	0.774
3-9590	4- 370	0.380	133.8	19.2	0.79	0.772	122.8	0.543	1.554	233.8	638.6	0.710	2.398	-1.20	1.153	63.6	60.1	18.2	0.525
3-9590	4- 380	0.325	131.8	20.6	1.04	0.771	118.6	0.480	1.552	237.2	651.7	0.807	2.297	-1.04	1.152	69.3	62.4	18.3	0.426
3-9590	4- 390	0.286	130.4	21.8	1.23	0.771	115.6	0.433	1.550	239.5	663.5	0.878	2.222	-0.95	1.150	73.7	64.4	18.3	0.349
3-9600	3-9660	0.751	106.4	24.7	1.29	1.228	130.0	1.263	-3.822	289.4	349.2	---	---	-0.82	1.493	84.0	14.1	3.5	0.527
3-9600	3-9670	0.679	107.5	24.9	1.44	1.164	128.4	1.109	-9.308	287.6	357.0	---	---	-0.76	1.440	88.4	11.2	2.2	0.459
3-9600	3-9680	0.623	109.1	25.0	1.57	1.110	127.1	0.986	70.874	285.1	364.0	1.016	---	-0.73	1.398	92.0	8.9	1.2	0.416
3-9600	3-9690	0.575	111.1	25.1	1.69	1.063	126.1	0.882	8.568	282.0	370.4	1.009	---	-0.71	1.361	94.9	7.6	0.6	0.391
3-9600	3-9700	0.533	113.3	25.1	1.81	1.020	125.2	0.795	4.255	278.4	376.3	0.997	---	-0.72	1.328	97.2	7.5	0.5	0.376
3-9600	3-9710	0.495	115.7	25.1	1.93	0.981	124.2	0.720	3.607	274.3	381.9	0.984	---	-0.75	1.299	99.1	8.6	0.8	0.366
3-9600	3-9720	0.460	118.2	25.0	2.07	0.944	123.2	0.655	2.808	269.9	387.1	0.969	---	-0.80	1.273	100.7	10.8	1.6	0.361
3-9600	3-9730	0.426	121.0	25.0	2.24	0.909	122.2	0.600	2.381	265.2	392.0	0.953	---	-0.89	1.249	101.9	14.1	2.7	0.357
3-9600	3-9740	0.394	123.9	25.1	2.46	0.877	121.9	0.553	2.094	260.3	396.7	0.937	---	-1.03	1.228	102.9	18.3	4.0	0.354
3-9600	3-9750	0.364	127.1	25.3	2.77	0.847	119.7	0.513	1.889	255.1	401.3	0.921	---	-1.28	1.208	103.7	23.2	5.1	0.352
3-9600	3-9760	0.335	130.8	26.0	3.30	0.819	118.3	0.479	1.736	249.7	405.7	0.905	---	-1.75	1.191	104.4	29.1	5.8	0.351
3-9600	3-9770	0.309	135.6	28.2	4.52	0.793	116.8	0.451	1.618	244.2	410.0	0.869	---	-2.90	1.176	105.0	36.0	4.4	0.352
3-9600	3-9780	0.310	147.9	40.5	11.01	0.769	115.1	0.427	1.525	238.5	414.1	0.873	---	-6.33	1.162	105.5	45.9	-11.9	0.388
3-9600	3-9790	0.260	135.9	1.9	-5.52	0.746	113.4	0.409	1.450	232.8	418.4	0.857	---	7.26	1.150	106.0	37	38.0	0.372
3-9600	3-9800	0.226	143.7	12.1	-0.84	0.725	111.5	0.394	1.388	226.9	422.5	0.841	---	2.65	1.139	106.5	514	27.2	0.351
3-9600	3-9810	0.203	150.5	15.1	-0.22	0.706	109.5	0.384	1.336	221.0	426.6	0.824	---	1.65	1.129	107.0	60.4	25.8	0.351

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	V 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL
3-9600	3-9820	0.183	158.1	12.2	0.72	0.488	107.3	0.376	1.293	215.0	430.6	0.806	---
3-9600	3-9830	0.165	167.0	10.1	1.02	0.671	105.0	0.373	1.256	209.0	434.9	0.787	---
3-9600	3-9840	0.152	177.5	8.8	1.23	0.656	102.6	0.373	1.224	203.1	439.1	0.767	---
3-9600	3-9850	0.145	189.6	2.4	1.39	0.641	99.9	0.377	1.196	197.1	443.4	0.745	---
3-9600	3-9860	0.145	202.6	-2.6	1.53	0.627	96.9	0.385	1.172	191.3	447.7	0.721	---
3-9600	3-9870	0.155	215.6	-7.5	1.66	0.615	93.7	0.398	1.151	185.6	452.2	0.693	---
3-9600	3-9880	0.175	227.4	-11.7	1.79	0.603	90.0	0.417	1.132	180.0	456.8	0.661	---
3-9600	3-9890	0.204	237.4	-14.8	1.92	0.592	85.8	0.442	1.116	174.7	461.7	0.622	1.610
3-9600	3-9900	0.245	245.4	-17.1	2.07	0.582	81.0	0.477	1.101	169.8	466.9	0.576	1.627
3-9600	3-9910	0.297	251.5	-18.7	2.25	0.573	75.1	0.525	1.089	165.6	472.7	0.517	1.660
3-9600	3-9920	0.366	255.7	-19.8	2.48	0.565	67.8	0.589	1.078	162.3	479.5	0.443	1.713
3-9600	3-9930	0.457	258.0	-20.6	2.81	0.559	58.4	0.675	1.070	160.7	487.8	0.348	1.792
3-9600	3-9940	0.579	257.9	-21.2	3.40	0.555	45.8	0.786	1.065	161.7	498.8	0.228	1.902
3-9600	3-9980	0.584	213.6	-14.8	-0.73	0.195	77.7	0.942	0.827	179.2	555.6	0.048	1.606
3-9600	3-9986	0.558	186.4	-3.2	-0.73	0.366	133.8	0.895	0.899	186.9	563.2	0.095	1.702
3-9600	4- 90	0.571	280.0	-21.5	2.15	0.754	50.4	0.641	1.474	135.6	257.3	---	2.419
3-9600	4- 100	0.543	281.8	-20.9	2.33	0.760	52.8	0.607	1.496	132.6	264.0	---	2.403
3-9600	4- 110	0.518	283.5	-20.2	2.59	0.766	55.0	0.575	1.516	129.7	270.8	---	2.387
3-9600	4- 120	0.495	285.1	-19.3	2.98	0.771	57.1	0.545	1.534	127.0	277.8	---	2.370
3-9600	4- 130	0.474	286.4	-17.8	3.73	0.776	58.9	0.518	1.550	124.4	285.0	---	2.353
3-9600	4- 140	0.458	287.0	-14.2	5.94	0.780	60.5	0.492	1.565	122.0	292.4	---	2.336
3-9600	4- 160	0.418	291.7	-26.2	-2.19	0.786	63.3	0.450	1.590	117.7	308.1	---	2.304
3-9600	4- 170	0.404	292.2	-22.8	-0.21	0.788	64.4	0.432	1.599	116.0	316.4	---	2.291
3-9600	4- 180	0.393	292.9	-21.4	0.49	0.790	65.3	0.418	1.607	114.5	324.9	---	2.279
3-9600	4- 190	0.384	293.4	-20.5	0.87	0.792	66.0	0.407	1.613	113.3	333.8	---	2.269
3-9600	4- 200	0.378	293.8	-20.0	1.12	0.793	66.5	0.399	1.618	112.4	343.1	---	2.263
3-9600	4- 210	0.375	294.0	-19.5	1.31	0.794	66.8	0.395	1.621	111.8	352.7	---	2.261
3-9600	4- 220	0.375	294.1	-19.2	1.46	0.794	66.8	0.394	1.623	111.6	362.7	0.983	2.264
3-9600	4- 230	0.379	293.9	-19.0	1.60	0.795	66.5	0.399	1.625	111.9	373.1	0.971	2.273
3-9600	4- 240	0.387	293.4	-18.9	1.72	0.795	65.8	0.410	1.625	112.5	384.0	0.959	2.290
3-9600	4- 240	0.250	177.2	5.5	1.72	0.591	109.3	0.531	1.114	199.2	830.6	0.522	1.705
3-9600	4- 240	0.414	159.6	11.1	1.72	0.636	127.0	0.664	1.187	208.0	839.4	0.398	1.975
3-9600	4- 250	0.402	292.6	-19.0	1.85	0.794	64.7	0.427	1.624	113.8	395.4	0.931	2.318
3-9600	4- 250	0.207	201.3	-3.7	1.85	0.569	98.6	0.499	1.083	188.9	830.5	0.542	1.623
3-9600	4- 250	0.539	157.4	11.4	1.85	0.663	137.8	0.767	1.240	207.3	848.9	0.289	2.190
3-9600	4- 260	0.484	291.5	-19.1	1.99	0.794	63.0	0.454	1.623	115.6	407.4	0.887	2.359
3-9600	4- 260	0.217	220.9	-10.9	1.99	0.556	90.9	0.504	1.066	180.8	832.6	0.529	1.604
3-9600	4- 270	0.456	289.9	-19.4	2.15	0.794	60.6	0.492	1.622	118.3	420.2	0.824	2.419
3-9600	4- 270	0.255	235.6	-15.5	2.15	0.547	83.4	0.529	1.055	174.1	835.9	0.491	1.614
3-9600	4- 280	0.503	287.7	-19.8	2.35	0.794	57.0	0.545	1.620	122.8	434.1	0.737	2.504
3-9600	4- 280	0.313	245.7	-18.1	2.35	0.540	75.4	0.574	1.047	168.6	840.5	0.446	1.647
3-9600	4- 290	0.570	284.5	-20.4	2.62	0.793	51.7	0.619	1.619	127.6	449.5	0.616	2.622
3-9600	4- 290	0.392	252.0	-19.6	2.62	0.534	66.1	0.640	1.040	164.6	846.6	0.375	1.706
3-9600	4- 300	0.497	255.0	-20.6	3.04	0.831	54.5	0.732	1.036	163.1	855.0	0.277	1.794
3-9600	4- 350	0.483	179.8	-0.0	-0.16	0.496	130.3	0.828	0.956	191.0	932.0	0.164	1.747
3-9600	4- 360	0.500	143.6	15.4	0.50	0.775	132.2	0.673	1.549	225.5	616.1	0.507	2.591
3-9600	4- 360	0.553	234.6	-19.7	0.50	0.348	53.7	0.878	0.889	175.9	924.5	0.108	1.669
3-9600	4- 360	0.373	193.3	-4.4	0.50	0.439	111.8	0.741	0.949	188.3	938.8	0.296	1.652
3-9600	4- 370	0.408	140.1	17.3	0.86	0.775	125.1	0.575	1.548	232.0	632.2	0.657	2.439
3-9600	4- 380	0.344	137.8	18.9	1.10	0.775	120.1	0.503	1.547	236.2	646.0	0.769	2.325
3-9600	4- 390	0.298	136.2	20.2	1.28	0.774	116.6	0.450	1.545	239.0	658.3	0.850	2.239
3-9600	4- 400	0.265	135.2	21.4	1.43	0.774	114.1	0.410	1.543	240.8	669.7	0.910	2.176
3-9610	3-9670	0.814	109.2	24.6	1.49	1.303	130.6	1.449	2.262	292.8	357.4	---	---
3-9610	3-9680	0.733	111.1	24.6	1.60	1.223	129.3	1.245	2.143	290.2	364.3	1.015	---
3-9610	3-9690	0.669	113.3	24.6	1.70	1.158	128.2	1.086	11.724	287.0	370.7	1.007	---
3-9610	3-9700	0.614	115.7	24.4	1.79	1.101	127.3	0.957	23.284	283.4	376.6	0.995	---
3-9610	3-9710	0.566	118.2	24.3	1.89	1.050	126.4	0.850	6.549	279.3	382.1	0.980	---
3-9610	3-9720	0.522	120.9	24.1	1.99	1.004	125.5	0.761	4.036	274.9	387.3	0.968	---
3-9610	3-9730	0.482	123.6	23.9	2.12	0.961	124.4	0.686	3.020	270.2	392.2	0.947	---
3-9610	3-9740	0.444	126.5	23.7	2.27	0.922	123.2	0.624	2.472	265.2	396.9	0.930	---
3-9610	3-9750	0.408	129.6	23.7	2.47	0.886	122.0	0.571	2.130	260.0	401.4	0.914	---
3-9610	3-9760	0.375	132.9	23.8	2.80	0.853	120.6	0.527	1.898	254.6	405.8	0.898	---
3-9610	3-9770	0.343	136.8	24.5	3.42	0.823	119.0	0.490	1.730	249.1	410.1	0.882	---
3-9610	3-9780	0.317	142.4	27.8	5.32	0.795	117.4	0.460	1.604	243.4	414.3	0.866	---
3-9610	3-9790	0.487	138.5	-35.0	-31.54	0.769	115.7	0.436	1.507	237.5	418.5	0.850	---
3-9610	3-9800	0.254	144.9	10.9	-1.20	0.745	113.7	0.416	1.429	231.6	422.6	0.835	---
3-9610	3-9810	0.227	151.4	12.9	0.27	0.723	111.7	0.401	1.367	225.6	426.6	0.819	---
3-9610	3-9820	0.204	158.2	12.2	0.81	0.703	109.6	0.390	1.315	219.6	430.6	0.802	---
3-9610	3-9830	0.184	166.0	10.5	1.11	0.685	107.3	0.383	1.271	213.6	434.7	0.785	---
3-9610	3-9840	0.167	175.3	7.6	1.30	0.667	104.8	0.380	1.235	207.5	438.8	0.766	---
3-9610	3-9850	0.155	186.2	3.8	1.45	0.651	102.2	0.380	1.204	201.5	443.0	0.746	---
3-9610	3-9860	0.150	198.7	-0.9	1.57	0.636	99.3	0.385	1.177	195.5	447.2	0.723	---
3-9610	3-9870	0.153	211.8	-6.0	1.68	0.623	96.1	0.395	1.153	189.6	451.5	0.698	---
3-9610	3-9880	0.167	224.5	-10.5	1.78	0.610	92.7	0.409	1.133	183.8	455.9	0.669	---
3-9610	3-9890	0.191	235.8	-14.1	1.88	0.598	88.7	0.430	1.115	178.3	460.5	0.635	1.594
3-9610	3-9900	0.225	245.2	-16.7	1.99	0.587	84.2	0.459	1.099	173.1	465.4	0.594	1.604
3-9610	3-9910	0.271	252.6	-18.5	2.12	0.577	78.8	0.499	1.085	168.3	470.7	0.543	1.627
3-9610	3-9920	0.331	258.1	-19.8	2.28	0.569	72.2	0.553	1.073	164.3	476.8	0.479	1.667
3-9610	3-9930	0.410	261.6	-20.7	2.50	0.561	63.9	0.627	1.064	161.6	484.0	0.397	1.731
3-9610	3-9940	0.516	263.0	-21.4	2.85	0.556	53.0	0.726	1.057	161.0	493.4	0.290	1.824

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9600	3-9820	1.22	1.119	107.5	69.0	25.8	0.353
3-9600	3-9830	0.99	1.111	108.2	77.7	25.9	0.397
3-9600	3-9840	0.86	1.102	108.9	86.5	25.9	0.364
3-9600	3-9850	0.78	1.094	109.7	95.4	25.5	0.373
3-9600	3-9860	0.73	1.087	110.8	104.2	24.7	0.385
3-9600	3-9870	0.71	1.079	112.0	112.9	23.6	0.401
3-9600	3-9880	0.72	1.072	113.5	121.4	22.0	0.423
3-9600	3-9890	0.75	1.064	115.4	129.6	20.1	0.452
3-9600	3-9900	0.80	1.057	117.9	137.4	18.0	0.491
3-9600	3-9910	0.89	1.050	121.3	144.6	15.6	0.544
3-9600	3-9920	1.05	1.044	125.8	151.3	13.3	0.618
3-9600	3-9930	1.32	1.038	132.3	156.9	11.3	0.723
3-9600	3-9940	1.83	1.033	141.7	161.3	9.4	0.873
3-9600	3-9980	-2.54	0.890	20.2	81.6	22.5	1.087
3-9600	3-9986	-2.54	0.933	26.7	75.9	21.8	1.023
3-9600	4- 90	-0.84	1.140	54.0	155.5	8.9	0.662
3-9600	4- 100	-0.95	1.146	57.2	161.5	6.2	0.608
3-9600	4- 110	-1.13	1.152	60.3	167.2	3.3	0.556
3-9600	4- 120	-1.46	1.158	63.3	172.5	0.0	0.506
3-9600	4- 130	-2.14	1.163	66.2	177.2	-4.2	0.459
3-9600	4- 140	-4.29	1.168	69.0	180.0	-12.3	0.419
3-9600	4- 160	3.97	1.177	74.5	198.5	6.9	0.333
3-9600	4- 170	2.05	1.181	77.2	199.1	0.8	0.298
3-9600	4- 180	1.41	1.184	79.9	200.1	-1.4	0.251
3-9600	4- 190	1.10	1.187	82.5	199.7	-1.9	0.219
3-9600	4- 200	0.92	1.189	85.2	196.9	-1.1	0.194
3-9600	4- 210	0.82	1.190	87.9	191.4	1.0	0.178
3-9600	4- 220	0.75	1.191	90.8	183.9	3.9	0.175
3-9600	4- 230	0.72	1.191	93.7	176.3	6.6	0.188
3-9600	4- 240	0.71	1.191	96.9	170.6	8.3	0.216
3-9600	4- 240	0.71	1.065	121.4	108.6	23.5	0.562
3-9600	4- 240	0.71	1.091	130.7	104.3	23.6	0.731
3-9600	4- 250	0.73	1.190	100.4	167.4	9.0	0.259
3-9600	4- 250	0.73	1.062	119.5	119.5	22.0	0.521
3-9600	4- 250	0.73	1.106	139.0	110.6	22.7	0.877
3-9600	4- 260	0.73	1.188	104.3	166.5	8.8	0.316
3-9600	4- 260	0.77	1.044	120.0	129.0	20.0	0.524
3-9600	4- 270	0.84	1.186	108.9	167.1	8.2	0.389
3-9600	4- 270	0.84	1.037	121.8	137.7	17.7	0.550
3-9600	4- 280	0.96	1.184	114.5	168.5	7.3	0.483
3-9600	4- 280	0.96	1.031	124.9	145.5	15.2	0.599
3-9600	4- 290	1.16	1.182	121.6	170.1	6.3	0.605
3-9600	4- 290	1.16	1.026	129.7	152.4	12.8	0.676
3-9600	4- 300	1.51	1.021	137.0	158.0	10.7	0.794
3-9600	4- 350	-2.00	0.967	34.1	75.3	21.6	0.929
3-9600	4- 360	-1.40	1.154	52.1	61.7	19.1	0.725
3-9600	4- 360	-1.40	0.923	28.9	90.7	22.8	0.984
3-9600	4- 360	-1.40	0.961	42.3	81.9	22.1	0.850
3-9600	4- 370	-1.11	1.152	60.6	63.5	19.2	0.575
3-9600	4- 380	-0.93	1.151	67.0	65.7	19.4	0.469
3-9600	4- 390	-0.83	1.149	71.9	67.9	19.5	0.378
3-9600	4- 400	-0.76	1.149	75.9	69.3	19.3	0.310
3-9610	3-9670	-0.63	1.552	88.5	10.2	2.5	0.570
3-9610	3-9680	-0.59	1.486	92.4	8.3	1.7	0.506
3-9610	3-9690	-0.57	1.433	95.6	7.2	1.2	0.465
3-9610	3-9700	-0.57	1.388	98.1	7.2	1.2	0.439
3-9610	3-9710	-0.58	1.349	100.1	8.4	1.6	0.422
3-9610	3-9720	-0.62	1.314	101.8	10.6	2.5	0.409
3-9610	3-9730	-0.67	1.284	103.0	13.9	3.7	0.400
3-9610	3-9740	-0.76	1.257	104.0	18.0	5.1	0.392
3-9610	3-9750	-0.91	1.233	104.8	22.8	6.5	0.386
3-9610	3-9760	-1.18	1.212	105.4	28.4	7.8	0.380
3-9610	3-9770	-1.75	1.193	106.0	34.8	8.3	0.376
3-9610	3-9780	-3.61	1.176	106.4	42.6	5.0	0.378
3-9610	3-9790	33.30	1.161	106.9	339.0	59.1	0.709
3-9610	3-9800	3.02	1.148	107.2	51.2	28.0	0.369
3-9610	3-9810	1.60	1.136	107.6	60.6	25.5	0.365
3-9610	3-9820	1.11	1.125	108.0	69.2	25.4	0.364
3-9610	3-9830	0.87	1.115	108.5	78.0	25.5	0.366
3-9610	3-9840	0.73	1.106	109.1	86.8	25.5	0.369
3-9610	3-9850	0.65	1.097	109.8	95.6	25.1	0.375
3-9610	3-9860	0.60	1.088	110.7	104.5	24.4	0.384
3-9610	3-9870	0.58	1.080	111.7	113.2	23.2	0.397
3-9610	3-9880	0.57	1.072	113.0	121.8	21.6	0.414
3-9610	3-9890	0.58	1.064	114.7	130.1	19.7	0.438
3-9610	3-9900	0.62	1.056	116.8	138.0	17.5	0.470
3-9610	3-9910	0.67	1.049	119.6	145.5	15.1	0.514
3-9610	3-9920	0.77	1.042	123.4	152.4	12.6	0.575
3-9610	3-9930	0.93	1.035	128.7	158.6	10.2	0.661
3-9610	3-9940	1.23	1.029	136.4	163.7	8.2	0.786

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9610	3-9990	0.513	216.2	-14.6	0.30	0.261	92.8	0.891	0.843	180.3	561.0	0.091	1.594	-1.57	0.890	27.5	88.2	22.8	0.989
3-9610	3-9990	0.476	200.5	-8.7	0.30	0.340	116.6	0.856	0.877	184.9	566.2	0.126	1.629	-1.57	0.916	31.5	85.0	22.6	0.944
3-9610	4- 90	0.590	284.1	-21.3	2.05	0.753	49.3	0.656	1.454	137.0	254.0	---	2.408	-0.64	1.136	52.4	157.2	8.6	0.687
3-9610	4- 100	0.561	286.0	-20.8	2.18	0.760	51.8	0.621	1.476	133.9	260.4	---	2.394	-0.71	1.142	55.7	163.2	6.0	0.632
3-9610	4- 110	0.534	287.7	-20.2	2.36	0.766	54.1	0.588	1.497	131.0	267.3	---	2.378	-0.82	1.148	58.8	169.1	3.2	0.579
3-9610	4- 120	0.510	289.3	-19.5	2.61	0.772	56.2	0.557	1.516	128.1	274.2	---	2.361	-1.02	1.154	61.9	174.6	0.2	0.529
3-9610	4- 130	0.487	290.7	-18.5	3.03	0.777	58.2	0.529	1.534	125.4	281.3	---	2.344	-1.35	1.160	64.8	179.8	-3.2	0.480
3-9610	4- 140	0.467	291.8	-16.6	4.00	0.781	59.9	0.502	1.549	122.9	288.9	---	2.327	-2.31	1.165	67.7	184.1	-8.0	0.434
3-9610	4- 150	0.461	290.9	-8.6	9.18	0.784	61.4	0.478	1.563	120.6	296.2	---	2.311	-7.44	1.170	70.5	184.0	-24.0	0.411
3-9610	4- 160	0.431	296.5	-28.4	-4.02	0.788	62.8	0.457	1.575	118.4	304.1	---	2.295	5.81	1.175	73.2	203.5	10.0	0.381
3-9610	4- 170	0.414	296.7	-22.2	-0.28	0.790	64.0	0.438	1.586	116.5	312.2	---	2.280	2.11	1.179	75.9	202.4	-0.9	0.306
3-9610	4- 180	0.401	297.3	-20.5	0.58	0.792	65.0	0.422	1.594	114.9	320.6	---	2.267	1.31	1.182	78.6	204.0	-3.9	0.267
3-9610	4- 190	0.391	297.9	-19.6	0.97	0.794	65.8	0.409	1.601	113.5	329.3	---	2.257	0.97	1.185	81.2	204.6	-5.0	0.233
3-9610	4- 200	0.383	298.4	-19.0	1.21	0.795	66.5	0.399	1.607	112.4	338.4	---	2.249	0.79	1.187	83.9	203.2	-4.8	0.204
3-9610	4- 210	0.378	298.7	-18.6	1.38	0.796	66.9	0.393	1.611	111.7	347.8	---	2.244	0.69	1.186	86.6	199.2	-3.3	0.183
3-9610	4- 220	0.377	298.8	-18.3	1.51	0.797	67.0	0.391	1.614	111.3	357.6	---	2.248	0.62	1.189	89.3	192.5	-0.7	0.173
3-9610	4- 230	0.379	298.7	-18.1	1.62	0.798	66.9	0.393	1.615	111.3	367.8	0.981	2.250	0.59	1.189	92.2	184.7	[illegible]	0.178
3-9610	4- 240	0.385	298.4	-18.0	1.73	0.798	66.4	0.400	1.616	111.7	378.4	0.969	2.263	0.57	1.189	95.2	177.9	[illegible]	0.198
3-9610	4- 250	0.396	297.9	-18.1	1.83	0.798	65.6	0.414	1.616	112.7	389.5	0.947	2.284	0.57	1.188	98.5	173.4	0.0	0.233
3-9610	4- 250	0.219	194.9	-1.4	1.83	0.589	103.3	0.506	1.089	193.7	830.6	0.537	1.640	0.57	1.055	120.0	119.4	21.7	0.530
3-9610	4- 250	0.487	162.7	9.5	1.83	0.655	133.3	0.724	1.210	208.1	845.0	0.334	2.087	0.57	1.098	135.4	112.4	22.4	0.812
3-9610	4- 260	0.414	297.0	-18.2	1.93	0.797	54.2	0.435	1.615	114.2	401.2	0.912	2.318	0.60	1.187	102.2	171.5	6.4	0.282
3-9610	4- 260	0.210	216.7	-9.4	1.93	0.564	96.8	0.497	1.068	184.9	831.9	0.537	1.599	0.60	1.045	119.5	129.3	19.6	0.516
3-9610	4- 260	0.587	162.2	9.2	1.93	0.676	141.8	0.803	1.253	206.1	853.2	0.246	2.260	0.60	1.109	142.5	119.3	21.2	0.933
3-9610	4- 270	0.441	295.7	-18.5	2.05	0.797	62.2	0.467	1.614	116.4	413.6	0.861	2.367	0.64	1.195	106.4	171.3	6.0	0.346
3-9610	4- 270	0.236	233.9	-14.8	2.05	0.554	87.3	0.513	1.055	177.5	334.6	0.514	1.595	0.64	1.037	120.6	138.?	17.2	0.530
3-9610	4- 280	0.480	293.9	-19.0	2.19	0.797	59.2	0.512	1.613	119.7	426.8	0.787	2.438	0.71	1.183	111.4	172.4	5.3	0.428
3-9610	4- 280	0.285	246.2	-18.0	2.19	0.546	79.7	0.546	1.045	171.2	838.4	0.474	1.616	0.71	1.031	123.0	146.4	14.7	0.567
3-9610	4- 290	0.535	291.3	-19.6	2.38	0.797	54.9	0.575	1.611	124.2	441.4	0.685	2.538	0.84	1.180	117.6	174.0	4.4	0.534
3-9610	4- 290	0.353	254.4	-19.7	2.38	0.540	71.2	0.601	1.038	166.4	843.6	0.414	1.661	0.84	1.025	126.9	153.7	12.1	0.628
3-9610	4- 300	0.444	259.0	-20.8	2.64	0.535	60.9	0.680	1.032	163.4	850.6	0.330	1.734	1.05	1.020	132.8	159.9	9.7	0.723
3-9610	4- 310	0.567	260.4	-21.5	3.11	0.532	47.7	0.786	1.029	163.4	860.5	0.220	1.838	1.46	1.015	141.8	164.6	7.7	0.866
3-9610	4- 350	0.555	182.1	-1.1	-0.20	0.454	139.7	0.878	0.953	190.6	926.8	0.116	1.798	-2.04	0.965	28.7	78.2	22.1	1.010
3-9610	4- 360	0.553	150.5	12.9	0.58	0.779	138.4	0.725	1.542	221.8	607.6	0.425	2.659	-1.31	1.153	47.2	65.8	20.2	0.808
3-9610	4- 360	0.418	189.2	-3.5	0.58	0.449	120.5	0.774	0.949	190.4	930.3	0.214	1.684	-1.31	0.961	39.4	83.3	22.4	0.845
3-9610	4- 370	0.443	146.5	15.2	0.96	0.779	127.8	0.614	1.542	229.7	625.2	0.595	2.489	-0.98	1.151	57.2	67.1	20.3	0.634
3-9610	4- 370	0.494	238.5	-20.1	0.96	0.372	63.5	0.828	0.896	173.9	929.3	0.154	1.637	-0.98	0.926	34.5	98.3	22.7	0.901
3-9610	4- 370	0.346	207.5	-10.3	0.96	0.435	101.4	0.713	0.938	184.7	940.1	0.269	1.607	-0.98	0.952	44.7	91.7	22.6	0.756
3-9610	4- 380	0.367	143.9	17.0	1.19	0.779	122.0	0.530	1.541	234.9	639.9	0.724	2.358	-0.81	1.150	64.4	69.1	20.4	0.506
3-9610	4- 390	0.313	142.1	18.4	1.35	0.778	117.9	0.469	1.539	238.3	652.9	0.818	2.261	-0.70	1.148	69.9	71.4	20.5	0.410
3-9610	4- 400	0.274	140.9	19.7	1.48	0.778	115.0	0.424	1.537	240.5	664.7	0.886	2.189	-0.63	1.148	74.3	73.2	20.4	0.335
3-9610	4- 410	0.247	140.2	20.8	1.59	0.777	112.9	0.391	1.536	242.0	675.6	0.935	2.136	-0.59	1.147	77.9	73.9	20.2	0.276
3-9620	3-9690	0.786	115.4	24.1	1.72	1.279	130.2	1.375-2.685		291.8	370.6	1.006	---	-0.43	1.530	96.2	7.5	2.0	0.563
3-9620	3-9700	0.713	118.0	23.8	1.79	1.202	129.3	1.179-5.551		288.1	376.5	0.993	---	-0.42	1.466	99.0	7.6	2.0	0.520
3-9620	3-9710	0.650	120.7	23.5	1.86	1.135	128.5	1.02441.154		284.3	382.1	0.977	---	-0.42	1.413	101.2	8.7	2.4	0.490
3-9620	3-9720	0.596	123.5	23.2	1.93	1.077	127.6	0.899	9.536	279.7	387.3	0.959	---	-0.44	1.368	102.9	10.8	3.3	0.469
3-9620	3-9730	0.547	126.3	22.9	2.02	1.024	126.6	0.797	4.640	275.0	392.2	0.941	---	-0.47	1.328	104.2	14.0	4.5	0.452
3-9620	3-9740	0.502	129.2	22.5	2.12	0.976	125.5	0.713	3.218	270.0	396.9	0.924	---	-0.53	1.294	105.2	18.0	6.0	0.438
3-9620	3-9750	0.460	132.2	22.2	2.25	0.933	124.2	0.643	2.543	264.8	401.4	0.907	---	-0.61	1.263	106.0	22.7	7.6	0.426
3-9620	3-9760	0.421	135.3	21.9	2.43	0.894	122.8	0.586	2.151	259.4	405.8	0.890	---	-0.76	1.237	106.6	28.2	9.3	0.415
3-9620	3-9770	0.384	138.8	21.9	2.76	0.858	121.3	0.539	1.895	253.8	410.1	0.874	---	-1.04	1.214	107.1	34.3	10.6	0.406
3-9620	3-9780	0.350	142.9	22.6	3.50	0.825	119.7	0.500	1.717	248.1	414.2	0.859	---	-1.75	1.193	107.4	41.2	10.7	0.399
3-9620	3-9790	0.331	151.4	30.2	7.89	0.796	117.9	0.468	1.585	242.3	418.3	0.844	---	-6.10	1.175	107.7	50.4	0.9	0.407
3-9620	3-9800	0.285	146.1	8.4	-2.15	0.768	116.0	0.442	1.485	236.3	422.4	0.828	---	3.97	1.159	108.0	50.6	30.1	0.392
3-9620	3-9810	0.255	152.7	12.9	0.35	0.784	114.0	0.422	1.407	230.3	426.4	0.813	---	1.51	1.145	108.3	60.8	25.1	0.381
3-9620	3-9820	0.229	158.8	12.1	0.95	0.721	111.8	0.407	1.344	224.3	430.5	0.797	---	0.95	1.132	108.6	69.5	24.8	0.378
3-9620	3-9830	0.205	165.7	10.6	1.23	0.700	109.5	0.396	1.292	218.1	434.5	0.781	---	0.71	1.121	109.0	78.2	25.0	0.377
3-9620	3-9840	0.185	173.9	8.1	1.40	0.681	107.1	0.389	1.250	212.0	438.5	0.764	---	0.58	1.110	109.5	87.0	25.0	0.377
3-9620	3-9850	0.168	183.6	4.8	1.53	0.663	104.5	0.386	1.214	205.9	442.6	0.745	---	0.50	1.100	110.0	95.9	24.7	0.380
3-9620	3-9860	0.158	195.0	0.5	1.62	0.647	101.7	0.388	1.183	199.8	446.7	0.725	---	0.46	1.090	110.7	104.7	24.0	0.386
3-9620	3-9870	0.156	207.7	-4.3	1.71	0.632	98.6	0.393	1.157	195.8	450.9	0.702	---	0.43	1.081	111.6	113.5	22.8	0.395
3-9620	3-9880	0.163	220.8	-9.1	1.78	0.618	95.3	0.404	1.134	187.9	455.1	0.676	---	0.42	1.072	112.7	122.1	21.2	0.408
3-9620	3-9890	0.180	233.3	-13.2	1.86	0.605	91.5	0.421	1.114	182.1	459.5	0.646	---	0.42	1.064	114.0	130.5	19.3	0.427
3-9620	3-9900	0.208	244.1	-16.2	1.93	0.594	87.3	0.444	1.097	176.6	464.1	0.610	1.585	0.44	1.056	115.8	138.5	17.0	0.453
3-9620	3-9910	0.247	252.9	-18.3	2.02	0.583	82.3	0.477	1.082	171.4	469.0	0.565	1.599	0.47	1.047	118.1	146.2	14.5	0.489
3-9620	3-9920	0.299	259.7	-19.7	2.13	0.573	76.4	0.523	1.069	166.8	474.5	0.510	1.628	0.53	1.040	121.3	153.3	11.9	0.539
3-9620	3-9930	0.368	264.5	-20.6	2.26	0.565	69.0	0.585	1.058	163.2	480.9	0.439	1.677	0.62	1.033	125.7	159.9	9.4	0.610
3-9620	3-9940	0.459	267.3	-21.4	2.46	0.558	59.5	0.670	1.050	161.2	488.8	0.346	1.753	0.78	1.026	132.0	165.6	7.1	0.712
3-9620	3-9950	0.583	267.7	-22.0	2.81	0.554	46.7	0.782	1.045	162.0	499.4	0.228	1.861	1.10	1.021	141.4	169.9	5.2	0.861
3-9620	3-9990	0.584	224.6	-17.2	0.38	0.202	82.0	0.937	0.818	179.5	555.9	0.052	1.584	-1.48	0.869	21.1	92.1	23.0	1.066
3-9620	3-9990	0.535	197.9	-7.6	0.38	0.358	131.2	0.891	0.880	186.5	562.9	0.096	1.665	-1.48	0.918	27.3	86.8	22.8	1.005
3-9620	4- 100	0.579	290.1	-20.6	2.06	0.760	50.7	0.637	1.457	135.3	257.1	---	2.384	-0.49	1.138	54.1	164.9	5.7	0.657
3-9620	4- 110	0.552	291.9	-20.0	2.17	0.766	53.1	0.603	1.478	132.3	263.8	---	2.369	-0.56	1.145	57.3	170.9	3.0	0.603
3-9620	4- 120	0.526	293.5	-19.4	2.33	0.772	55.3	0.571	1.498	129.3	270.6	---	2.353	-0.67	1.151	60.4	176.6	0.1	0.552
3-9620	4- 130	0.502	295.0	-18.6	2.56	0.777	57.4	0.541	1.516	126.6	277.6	---	2.336	-0.87	1.157	63.4	182.1	-2.9	0.502
3-9620	4- 140	0.480	296.3	-17.5	3.02	0.782	59.2	0.513	1.533	123.9	284.8	---	2.319	-1.29	1.162	66.3	187.2	-6.4	0.455
3-9620	4- 150	0.462	297.0	-15.0	4.40	0.786	60.8	0.488	1.548	121.5	292.3	---	2.302	-2.64	1.167	69.2	190.9	-12.3	0.411
3-9620	4- 160	0.549	298.8	-55.7	-25.81	0.789	62.3	0.464	1.561	119.2	300.1	---	2.285	27.62	1.172	71.9	237.1	38.1	0.623
3-9620	4- 170	0.424	301.1	-21.5	-0.39	0.792	63.6	0.444	1.572	117.2	308.0	---	2.271	2.24	1.176	74.6	205.5	-2.2	0.326
3-9620	4- 180	0.410	301.7	-19.5	0.70	0.795	64.7	0.427	1.581	115.4	316.3	---	2.257	1.18	1.180	77.3	207.5	-6.2	0.285

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9620	4- 190	0.398	302.3	-18.6	1.10	0.797	65.6	0.412	1.589	113.8	324.8	---	2.245	0.02	1.183	79.9	269.1	-7.8	0.249
3-9620	4- 200	0.389	302.6	-18.0	1.32	0.798	66.4	0.401	1.596	112.6	333.7	---	2.235	0.04	1.185	82.6	269.0	-8.2	0.217
3-9620	4- 210	0.383	303.2	-17.5	1.47	0.799	66.9	0.393	1.600	111.6	343.0	---	2.229	0.04	1.187	85.2	268.4	-7.4	0.192
3-9620	4- 220	0.379	303.5	-17.2	1.57	0.800	67.2	0.388	1.604	111.0	352.5	---	2.226	0.48	1.188	87.9	201.1	-5.4	0.175
3-9620	4- 230	0.379	303.5	-17.0	1.66	0.801	67.2	0.388	1.606	110.8	362.5	0.983	2.229	0.44	1.188	90.7	193.6	-2.5	0.172
3-9620	4- 240	0.383	303.4	-16.9	1.74	0.801	66.9	0.392	1.607	111.0	372.9	0.977	2.237	0.42	1.188	93.6	186.0	0.4	0.183
3-9620	4- 250	0.391	303.0	-17.0	1.82	0.801	66.3	0.402	1.607	111.7	383.7	0.961	2.254	0.42	1.187	96.7	180.2	2.5	0.210
3-9620	4- 250	0.253	187.1	1.3	1.82	0.597	109.5	0.330	1.102	199.6	831.6	0.518	1.686	0.42	1.060	121.5	118.9	21.5	0.557
3-9620	4- 250	0.417	169.3	7.2	1.82	0.642	127.2	0.665	1.174	208.2	840.3	0.393	1.955	0.42	1.086	130.8	114.7	22.0	0.729
3-9620	4- 260	0.400	302.3	-17.1	1.89	0.801	65.2	0.419	1.607	112.9	395.1	0.934	2.281	0.43	1.185	100.2	177.0	3.5	0.252
3-9620	4- 260	0.211	211.2	-7.5	1.89	0.575	98.9	0.496	1.071	189.3	831.5	0.539	1.603	0.43	1.046	119.4	129.4	19.3	0.515
3-9620	4- 260	0.542	167.0	7.4	1.89	0.670	138.0	0.768	1.227	207.4	849.6	0.285	2.169	0.43	1.101	139.2	120.9	20.8	0.875
3-9620	4- 270	0.427	301.3	-17.4	1.97	0.801	63.6	0.495	1.606	114.7	407.0	0.891	2.321	0.45	1.184	104.0	176.0	3.6	0.307
3-9620	4- 270	0.223	230.9	-13.9	1.97	0.562	91.2	0.500	1.055	181.2	833.5	0.527	1.583	0.45	1.037	119.8	138.7	16.8	0.516
3-9620	4- 280	0.460	299.8	-17.9	2.07	0.800	61.2	0.483	1.605	117.4	419.8	0.830	2.379	0.50	1.182	108.6	176.5	3.1	0.379
3-9620	4- 280	0.260	245.7	-17.6	2.07	0.553	83.8	0.524	1.044	174.3	836.7	0.497	1.591	0.50	1.030	121.5	147.1	14.1	0.540
3-9620	4- 290	0.506	297.7	-18.5	2.19	0.800	57.6	0.536	1.603	121.2	433.6	0.744	2.463	0.57	1.179	114.1	177.8	2.4	0.471
3-9620	4- 290	0.518	255.9	-19.7	2.19	0.546	75.9	0.567	1.036	168.7	841.1	0.448	1.623	0.57	1.024	124.5	154.7	11.4	0.588
3-9620	4- 300	0.573	294.8	-19.4	2.35	0.800	52.4	0.610	1.603	125.7	449.0	0.625	2.580	0.69	1.177	121.1	179.4	1.5	0.592
3-9620	4- 300	0.397	282.3	-20.9	2.35	0.541	66.6	0.633	1.029	164.6	847.0	0.378	1.681	0.69	1.018	129.2	161.5	8.7	0.664
3-9620	4- 310	0.504	265.5	-21.6	2.60	0.537	55.1	0.726	1.025	162.8	855.1	0.281	1.769	0.90	1.013	136.5	167.0	6.5	0.781
3-9620	4- 360	0.479	189.3	-3.5	0.71	0.457	129.4	0.818	0.948	191.4	932.5	0.172	1.724	-1.17	0.960	35.2	85.5	22.7	0.908
3-9620	4- 370	0.487	153.2	12.8	1.09	0.783	131.2	0.659	1.538	226.8	617.4	0.523	2.549	-0.82	1.150	53.1	70.9	21.2	0.704
3-9620	4- 370	0.567	245.9	-21.6	1.09	0.358	52.8	0.877	0.880	173.6	924.3	0.108	1.652	-0.82	0.915	29.1	101.5	22.6	0.974
3-9620	4- 370	0.371	201.5	-7.9	1.09	0.449	111.2	0.731	0.941	188.5	939.1	0.254	1.629	-0.82	0.955	43.2	92.2	22.7	0.780
3-9620	4- 380	0.396	150.0	14.8	1.30	0.783	124.2	0.563	1.535	233.2	633.4	0.671	2.399	-0.65	1.149	61.5	72.7	21.3	0.556
3-9620	4- 390	0.332	148.0	16.4	1.45	0.782	119.4	0.491	1.534	237.4	647.2	0.780	2.288	-0.55	1.147	67.7	74.9	21.4	0.447
3-9620	4- 400	0.287	146.6	17.8	1.55	0.782	116.0	0.439	1.532	240.2	659.5	0.859	2.205	-0.49	1.147	72.5	76.9	21.4	0.363
3-9620	4- 410	0.255	145.8	18.9	1.64	0.781	113.3	0.402	1.530	241.9	670.8	0.916	2.145	-0.45	1.146	76.5	78.1	21.3	0.298
3-9620	4- 420	0.232	145.3	19.9	1.72	0.781	111.9	0.375	1.529	243.1	681.5	0.956	2.102	-0.43	1.146	79.8	77.9	21.0	0.247
3-9630	3-9710	0.755	123.1	22.8	1.85	1.242	130.5	1.262	-3.721	288.6	381.7	0.974	---	-0.27	1.497	102.1	9.5	3.4	0.577
3-9630	3-9720	0.685	126.0	22.3	1.89	1.166	129.6	1.083	11.516	284.3	387.0	0.955	---	-0.27	1.436	104.0	11.5	4.2	0.542
3-9630	3-9730	0.625	129.0	21.8	1.94	1.100	128.7	0.941	35.948	279.6	391.9	0.936	---	-0.29	1.385	105.5	14.5	5.4	0.515
3-9630	3-9740	0.570	131.9	21.3	2.00	1.042	127.7	0.827	5.307	274.7	396.7	0.918	---	-0.31	1.340	106.5	18.3	6.9	0.493
3-9630	3-9750	0.520	134.9	20.8	2.07	0.989	126.5	0.735	3.391	269.5	401.2	0.900	---	-0.36	1.302	107.3	22.9	8.6	0.474
3-9630	3-9760	0.474	137.9	20.3	2.17	0.942	125.1	0.659	2.592	264.1	405.7	0.883	---	-0.41	1.269	107.9	28.2	10.4	0.457
3-9630	3-9770	0.431	141.1	19.9	2.32	0.900	123.6	0.598	2.156	258.6	409.9	0.866	---	-0.55	1.240	108.3	34.1	12.1	0.443
3-9630	3-9780	0.392	144.6	19.6	2.61	0.861	122.0	0.548	1.882	252.9	414.1	0.851	---	-0.83	1.215	108.6	40.7	13.5	0.430
3-9630	3-9790	0.356	149.0	20.5	3.55	0.827	120.2	0.507	1.696	247.0	418.2	0.836	---	-1.74	1.193	108.8	48.1	13.0	0.420
3-9630	3-9800	0.347	144.1	-8.7	-10.70	0.796	118.3	0.474	1.562	241.1	422.3	0.821	---	12.53	1.173	109.0	39.3	48.0	0.470
3-9630	3-9810	0.287	154.5	13.1	0.49	0.767	116.3	0.448	1.461	235.0	426.3	0.806	---	1.36	1.156	109.2	61.2	24.6	0.402
3-9630	3-9820	0.257	160.0	11.9	1.15	0.741	114.1	0.427	1.382	228.9	430.3	0.791	---	0.73	1.141	109.4	69.8	24.2	0.395
3-9630	3-9830	0.230	166.1	10.5	1.40	0.718	111.9	0.412	1.320	222.8	434.2	0.776	---	0.51	1.128	109.6	78.4	24.4	0.390
3-9630	3-9840	0.206	173.2	8.4	1.53	0.697	109.4	0.401	1.269	216.6	438.2	0.760	---	0.40	1.115	110.0	87.2	24.5	0.386
3-9630	3-9850	0.186	181.7	5.4	1.62	0.677	106.8	0.395	1.227	210.4	442.2	0.743	---	0.34	1.104	110.4	96.1	24.2	0.387
3-9630	3-9860	0.171	191.9	1.7	1.69	0.659	104.1	0.392	1.192	204.2	446.2	0.724	---	0.30	1.093	110.9	104.9	23.5	0.390
3-9630	3-9870	0.163	203.7	-2.8	1.75	0.643	101.1	0.395	1.163	198.1	450.3	0.704	---	0.28	1.083	111.6	113.7	22.4	0.395
3-9630	3-9880	0.163	216.7	-7.6	1.80	0.628	97.9	0.402	1.137	192.0	454.4	0.681	---	0.27	1.074	112.5	122.4	20.8	0.405
3-9630	3-9890	0.173	229.8	-12.0	1.84	0.614	94.3	0.414	1.115	186.1	458.6	0.654	---	0.27	1.064	113.3	130.8	18.8	0.419
3-9630	3-9900	0.195	241.8	-15.5	1.89	0.601	90.3	0.433	1.096	180.3	463.0	0.622	---	0.27	1.055	115.0	138.9	16.5	0.439
3-9630	3-9910	0.227	252.1	-17.9	1.94	0.589	85.7	0.459	1.080	174.9	467.6	0.584	1.576	0.29	1.047	117.0	146.7	14.0	0.468
3-9630	3-9920	0.271	260.4	-19.5	2.00	0.579	80.2	0.497	1.066	169.8	472.6	0.536	1.595	0.32	1.038	119.6	154.1	11.3	0.509
3-9630	3-9930	0.330	266.6	-20.5	2.08	0.569	73.6	0.549	1.053	165.5	478.3	0.475	1.632	0.36	1.030	123.2	161.0	8.6	0.566
3-9630	3-9940	0.409	270.8	-21.3	2.18	0.561	65.3	0.621	1.044	162.4	485.1	0.396	1.691	0.44	1.023	128.5	167.2	6.1	0.649
3-9630	3-9950	0.515	272.7	-21.9	2.34	0.555	54.2	0.719	1.036	161.4	494.0	0.292	1.781	0.58	1.017	135.9	172.3	3.9	0.771
3-9630	4- 0	0.507	223.4	-16.3	1.15	0.280	98.6	0.880	0.837	181.2	562.4	0.100	1.573	-0.73	0.883	29.1	98.4	22.9	0.962
3-9630	4- 0	0.484	214.7	-13.5	1.15	0.323	111.4	0.860	0.855	183.7	564.9	0.120	1.561	-0.73	0.898	31.3	96.6	22.9	0.936
3-9630	4- 100	0.599	294.2	-20.2	1.97	0.760	49.5	0.653	1.436	136.7	253.7	---	2.374	-0.30	1.134	52.5	166.6	5.3	0.683
3-9630	4- 110	0.570	296.0	-19.6	2.03	0.766	52.0	0.618	1.458	133.6	260.2	---	2.359	-0.33	1.141	55.8	172.7	2.6	0.628
3-9630	4- 120	0.543	297.7	-19.0	2.11	0.773	54.4	0.585	1.479	130.6	267.0	---	2.344	-0.39	1.147	58.9	178.6	-0.1	0.576
3-9630	4- 130	0.517	299.2	-18.4	2.23	0.778	56.5	0.554	1.498	127.7	273.9	---	2.327	-0.48	1.153	62.0	184.3	-2.9	0.526
3-9630	4- 140	0.494	300.6	-17.6	2.43	0.783	58.4	0.525	1.516	125.0	281.0	---	2.311	-0.65	1.159	64.9	189.8	-5.8	0.477
3-9630	4- 150	0.473	301.8	-16.4	2.89	0.788	60.2	0.498	1.531	122.4	288.4	---	2.294	-1.10	1.165	67.8	194.7	-9.3	0.431
3-9630	4- 160	0.458	301.8	-12.0	5.56	0.791	61.7	0.474	1.545	120.0	295.9	---	2.277	-3.74	1.169	70.6	197.1	-18.7	0.392
3-9630	4- 170	0.435	305.6	-21.1	-0.71	0.794	63.1	0.452	1.557	117.8	303.8	---	2.261	2.56	1.174	73.3	208.7	-2.9	0.347
3-9630	4- 180	0.419	306.0	-18.2	0.91	0.797	64.3	0.433	1.568	115.9	311.9	---	2.247	0.96	1.177	76.0	210.7	-8.6	0.304
3-9630	4- 190	0.407	306.6	-17.3	1.29	0.799	65.4	0.417	1.577	114.2	320.3	---	2.234	0.60	1.181	78.6	213.1	-10.5	0.266
3-9630	4- 200	0.396	307.3	-16.7	1.47	0.801	66.2	0.404	1.584	112.7	329.0	---	2.223	0.45	1.183	81.2	214.2	-11.3	0.232
3-9630	4- 210	0.388	307.7	-16.3	1.58	0.802	66.8	0.394	1.589	111.6	338.1	---	2.215	0.37	1.185	83.9	213.1	-11.1	0.203
3-9630	4- 220	0.383	308.1	-16.0	1.66	0.804	67.2	0.387	1.593	110.8	347.5	---	2.210	0.32	1.186	86.5	209.3	-9.8	0.181
3-9630	4- 230	0.381	308.2	-15.8	1.72	0.804	67.4	0.384	1.596	110.4	357.2	---	2.209	0.29	1.186	89.2	202.8	-7.4	0.170
3-9630	4- 240	0.382	308.2	-15.7	1.77	0.805	67.3	0.386	1.598	110.3	367.4	0.982	2.214	0.27	1.186	92.0	194.9	-4.4	0.173
3-9630	4- 250	0.388	308.0	-15.7	1.82	0.805	66.9	0.392	1.599	110.7	377.9	0.971	2.226	0.27	1.185	95.0	188.0	-1.7	0.192
3-9630	4- 260	0.399	307.5	-15.9	1.86	0.805	66.1	0.405	1.599	111.6	389.0	0.951	2.247	0.27	1.184	98.2	183.3	0.1	0.225
3-9630	4- 260	0.224	204.6	-5.4	1.86	0.587	103.6	0.504	1.077	194.2	831.6	0.535	1.620	0.27	1.048	119.9	129.3	19.0	0.523
3-9630	4- 260	0.491	172.2	5.4	1.86	0.662	133.5	0.724	1.198	208.3	845.7	0.330	2.065	0.27	1.092	135.5	122.7	20.3	0.808
3-9630	4- 270	0.416	306.7	-16.2	1.91	0.805	64.8	0.426	1.598	113.1	400.6	0.917	2.279	0.28	1.182	101.8	181.2	0.8	0.272
3-9630	4- 270	0.215	226.5	-12.6	1.91	0.572	95.1	0.493	1.057	185.3	832.8	0.536	1.577	0.28	1.038	119.3	138.9	16.4	0.508
3-9630	4- 270	0.591	171.7	5.2	1.91	0.683	141.9	0.804	1.240	206.3	853.8	0.243	2.237	0.28	1.103	142.6	129.4	18.7	0.929
3-9630	4- 280	0.442	305.6	-16.6	1.97	0.804	62.8	0.457	1.597	115.3	412.9	0.868	2.327	0.30	1.180	105.9	180.9	0.7	0.335

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9630	4- 280	0.241	242.8	-17.1	1.97	0.561	87.8	0.507	1.043	177.8	835.4	0.515	1.572	0.30	1.030	120.3	147.6	13.6	0.520
3-9630	4- 290	0.481	303.9	-17.2	2.02	0.804	59.9	0.501	1.596	118.5	426.1	0.796	2.395	0.34	1.178	110.8	181.9	0.2	0.415
3-9630	4- 290	0.288	256.3	-19.5	2.03	0.553	80.3	0.539	1.034	171.5	839.0	0.477	1.591	0.34	1.023	122.5	155.6	10.7	0.554
3-9630	4- 300	0.536	301.6	-18.1	2.12	0.804	55.7	0.564	1.595	123.1	440.6	0.696	2.493	0.35	1.175	117.0	183.3	-0.6	0.519
3-9630	4- 300	0.356	264.7	-20.8	2.12	0.547	71.9	0.592	1.027	166.4	843.9	0.419	1.635	0.35	1.017	126.3	162.7	7.9	0.614
3-9630	4- 310	0.448	269.6	-21.6	2.25	0.542	61.6	0.671	1.021	163.3	850.7	0.336	1.706	0.49	1.012	132.1	168.9	5.3	0.707
3-9630	4- 320	0.571	271.3	-22.2	2.46	0.540	48.4	0.778	1.018	163.0	860.3	0.226	1.810	0.65	1.007	141.1	173.6	3.3	0.850
3-9630	4- 360	0.555	191.3	-4.4	0.91	0.465	139.1	0.871	0.946	191.1	927.3	0.122	1.770	-0.95	0.959	29.5	88.4	23.0	0.991
3-9630	4- 370	0.543	186.1	10.0	1.28	0.787	135.5	0.713	1.529	223.0	608.8	0.439	2.620	-0.61	1.149	48.2	75.2	22.1	0.787
3-9630	4- 370	0.416	198.8	-6.8	1.28	0.460	120.0	0.764	0.942	190.9	936.6	0.222	1.662	-0.61	0.555	40.3	93.6	22.9	0.825
3-9630	4- 380	0.433	156.3	12.4	1.46	0.787	127.0	0.602	1.530	231.0	626.3	0.609	2.450	-0.46	1.148	58.0	76.4	22.1	0.615
3-9630	4- 380	0.513	250.5	-21.8	1.46	0.381	61.5	0.829	0.887	173.4	928.7	0.151	1.622	-0.46	0.918	34.4	109.2	22.0	0.896
3-9630	4- 380	0.348	217.2	-13.1	1.46	0.447	101.7	0.702	0.932	185.1	940.4	0.278	1.585	-0.46	0.947	45.7	102.0	22.6	0.736
3-9630	4- 390	0.356	152.9	14.2	1.56	0.787	121.2	0.519	1.529	236.2	641.1	0.736	2.322	-0.38	1.146	65.2	78.4	22.2	0.470
3-9630	4- 400	0.303	152.4	15.7	1.64	1.786	117.2	0.458	1.527	239.6	654.0	0.827	2.227	-0.33	1.146	70.6	80.6	22.3	0.395
3-9630	4- 410	0.265	151.4	16.9	1.70	0.786	114.4	0.415	1.525	241.8	665.8	0.893	2.158	-0.30	1.145	74.9	82.2	22.2	0.322
3-9630	4- 420	0.239	150.8	17.9	1.75	0.785	110.5	0.383	1.524	243.3	676.8	0.940	2.107	-0.28	1.145	78.4	82.6	22.1	0.265
3-9630	4- 430	0.590	284.1	-21.8	1.80	0.661	47.9	0.709	1.197	151.2	594.2	0.348	2.045	-0.27	1.065	45.5	143.3	14.3	0.774
3-9630	4- 430	0.220	150.5	18.8	1.80	0.785	111.1	0.361	1.523	244.2	687.3	0.973	2.072	-0.27	1.146	81.5	81.2	21.8	0.221
3-9630	3-9730	0.718	131.6	20.9	1.88	1.194	130.8	1.133	-7.015	284.0	391.4	0.932	---	-0.11	1.457	106.7	15.3	6.3	0.593
3-9640	3-9740	0.651	134.6	20.2	1.90	1.121	129.8	0.976	37.785	279.2	356.3	0.912	---	-0.12	1.399	107.9	19.0	7.7	0.559
3-9640	3-9750	0.591	137.6	19.5	1.93	1.057	128.7	0.851	6.004	274.1	400.9	0.893	---	-0.13	1.350	108.7	23.4	9.4	0.531
3-9640	3-9760	0.536	140.6	18.8	1.96	1.000	127.4	0.752	3.526	268.7	405.3	0.875	---	-0.16	1.308	109.3	28.5	11.3	0.507
3-9640	3-9770	0.487	143.6	18.1	2.01	0.949	125.9	0.672	2.616	263.2	409.6	0.858	---	-0.19	1.272	109.6	34.2	13.2	0.486
3-9640	3-9780	0.441	146.9	17.4	2.09	0.904	124.3	0.608	2.146	257.5	413.8	0.842	---	-0.27	1.241	109.9	40.6	15.1	0.468
3-9640	3-9790	0.399	150.3	16.9	2.28	0.864	122.6	0.555	1.861	251.7	418.0	0.827	---	-0.45	1.214	110.0	47.5	16.6	0.452
3-9640	3-9800	0.361	155.0	16.0	3.48	0.827	120.7	0.513	1.670	245.8	422.0	0.813	---	-1.63	1.191	110.1	55.5	15.4	0.438
3-9640	3-9810	0.323	156.7	12.0	0.88	0.795	118.6	0.479	1.535	239.7	426.0	0.799	---	0.97	1.171	110.1	61.7	23.5	0.425
3-9640	3-9820	0.289	161.7	11.7	3.48	0.765	116.5	0.453	1.434	233.6	430.0	0.785	---	0.38	1.153	110.2	70.2	23.2	0.415
3-9640	3-9830	0.259	167.1	10.3	1.63	0.739	114.2	0.432	1.356	227.4	434.0	0.770	---	0.24	1.137	110.4	78.8	23.7	0.407
3-9640	3-9840	0.231	173.3	8.3	1.70	0.715	111.8	0.417	1.295	221.2	437.9	0.755	---	0.18	1.122	110.5	87.5	23.9	0.401
3-9640	3-9850	0.207	180.7	5.7	1.75	0.693	109.2	0.406	1.245	215.0	441.9	0.740	---	0.15	1.109	110.8	96.3	23.7	0.397
3-9640	3-9860	0.188	189.6	2.4	1.78	0.673	106.5	0.400	1.205	208.8	445.8	0.723	---	0.13	1.097	111.2	105.2	23.0	0.396
3-9640	3-9870	0.174	200.2	-1.6	1.80	0.655	103.6	0.399	1.171	202.5	449.8	0.704	---	0.12	1.086	111.7	114.0	21.9	0.398
3-9640	3-9880	0.168	212.5	-6.2	1.82	0.639	100.4	0.402	1.142	196.4	453.8	0.684	---	0.11	1.075	112.4	122.6	20.3	0.404
3-9640	3-9890	0.171	225.6	-10.7	1.84	0.623	97.0	0.410	1.118	190.3	457.9	0.660	---	0.11	1.065	113.3	131.1	18.4	0.414
3-9640	3-9900	0.185	238.6	-14.5	1.86	0.610	93.2	0.424	1.097	184.3	462.1	0.632	---	0.11	1.056	114.5	139.3	16.1	0.429
3-9640	3-9910	0.210	250.3	-17.3	1.88	0.597	88.9	0.445	1.079	178.6	466.4	0.599	1.559	0.11	1.046	116.0	147.2	13.5	0.452
3-9640	3-9920	0.247	260.1	-19.2	1.90	0.585	83.9	0.476	1.063	173.2	471.0	0.558	1.569	0.12	1.037	118.2	154.7	10.7	0.484
3-9640	3-9930	0.298	267.8	-20.3	1.93	0.575	77.9	0.518	1.050	168.3	476.1	0.506	1.594	0.14	1.029	121.1	161.8	7.9	0.530
3-9640	3-9940	0.365	273.4	-21.1	1.96	0.566	70.5	0.570	1.038	164.3	482.0	0.438	1.639	0.16	1.021	125.3	168.4	5.2	0.597
3-9640	3-9950	0.456	276.9	-21.7	2.02	0.558	61.0	0.661	1.030	161.8	489.5	0.369	1.710	0.20	1.014	131.4	174.2	2.8	0.696
3-9640	3-9960	0.580	277.8	-22.3	2.10	0.554	48.2	0.772	1.024	162.1	499.6	0.233	1.815	0.28	1.009	140.5	178.6	0.8	0.841
3-9640	4- 0	0.591	234.5	-19.4	1.48	0.206	83.7	0.934	0.806	179.6	555.8	0.053	1.559	-0.38	0.857	21.6	103.0	22.8	1.050
3-9640	4- 0	0.539	208.9	-11.3	1.48	0.355	129.8	0.889	0.864	186.2	562.5	0.096	1.633	-0.38	0.909	27.6	97.8	23.1	0.991
3-9640	4- 110	0.588	300.2	-19.1	1.91	0.767	50.9	0.634	1.438	135.0	256.7	---	2.350	-0.12	1.136	54.1	174.4	2.2	0.654
3-9640	4- 120	0.560	301.9	-18.5	1.94	0.778	53.3	0.600	1.459	131.9	263.3	---	2.335	-0.14	1.143	57.4	180.4	-0.4	0.601
3-9640	4- 130	0.534	303.5	-17.9	1.98	0.779	55.5	0.568	1.479	129.9	270.2	---	2.319	-0.17	1.150	60.5	186.5	-3.1	0.550
3-9640	4- 140	0.509	305.0	-17.3	2.04	0.785	57.6	0.537	1.498	128.1	277.2	---	2.302	-0.22	1.158	63.5	192.1	-5.7	0.501
3-9640	4- 150	0.486	306.3	-16.6	2.16	0.789	59.4	0.509	1.514	123.4	284.4	---	2.286	-0.33	1.161	66.4	197.8	-8.3	0.453
3-9640	4- 160	0.466	307.4	-15.6	2.52	0.793	61.1	0.484	1.529	120.9	291.9	---	2.269	-0.68	1.166	69.2	202.7	-11.4	0.408
3-9640	4- 170	0.449	311.3	-25.3	-4.18	0.797	62.6	0.460	1.542	118.6	299.6	---	2.253	6.03	1.171	71.9	215.4	4.8	0.381
3-9640	4- 180	0.430	310.1	-16.5	1.30	0.800	63.9	0.440	1.554	116.5	307.5	---	2.237	0.56	1.175	74.6	213.4	-11.4	0.323
3-9640	4- 190	0.415	310.9	-15.7	1.57	0.802	65.0	0.422	1.563	114.6	315.8	---	2.223	0.30	1.178	77.3	216.7	-13.3	0.284
3-9640	4- 200	0.403	311.6	-15.2	1.67	0.804	66.0	0.407	1.571	113.0	324.3	---	2.211	0.21	1.181	79.9	218.9	-14.2	0.249
3-9640	4- 210	0.394	312.2	-14.9	1.73	0.806	66.7	0.395	1.578	111.7	333.2	---	2.201	0.16	1.183	82.5	219.2	-14.4	0.217
3-9640	4- 220	0.387	312.6	-14.6	1.76	0.807	67.3	0.387	1.583	110.7	342.4	---	2.195	0.14	1.184	85.1	217.0	-13.7	0.191
3-9640	4- 230	0.383	312.9	-14.4	1.79	0.808	67.6	0.382	1.586	110.0	351.9	---	2.192	0.12	1.185	87.8	211.9	-12.0	0.174
3-9640	4- 240	0.382	313.0	-14.3	1.81	0.808	67.6	0.381	1.588	109.7	361.8	0.984	2.193	0.11	1.185	90.5	204.4	-9.3	0.168
3-9640	4- 250	0.385	312.9	-14.4	1.83	0.809	67.4	0.384	1.590	109.9	372.1	0.979	2.201	0.11	1.184	93.4	196.7	-6.3	0.178
3-9640	4- 260	0.393	312.6	-14.5	1.85	0.809	66.9	0.393	1.590	110.5	382.9	0.965	2.216	0.11	1.183	96.4	190.6	-3.9	0.203
3-9640	4- 260	0.258	196.6	-2.8	1.85	0.605	109.8	0.528	1.090	200.2	832.6	0.515	1.666	0.11	1.054	121.4	128.8	18.9	0.552
3-9640	4- 260	0.421	179.0	3.0	1.85	0.650	127.2	0.663	1.161	208.5	840.9	0.391	1.931	0.11	1.080	130.8	124.9	19.7	0.723
3-9640	4- 270	0.407	312.0	-14.8	1.87	0.809	65.8	0.410	1.590	111.6	394.1	0.939	2.241	0.11	1.181	99.7	187.1	-2.5	0.242
3-9640	4- 270	0.216	220.7	-10.9	1.87	0.583	99.3	0.492	1.060	189.9	832.4	0.558	1.581	0.11	1.039	119.2	139.0	16.1	0.507
3-9640	4- 270	0.547	176.5	3.3	1.87	0.678	138.0	0.767	1.214	207.6	850.2	0.283	2.146	0.11	1.095	139.3	131.0	18.2	0.870
3-9640	4- 280	0.428	311.2	-15.2	1.89	0.809	64.3	0.434	1.589	113.4	406.0	0.899	2.279	0.12	1.179	103.5	185.9	-2.0	0.295
3-9640	4- 280	0.226	240.5	-10.3	1.89	0.670	91.7	0.494	1.044	181.7	834.3	0.528	1.559	0.12	1.030	119.5	148.0	13.2	0.506
3-9640	4- 290	0.459	309.9	-15.8	1.92	0.808	61.9	0.471	1.588	116.1	418.7	0.860	2.336	0.13	1.177	107.9	186.2	-2.3	0.364
3-9640	4- 290	0.263	255.6	-19.2	1.92	0.561	84.4	0.516	1.033	174.7	837.3	0.500	1.566	0.13	1.023	121.0	156.2	10.1	0.528
3-9640	4- 300	0.505	308.0	-16.6	1.94	0.808	58.5	0.523	1.587	119.8	432.4	0.757	2.416	0.15	1.174	113.3	187.4	-2.8	0.454
3-9640	4- 300	0.320	266.1	-20.7	1.94	0.554	76.6	0.557	1.025	168.9	841.4	0.454	1.596	0.15	1.016	123.8	163.7	7.2	0.572
3-9640	4- 310	0.571	305.3	-17.6	1.99	0.808	53.4	0.596	1.586	125.3	447.7	0.640	2.532	0.18	1.171	120.2	188.9	-3.5	0.573
3-9640	4- 310	0.398	272.8	-21.4	1.99	0.549	67.5	0.622	1.018	164.5	847.0	0.385	1.651	0.18	1.010	128.4	170.4	4.4	0.646
3-9640	4- 320	0.505	276.2	-22.0	2.05	0.545	56.1	0.714	1.014	162.5	854.9	0.290	1.738	0.23	1.005	135.6	176.0	2.0	0.761
3-9640	4- 370	0.480	198.6	-6.8	1.57	0.470	129.1	0.810	0.942	192.0	932.8	0.179	1.704	-0.30	0.955	36.0	95.8	23.1	0.890
3-9640	4- 380	0.479	162.8	9.7	1.68	0.792	130.4	0.648	1.524	228.1	618.5	0.536	2.512	-0.21	1.146	53.9	80.5	22.9	0.686
3-9640	4- 380	0.588	257.8	-22.7	1.66	0.368	50.8	0.879	0.871	173.3	923.7	0.105	1.637	-0.21	0.907	28.9	112.3	21.8	0.971
3-9640	4- 380	0.371	210.9	-10.8	1.66	0.462	111.3	0.720	0.935	189.0	939.4	0.262	1.608	-0.21	0.949	44.2	102.5	22.8	0.761
3-9640	4- 390	0.387	160.0	11.8	1.72	0.792	123.4	0.552	1.523	234.5	634.5	0.683	2.363	-0.17	1.145	62.2	82.2	22.9	0.540

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MAR
ARRIVAL PLANET= EAR

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEE
3-9640	4- 390	0.433	251.6	-21.3	1.72	0.413	74.1	0.758	0.899	174.7	934.7	0.218	1.579	-0.17	0.925	41.2	115.9	21.2	0.7
3-9640	4- 390	0.361	239.0	-18.7	1.72	0.438	88.6	0.702	0.916	179.4	939.4	0.273	1.559	-0.17	0.936	45.8	113.1	21.6	0.7
3-9640	4- 400	0.324	156.1	13.5	1.76	0.791	118.7	0.481	1.522	238.8	648.3	0.790	2.254	-0.14	1.145	68.3	84.3	23.0	0.4
3-9640	4- 410	0.279	157.0	14.8	1.78	0.791	115.4	0.430	1.520	241.5	660.6	0.866	2.174	-0.12	1.144	73.1	86.1	23.0	0.3
3-9640	4- 420	0.248	156.3	15.9	1.80	0.790	113.1	0.394	1.519	243.3	671.9	0.921	2.116	-0.11	1.144	76.9	87.1	23.0	0.2
3-9640	4- 430	0.226	155.9	16.7	1.82	0.790	111.5	0.368	1.517	244.5	682.7	0.960	2.075	-0.11	1.145	80.2	86.5	22.9	0.2
3-9640	4- 440	0.573	290.3	-21.0	1.84	0.670	50.0	0.683	1.199	149.6	597.3	0.381	2.018	-0.11	1.067	47.7	151.2	11.7	0.7
3-9640	4- 440	0.211	155.7	17.4	1.84	0.790	110.4	0.350	1.517	245.3	693.0	0.986	2.048	-0.11	1.146	83.1	83.6	22.7	0.1
3-9650	3-9760	0.610	143.3	17.5	1.80	1.070	129.6	0.870	6.682	273.2	404.8	0.867	---	0.07	1.358	110.8	29.1	12.1	0.56
3-9650	3-9770	0.551	146.3	16.6	1.78	1.008	128.2	0.765	3.617	267.8	409.2	0.850	---	0.09	1.313	111.1	34.7	14.1	0.5
3-9650	3-9780	0.498	149.4	15.6	1.75	0.955	126.7	0.681	2.617	262.1	413.4	0.834	---	0.12	1.274	111.3	40.8	16.1	0.5
3-9650	3-9790	0.449	152.5	14.6	1.69	0.907	124.9	0.619	2.124	256.3	417.6	0.819	---	0.17	1.241	111.5	47.5	18.2	0.4
3-9650	3-9800	0.405	155.8	13.2	1.49	0.865	123.1	0.561	1.832	250.4	421.6	0.804	---	0.36	1.213	111.3	54.7	20.4	0.4
3-9650	3-9810	0.368	161.9	11.0	4.33	0.827	121.0	0.518	1.640	244.4	425.7	0.791	---	-2.48	1.188	111.3	63.6	15.1	0.4
3-9650	3-9820	0.327	164.0	11.9	2.12	0.793	118.9	0.484	1.505	238.3	429.7	0.777	---	-0.28	1.167	111.2	70.8	21.6	0.4
3-9650	3-9830	0.292	168.6	10.1	1.99	0.763	116.6	0.457	1.406	232.1	433.6	0.764	---	-0.15	1.148	111.2	79.1	22.7	0.4
3-9650	3-9840	0.261	174.0	8.1	1.94	0.736	114.2	0.436	1.330	225.9	437.5	0.750	---	-0.11	1.131	111.3	87.7	23.2	0.41
3-9650	3-9850	0.233	180.4	5.8	1.91	0.711	111.7	0.421	1.270	219.6	441.2	0.735	---	-0.08	1.116	111.4	96.5	23.1	0.41
3-9650	3-9860	0.209	188.1	2.9	1.89	0.689	109.0	0.411	1.222	213.3	445.4	0.720	---	-0.07	1.103	111.6	105.4	22.5	0.40
3-9650	3-9870	0.190	197.5	-0.7	1.88	0.669	106.1	0.405	1.183	207.1	449.3	0.703	---	-0.06	1.090	112.0	114.2	21.4	0.40
3-9650	3-9880	0.178	208.6	-4.9	1.87	0.651	103.0	0.404	1.150	200.8	453.2	0.685	---	-0.06	1.078	112.4	122.8	19.9	0.40
3-9650	3-9890	0.174	221.2	-9.3	1.86	0.634	99.7	0.408	1.122	194.6	457.2	0.664	---	-0.06	1.067	113.1	131.3	17.9	0.41
3-9650	3-9900	0.181	234.5	-13.4	1.85	0.619	96.0	0.418	1.099	188.5	461.2	0.640	---	-0.06	1.056	114.1	139.5	15.6	0.42
3-9650	3-9910	0.198	247.3	-16.6	1.84	0.606	92.0	0.434	1.079	182.6	465.4	0.611	---	-0.06	1.046	115.3	147.5	13.0	0.4
3-9650	3-9920	0.227	258.6	-18.8	1.83	0.593	87.3	0.458	1.062	176.9	469.7	0.575	1.548	-0.06	1.037	117.0	155.2	10.2	0.46
3-9650	3-9930	0.269	267.8	-20.1	1.81	0.582	81.9	0.493	1.047	171.5	474.3	0.531	1.563	-0.07	1.028	119.4	162.5	7.3	0.50
3-9650	3-9940	0.327	275.0	-20.9	1.80	0.571	75.3	0.542	1.034	166.8	479.6	0.474	1.594	-0.08	1.019	122.7	169.4	4.4	0.55
3-9650	3-9950	0.404	280.0	-21.4	1.78	0.563	67.0	0.611	1.024	163.3	485.9	0.399	1.649	-0.09	1.011	127.6	175.7	1.8	0.6
3-9650	3-9960	0.509	282.6	-21.9	1.74	0.556	56.1	0.706	1.016	161.7	494.2	0.299	1.734	-0.12	1.005	134.9	180.9	-0.5	0.7
3-9650	4- 10	0.510	232.3	-18.2	1.99	0.291	101.4	0.874	0.827	181.7	562.5	0.104	1.551	0.16	0.874	29.9	109.0	22.4	0.94
3-9650	4- 10	0.497	227.6	-16.9	1.99	0.315	108.2	0.863	0.837	183.0	563.9	0.115	1.560	0.16	0.882	31.1	108.0	22.5	0.92
3-9650	4- 120	0.578	306.1	-17.8	1.81	0.776	52.2	0.616	1.439	133.3	259.7	---	2.326	0.07	1.139	55.7	182.2	-0.8	0.67
3-9650	4- 130	0.551	307.8	-17.3	1.79	0.780	54.5	0.582	1.460	130.2	266.4	---	2.310	0.08	1.146	58.9	188.3	-3.4	0.51
3-9650	4- 140	0.525	309.2	-16.7	1.77	0.786	56.7	0.551	1.479	127.3	273.3	---	2.294	0.10	1.152	62.0	194.2	-5.9	0.52
3-9650	4- 150	0.500	310.7	-16.2	1.72	0.791	58.6	0.522	1.497	124.5	280.5	---	2.278	0.14	1.158	64.9	200.1	-8.2	0.47
3-9650	4- 160	0.478	312.0	-15.8	1.63	0.795	60.4	0.494	1.513	121.8	287.8	---	2.261	0.23	1.163	67.8	205.9	-10.1	0.4
3-9650	4- 170	0.458	313.5	-16.2	1.06	0.799	62.0	0.470	1.527	119.4	295.4	---	2.244	0.79	1.168	70.5	211.8	-10.5	0.38
3-9650	4- 180	0.441	313.9	-13.8	2.32	0.802	63.4	0.448	1.539	117.1	303.2	---	2.228	-0.52	1.172	73.2	215.3	-15.9	0.31
3-9650	4- 190	0.425	315.0	-13.8	2.08	0.805	64.6	0.429	1.550	115.1	311.3	---	2.214	-0.20	1.176	75.9	219.9	-16.3	0.30
3-9650	4- 200	0.411	315.8	-13.6	1.96	0.807	65.7	0.412	1.558	113.3	319.6	---	2.201	-0.12	1.179	78.5	223.1	-17.1	0.26
3-9650	4- 210	0.400	316.5	-13.3	1.92	0.809	66.5	0.398	1.566	111.8	328.3	---	2.189	-0.09	1.181	81.1	224.7	-17.4	0.23
3-9650	4- 220	0.391	317.1	-13.1	1.90	0.811	67.2	0.388	1.571	110.6	337.3	---	2.181	-0.06	1.182	83.7	224.1	-17.2	0.20
3-9650	4- 230	0.386	317.5	-12.9	1.89	0.812	67.7	0.381	1.576	109.7	346.6	---	2.175	-0.07	1.183	86.3	220.6	-16.2	0.18
3-9650	4- 240	0.383	317.7	-12.8	1.87	0.812	67.9	0.377	1.579	109.2	356.3	---	2.174	-0.06	1.183	89.0	214.3	-14.2	0.16
3-9650	4- 250	0.384	317.7	-12.8	1.86	0.813	67.8	0.378	1.581	109.1	366.3	0.983	2.178	-0.06	1.182	91.7	206.3	-11.3	0.16
3-9650	4- 260	0.388	317.6	-13.0	1.85	0.813	67.5	0.384	1.582	109.4	376.8	0.975	2.188	-0.06	1.181	94.6	199.9	-8.4	0.18
3-9650	4- 270	0.399	317.2	-13.2	1.84	0.813	66.7	0.396	1.582	110.3	387.8	0.956	2.207	-0.06	1.180	97.8	193.9	-6.3	0.21
3-9650	4- 270	0.229	213.9	-9.0	1.84	0.596	104.0	0.500	1.066	195.0	832.4	0.533	1.598	-0.06	1.042	119.7	138.9	15.8	0.51
3-9650	4- 270	0.495	181.8	1.2	1.84	0.670	133.4	0.722	1.185	208.7	846.2	0.329	2.040	-0.06	1.086	135.5	132.7	17.6	0.80
3-9650	4- 280	0.415	316.6	-13.6	1.83	0.813	65.5	0.415	1.581	111.7	399.3	0.925	2.238	-0.06	1.178	101.2	191.4	-5.2	0.26
3-9650	4- 280	0.219	235.8	-15.2	1.83	0.580	95.6	0.487	1.045	186.0	833.6	0.537	1.554	-0.06	1.031	119.0	148.2	12.7	0.49
3-9650	4- 280	0.597	181.2	0.9	1.83	0.692	141.8	0.803	1.227	206.6	854.2	0.242	2.212	-0.06	1.097	142.6	139.2	15.8	0.92
3-9650	4- 290	0.440	315.6	-14.1	1.82	0.813	63.6	0.444	1.580	113.9	411.4	0.878	2.283	-0.06	1.175	105.2	190.9	-4.9	0.32
3-9650	4- 290	0.243	253.4	-18.8	1.82	0.570	88.4	0.498	1.032	178.4	836.0	0.518	1.547	-0.06	1.023	119.8	156.7	9.6	0.50
3-9650	4- 300	0.477	314.1	-14.9	1.81	0.813	66.9	0.487	1.579	117.0	424.5	0.810	2.348	-0.07	1.173	110.0	191.7	-5.2	0.3
3-9650	4- 300	0.289	266.3	-20.5	1.81	0.562	81.1	0.528	1.023	171.9	839.4	0.483	1.564	-0.07	1.015	121.9	164.5	8.5	0.53
3-9650	4- 310	0.532	312.0	-15.9	1.79	0.812	56.8	0.548	1.578	121.4	438.9	0.713	2.443	-0.08	1.170	115.9	193.1	-5.8	0.49
3-9650	4- 310	0.355	275.0	-21.2	1.79	0.556	72.9	0.579	1.016	166.6	844.0	0.427	1.604	-0.08	1.009	125.4	171.7	3.5	0.59
3-9650	4- 320	0.446	280.3	-21.7	1.76	0.551	62.9	0.656	1.011	163.1	850.4	0.348	1.674	-0.10	1.004	131.0	177.9	0.8	0.68
3-9650	4- 330	0.569	282.3	-22.2	1.72	0.549	49.8	0.764	1.007	162.5	859.6	0.238	1.777	-0.14	0.999	139.8	182.7	-1.3	0.82
3-9650	4- 370	0.561	200.5	-7.6	2.04	0.479	139.1	0.866	0.939	191.7	927.5	0.126	1.753	0.20	0.953	30.1	98.9	2.3	0.97
3-9650	4- 380	0.539	169.7	6.8	1.97	0.797	134.7	0.704	1.518	224.2	609.5	0.449	2.586	0.13	1.145	48.8	85.1	23.5	0.77
3-9650	4- 380	0.419	208.0	-9.7	1.97	0.475	120.2	0.755	0.936	191.6	936.9	0.229	1.643	0.13	0.950	41.2	104.0	22.9	0.80
3-9650	4- 390	0.426	166.2	9.2	1.93	0.797	126.2	0.591	1.518	232.3	627.2	0.620	2.415	0.10	1.144	58.7	86.2	23.6	0.59
3-9650	4- 390	0.540	263.1	-22.6	1.93	0.390	58.4	0.836	0.876	172.8	927.7	0.144	1.609	0.10	0.910	33.8	120.2	20.6	0.89
3-9650	4- 390	0.345	226.0	-15.1	1.93	0.463	102.8	0.689	0.927	186.0	940.9	0.288	1.565	0.10	0.943	46.8	112.1	22.0	0.71
3-9650	4- 400	0.350	164.6	11.1	1.91	0.795	120.6	0.509	1.517	237.6	642.1	0.745	2.288	0.08	1.144	65.8	88.1	23.6	0.47
3-9650	4- 410	0.297	162.6	12.5	1.89	0.796	116.7	0.449	1.515	241.0	655.0	0.835	2.196	0.07	1.143	71.1	90.1	23.6	0.38
3-9650	4- 420	0.259	161.8	13.6	1.88	0.796	113.9	0.406	1.514	243.3	666.9	0.899	2.129	0.06	1.143	75.3	91.4	23.7	0.4
3-9650	4- 430	0.234	161.3	14.5	1.87	0.795	112.0	0.376	1.512	244.8	677.9	0.944	2.081	0.06	1.144	78.9	91.6	23.7	0.25
3-9650	4- 440	0.216	161.0	15.2	1.86	0.795	110.8	0.355	1.512	245.8	688.4	0.975	2.048	0.06	1.145	81.9	89.7	23.7	0.21
3-9650	4- 450	0.557	296.5	-19.9	1.85	0.679	52.0	0.656	1.202	148.1	600.4	0.413	1.991	0.06	1.069	49.8	159.1	8.9	0.70
3-9650	4- 450	0.205	160.8	15.6	1.85	0.795	109.9	0.342	1.511	246.4	698.7	0.995	2.028	0.06	1.146	84.6	85.0	23.7	0.18
3-9660	3-9780	0.565	152.1	14.0	1.51	1.015	129.0	0.774	3.657	266.6	412.8	0.825	---	0.39	1.316	112.8	41.3	16.9	0.56
3-9660	3-9790	0.508	155.1	12.8	1.34	0.959	127.3	0.688	2.595	260.9	417.0	0.810	---	0.54	1.275	112.8	47.9	19.1	0.53
3-9660	3-9800	0.457	158.0	11.1	0.95	0.909	125.5	0.619	2.090	255.0	421.1	0.795	---	0.92	1.240	112.7	54.9	21.6	0.51
3-9660	3-9810	0.410	159.8	6.0	-1.44	0.865	123.5	0.565	1.797	249.0	425.2	0.782	---	3.29	1.211	112.5	61.3	28.4	0.49
3-9660	3-9820	0.371	167.5	13.5	3.84	0.826	121.3	0.521	1.606	242.9	429.2	0.769	---	-2.01	1.185	112.4	71.6	17.6	0.47
3-9660	3-9830	0.330	170.7	10.0	2.58	0.791	119.1	0.487	1.474	236.8	433.2	0.756	---	-0.78	1.162	112.2	79.6	21.2	0.45
3-9660	3-9840	0.294	175.3	7.8	2.28	0.760	116.7	0.460	1.376	230.6	437.1	0.743	---	-0.49	1.143	112.1	88.1	22.2	0.43

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9660	3-9850	0.262	180.9	5.6	2.13	0.733	114.1	0.439	1.303	224.3	441.0	0.730	---	-0.37	1.125	112.1	96.8	22.4	0.427
3-9660	3-9860	0.234	187.5	3.0	2.04	0.708	111.4	0.425	1.245	218.0	444.9	0.716	---	-0.30	1.109	112.2	105.6	21.9	0.419
3-9660	3-9870	0.211	195.6	-0.2	1.98	0.685	108.6	0.415	1.198	211.7	448.8	0.701	---	-0.26	1.095	112.4	114.4	20.9	0.413
3-9660	3-9880	0.193	205.4	-3.9	1.93	0.665	105.6	0.410	1.161	205.4	452.7	0.685	---	-0.24	1.082	112.7	123.0	19.4	0.411
3-9660	3-9890	0.183	217.0	-8.1	1.89	0.647	102.4	0.410	1.129	199.1	456.6	0.666	---	-0.23	1.069	113.1	131.5	17.4	0.413
3-9660	3-9900	0.181	229.9	-12.2	1.85	0.631	98.9	0.415	1.103	192.9	460.5	0.645	---	-0.22	1.058	113.8	139.8	15.1	0.419
3-9660	3-9910	0.191	243.3	-15.8	1.81	0.615	95.0	0.427	1.081	186.8	464.5	0.620	---	-0.22	1.047	114.8	147.8	12.5	0.431
3-9660	3-9920	0.212	255.9	-18.3	1.77	0.602	90.7	0.445	1.061	180.8	468.6	0.589	---	-0.23	1.037	116.2	155.6	9.7	0.449
3-9660	3-9930	0.246	266.7	-19.8	1.72	0.589	85.7	0.472	1.045	175.1	472.9	0.552	1.538	-0.25	1.027	118.0	163.0	6.7	0.477
3-9660	3-9940	0.293	275.5	-20.6	1.67	0.578	79.8	0.511	1.031	169.9	477.6	0.504	1.558	-0.28	1.018	120.7	170.2	3.7	0.519
3-9660	3-9950	0.358	282.1	-21.1	1.60	0.568	72.5	0.568	1.019	165.5	483.0	0.441	1.598	-0.33	1.009	124.6	176.8	0.9	0.581
3-9660	3-9960	0.447	286.4	-21.4	1.49	0.561	63.1	0.647	1.010	162.5	489.8	0.356	1.664	-0.41	1.002	130.3	182.8	-1.7	0.674
3-9660	3-9970	0.570	288.1	-21.9	1.32	0.555	50.3	0.756	1.004	162.1	499.2	0.245	1.764	-0.57	0.996	139.2	187.5	-3.7	0.814
3-9660	4- 10	0.549	219.3	-14.4	2.62	0.358	129.8	0.889	0.850	186.2	562.0	0.094	1.606	0.81	0.892	27.8	108.9	22.7	0.980
3-9660	4- 120	0.597	310.2	-17.0	1.70	0.774	51.0	0.633	1.419	134.7	256.0	---	2.317	0.26	1.135	54.1	184.0	-1.5	0.654
3-9660	4- 130	0.568	311.9	-16.4	1.65	0.781	53.4	0.598	1.440	131.6	262.7	---	2.302	0.29	1.142	57.3	190.1	-3.9	0.602
3-9660	4- 140	0.541	313.5	-15.9	1.57	0.787	55.7	0.565	1.460	128.5	269.5	---	2.286	0.35	1.148	60.4	196.3	-6.2	0.551
3-9660	4- 150	0.516	315.0	-15.5	1.46	0.793	57.7	0.535	1.479	125.6	276.5	---	2.270	0.45	1.155	63.4	202.4	-8.4	0.502
3-9660	4- 160	0.492	316.4	-15.3	1.20	0.797	59.6	0.506	1.496	122.9	283.7	---	2.253	0.67	1.160	66.3	208.5	-10.0	0.455
3-9660	4- 170	0.470	318.0	-15.8	0.47	0.801	61.3	0.480	1.511	120.3	291.2	---	2.236	1.39	1.165	69.1	214.8	-10.0	0.410
3-9660	4- 180	0.491	310.2	3.9	14.79	0.805	62.8	0.457	1.524	117.9	298.8	---	2.220	-12.96	1.170	71.8	208.5	-49.1	0.437
3-9660	4- 190	0.435	318.8	-11.1	2.96	0.808	64.2	0.436	1.535	115.7	306.8	---	2.205	-1.11	1.173	74.5	222.4	-20.9	0.326
3-9660	4- 200	0.420	319.9	-11.5	2.40	0.811	65.3	0.418	1.545	113.7	315.0	---	2.191	-0.61	1.176	77.1	226.9	-20.1	0.287
3-9660	4- 210	0.407	320.8	-11.5	2.20	0.813	66.3	0.402	1.553	112.0	323.4	---	2.178	-0.42	1.179	79.7	229.7	-20.3	0.251
3-9660	4- 220	0.397	321.4	-11.3	2.08	0.814	67.1	0.390	1.560	110.6	332.2	---	2.168	-0.33	1.180	82.3	230.5	-20.3	0.219
3-9660	4- 230	0.389	321.9	-11.2	2.01	0.816	67.6	0.381	1.565	109.5	341.3	---	2.161	-0.28	1.181	84.9	228.8	-19.9	0.192
3-9660	4- 240	0.384	322.3	-11.2	1.95	0.817	68.0	0.375	1.569	108.8	350.8	---	2.157	-0.25	1.181	87.5	224.1	-18.6	0.173
3-9660	4- 250	0.383	322.5	-11.2	1.91	0.817	68.1	0.373	1.571	108.4	360.6	0.985	2.157	-0.23	1.181	90.2	216.7	-16.3	0.166
3-9660	4- 260	0.385	322.5	-11.3	1.87	0.818	68.0	0.376	1.573	108.5	370.8	0.982	2.164	-0.22	1.180	92.9	208.6	-13.3	0.172
3-9660	4- 270	0.392	322.3	-11.5	1.83	0.818	67.5	0.384	1.573	109.0	381.4	0.969	2.177	-0.22	1.178	95.9	202.0	-10.6	0.194
3-9660	4- 270	0.266	205.5	-6.6	1.83	0.615	110.4	0.526	1.080	201.1	833.5	0.512	1.648	-0.22	1.048	121.4	138.4	15.7	0.547
3-9660	4- 270	0.423	188.7	-1.4	1.83	0.658	126.9	0.658	1.147	208.9	841.3	0.392	1.902	-0.22	1.073	130.5	134.9	16.8	0.713
3-9660	4- 280	0.404	321.8	-11.9	1.79	0.618	66.6	0.399	1.573	110.1	392.5	0.986	2.200	-0.23	1.176	99.1	197.9	-8.8	0.230
3-9660	4- 280	0.220	229.7	-13.8	1.79	0.592	99.8	0.486	1.049	190.7	833.2	0.539	1.559	-0.23	1.032	118.9	148.3	12.4	0.497
3-9660	4- 280	0.552	186.0	-1.0	1.79	0.687	137.9	0.765	1.200	208.1	850.5	0.283	2.118	-0.23	1.089	139.1	140.8	15.1	0.862
3-9660	4- 290	0.424	321.1	-12.4	1.75	0.818	65.1	0.422	1.573	111.8	404.3	0.909	2.236	-0.24	1.174	102.8	196.3	-8.0	0.280
3-9660	4- 290	0.229	249.7	-18.2	1.75	0.580	92.4	0.486	1.033	182.5	835.0	0.531	1.535	-0.24	1.023	119.0	157.1	9.1	0.493
3-9660	4- 300	0.454	318.0	-13.1	1.70	0.817	62.9	0.456	1.572	114.4	416.8	0.854	2.289	-0.26	1.171	107.0	196.4	-7.9	0.346
3-9660	4- 300	0.263	265.1	-20.2	1.70	0.571	85.3	0.505	1.022	175.3	837.8	0.506	1.539	-0.26	1.015	120.3	165.1	5.9	0.512
3-9660	4- 310	0.498	318.4	-14.0	1.64	0.817	59.6	0.506	1.570	118.1	430.4	0.775	2.366	-0.30	1.169	112.2	197.5	-8.2	0.432
3-9660	4- 310	0.318	276.1	-21.8	1.64	0.564	77.7	0.544	1.014	169.2	841.6	0.463	1.566	-0.30	1.008	122.9	172.6	2.7	0.554
3-9660	4- 320	0.563	315.9	-15.3	1.55	0.817	54.7	0.578	1.570	123.4	445.6	0.663	2.476	-0.36	1.166	118.9	198.8	-8.7	0.547
3-9660	4- 320	0.394	283.3	-21.4	1.55	0.559	68.9	0.605	1.008	164.6	846.8	0.398	1.618	-0.34	1.002	127.3	179.4	-0.2	0.623
3-9660	4- 330	0.499	287.2	-21.7	1.42	0.555	57.7	0.696	1.004	162.2	854.2	0.305	1.702	-0.47	0.998	134.1	185.0	-2.7	0.734
3-9660	4- 340	0.587	293.6	-19.3	1.17	0.235	113.6	0.930	0.801	181.9	1243.7	0.056	1.545	-0.70	0.858	157.6	177.4	0.9	1.024
3-9660	4- 380	0.487	207.7	-9.7	2.43	0.485	129.4	0.804	0.935	192.7	933.0	0.183	1.688	0.63	0.949	36.6	106.3	23.0	0.876
3-9660	4- 390	0.476	172.7	-6.4	2.22	0.802	129.8	0.640	1.512	229.3	619.1	0.584	2.480	0.48	1.143	54.4	90.6	24.1	0.672
3-9660	4- 390	0.374	219.8	-13.1	2.22	0.478	112.1	0.709	0.930	189.9	939.7	0.270	1.589	0.44	0.945	45.1	112.8	22.2	0.743
3-9660	4- 400	0.383	169.9	-8.5	2.10	0.802	122.8	0.542	1.533	235.9	635.3	0.692	2.332	0.35	1.143	62.8	92.1	24.1	0.526
3-9660	4- 400	0.477	266.8	-22.3	2.10	0.417	67.7	0.778	0.884	173.1	932.5	0.197	1.572	0.35	0.915	39.5	127.5	19.2	0.814
3-9660	4- 400	0.347	244.8	-19.1	2.10	0.460	93.0	0.677	0.915	181.4	940.8	0.296	1.534	0.35	0.935	47.8	122.5	20.4	0.694
3-9660	4- 410	0.319	168.3	10.1	2.03	0.801	118.2	0.472	1.531	240.2	649.1	0.798	2.224	0.29	1.142	68.9	94.0	24.1	0.419
3-9660	4- 420	0.275	167.2	11.3	1.97	0.801	114.9	0.422	1.509	243.1	661.5	0.872	2.146	0.26	1.142	73.6	95.7	24.2	0.339
3-9660	4- 430	0.248	166.6	12.2	1.93	0.801	112.7	0.386	1.508	245.0	673.6	0.925	2.098	0.24	1.143	77.4	96.4	24.3	0.276
3-9660	4- 440	0.222	166.3	12.9	1.89	0.800	111.2	0.361	1.507	246.2	683.8	0.962	2.051	0.23	1.144	80.6	95.4	24.5	0.228
3-9660	4- 450	0.590	300.8	-19.3	1.85	0.680	49.5	0.686	1.188	149.3	596.5	0.373	2.003	0.22	1.065	47.3	161.0	8.3	0.739
3-9660	4- 450	0.208	166.1	13.4	1.85	0.800	110.2	0.345	1.506	247.0	694.2	0.987	2.026	0.22	1.145	83.5	91.9	24.7	0.192
3-9660	4- 460	0.541	302.6	-18.6	1.81	0.688	53.8	0.630	1.204	146.7	603.5	0.445	1.964	0.22	1.072	51.9	166.8	5.9	0.665
3-9660	4- 460	0.200	165.9	13.6	1.81	0.800	109.6	0.335	1.506	247.5	704.3	1.001	2.012	0.22	1.147	86.1	85.4	24.9	0.168
3-9670	3-9790	0.577	157.8	11.2	1.12	1.020	129.7	0.781	3.648	265.4	416.3	0.800	---	0.79	1.318	114.4	48.5	19.7	0.593
3-9670	3-9800	0.517	160.6	9.5	0.70	0.961	127.9	0.692	2.554	259.6	420.5	0.786	---	1.18	1.275	114.2	55.4	22.2	0.559
3-9670	3-9810	0.464	163.0	6.4	-0.61	0.909	125.9	0.623	2.047	253.6	424.6	0.772	---	2.45	1.238	113.9	62.4	26.4	0.531
3-9670	3-9820	0.503	187.2	31.7	21.54	0.864	123.8	0.568	1.757	247.6	428.7	0.760	---	-19.74	1.207	113.7	69.9	-15.2	0.621
3-9670	3-9830	0.374	173.6	10.6	3.75	0.824	121.5	0.524	1.571	241.4	432.6	0.748	---	-1.98	1.180	113.4	80.1	18.7	0.483
3-9670	3-9840	0.333	177.2	7.6	2.79	0.788	119.2	0.489	1.441	235.2	436.6	0.736	---	-1.06	1.157	113.2	88.4	21.0	0.463
3-9670	3-9850	0.296	181.9	5.2	2.44	0.757	116.6	0.463	1.347	229.0	440.5	0.724	---	-0.74	1.136	113.0	97.1	21.6	0.448
3-9670	3-9860	0.264	187.7	2.8	2.24	0.729	114.0	0.443	1.276	222.7	444.4	0.711	---	-0.58	1.118	112.9	105.8	21.3	0.435
3-9670	3-9870	0.236	194.6	-0.0	2.11	0.704	111.2	0.428	1.220	216.4	448.3	0.698	---	-0.49	1.102	112.9	114.6	20.3	0.426
3-9670	3-9880	0.213	203.1	-3.3	2.01	0.682	108.2	0.419	1.175	210.0	452.2	0.683	---	-0.44	1.087	113.0	123.2	18.9	0.420
3-9670	3-9890	0.196	213.3	-7.1	1.93	0.661	105.1	0.415	1.139	203.7	456.0	0.666	---	-0.40	1.073	113.3	131.7	17.0	0.417
3-9670	3-9900	0.188	225.4	-11.0	1.86	0.643	101.7	0.416	1.109	197.4	459.8	0.648	---	-0.39	1.060	113.8	140.0	14.6	0.419
3-9670	3-9910	0.189	238.6	-14.8	1.79	0.627	98.0	0.422	1.084	191.2	463.7	0.626	---	-0.39	1.048	114.5	148.0	12.0	0.426
3-9670	3-9920	0.202	252.0	-17.7	1.72	0.612	93.9	0.435	1.063	185.1	467.6	0.600	---	-0.39	1.037	115.5	155.9	9.2	0.438
3-9670	3-9930	0.227	264.3	-19.5	1.65	0.598	89.3	0.456	1.044	179.1	471.6	0.568	1.521	-0.42	1.027	117.0	163.4	6.1	0.459
3-9670	3-9940	0.265	274.7	-20.5	1.56	0.586	83.9	0.487	1.029	173.5	475.9	0.528	1.530	-0.46	1.017	119.1	170.8	3.1	0.491
3-9670	3-9950	0.319	283.0	-20.9	1.46	0.575	77.4	0.532	1.016	168.4	480.7	0.476	1.556	-0.52	1.008	122.1	177.7	0.1	0.539
3-9670	3-9960	0.393	289.0	-21.0	1.31	0.566	69.2	0.596	1.005	164.3	486.5	0.406	1.604	-0.63	1.000	126.6	184.2	-2.7	0.612
3-9670	3-9970	0.496	292.5	-21.3	1.09	0.559	58.5	0.688	0.997	162.1	494.0	0.311	1.683	-0.82	0.993	133.5	189.7	-5.1	0.722
3-9670	4- 20	0.531	245.6	-20.5	2.86	0.282	97.4	0.681	0.809	181.0	561.1	0.096	1.522	1.12	0.856	29.2	120.5	21.0	0.942
3-9670	4- 20	0.504	236.2	-18.5	2.36	0.329	111.0	0.859	0.828	183.7	563.8	0.117	1.539	1.12	0.873	31.8	118.6	21.4	0.914

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9670	4- 130	0.587	316.1	-15.5	1.53	0.782	52.2	0.615	1.420	133.0	258.9	---	2.293	0.48	1.137	55.6	192.0	-4.4	0.629
3-9670	4- 140	0.558	317.7	-15.0	1.41	0.788	54.6	0.561	1.441	129.9	265.6	---	2.278	0.55	1.144	58.8	198.2	-6.7	0.577
3-9670	4- 150	0.531	319.3	-14.6	1.24	0.794	56.8	0.549	1.460	126.8	272.5	---	2.262	0.68	1.151	61.8	204.5	-8.6	0.527
3-9670	4- 160	0.506	320.8	-14.4	0.96	0.799	58.7	0.519	1.478	124.0	279.6	---	2.246	0.93	1.157	64.8	210.8	-10.3	0.480
3-9670	4- 170	0.483	322.4	-14.7	0.30	0.804	60.5	0.492	1.494	121.3	286.9	---	2.229	1.56	1.162	67.6	217.3	-10.7	0.434
3-9670	4- 180	0.465	325.4	-19.7	-3.37	0.808	62.2	0.467	1.508	118.7	294.5	---	2.213	5.20	1.167	70.4	226.5	-2.5	0.401
3-9670	4- 190	0.450	321.4	-6.0	5.55	0.811	63.6	0.444	1.521	116.4	302.3	---	2.196	-3.76	1.171	73.1	223.6	-29.1	0.354
3-9670	4- 200	0.429	323.8	-9.0	3.15	0.814	64.9	0.425	1.531	114.3	310.3	---	2.182	-1.39	1.174	75.7	230.1	-23.7	0.309
3-9670	4- 210	0.415	324.9	-9.4	2.59	0.816	66.0	0.408	1.540	112.4	318.6	---	2.168	-0.87	1.176	78.3	234.3	-23.2	0.271
3-9670	4- 220	0.402	325.7	-9.4	2.33	0.818	66.9	0.393	1.548	110.8	327.2	---	2.156	-0.65	1.170	80.9	236.4	-23.1	0.236
3-9670	4- 230	0.393	326.4	-9.4	2.17	0.820	67.6	0.382	1.554	109.5	336.0	---	2.147	-0.53	1.179	83.4	236.3	-22.9	0.206
3-9670	4- 240	0.386	326.8	-9.4	2.06	0.821	68.1	0.374	1.558	108.5	345.3	---	2.141	-0.46	1.179	86.0	233.4	-22.3	0.183
3-9670	4- 250	0.383	327.1	-9.4	1.97	0.822	68.3	0.370	1.561	107.9	354.8	---	2.139	-0.42	1.179	88.6	227.4	-20.8	0.168
3-9670	4- 260	0.382	327.3	-9.5	1.90	0.822	68.4	0.370	1.564	107.7	364.7	0.986	2.142	-0.40	1.178	91.3	219.3	-18.3	0.165
3-9670	4- 270	0.386	327.2	-9.7	1.83	0.822	68.1	0.374	1.565	107.9	375.1	0.979	2.150	-0.39	1.177	94.1	211.4	-15.4	0.177
3-9670	4- 280	0.395	327.0	-10.0	1.76	0.822	67.4	0.385	1.565	108.6	385.9	0.963	2.167	-0.39	1.175	97.1	205.6	-13.0	0.205
3-9670	4- 280	0.236	222.4	-12.1	1.76	0.607	104.7	0.495	1.056	196.0	833.3	0.533	1.579	-0.39	1.035	119.5	148.2	12.1	0.508
3-9670	4- 280	0.498	191.5	-3.2	1.76	0.679	133.1	0.717	1.170	209.2	846.4	0.331	2.010	-0.39	1.079	135.1	142.5	14.4	0.791
3-9670	4- 290	0.411	326.5	-10.5	1.69	0.822	66.3	0.403	1.565	110.0	397.3	0.935	2.195	-0.40	1.173	100.5	202.5	-11.5	0.246
3-9670	4- 290	0.222	244.5	-17.3	1.69	0.591	96.4	0.479	1.035	187.0	834.3	0.539	1.531	-0.40	1.024	118.5	157.3	8.7	0.486
3-9670	4- 300	0.434	325.7	-11.2	1.61	0.822	64.6	0.430	1.564	112.1	409.3	0.892	2.236	-0.43	1.170	104.3	201.6	-10.8	0.302
3-9670	4- 300	0.243	262.5	-19.9	1.61	0.581	89.3	0.488	1.022	179.3	836.5	0.524	1.521	-0.43	1.015	119.2	165.6	5.3	0.493
3-9670	4- 310	0.470	324.5	-12.0	1.52	0.822	62.0	0.470	1.563	115.1	422.2	0.828	2.298	-0.48	1.168	108.8	202.1	-10.8	0.375
3-9670	4- 310	0.286	278.9	-20.9	1.52	0.573	82.2	0.515	1.013	172.5	839.6	0.491	1.534	-0.48	1.008	121.0	173.4	2.0	0.521
3-9670	4- 320	0.522	322.6	-13.1	1.40	0.822	58.1	0.528	1.562	119.4	436.4	0.737	2.388	-0.56	1.165	114.6	203.4	-11.1	0.472
3-9670	4- 320	0.350	285.1	-21.1	1.40	0.567	74.2	0.563	1.006	166.9	843.9	0.440	1.571	-0.56	1.001	124.2	180.6	-1.1	0.573
3-9670	4- 330	0.600	319.8	-14.6	1.22	0.822	52.3	0.612	1.562	125.7	452.5	0.606	2.517	-0.70	1.162	122.1	204.6	-11.5	0.603
3-9670	4- 330	0.437	290.9	-21.1	1.22	0.562	64.6	0.636	1.000	163.0	849.8	0.364	1.637	-0.70	0.996	129.5	186.9	-3.9	0.658
3-9670	4- 340	0.559	293.5	-21.5	0.92	0.559	51.9	0.742	0.997	161.9	858.4	0.257	1.737	-0.97	0.992	137.9	191.9	-6.0	0.792
3-9670	4- 380	0.576	209.8	-10.5	3.24	0.494	139.9	0.865	0.933	192.2	927.3	0.126	1.741	1.48	0.948	30.2	109.5	23.0	0.971
3-9670	4- 390	0.541	179.6	3.2	2.65	0.807	134.4	0.699	1.506	225.1	609.7	0.453	2.559	0.92	1.142	49.1	95.5	24.4	0.762
3-9670	4- 390	0.426	216.9	-12.2	2.65	0.491	120.9	0.748	0.930	192.4	937.1	0.234	1.627	0.92	0.945	41.8	114.4	22.3	0.793
3-9670	4- 400	0.425	176.2	5.7	2.38	0.807	125.7	0.584	1.507	235.6	627.7	0.627	2.386	0.69	1.142	59.2	96.3	24.5	0.588
3-9670	4- 400	0.572	275.9	-22.5	2.38	0.400	54.7	0.846	0.865	172.2	926.4	0.133	1.597	0.69	0.901	32.8	131.1	18.5	0.907
3-9670	4- 400	0.346	234.1	-16.5	2.38	0.481	104.4	0.676	0.922	187.2	941.4	0.299	1.545	0.69	0.940	47.8	122.2	20.9	0.695
3-9670	4- 410	0.347	174.0	7.5	2.21	0.807	120.0	0.500	1.506	239.0	642.7	0.752	2.259	0.56	1.142	66.3	98.1	24.5	0.463
3-9670	4- 420	0.294	172.8	8.9	2.10	0.807	116.2	0.441	1.504	242.6	655.8	0.841	2.168	0.48	1.142	71.6	99.9	24.5	0.371
3-9670	4- 430	0.257	172.0	9.9	2.01	0.806	113.5	0.399	1.503	245.0	667.8	0.903	2.103	0.43	1.142	75.8	101.1	24.7	0.301
3-9670	4- 440	0.231	171.6	10.6	1.93	0.806	111.7	0.370	1.502	246.5	678.9	0.947	2.057	0.40	1.143	79.2	100.9	24.9	0.246
3-9670	4- 450	0.214	171.3	11.0	1.86	0.806	110.5	0.350	1.501	247.6	689.5	0.976	2.026	0.39	1.144	82.2	98.5	25.4	0.205
3-9670	4- 460	0.574	306.9	-17.8	1.80	0.669	51.4	0.661	1.190	147.8	599.4	0.403	1.977	0.39	1.067	49.4	168.8	5.3	0.705
3-9670	4- 460	0.203	171.1	11.3	1.80	0.806	109.7	0.337	1.501	248.2	699.8	0.995	2.007	0.39	1.146	85.0	93.2	25.9	0.176
3-9670	4- 470	0.526	308.6	-17.2	1.73	0.698	55.5	0.605	1.207	145.2	606.5	0.476	1.937	0.39	1.075	53.8	174.6	2.9	0.632
3-9670	4- 470	0.198	170.9	11.3	1.73	0.806	109.3	0.331	1.502	248.7	709.9	1.004	2.000	0.39	1.148	87.5	85.0	26.2	0.159
3-9680	3-9800	0.588	163.4	8.0	0.55	1.024	130.3	0.784	3.596	264.0	419.7	0.776	---	1.33	1.319	115.9	56.2	22.4	0.617
3-9680	3-9810	0.626	166.0	5.6	-0.39	0.963	128.4	0.695	2.498	258.1	423.8	0.762	---	2.23	1.274	115.5	63.3	25.7	0.580
3-9680	3-9820	0.476	166.3	-3.5	-5.67	0.909	126.3	0.625	1.998	252.2	427.9	0.750	---	7.45	1.235	115.1	68.7	37.1	0.563
3-9680	3-9830	0.430	178.4	13.6	7.05	0.862	124.1	0.569	1.715	246.0	432.0	0.738	---	-5.32	1.203	114.7	80.6	12.1	0.526
3-9680	3-9840	0.378	179.7	7.6	3.67	0.821	121.7	0.526	1.534	239.9	436.0	0.727	---	-1.98	1.175	114.3	88.8	19.1	0.494
3-9680	3-9850	0.336	183.6	4.9	2.88	0.785	119.2	0.492	1.409	233.7	439.9	0.716	---	-1.24	1.151	114.0	97.4	20.5	0.473
3-9680	3-9860	0.298	188.5	2.4	2.51	0.754	116.6	0.465	1.318	227.4	443.8	0.705	---	-0.93	1.129	113.8	106.1	20.5	0.456
3-9680	3-9870	0.266	194.5	-0.1	2.29	0.725	113.8	0.445	1.249	221.1	447.7	0.693	---	-0.76	1.110	113.6	114.8	19.7	0.442
3-9680	3-9880	0.238	201.8	-3.1	2.13	0.700	110.9	0.432	1.195	214.7	451.6	0.680	---	-0.66	1.093	113.6	123.4	18.3	0.432
3-9680	3-9890	0.216	210.6	-6.4	2.00	0.678	107.8	0.423	1.153	208.4	455.4	0.665	---	-0.60	1.078	113.7	131.9	16.4	0.425
3-9680	3-9900	0.201	221.4	-10.1	1.89	0.658	104.5	0.419	1.118	202.1	459.2	0.649	---	-0.56	1.064	113.9	140.2	14.2	0.422
3-9680	3-9910	0.194	233.8	-13.8	1.79	0.639	100.9	0.421	1.089	195.8	463.0	0.630	---	-0.55	1.050	114.4	148.3	11.5	0.424
3-9680	3-9920	0.198	247.3	-16.9	1.70	0.623	97.0	0.429	1.065	189.5	466.8	0.608	---	-0.55	1.038	115.1	156.1	8.7	0.432
3-9680	3-9930	0.214	260.6	-19.2	1.60	0.608	92.7	0.444	1.045	183.4	470.6	0.581	---	-0.58	1.027	116.2	163.8	5.6	0.446
3-9680	3-9940	0.243	272.6	-20.3	1.48	0.595	87.7	0.468	1.028	177.4	474.6	0.547	1.509	-0.62	1.016	117.8	171.2	2.5	0.470
3-9680	3-9950	0.286	282.6	-20.7	1.35	0.583	81.9	0.503	1.013	171.8	478.9	0.504	1.523	-0.69	1.006	120.2	178.4	-0.6	0.506
3-9680	3-9960	0.347	290.3	-20.8	1.18	0.573	74.8	0.554	1.001	166.9	483.8	0.446	1.556	-0.80	0.998	123.7	185.2	-3.5	0.562
3-9680	3-9970	0.432	295.7	-20.7	0.93	0.564	65.6	0.629	0.991	163.3	490.0	0.368	1.615	-1.00	0.990	129.0	191.4	-6.2	0.647
3-9680	3-9980	0.551	298.3	-21.0	0.51	0.558	53.2	0.734	0.985	162.2	498.5	0.261	1.708	-1.37	0.984	137.2	196.5	-8.3	0.779
3-9680	4- 20	0.566	229.2	-16.7	3.84	0.366	131.3	0.892	0.838	186.4	561.3	0.091	1.586	2.15	0.881	27.6	119.9	21.5	0.976
3-9680	4- 140	0.576	321.9	-13.8	1.30	0.789	53.4	0.598	1.421	131.3	261.8	---	2.270	0.72	1.140	57.1	200.1	-7.2	0.604
3-9680	4- 150	0.548	323.5	-13.4	1.10	0.796	55.7	0.565	1.441	128.2	268.6	---	2.255	0.86	1.147	60.2	206.5	-9.3	0.554
3-9680	4- 160	0.521	325.1	-13.2	0.80	0.801	57.8	0.534	1.460	125.2	275.5	---	2.238	1.11	1.153	63.2	213.0	-10.9	0.505
3-9680	4- 170	0.497	326.7	-13.4	0.22	0.806	59.7	0.505	1.477	122.3	282.7	---	2.222	1.64	1.159	66.1	219.6	-11.5	0.459
3-9680	4- 180	0.475	328.8	-15.4	-1.51	0.810	61.4	0.478	1.492	119.7	290.1	---	2.205	3.32	1.164	68.9	227.0	-8.6	0.418
3-9680	4- 200	0.441	327.1	-5.3	4.66	0.817	64.4	0.433	1.517	114.9	305.6	---	2.173	-2.95	1.171	74.3	232.8	-29.4	0.334
3-9680	4- 210	0.423	328.9	-6.9	3.21	0.820	65.6	0.414	1.527	112.8	313.7	---	2.159	-1.54	1.174	76.9	238.2	-26.4	0.292
3-9680	4- 220	0.409	329.9	-7.3	2.68	0.822	66.6	0.398	1.535	111.0	322.1	---	2.146	-1.06	1.176	79.5	241.7	-25.8	0.256
3-9680	4- 230	0.398	330.7	-7.4	2.39	0.824	67.4	0.385	1.542	109.5	330.8	---	2.135	-0.87	1.177	82.0	243.2	-25.6	0.223
3-9680	4- 240	0.389	331.3	-7.4	2.20	0.825	68.0	0.375	1.547	108.3	339.8	---	2.127	-0.70	1.178	84.5	242.1	-25.3	0.195
3-9680	4- 250	0.383	331.7	-7.5	2.06	0.826	68.5	0.368	1.551	107.4	349.1	---	2.122	-0.63	1.177	87.1	237.9	-24.5	0.175
3-9680	4- 260	0.381	332.0	-7.6	1.95	0.827	68.6	0.365	1.554	107.0	358.8	---	2.122	-0.58	1.177	89.7	230.7	-22.9	0.164
3-9680	4- 270	0.382	332.1	-7.8	1.84	0.827	68.6	0.367	1.556	106.9	368.8	0.985	2.127	-0.56	1.175	92.4	222.2	-20.3	0.167
3-9680	4- 280	0.386	332.0	-8.1	1.75	0.827	68.1	0.373	1.557	107.3	379.3	0.975	2.138	-0.55	1.173	95.2	214.7	-17.6	0.184
3-9680	4- 280	0.279	313.6	-9.9	1.75	0.627	111.5	0.527	1.071	202.6	834.5	0.507	1.636	-0.55	1.042	121.5	147.6	12.1	0.545
3-9680	4- 280	0.421	198.9	-5.8	1.75	0.665	126.1	0.647	1.131	209.4	841.3	0.399	1.863	-0.55	1.065	129.8	144.7	13.4	0.695

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9680	4- 290	0.399	331.7	-0.6	1.65	0.827	67.3	0.386	1.557	108.3	390.3	0.959	2.159	-0.56	1.171	98.3	209.9	-15.4	0.217
3-9680	4- 290	0.226	237.9	-16.2	1.65	0.604	100.6	0.480	1.039	192.0	834.0	0.540	1.538	-0.56	1.025	118.6	157.3	8.4	0.487
3-9680	4- 290	0.557	195.8	-5.4	1.65	0.696	137.4	0.759	1.186	208.6	850.6	0.286	2.086	-0.56	1.082	138.7	150.4	-11.6	0.850
3-9680	4- 300	0.417	331.2	-9.1	1.54	0.827	66.0	0.408	1.556	109.9	401.9	0.922	2.191	-0.59	1.169	101.8	207.6	-18.1	0.263
3-9680	4- 300	0.230	258.2	-19.6	1.54	0.591	93.3	0.476	1.023	183.6	835.6	0.536	1.510	-0.59	1.015	118.4	165.9	4.8	0.480
3-9680	4- 310	0.445	330.3	-9.9	1.42	0.827	64.0	0.440	1.556	112.4	414.2	0.872	2.239	-0.65	1.166	105.8	207.3	-13.6	0.325
3-9680	4- 310	0.261	274.2	-20.8	1.42	0.582	86.4	0.492	1.012	176.3	838.1	0.514	1.510	-0.65	1.007	119.5	173.9	1.4	0.495
3-9680	4- 320	0.487	328.9	-10.9	1.28	0.827	60.9	0.486	1.555	115.9	427.6	0.798	2.311	-0.74	1.164	110.8	208.1	-13.7	0.407
3-9680	4- 320	0.312	285.7	-20.9	1.28	0.575	79.1	0.527	1.004	169.9	841.6	0.475	1.534	-0.74	1.001	121.8	181.5	-1.9	0.532
3-9680	4- 330	0.549	326.8	-12.3	1.07	0.827	56.4	0.554	1.554	121.0	442.6	0.692	2.415	-0.88	1.161	117.2	209.4	-13.9	0.515
3-9680	4- 330	0.384	293.5	-20.7	1.07	0.570	70.6	0.585	0.998	164.8	846.3	0.414	1.582	-0.88	0.995	125.8	188.4	-4.9	0.597
3-9680	4- 340	0.486	298.0	-20.7	0.76	0.566	59.9	0.672	0.993	161.8	853.1	0.326	1.661	-1.14	0.990	132.2	194.3	-7.4	0.701
3-9680	4- 350	0.583	245.2	-21.9	0.17	0.249	110.7	0.919	0.791	181.9	1242.9	0.064	1.517	-1.69	0.846	155.8	186.4	-3.4	0.994
3-9680	4- 390	0.501	216.8	-12.2	3.33	0.501	130.4	0.803	0.930	193.5	932.8	0.183	1.676	1.66	0.945	36.8	116.8	22.3	0.869
3-9680	4- 400	0.480	182.8	2.7	2.76	0.813	129.4	0.635	1.501	230.3	619.2	0.547	2.455	1.14	1.141	54.7	101.1	24.7	0.664
3-9680	4- 400	0.381	228.2	-14.9	2.76	0.495	113.3	0.701	0.925	191.1	940.0	0.277	1.573	1.14	0.941	45.8	123.0	21.3	0.727
3-9680	4- 410	0.383	180.0	4.8	2.46	0.813	122.4	0.536	1.501	237.2	635.7	0.697	2.305	0.89	1.141	63.1	102.3	24.7	0.516
3-9680	4- 410	0.521	280.9	-21.8	2.46	0.423	62.0	0.798	0.871	171.9	930.4	0.176	1.566	0.89	0.905	37.7	138.6	16.6	0.834
3-9680	4- 410	0.339	250.8	-19.3	2.46	0.481	96.5	0.657	0.913	183.4	941.8	0.314	1.512	0.89	0.934	49.4	132.0	18.8	0.666
3-9680	4- 420	0.318	178.4	6.3	2.26	0.812	117.7	0.465	1.500	241.8	649.7	0.803	2.197	0.74	1.141	69.3	104.1	24.8	0.409
3-9680	4- 430	0.274	177.5	7.4	2.12	0.812	114.5	0.415	1.498	244.7	662.3	0.877	2.120	0.65	1.141	74.0	105.6	24.9	0.329
3-9680	4- 440	0.243	176.9	8.2	2.00	0.812	112.3	0.380	1.497	246.7	673.8	0.928	2.066	0.60	1.142	77.7	106.1	25.1	0.268
3-9680	4- 450	0.222	176.6	8.6	1.90	0.812	110.8	0.356	1.496	248.1	684.7	0.964	2.029	0.57	1.143	80.9	106.8	25.7	0.221
3-9680	4- 460	0.208	176.3	8.9	1.80	0.811	109.9	0.340	1.496	248.9	695.2	0.987	2.005	0.55	1.145	83.8	108.8	26.5	0.186
3-9680	4- 470	0.558	312.9	-16.3	1.71	0.699	53.1	0.636	1.192	146.3	602.3	0.434	1.951	0.55	1.070	51.3	176.6	2.2	0.673
3-9680	4- 470	0.201	176.1	8.9	1.71	0.812	109.4	0.332	1.497	249.5	705.4	1.000	1.993	0.55	1.147	86.4	93.7	27.3	0.164
3-9680	4- 480	0.510	314.5	-15.7	1.61	0.707	57.2	0.585	1.208	143.8	609.5	0.507	1.910	0.57	1.078	55.7	182.4	-0.1	0.601
3-9680	4- 480	0.199	175.8	8.7	1.61	0.812	109.2	0.329	1.498	249.8	715.5	1.005	1.991	0.57	1.150	88.9	84.2	27.8	0.155
3-9690	3-9810	0.599	169.0	4.5	-0.29	1.026	130.9	0.786	3.509	262.6	422.9	0.752	---	2.12	1.318	117.3	64.2	25.3	0.638
3-9690	3-9820	0.535	170.9	0.2	-2.51	0.963	128.9	0.696	2.431	256.7	427.1	0.740	---	4.28	1.271	116.7	71.4	30.5	0.601
3-9690	3-9840	0.431	183.1	8.5	5.47	0.860	124.3	0.570	1.671	244.5	435.2	0.718	---	-3.83	1.197	115.7	89.2	15.7	0.534
3-9690	3-9850	0.381	185.8	4.6	3.57	0.819	121.8	0.527	1.456	238.3	439.2	0.708	---	-2.00	1.168	115.2	97.8	19.0	0.504
3-9690	3-9860	0.338	189.9	2.0	2.89	0.782	119.2	0.493	1.376	232.1	443.2	0.697	---	-1.38	1.143	114.8	106.4	19.6	0.481
3-9690	3-9870	0.301	195.1	-0.5	2.52	0.750	116.4	0.467	1.289	225.8	447.1	0.686	---	-1.08	1.121	114.5	115.1	19.0	0.462
3-9690	3-9880	0.268	201.3	-3.1	2.28	0.722	113.5	0.448	1.223	219.5	450.9	0.675	---	-0.91	1.102	114.3	123.7	17.7	0.448
3-9690	3-9890	0.241	208.9	-6.1	2.09	0.696	110.5	0.435	1.172	213.1	454.7	0.662	---	-0.81	1.084	114.2	132.1	15.9	0.437
3-9690	3-9900	0.219	218.2	-9.4	1.94	0.674	107.3	0.427	1.131	206.8	458.5	0.648	---	-0.75	1.068	114.3	140.4	13.7	0.430
3-9690	3-9910	0.205	229.4	-12.9	1.81	0.654	103.8	0.424	1.098	200.4	462.3	0.632	---	-0.72	1.058	114.5	148.5	11.1	0.427
3-9690	3-9920	0.201	242.2	-16.1	1.68	0.636	100.1	0.427	1.071	194.3	466.0	0.613	---	-0.71	1.040	115.0	156.4	8.2	0.429
3-9690	3-9930	0.207	255.9	-18.7	1.56	0.620	96.0	0.436	1.048	187.8	469.7	0.590	---	-0.73	1.028	115.7	164.1	5.1	0.438
3-9690	3-9940	0.227	269.2	-20.2	1.42	0.605	91.4	0.453	1.029	181.7	473.5	0.562	---	-0.77	1.017	116.9	171.6	2.0	0.454
3-9690	3-9950	0.260	280.8	-20.7	1.27	0.592	86.1	0.480	1.012	175.8	477.4	0.526	1.498	-0.84	1.006	118.7	178.9	-1.2	0.481
3-9690	3-9960	0.309	290.3	-20.6	1.08	0.580	79.8	0.520	0.998	170.3	481.8	0.479	1.518	-0.95	0.996	121.3	186.0	-4.3	0.523
3-9690	3-9970	0.378	297.5	-20.3	0.82	0.570	71.9	0.579	0.987	165.6	486.9	0.415	1.559	-1.14	0.988	125.4	192.7	-7.1	0.588
3-9690	3-9980	0.475	302.2	-20.2	0.42	0.562	61.5	0.665	0.978	162.7	493.6	0.327	1.629	-1.47	0.981	131.7	198.6	-9.6	0.689
3-9690	4- 30	0.562	259.9	-21.9	3.78	0.266	91.5	0.894	0.789	180.2	559.2	0.083	1.494	2.19	0.837	27.8	132.2	18.7	0.951
3-9690	4- 30	0.515	243.8	-19.4	3.78	0.348	115.4	0.855	0.821	184.7	563.7	0.119	1.524	2.19	0.866	32.2	129.0	19.8	0.903
3-9690	4- 140	0.594	326.1	-12.6	1.21	0.790	52.2	0.616	1.400	132.8	257.9	---	2.262	0.87	1.135	55.4	201.9	-7.8	0.633
3-9690	4- 150	0.565	327.7	-12.2	0.99	0.797	54.6	0.581	1.421	129.6	264.6	---	2.247	1.01	1.143	58.5	208.5	-9.9	0.581
3-9690	4- 160	0.537	329.3	-11.9	0.69	0.803	56.8	0.549	1.441	126.5	271.5	---	2.231	1.24	1.149	61.6	215.0	-11.5	0.532
3-9690	4- 170	0.511	330	-12.0	0.18	0.808	58.8	0.518	1.459	123.5	278.5	---	2.215	1.69	1.155	64.5	221.8	-12.3	0.485
3-9690	4- 180	0.488	332	-13.0	-0.97	0.813	60.6	0.490	1.475	120.7	285.8	---	2.198	2.77	1.160	67.4	228.9	-11.1	0.441
3-9690	4- 190	0.475	336.	-21.1	-6.76	0.817	62.3	0.465	1.489	118.1	293.2	---	2.182	8.49	1.165	70.1	239.7	2.4	0.424
3-9690	4- 200	0.464	328.0	2.5	9.26	0.820	63.8	0.442	1.502	115.6	301.0	---	2.166	-7.58	1.168	72.9	234.0	-42.9	0.379
3-9690	4- 210	0.433	332.5	-3.7	4.27	0.823	65.1	0.421	1.513	113.4	308.9	---	2.151	-2.66	1.171	75.5	241.7	-30.7	0.316
3-9690	4- 220	0.416	334.0	-4.8	3.19	0.826	66.2	0.404	1.522	111.4	317.1	---	2.137	-1.64	1.173	78.0	248.4	-28.6	0.277
3-9690	4- 230	0.403	335.0	-5.2	2.69	0.828	67.2	0.389	1.530	109.7	325.6	---	2.125	-1.22	1.175	80.6	249.3	-28.0	0.242
3-9690	4- 240	0.392	335.7	-5.3	2.39	0.829	67.9	0.377	1.536	108.2	334.3	---	2.115	-0.99	1.176	83.1	250.0	-27.7	0.211
3-9690	4- 250	0.385	336.3	-5.4	2.18	0.830	68.5	0.368	1.541	107.1	343.4	---	2.108	-0.86	1.175	85.6	247.8	-27.4	0.186
3-9690	4- 260	0.380	336.7	-5.6	2.02	0.831	68.8	0.363	1.544	106.4	352.8	---	2.105	-0.78	1.175	88.1	242.3	-26.5	0.168
3-9690	4- 270	0.379	336.9	-5.8	1.88	0.832	68.9	0.361	1.547	106.1	362.6	0.988	2.106	-0.73	1.174	90.7	234.2	-24.8	0.162
3-9690	4- 280	0.381	337.0	-6.0	1.75	0.832	68.7	0.364	1.548	106.2	372.8	0.984	2.113	-0.71	1.172	93.4	225.5	-22.3	0.170
3-9690	4- 290	0.389	336.8	-6.4	1.62	0.832	68.2	0.373	1.549	106.8	383.4	0.971	2.127	-0.72	1.170	96.3	218.7	-19.7	0.193
3-9690	4- 290	0.245	230.2	-14.8	1.62	0.619	105.6	0.492	1.047	197.6	834.2	0.531	1.562	-0.72	1.029	119.4	157.2	8.2	0.502
3-9690	4- 290	0.500	201.5	-7.5	1.62	0.687	132.4	0.708	1.155	209.8	846.4	0.337	1.973	-0.72	1.072	134.5	152.1	10.7	0.775
3-9690	4- 300	0.402	336.5	-7.0	1.49	0.832	67.2	0.389	1.549	108.0	394.6	0.947	2.151	-0.74	1.167	99.5	214.7	-17.8	0.230
3-9690	4- 300	0.226	252.3	-19.0	1.49	0.603	97.3	0.471	1.025	188.4	835.0	0.542	1.509	-0.74	1.017	118.1	166.1	4.4	0.475
3-9690	4- 310	0.424	335.9	-7.7	1.35	0.832	65.6	0.414	1.548	110.0	406.4	0.908	2.189	-0.80	1.165	103.1	213.2	-16.8	0.282
3-9690	4- 310	0.242	270.6	-20.7	1.35	0.592	90.4	0.476	1.012	180.5	837.0	0.530	1.494	-0.80	1.008	118.4	174.3	0.8	0.477
3-9690	4- 320	0.457	334.9	-8.6	1.18	0.832	63.3	0.451	1.547	112.8	419.2	0.850	2.245	-0.89	1.162	107.5	213.3	-16.4	0.350
3-9690	4- 320	0.280	284.8	-20.8	1.18	0.584	83.6	0.499	1.003	173.5	839.8	0.502	1.504	-0.89	1.000	120.0	182.1	-2.6	0.501
3-9690	4- 330	0.506	333.3	-9.8	0.96	0.832	59.7	0.505	1.547	117.0	433.1	0.765	2.328	-1.03	1.160	112.9	214.4	-16.4	0.441
3-9690	4- 330	0.339	294.8	-20.4	0.96	0.578	75.9	0.543	0.996	167.5	843.6	0.455	1.537	-1.03	0.994	122.9	189.5	-5.8	0.548
3-9690	4- 340	0.580	330.9	-11.4	0.65	0.832	54.3	0.584	1.546	123.1	448.9	0.642	2.450	-1.27	1.157	120.0	215.6	-16.5	0.565
3-9690	4- 340	0.423	301.3	-20.0	0.65	0.574	66.7	0.612	0.991	163.0	848.9	0.385	1.597	-1.27	0.988	127.7	196.1	-8.6	0.624
3-9690	4- 350	0.540	304.6	-20.0	0.14	0.570	58.7	0.714	0.987	161.3	856.8	0.282	1.692	-1.72	0.984	135.6	201.5	-10.7	0.753
3-9690	4- 400	0.552	189.9	-0.5	3.35	0.818	134.4	0.699	1.495	225.7	609.2	0.450	2.541	1.79	1.140	49.0	106.4	24.6	0.760
3-9690	4- 400	0.440	225.7	-14.2	3.35	0.508	122.2	0.745	0.925	193.5	627.0	0.236	1.614	1.79	0.942	42.1	124.8	21.1	0.785
3-9690	4- 410	0.430	186.4	1.9	2.80	0.818	125.4	0.580	1.496	238.7	627.7	0.629	2.363	1.31	1.140	59.3	106.9	24.8	0.581
3-9690	4- 410	0.351	241.6	-17.5	2.80	0.499	106.3	0.665	0.918	188.7	941.8	0.308	1.528	1.31	0.937	48.7	132.1	19.2	0.678

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9690	4- 420	0.349	184.3	3.7	2.48	0.818	119.6	0.[illegible]	1.495	240.4	642.0	0.756	2.235	1.05	1.140	66.6	108.4	24.8	0.454
3-9690	4- 420	0.445	282.9	-21.0	2.48	0.453	72.6	0.[illegible]7	0.882	173.1	935.7	0.241	1.523	1.05	0.913	44.0	145.3	14.8	0.741
3-9690	4- 420	0.367	271.5	-20.8	2.48	0.475	85.6	0.665	0.899	177.8	940.4	0.301	1.497	1.05	0.925	48.9	142.7	15.9	0.670
3-9690	4- 430	0.295	183.0	4.9	2.26	0.818	115.8	0.435	1.494	244.2	656.3	0.844	2.144	0.90	1.140	71.9	110.1	24.9	0.362
3-9690	4- 440	0.258	182.3	5.7	2.09	0.818	113.2	0.393	1.493	246.7	668.4	0.906	2.080	0.81	1.141	76.1	111.1	25.1	0.293
3-9690	4- 450	0.232	181.8	6.2	1.95	0.817	111.4	0.364	1.492	248.4	679.7	0.948	2.035	0.75	1.142	79.5	110.6	25.7	0.239
3-9690	4- 460	0.215	181.5	6.4	1.82	0.817	110.2	0.345	1.491	249.5	690.4	0.977	2.006	0.72	1.144	82.5	107.9	26.6	0.199
3-9690	4- 470	0.592	317.2	-15.2	1.70	0.700	50.6	0.668	1.178	147.5	598.1	0.391	1.965	0.71	1.065	48.8	178.5	1.5	0.714
3-9690	4- 470	0.205	181.2	6.5	1.70	0.817	109.5	0.333	1.491	250.2	700.8	0.994	1.989	0.71	1.146	85.2	102.2	27.8	0.171
3-9690	4- 480	0.542	318.9	-14.5	1.58	0.708	54.8	0.612	1.194	144.8	605.1	0.463	1.925	0.72	1.073	53.2	184.4	-0.9	0.642
3-9690	4- 480	0.201	180.9	6.2	1.58	0.818	109.2	0.328	1.492	250.6	710.9	1.002	1.982	0.72	1.149	87.8	93.4	28.7	0.157
3-9690	4- 490	0.495	320.3	-14.0	1.45	0.716	58.7	0.557	1.210	142.4	612.5	0.536	1.884	0.76	1.081	57.5	190.3	-3.1	0.571
3-9690	4- 490	0.201	180.6	5.8	1.45	0.818	109.2	0.329	1.495	250.8	720.9	1.003	1.986	0.76	1.151	90.2	83.5	28.9	0.156
3-9700	3-9890	0.271	208.2	-6.1	2.22	0.718	113.2	0.451	1.198	217.9	454.0	0.658	---	-1.05	1.093	114.9	132.4	15.4	0.453
3-9700	3-9900	0.244	216.2	-9.0	2.01	0.693	110.1	0.438	1.149	211.5	457.8	0.646	---	-0.95	1.075	114.8	140.6	13.2	0.441
3-9700	3-9910	0.223	225.9	-12.2	1.84	0.670	106.[illegible]	0.431	1.110	205.2	461.5	0.632	---	-0.90	1.059	114.8	148.7	10.6	0.434
3-9700	3-9920	0.211	237.5	-15.4	1.69	0.650	103.1	0.429	1.078	196.8	465.2	0.616	---	-0.87	1.044	115.0	156.6	7.7	0.431
3-9700	3-9930	0.208	250.7	-18.1	1.53	0.632	99.2	0.433	1.052	192.5	468.9	0.597	---	-0.88	1.030	115.5	164.3	4.7	0.434
3-9700	3-9940	0.217	264.5	-20.0	1.38	0.616	94.9	0.444	1.031	186.2	472.5	0.573	---	-0.91	1.018	116.3	171.9	1.5	0.444
3-9700	3-9950	0.240	277.6	-20.8	1.20	0.602	90.0	0.463	1.012	180.0	476.2	0.544	---	-0.97	1.006	117.6	179.3	-1.8	0.462
3-9700	3-9960	0.277	288.9	-20.7	1.00	0.589	84.3	0.493	0.997	174.1	480.2	0.505	1.489	-1.08	0.996	119.6	186.6	-4.9	0.493
3-9700	4- 230	0.409	339.1	-2.7	3.12	0.831	66.8	0.394	1.517	110.0	320.4	---	2.115	-1.72	1.173	79.1	254.9	-30.3	0.263
3-9700	4- 240	0.396	340.0	-3.1	2.65	0.833	67.7	0.380	1.525	108.3	329.0	---	2.104	-1.34	1.173	81.6	257.1	-29.7	0.229
3-9700	4- 250	0.387	340.7	-3.3	2.34	0.835	68.4	0.369	1.530	107.0	337.8	---	2.095	-1.13	1.174	84.1	256.8	-29.5	0.200
3-9700	4- 260	0.380	341.2	-3.4	2.12	0.836	68.9	0.362	1.534	106.0	346.9	---	2.089	-1.00	1.173	86.5	253.5	-29.2	0.170
3-9700	4- 270	0.376	341.6	-3.6	1.93	0.836	69.1	0.358	1.538	105.4	356.4	---	2.087	-0.92	1.172	89.1	248.7	-28.4	0.164
3-9700	4- 280	0.376	341.8	-3.9	1.77	0.837	69.1	0.358	1.540	105.2	366.3	0.989	2.090	-0.88	1.170	91.7	237.8	-26.7	0.163
3-9700	4- 290	0.380	341.9	-4.3	1.61	0.837	68.8	0.363	1.541	105.5	376.6	0.982	2.099	-0.87	1.168	94.4	229.4	-24.2	0.175
3-9700	4- 300	0.390	341.7	-4.8	1.46	0.837	68.2	0.374	1.541	106.[illegible]	387.4	0.965	2.117	-0.89	1.166	97.4	223.3	-21.9	0.203
3-9700	4- 300	0.233	245.1	-18.1	1.46	0.616	101.8	0.475	1.030	193.6	834.8	0.541	1.519	-0.89	1.019	118.3	186.1	4.2	0.479
3-9700	4- 310	0.406	341.3	-5.4	1.30	0.837	67.0	0.392	1.541	107.8	398.8	0.937	2.145	-0.93	1.164	100.7	220.2	-20.2	0.245
3-9700	4- 310	0.231	265.7	-20.5	1.30	0.603	94.5	0.466	1.014	185.1	836.2	0.541	1.487	-0.93	1.008	117.8	174.6	0.4	0.467
3-9700	4- 320	0.256	282.3	-20.9	1.11	0.594	87.8	0.478	1.003	177.6	838.4	0.523	1.483	-1.02	1.000	118.6	182.6	-3.2	0.477
3-9700	4- 440	0.276	187.7	3.2	2.21	0.824	114.2	0.410	1.488	246.4	662.6	0.878	2.098	1.05	1.140	74.2	115.9	24.9	0.322
3-9700	4- 450	0.245	187.2	3.7	2.02	0.823	112.0	0.375	1.487	248.5	674.4	0.929	2.045	0.96	1.141	78.0	116.2	25.4	0.261
3-9700	4- 460	0.225	186.8	4.0	1.86	0.823	110.6	0.352	1.487	250.0	685.4	0.964	2.009	0.90	1.143	81.2	114.6	26.3	0.215
3-9700	4- 470	0.211	186.4	4.0	1.71	0.823	109.7	0.337	1.486	250.9	696.0	0.986	1.987	0.88	1.145	84.0	110.3	27.7	0.181
3-9700	4- 480	0.204	186.1	3.8	1.56	0.823	109.2	0.329	1.487	251.4	706.3	0.998	1.976	0.88	1.147	86.6	102.8	29.2	0.161
3-9700	4- 490	0.202	185.7	3.4	1.40	0.824	109.1	0.327	1.489	251.7	716.4	1.002	1.975	0.90	1.150	89.1	93.0	30.2	0.154
3-9700	4- 500	0.206	185.3	2.8	1.23	0.824	109.3	0.331	1.492	251.8	726.3	0.998	1.985	0.90	1.153	91.6	83.0	30.2	0.161
3-9750	3-9940	0.292	243.7	-18.7	1.35	0.697	111.5	0.465	1.089	210.5	468.1	0.583	---	-1.59	1.043	117.3	173.5	-0.6	0.469
3-9750	3-9950	0.267	253.4	-20.5	1.08	0.673	107.7	0.455	1.050	204.2	471.6	0.572	---	-1.55	1.023	117.0	181.1	-3.8	0.456
3-9750	3-9960	0.250	265.0	-21.8	0.81	0.651	103.6	0.452	1.019	197.8	475.0	0.559	---	-1.56	1.006	116.8	188.6	-7.1	0.450
3-9750	3-9970	0.244	278.3	-22.4	0.54	0.632	99.2	0.455	0.994	191.3	478.4	0.542	---	-1.62	0.991	117.1	196.1	-10.3	0.450
3-9750	3-9970	0.244	278.3	-22.4	0.54	0.632	99.2	0.455	0.994	191.3	478.4	0.542	---	-1.62	0.991	117.1	196.1	-10.3	0.450
3-9750	3-9980	0.250	292.3	-21.8	0.23	0.615	94.2	0.466	0.974	184.9	481.6	0.520	---	-1.74	0.978	117.7	203.8	-13.4	0.459
3-9750	3-9990	0.274	305.8	-20.1	-0.13	0.600	88.5	0.488	0.957	178.4	484.9	0.490	1.424	-1.93	0.966	119.1	211.5	-16.4	0.480
3-9750	4- 260	0.389	3.4	9.2	3.47	0.854	67.9	0.378	1.479	106.8	319.0	---	2.039	-2.91	1.163	79.1	293.3	-34.3	0.269
3-9750	4- 270	0.374	4.6	8.4	2.71	0.856	68.8	0.363	1.487	104.9	327.2	---	2.027	-2.30	1.162	81.4	296.0	-32.8	0.235
3-9750	4- 280	0.363	5.6	7.8	2.21	0.857	69.6	0.352	1.493	103.3	335.7	---	2.017	-1.96	1.162	83.7	296.7	-32.4	0.205
3-9750	4- 290	0.355	6.3	7.3	1.82	0.859	70.1	0.343	1.497	102.1	344.5	---	2.010	-1.75	1.160	86.1	294.6	-32.9	0.181
3-9750	4- 300	0.349	6.9	6.9	1.50	0.859	70.5	0.337	1.501	101.2	353.6	---	2.007	-1.63	1.159	88.4	289.2	-33.9	0.164
3-9750	4- 310	0.348	7.3	6.3	1.22	0.860	70.6	0.336	1.503	100.8	363.1	0.998	2.008	-1.56	1.157	90.8	280.5	-34.7	0.158
3-9750	4- 320	0.350	7.5	5.7	0.95	0.860	70.4	0.339	1.505	100.9	373.0	0.995	2.014	-1.55	1.154	93.3	270.4	-34.4	0.164
3-9750	4- 330	0.357	7.6	5.1	0.68	0.861	69.9	0.347	1.505	101.6	383.5	0.983	2.028	-1.58	1.152	96.0	262.0	-33.1	0.185
3-9750	4- 330	0.251	269.4	-22.3	0.66	0.640	102.3	0.460	1.005	195.4	837.3	0.543	1.467	-1.58	0.998	117.4	191.9	-8.4	0.457
3-9750	4- 340	0.371	7.5	4.3	0.39	0.861	69.0	0.363	1.506	103.0	394.6	0.960	2.051	-1.67	1.150	99.0	256.7	-31.5	0.220
3-9750	4- 340	0.238	288.6	-21.8	0.39	0.628	95.5	0.447	0.990	186.9	838.5	0.548	1.432	-1.67	0.988	116.5	200.4	-12.2	0.440
3-9750	4- 350	0.395	7.1	3.3	0.07	0.861	67.4	0.388	1.505	105.2	406.5	0.922	2.089	-1.81	1.148	102.5	254.2	-30.2	0.271
3-9750	4- 350	0.253	305.4	-19.8	0.07	0.620	89.2	0.454	0.979	179.[illegible]	840.4	0.535	1.424	-1.81	0.980	116.9	208.8	-15.6	0.447
3-9750	4- 360	0.289	318.7	-17.1	-0.34	0.613	82.7	0.479	0.972	171.9	842.8	0.507	1.437	-2.05	0.974	118.5	217.1	-18.6	0.473
3-9750	4- 470	0.283	213.9	-7.9	2.04	0.850	112.7	0.387	1.464	251.1	667.5	0.898	2.030	1.86	1.141	76.1	143.6	22.0	0.287
3-9750	4- 480	0.255	213.3	-8.1	1.70	0.850	110.8	0.356	1.463	253.3	679.4	0.942	1.985	1.70	1.143	79.6	143.2	23.3	0.232
3-9750	4- 490	0.237	212.8	-8.5	1.40	0.849	109.6	0.337	1.463	254.[illegible]	690.6	0.970	1.956	1.60	1.145	82.7	140.6	25.4	0.192
3-9750	4- 500	0.227	212.3	-9.1	1.13	0.850	108.9	0.326	1.463	255.6	701.3	0.987	1.940	1.55	1.148	85.4	135.0	28.4	0.165
3-9750	4- 510	0.223	211.9	-9.9	0.86	0.850	108.7	0.321	1.465	256.1	711.7	0.994	1.935	1.56	1.150	88.0	126.3	31.5	0.152
3-9750	4- 520	0.223	211.4	-10.8	0.58	0.850	108.7	0.322	1.467	256.3	721.8	0.994	1.939	1.61	1.153	90.4	116.4	33.7	0.153
3-9750	4- 530	0.229	210.8	-11.8	0.27	0.851	109.1	0.329	1.470	256.1	731.6	0.987	1.954	1.72	1.156	92.9	108.2	34.5	0.167
3-9750	4- 540	0.240	210.2	-13.0	-0.10	0.853	109.8	0.341	1.475	255.7	741.3	0.972	1.978	1.91	1.159	95.4	103.6	34.5	0.191
3-9750	4- 550	0.256	209.7	-14.3	-0.58	0.854	110.9	0.358	1.482	255.0	750.6	0.951	2.013	2.22	1.162	97.9	102.6	34.4	0.224
3-9800	4- 0	0.298	291.9	-23.3	-0.43	0.646	105.0	0.482	0.976	197.4	482.7	0.505	---	-1.92	0.975	118.8	222.5	-19.9	0.478
3-9800	4- 10	0.284	304.3	-21.9	-0.78	0.624	99.9	0.484	0.950	190.9	485.7	0.490	---	-2.04	0.959	118.7	230.7	-22.3	0.476
3-9800	4- 20	0.283	318.0	-19.2	-1.19	0.605	94.2	0.496	0.930	184.2	488.6	0.468	---	-2.24	0.945	119.3	239.1	-24.3	0.486
3-9800	4- 290	0.349	30.4	20.3	3.08	0.866	68.8	0.363	1.447	105.1	316.8	---	1.973	-3.52	1.150	78.9	329.5	-28.0	0.275
3-9800	4- 300	0.333	31.9	18.9	2.16	0.868	69.8	0.348	1.455	103.0	324.6	---	1.961	-2.78	1.149	81.1	331.9	-25.7	0.240
3-9800	4- 310	0.320	33.0	17.8	1.55	0.870	70.6	0.336	1.461	101.3	332.8	---	1.951	-2.36	1.148	83.3	333.1	-24.9	0.210
3-9800	4- 320	0.311	33.9	17.0	1.09	0.871	71.2	0.326	1.466	99.8	341.2	---	1.944	-2.11	1.147	85.4	334.4	-25.4	0.185
3-9800	4- 330	0.304	34.6	16.2	0.71	0.872	71.7	0.319	1.470	98.8	349.9	---	1.939	-1.95	1.145	87.6	329.0	-27.1	0.166
3-9800	4- 340	0.301	35.1	15.4	0.37	0.873	71.9	0.316	1.473	98.1	359.0	---	1.938	-1.87	1.143	89.8	322.5	-29.4	0.156
3-9800	4- 350	0.302	35.5	14.6	0.06	0.874	71.8	0.317	1.474	98.0	368.6	1.007	1.942	-1.85	1.142	92.1	313.5	-31.6	0.157
3-9800	4- 360	0.307	35.7	13.8	-0.26	0.874	71.4	0.323	1.475	98.5	378.7	0.999	1.952	-1.88	1.140	94.5	304.4	-32.6	0.171

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9800	4- 360	0.299	287.9	-23.5	-0.26	0.659	106.2	0.472	0.993	200.0	840.2	0.524	1.462	-1.88	0.985	118.2	218.7	-18.8	0.470
3-9800	4- 370	0.319	35.7	12.9	-0.59	0.874	70.7	0.336	1.476	99.6	389.4	0.981	1.971	-1.96	1.138	97.3	297.5	-32.4	0.199
3-9800	4- 370	0.259	304.9	-21.5	-0.59	0.644	92.7	0.445	0.975	191.2	841.0	0.541	1.408	-1.96	0.973	116.4	228.0	-21.9	0.439
3-9800	4- 380	0.339	35.4	12.0	-0.97	0.874	69.4	0.356	1.476	101.6	400.9	0.950	2.002	-2.12	1.137	100.4	293.4	-31.7	0.242
3-9800	4- 380	0.252	321.5	-18.1	-0.97	0.635	92.4	0.442	0.963	183.0	842.4	0.537	1.389	-2.12	0.965	116.1	237.4	-24.4	0.435
3-9800	4- 390	0.269	336.5	-13.6	-1.42	0.628	86.0	0.458	0.955	175.3	844.2	0.518	1.391	-2.38	0.960	117.0	246.7	-26.3	0.451
3-9800	4- 500	0.315	243.1	-18.1	1.37	0.864	112.2	0.379	1.440	252.9	667.8	0.693	1.986	[illegible]	[illegible]	76.3	173.0	12.8	0.279
3-9800	4- 510	0.287	242.4	-18.8	0.94	0.864	110.3	0.349	1.439	255.2	680.0	0.937	1.942	2.04	1.145	80.0	172.8	14.3	0.225
3-9800	4- 520	0.269	241.9	-19.6	0.58	0.864	109.2	0.330	1.439	256.7	691.5	0.964	1.914	1.92	1.148	83.0	170.6	[illegible]	[illegible]
3-9800	4- 530	0.259	241.5	-20.6	0.24	0.864	108.5	0.319	1.439	257.7	702.4	0.980	1.898	1.86	1.150	85.8	165.7	20.8	0.159
3-9800	4- 540	0.255	241.2	-21.6	-0.08	0.864	108.2	0.314	1.440	258.2	712.9	0.987	1.893	1.85	1.152	88.3	158.0	25.1	0.147
3-9800	4- 550	0.256	240.8	-22.6	-0.42	0.865	108.3	0.316	1.443	258.3	723.2	0.987	1.898	1.91	1.154	90.8	149.1	28.6	0.148
3-9800	4- 560	0.262	240.5	-23.7	-0.79	0.866	108.7	0.323	1.446	258.1	733.1	0.979	1.912	2.04	1.157	93.2	141.8	30.4	0.163
3-9800	4- 570	0.273	240.1	-24.8	-1.23	0.867	109.4	0.335	1.451	257.6	742.8	0.965	1.936	2.26	1.159	95.7	137.6	31.0	0.187
3-9800	4- 580	0.290	239.8	-26.2	-1.80	0.869	110.4	0.352	1.459	256.9	752.2	0.944	1.970	2.63	1.161	98.2	136.8	31.0	0.220
3-9800	4- 590	0.312	239.5	-27.9	-2.62	0.871	111.8	0.374	1.466	255.8	761.3	0.917	2.014	3.26	1.163	100.9	138.8	31.1	0.260
3-9850	4- 320	0.293	61.1	26.7	1.92	0.861	69.7	0.347	1.422	106.1	315.8	---	1.916	-3.26	1.138	79.0	357.9	-15.8	0.268
3-9850	4- 330	0.278	62.4	24.7	1.05	0.863	70.7	0.332	1.430	104.1	323.6	---	1.905	-2.54	1.137	81.2	359.9	-13.4	0.234
3-9850	4- 340	0.266	63.3	23.2	0.48	0.865	71.5	0.319	1.436	102.4	331.6	---	1.895	-2.13	1.136	83.2	0.9	-12.5	0.205
3-9850	4- 350	0.257	64.1	22.0	0.07	0.866	72.1	0.310	1.441	100.9	339.8	---	1.888	-1.80	1.135	85.3	0.2	-12.9	0.180
3-9850	4- 360	0.251	64.6	21.0	-0.27	0.868	72.5	0.303	1.445	99.9	348.4	---	1.884	-1.73	1.134	87.3	357.1	-14.6	0.161
3-9850	4- 370	0.248	65.0	20.0	-0.57	0.868	72.7	0.300	1.448	99.3	357.4	---	1.883	-1.65	1.133	89.4	351.4	-17.3	0.151
3-9850	4- 380	0.249	65.3	19.2	-0.84	0.869	72.7	0.301	1.450	99.1	366.8	1.013	1.887	-1.61	1.132	91.6	343.5	-20.2	0.151
3-9850	4- 390	0.254	65.4	18.3	-1.11	0.869	72.3	0.307	1.451	99.5	376.8	1.006	1.896	-1.63	1.131	93.9	335.5	-22.3	0.164
3-9850	4- 400	0.265	65.4	17.6	-1.39	0.869	71.6	0.318	1.451	100.5	387.3	0.989	1.914	-1.68	1.131	96.5	329.2	-23.1	0.191
3-9850	4- 410	0.284	65.1	17.0	-1.71	0.869	70.4	0.338	1.451	102.2	398.6	0.961	1.942	-1.80	1.131	99.5	325.5	-23.0	0.231
3-9850	4- 410	0.280	334.2	-15.1	-1.71	0.630	97.0	0.464	0.954	188.2	844.6	0.512	1.397	-1.80	0.959	117.4	268.1	-26.7	0.462
3-9850	4- 420	0.313	64.5	16.4	-2.07	0.869	68.5	0.369	1.451	104.9	410.7	0.916	1.986	-1.99	1.131	103.0	323.9	-22.4	0.287
3-9850	4- 420	0.269	349.5	-9.9	-2.07	0.620	90.1	0.467	0.944	180.1	845.9	0.503	1.385	-1.99	0.953	117.5	278.0	-26.9	0.466
3-9850	4- 430	0.288	4.4	-4.0	-2.54	0.613	82.8	0.492	0.936	172.4	847.8	0.475	1.396	-2.30	0.949	119.1	287.5	-26.4	0.495
3-9850	4- 540	0.329	275.6	-24.1	-0.09	0.858	110.5	0.351	1.411	252.3	675.4	0.915	1.907	1.81	1.146	78.8	204.7	-1.2	0.240
3-9850	4- 550	0.308	275.3	-25.0	-0.42	0.858	109.1	0.328	1.410	253.9	687.1	0.948	1.873	1.68	1.148	82.1	204.0	0.6	0.195
3-9850	4- 560	0.295	275.2	-25.9	-0.72	0.858	108.2	0.313	1.410	255.0	698.3	0.969	1.852	1.62	1.149	84.9	201.0	3.5	0.163
3-9850	4- 570	0.288	275.1	-26.8	-1.01	0.858	107.7	0.305	1.411	255.6	709.1	0.980	1.841	1.62	1.150	87.4	195.2	7.6	0.144
3-9850	4- 580	0.287	275.0	-27.6	-1.30	0.858	107.6	0.304	1.412	255.9	719.6	0.984	1.841	1.66	1.151	89.9	187.4	12.0	0.138
3-9850	4- 590	0.291	275.0	-28.5	-1.62	0.859	107.9	0.307	1.415	255.9	729.8	0.980	1.850	1.76	1.152	92.3	179.7	15.5	0.146
3-9850	4- 600	0.299	274.9	-29.4	-2.00	0.860	108.4	0.317	1.419	255.7	739.8	0.970	1.868	1.95	1.153	93.7	174.3	17.4	0.165
3-9850	4- 610	0.313	274.9	-30.4	-2.48	0.862	109.3	0.331	1.425	255.3	749.5	0.953	1.897	2.25	1.153	97.2	171.9	18.1	0.194
3-9850	4- 620	0.291	47.7	9.9	-3.16	0.780	70.4	0.366	1.196	133.5	637.9	0.758	1.634	2.77	1.092	70.9	310.7	-10.1	0.369
3-9850	4- 620	0.333	275.0	-31.6	-3.16	0.864	110.5	0.352	1.432	254.6	759.0	0.929	1.934	2.77	1.154	99.8	172.4	18.3	0.231
3-9850	4- 630	0.259	48.1	5.3	-4.29	0.785	73.0	0.324	1.208	132.6	647.1	0.817	1.599	3.74	1.094	74.2	314.9	-4.1	0.318
3-9850	4- 630	0.359	275.3	-33.5	-4.29	0.867	112.1	0.378	1.442	253.6	768.0	0.898	1.987	3.74	1.154	102.6	175.2	19.0	0.276
3-9850	4- 640	0.242	49.0	-4.0	-6.74	0.790	75.2	0.288	1.218	132.2	656.7	0.868	1.568	4.06	1.096	77.2	316.8	7.9	0.284
3-9900	4- 330	0.273	90.2	37.0	4.53	0.831	68.8	0.363	1.385	114.5	303.0	---	1.887	-6.21	1.127	75.7	18.5	-15.0	0.329
3-9900	4- 340	0.248	91.6	27.7	1.17	0.834	69.9	0.343	1.396	112.3	310.5	---	1.875	-2.93	1.127	78.0	17.9	-5.0	0.278
3-9900	4- 350	0.233	92.3	24.4	0.12	0.837	71.0	0.326	1.405	110.3	318.2	---	1.863	-1.96	1.127	80.1	19.8	-1.3	0.242
3-9900	4- 360	0.221	92.9	22.5	-0.42	0.839	71.8	0.312	1.412	108.6	326.2	---	1.854	-1.50	1.126	82.1	21.2	-0.3	0.211
3-9900	4- 370	0.212	93.3	21.1	-0.76	0.841	72.4	0.302	1.418	107.2	334.4	---	1.846	-1.25	1.126	84.1	21.1	0.7	0.184
3-9900	4- 380	0.205	93.6	20.0	-1.01	0.842	72.9	0.294	1.423	106.2	342.9	---	1.841	-1.09	1.126	86.1	18.9	-0.2	0.163
3-9900	4- 390	0.201	93.8	19.1	-1.21	0.843	73.2	0.289	1.426	105.4	351.7	---	1.838	-1.00	1.126	88.1	14.2	-2.2	0.148
3-9900	4- 400	0.200	94.0	18.4	-1.38	0.844	73.3	0.288	1.428	105.1	360.9	1.017	1.840	-0.94	1.126	90.2	7.2	-5.0	0.143
3-9900	4- 410	0.203	94.1	17.8	-1.53	0.844	73.1	0.291	1.430	105.1	370.5	1.013	1.846	-0.92	1.126	92.4	359.6	-7.7	0.150
3-9900	4- 420	0.211	94.1	17.5	-1.69	0.845	72.6	0.300	1.430	105.6	380.5	1.002	1.858	-0.92	1.126	94.7	353.2	-9.6	0.169
3-9900	4- 430	0.224	94.0	17.3	-1.84	0.845	71.7	0.314	1.430	106.6	391.0	0.981	1.879	-0.94	1.127	97.3	349.1	-10.4	0.201
3-9900	4- 440	0.244	93.8	17.4	-2.02	0.844	70.3	0.337	1.429	108.2	402.1	0.948	1.910	-1.00	1.128	100.2	347.3	-10.4	0.244
3-9900	4- 450	0.274	93.4	17.6	-2.22	0.844	68.3	0.370	1.428	110.5	414.1	0.900	1.957	-1.10	1.129	103.8	347.2	-9.8	0.302
3-9900	4- 460	0.294	18.5	2.8	-2.47	0.578	86.4	0.531	0.927	176.8	850.0	0.435	1.418	-1.26	0.949	121.7	316.3	-18.8	0.543
3-9900	4- 570	0.363	309.7	-21.4	-1.13	0.828	111.0	0.360	1.376	244.7	667.2	0.881	1.871	1.03	1.143	76.8	240.3	-16.4	0.274
3-9900	4- 580	0.336	309.5	-22.1	-1.32	0.828	109.1	0.329	1.375	245.9	678.6	0.923	1.826	0.96	1.143	80.1	241.8	-16.0	0.223
3-9900	4- 590	0.317	309.6	-22.8	-1.49	0.827	107.8	0.307	1.373	246.7	689.6	0.951	1.795	0.92	1.143	83.0	241.6	-15.1	0.183
3-9900	4- 600	0.305	309.7	-23.4	-1.64	0.827	106.9	0.293	1.373	247.2	700.2	0.970	1.775	0.92	1.142	85.6	238.9	-13.4	0.154
3-9900	4- 610	0.298	309.8	-23.9	-1.82	0.827	106.5	0.285	1.373	247.5	710.7	0.982	1.764	0.94	1.142	87.9	233.1	-10.9	0.135
3-9900	4- 620	0.297	309.9	-24.4	-2.00	0.828	106.3	0.283	1.374	247.7	721.1	0.986	1.762	1.00	1.141	90.2	224.9	-7.7	0.128
3-9900	4- 630	0.293	72.3	17.8	-2.21	0.743	67.3	0.435	1.161	140.3	623.9	0.656	1.667	1.10	1.079	65.6	328.3	-10.3	0.458
3-9900	4- 630	0.300	309.9	-24.9	-2.21	0.828	106.5	0.286	1.376	248.0	731.5	0.983	1.770	1.10	1.140	92.5	216.5	-4.5	0.134
3-9900	4- 640	0.252	71.1	15.8	-2.48	0.751	70.9	0.379	1.178	139.4	633.0	0.732	1.623	1.26	1.083	69.7	333.4	-7.5	0.390
3-9900	4- 640	0.309	309.9	-25.5	-2.48	0.830	107.3	0.295	1.381	248.2	741.8	0.973	1.788	1.26	1.139	94.9	210.3	-2.2	0.152
3-9900	4- 650	0.213	68.9	12.6	-2.85	0.758	70.1	0.328	1.192	139.2	642.8	0.801	1.584	1.54	1.085	73.4	337.6	-4.1	0.328
3-9900	4- 650	0.323	309.9	-26.1	-2.85	0.832	108.1	0.311	1.387	248.3	752.0	0.956	1.818	1.54	1.138	97.4	207.2	-0.9	0.181
3-9900	4- 660	0.181	66.0	7.6	-3.45	0.764	76.7	0.285	1.205	139.8	653.4	0.861	1.550	2.06	1.087	76.8	340.5	0.4	0.273
3-9900	4- 660	0.345	310.0	-27.0	-3.45	0.835	109.5	0.333	1.396	248.3	761.9	0.931	1.862	2.06	1.138	100.1	207.1	0.1	0.220
3-9900	4- 670	0.163	62.9	-1.1	-4.71	0.768	78.9	0.251	1.216	141.0	664.5	0.910	1.522	3.23	1.088	79.7	341.0	8.5	0.229
3-9900	4- 670	0.374	310.7	-28.9	-4.71	0.838	111.3	0.363	1.408	247.9	771.5	0.897	1.919	3.23	1.138	103.0	209.6	2.2	0.269
3-9900	4- 680	0.187	61.8	-21.9	-9.54	0.772	80.5	0.226	1.224	142.6	676.0	0.948	1.501	7.99	1.088	82.3	333.5	33.0	0.231
3-9900	4- 690	0.229	9.5	65.4	13.89	0.775	81.8	0.207	1.231	144.3	687.7	0.976	1.485	-15.53	1.087	84.6	43.2	-56.7	0.316
3-9900	4- 700	0.114	39.2	32.5	2.33	0.777	82.5	0.195	1.235	145.6	698.7	0.995	1.476	-4.04	1.086	86.6	1.6	-35.5	0.141
3-9950	4- 320	0.286	113.6	17.5	-1.88	0.774	65.2	0.433	1.315	129.3	278.8	---	1.884	0.03	1.112	68.1	12.7	5.5	0.432
3-9950	4- 330	0.262	114.7	16.7	-1.89	0.781	66.9	0.403	1.333	126.8	286.1	---	1.870	0.05	1.114	70.8	18.1	7.8	0.387
3-9950	4- 340	0.241	115.5	15.9	-1.93	0.786	68.5	0.376	1.349	124.4	293.5	---	1.857	0.09	1.116	73.3	23.2	10.0	0.344
3-9950	4- 350	0.223	115.7	15.0	-2.60	0.791	69.8	0.353	1.363	122.4	301.1	---	1.844	0.75	1.117	75.7	26.9	14.0	0.305

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9950	4- 360	0.206	117.0	15.1	-1.74	0.795	71.0	0.332	1.375	120.5	308.9	---	1.832	-0.11	1.118	77.9	32.0	12.5	0.267
3-9950	4- 370	0.192	117.4	14.3	-1.80	0.798	72.0	0.315	1.385	118.9	316.9	---	1.822	-0.05	1.119	80.1	34.9	13.7	0.253
3-9950	4- 380	0.181	117.8	13.6	-1.82	0.801	72.7	0.302	1.393	117.5	325.1	---	1.813	-0.04	1.119	82.3	36.5	14.2	0.203
3-9950	4- 390	0.173	118.0	13.1	-1.83	0.803	73.3	0.291	1.399	116.4	333.6	---	1.806	-0.03	1.120	84.1	36.1	14.2	0.176
3-9950	4- 400	0.167	118.2	12.7	-1.83	0.804	73.8	0.283	1.404	115.6	342.3	---	1.801	-0.02	1.120	86.1	33.3	13.2	0.155
3-9950	4- 410	0.163	118.4	12.5	-1.84	0.805	74.0	0.279	1.407	115.0	351.3	---	1.800	-0.02	1.121	88.1	27.9	11.3	0.142
3-9950	4- 420	0.163	118.6	12.4	-1.84	0.806	74.0	0.279	1.409	114.7	360.5	1.016	1.802	-0.02	1.122	90.1	20.6	8.5	0.138
3-9950	4- 430	0.166	118.9	12.5	-1.85	0.806	73.8	0.282	1.410	114.7	370.0	1.012	1.808	-0.02	1.123	92.2	13.2	5.5	0.146
3-9950	4- 440	0.173	119.2	12.8	-1.85	0.806	73.3	0.290	1.410	114.9	379.8	1.001	1.820	-0.02	1.124	94.4	7.7	3.2	0.168
3-9950	4- 450	0.184	119.5	13.3	-1.85	0.806	72.5	0.304	1.410	115.4	389.9	0.981	1.838	-0.02	1.125	96.8	4.7	1.9	0.194
3-9950	4- 460	0.201	119.8	13.9	-1.85	0.806	71.2	0.324	1.408	116.3	400.4	0.952	1.865	-0.02	1.127	99.6	3.8	1.6	0.234
3-9950	4- 470	0.226	120.1	14.7	-1.86	0.805	69.5	0.353	1.407	117.5	411.3	0.909	1.904	-0.02	1.128	102.7	4.6	1.9	0.285
3-9950	4- 480	0.262	120.1	15.7	-1.86	0.805	66.9	0.395	1.405	119.4	422.9	0.851	1.959	-0.02	1.130	106.5	6.4	2.7	0.350
3-9950	4- 610	0.333	340.6	-12.8	-1.85	0.779	108.3	0.330	1.329	233.8	617.9	0.890	1.769	0.02	1.131	77.8	283.9	-22.8	0.261
3-9950	4- 620	0.308	341.0	-13.1	-1.85	0.778	106.5	0.302	1.326	233.2	677.5	0.925	1.727	0.02	1.129	80.5	287.3	-22.4	0.218
3-9950	4- 630	0.288	341.4	-13.3	-1.85	0.777	105.0	0.281	1.323	232.3	686.7	0.952	1.694	0.02	1.127	82.9	289.6	-22.1	0.184
3-9950	4- 640	0.273	341.8	-13.4	-1.85	0.776	103.9	0.265	1.321	231.4	695.8	0.971	1.670	0.02	1.124	85.0	290.1	-22.0	0.156
3-9950	4- 650	0.246	93.7	19.0	-1.86	0.699	69.9	0.433	1.149	147.6	622.1	0.651	1.646	0.02	1.071	65.5	348.5	-4.9	0.461
3-9950	4- 650	0.262	342.2	-13.5	-1.86	0.775	103.1	0.253	1.319	230.5	705.0	0.985	1.652	0.02	1.122	87.0	288.0	-22.3	0.134
3-9950	4- 660	0.194	88.3	17.4	-1.86	0.710	74.4	0.366	1.169	148.3	632.9	0.741	1.598	0.02	1.075	70.2	352.9	-3.0	0.379
3-9950	4- 660	0.256	342.5	-13.6	-1.86	0.775	102.6	0.246	1.318	229.9	714.5	0.993	1.642	0.02	1.119	88.9	282.4	-22.8	0.119
3-9950	4- 670	0.150	78.8	14.7	-1.87	0.720	78.5	0.306	1.189	150.8	645.3	0.825	1.554	0.02	1.079	74.7	356.3	-1.5	0.304
3-9950	4- 670	0.255	342.4	-13.7	-1.87	0.775	102.5	0.244	1.319	230.0	724.3	0.997	1.641	0.02	1.117	90.9	273.2	-23.2	0.114
3-9950	4- 680	0.120	64.6	10.4	-1.87	0.729	82.0	0.257	1.207	155.3	659.6	0.896	1.588	0.03	1.082	78.8	358.0	-0.7	0.236
3-9950	4- 680	0.260	342.0	-13.7	-1.87	0.777	102.9	0.249	1.323	231.0	735.4	0.993	1.682	0.03	1.115	93.0	262.0	-23.0	0.122
3-9950	4- 690	0.106	48.5	4.8	-1.88	0.736	84.8	0.223	1.222	161.0	675.2	0.950	1.694	0.04	1.084	82.3	357.5	-0.9	0.180
3-9950	4- 690	0.275	341.2	-13.8	-1.88	0.779	104.0	0.263	1.330	233.0	747.1	0.990	1.680	0.04	1.115	95.6	252.5	-22.2	0.145
3-9950	4- 700	0.104	35.7	0.1	-1.91	0.740	86.7	0.202	1.233	166.7	690.6	0.984	1.681	0.04	1.085	85.2	353.9	-2.1	0.138
3-9950	4- 700	0.300	340.1	-13.8	-1.91	0.784	105.9	0.289	1.342	235.5	759.4	0.954	1.730	0.06	1.115	98.5	247.0	-21.4	0.185
3-9950	4- 710	0.106	28.5	-3.1	-2.00	0.743	87.8	0.191	1.239	170.5	704.1	1.002	1.476	0.15	1.085	87.5	347.1	-4.0	0.111
3-9950	4- 710	0.336	339.1	-13.8	-2.00	0.790	108.5	0.326	1.359	237.6	771.3	0.915	1.802	0.15	1.117	101.9	245.8	-20.9	0.239
3-9950	4- 720	0.106	24.4	-1.5	-1.57	0.745	88.2	0.181	1.242	172.2	715.5	1.010	1.475	-0.28	1.074	89.3	340.5	-11.6	0.068
3-9950	4- 730	0.106	24.8	-2.9	-1.78	0.745	88.2	0.186	1.243	172.2	725.2	1.012	1.474	-0.07	1.082	90.8	331.5	-12.6	0.095
3-9950	4- 740	0.105	26.8	-2.6	-1.81	0.745	87.9	0.187	1.245	170.9	733.5	1.010	1.475	-0.04	1.080	92.1	325.4	-14.3	0.099
3-9950	4- 750	0.103	30.3	-1.6	-1.82	0.744	87.4	0.190	1.241	168.8	741.0	1.005	1.478	-0.03	1.079	93.3	322.1	-15.2	0.108
4-	0 4- 320	0.291	134.4	15.1	-1.13	0.708	63.7	0.480	1.248	141.3	264.0	---	1.859	-0.97	1.094	62.9	26.2	6.5	0.516
4-	0 4- 330	0.263	135.8	14.9	-0.91	0.719	65.9	0.450	1.273	138.9	277.4	---	1.846	-1.11	1.098	66.0	26.1	8.2	0.463
4-	0 4- 340	0.237	137.2	15.0	-0.60	0.728	67.8	0.415	1.295	136.6	278.9	---	1.834	-1.34	1.102	68.9	31.9	9.4	0.414
4-	0 4- 350	0.215	138.6	16.0	-0.12	0.736	69.4	0.385	1.315	134.7	286.6	---	1.821	-1.74	1.105	71.6	37.7	9.6	0.368
4-	0 4- 360	0.195	140.5	18.9	0.81	0.743	70.9	0.358	1.332	132.9	294.5	---	1.809	-2.60	1.107	74.2	43.7	7.8	0.327
4-	0 4- 370	0.185	144.8	29.4	3.63	0.748	72.1	0.335	1.347	131.4	302.5	---	1.798	-5.35	1.108	76.6	51.5	-1.6	0.299
4-	0 4- 390	0.173	131.6	-9.5	-6.14	0.756	74.0	0.299	1.369	129.0	319.4	---	1.779	4.55	1.113	81.0	74.5	40.4	0.228
4-	0 4- 400	0.152	134.8	-2.5	-3.92	0.759	74.7	0.287	1.377	128.1	328.1	---	1.772	2.41	1.114	83.0	77.4	32.5	0.189
4-	0 4- 410	0.143	136.1	0.1	-3.11	0.761	75.1	0.278	1.383	127.5	336.9	---	1.767	1.67	1.115	85.0	46.1	20.3	0.162
4-	0 4- 420	0.137	136.9	1.2	-2.67	0.762	75.4	0.272	1.387	127.0	345.9	---	1.765	1.30	1.117	87.0	41.5	26.7	0.141
4-	0 4- 430	0.135	137.6	2.9	-2.38	0.763	75.5	0.270	1.390	126.6	355.1	---	1.765	1.09	1.118	89.0	39.5	23.4	0.136
4-	0 4- 440	0.136	138.4	4.0	-2.17	0.764	75.4	0.271	1.391	126.4	364.4	1.014	1.769	0.97	1.119	90.9	27.0	19.6	0.137
4-	0 4- 450	0.139	139.2	5.1	-2.00	0.764	75.0	0.277	1.391	126.2	373.9	1.006	1.777	0.89	1.121	93.0	21.0	16.0	0.150
4-	0 4- 460	0.14	140.2	6.2	-1.86	0.764	74.4	0.287	1.390	126.1	383.4	0.992	1.789	0.84	1.123	95.2	17.6	13.4	0.172
4-	0 4- 470	0.159	141.3	7.9	-1.70	0.763	73.5	0.301	1.389	126.2	393.1	0.970	1.808	0.82	1.124	97.5	16.5	11.9	0.203
4-	0 4- 480	0.176	142.3	8.4	-1.56	0.762	72.2	0.322	1.387	126.3	403.0	0.940	1.834	0.83	1.126	100.1	17.4	11.5	0.242
4-	0 4- 490	0.200	143.3	9.5	-1.42	0.761	70.4	0.351	1.384	126.8	413.2	0.898	1.869	0.85	1.128	103.1	19.6	11.8	0.290
4-	0 4- 500	0.232	144.0	10.6	-1.25	0.760	68.0	0.389	1.381	127.5	423.9	0.843	1.918	0.91	1.130	106.6	22.6	12.9	0.350
4-	0 4- 510	0.276	144.3	11.8	-1.06	0.759	64.6	0.441	1.378	129.0	435.2	0.770	1.986	1.02	1.131	111.0	26.0	13.9	0.425
4-	0 4- 640	0.289	10.3	-0.3	-1.84	0.718	105.5	0.333	1.272	217.7	655.4	0.848	1.696	-0.84	1.112	75.2	324.4	-17.3	0.303
4-	0 4- 650	0.254	12.0	0.2	-1.69	0.715	102.7	0.303	1.265	213.8	661.5	0.882	1.648	-0.82	1.107	77.4	330.9	-15.5	0.268
4-	0 4- 660	0.243	113.9	18.2	-1.55	0.640	70.3	0.485	1.120	155.7	613.4	0.577	1.664	-0.83	1.058	61.7	2.0	-0.8	0.524
4-	0 4- 660	0.223	14.7	1.2	-1.55	0.711	100.0	0.280	1.256	208.4	666.1	0.905	1.607	-0.82	1.102	79.0	337.6	-13.3	0.239
4-	0 4- 670	0.174	101.9	18.4	-1.40	0.658	77.2	0.394	1.151	158.6	626.3	0.697	1.605	-0.36	1.066	68.0	5.6	0.2	0.416
4-	0 4- 670	0.190	19.5	2.8	-1.40	0.706	97.0	0.262	1.245	200.6	668.3	0.918	1.571	-0.86	1.097	80.0	345.9	-10.6	0.222
4-	0 4- 680	0.125	59.6	14.1	-1.23	0.683	86.7	0.[illegible]9	1.196	171.9	649.5	0.850	1.542	-0.92	1.079	76.0	4.6	-1.4	0.282
4-	0 4- 680	0.141	36.5	8.4	-1.23	0.694	91.3	0.261	1.219	183.7	661.7	0.900	1.537	-0.92	1.080	78.9	358.8	-5.1	0.236
4-	0 4- 770	0.186	21.3	-5.2	-3.46	0.715	96.6	0.243	1.263	201.5	765.5	0.956	1.570	1.98	1.084	98.5	308.3	-6.9	0.186
4-	0 4- 780	0.159	27.3	-2.3	-2.88	0.709	93.9	0.237	1.251	192.9	766.8	0.955	1.548	1.47	1.081	98.5	317.2	-7.5	0.184
4-	0 4- 790	0.140	34.0	0.4	-2.52	0.706	91.8	0.237	1.243	185.9	769.4	0.948	1.538	1.19	1.079	98.9	324.6	-7.1	0.191
4-	0 4- 800	0.324	162.9	1.5	-2.28	0.876	63.1	0.480	1.871	97.5	230.6	---	2.769	1.03	1.198	80.6	81.5	27.7	0.274
4-	0 4- 800	0.126	42.1	3.2	-2.28	0.702	89.9	0.242	1.236	179.7	772.7	0.937	1.536	1.03	1.078	99.5	331.4	-6.0	0.202
4-	50 4- 330	0.270	152.6	9.9	-0.70	0.651	65.9	0.505	1.205	150.0	257.9	---	1.813	-1.51	1.078	61.1	32.3	10.3	0.540
4-	50 4- 340	0.240	154.1	9.8	-0.41	0.665	68.2	0.461	1.234	148.0	265.6	---	1.803	-1.62	1.084	64.5	36.2	11.6	0.482
4-	50 4- 350	0.214	155.6	10.2	-0.07	0.678	70.2	0.422	1.260	146.3	273.5	---	1.792	-1.81	1.090	67.7	44.0	12.3	0.429
4-	50 4- 360	0.191	157.1	11.2	0.37	0.689	71.9	0.387	1.284	144.7	281.8	---	1.781	-2.10	1.094	70.6	49.7	12.4	0.380
4-	50 4- 370	0.171	158.8	13.4	1.01	0.698	73.4	0.357	1.304	143.5	290.0	---	1.770	-2.63	1.098	73.3	55.2	11.2	0.336
4-	50 4- 380	0.156	161.2	18.0	2.08	0.705	74.6	0.332	1.322	142.4	298.5	---	1.760	-3.55	1.102	75.9	60.5	7.5	0.296
4-	50 4- 390	0.151	166.1	28.7	4.44	0.711	75.7	0.311	1.336	141.6	307.2	---	1.751	-5.79	1.105	78.2	66.5	-2.4	0.271
4-	50 4- 400	0.236	182.8	58.5	15.51	0.715	76.5	0.294	1.340	140.9	315.9	---	1.744	-16.74	1.107	80.4	91.7	-34.9	0.371
4-	50 4- 410	0.258	125.6	-39.6	-17.97	0.719	77.2	0.280	1.357	140.5	325.5	---	1.737	16.87	1.109	82.7	4.9	84.6	0.356
4-	50 4- 420	0.143	342.7	-23.1	-6.79	0.721	77.7	0.270	1.364	140.1	334.9	---	1.733	5.61	1.111	84.7	52.1	56.3	0.190
4-	50 4- 430	0.123	107.7	-14.8	-4.41	0.723	77.9	0.264	1.369	139.8	343.7	---	1.731	3.55	1.113	86.6	49.6	45.8	0.154
4-	50 4- 440	0.116	158.4	-10.0	-3.34	0.724	78.0	0.262	1.372	139.5	352.9	---	1.731	2.61	1.115	88.5	43.1	39.0	0.139
4-	50 4- 450	0.114	153.5	-6.7	-2.71	0.725	77.9	0.263	1.373	139.2	362.2	1.012	1.734	2.11	1.117	90.5	35.9	32.9	0.136

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 50	4- 460	0.116	154.4	-4.1	-2.26	0.725	77.6	0.267	1.373	138.8	371.4	1.006	1.740	1.81	1.119	92.4	30.3	27.3	0.145
4- 50	4- 470	0.122	156.4	-2.0	-1.92	0.724	77.0	0.275	1.372	138.3	380.6	0.994	1.749	1.62	1.120	94.4	27.3	23.2	0.163
4- 50	4- 480	0.131	158.4	-0.2	-1.65	0.723	76.2	0.287	1.369	137.7	389.8	0.976	1.763	1.51	1.122	96.5	26.8	20.6	0.189
4- 50	4- 490	0.144	160.4	1.3	-1.37	0.722	75.1	0.304	1.366	137.1	398.9	0.951	1.782	1.45	1.124	98.8	28.2	19.4	0.221
4- 50	4- 500	0.162	162.3	2.9	-1.12	0.721	73.6	0.326	1.363	136.6	408.2	0.918	1.807	1.44	1.125	101.3	30.9	19.1	0.260
4- 50	4- 510	0.186	163.9	3.6	-0.97	0.719	71.7	0.355	1.358	136.1	417.6	0.875	1.841	1.47	1.127	104.2	34.6	19.4	0.307
4- 50	4- 520	0.218	165.2	4.5	-0.80	0.718	69.1	0.393	1.354	135.9	427.4	0.821	1.887	1.54	1.128	107.5	38.9	20.1	0.363
4- 50	4- 530	0.260	166.0	5.4	-0.29	0.716	65.8	0.443	1.350	136.3	437.7	0.752	1.947	1.68	1.130	111.6	43.5	20.9	0.433
4- 50	4- 660	0.248	43.2	12.6	-1.60	0.654	102.9	0.382	1.211	202.9	635.9	0.748	1.673	-1.50	1.089	69.9	353.2	-7.2	0.391
4- 50	4- 670	0.246	131.5	15.3	-1.34	0.581	72.3	0.534	1.092	163.0	606.0	0.509	1.676	-1.45	1.044	58.0	14.5	3.8	0.581
4- 1	4- 670	0.198	52.2	14.9	-1.34	0.645	97.6	0.358	1.194	194.0	637.0	0.766	1.622	-1.45	1.081	71.2	1.7	-3.7	0.367
4- 50	4- 820	0.327	185.1	-8.5	-2.48	0.843	62.7	0.475	1.844	102.7	330.3	---	2.720	1.95	1.198	80.5	103.5	31.5	0.270
4- 50	4- 820	0.195	44.6	8.5	-2.48	0.674	98.6	0.310	1.251	200.1	787.7	0.863	1.639	1.95	1.085	104.4	339.1	-1.2	0.291
4- 50	4- 830	0.319	186.2	-8.1	-2.09	0.844	83.3	0.466	1.849	101.5	338.7	---	2.711	1.71	1.200	83.3	101.3	31.6	0.240
4- 50	4- 830	0.159	54.3	10.8	-2.09	0.666	94.6	0.301	1.235	190.8	788.0	0.863	1.608	1.71	1.083	104.1	347.8	1.6	0.285
4- 50	4- 840	0.314	186.9	-7.8	-1.78	0.845	63.7	0.461	1.853	100.6	347.6	---	2.707	1.56	1.203	86.1	96.0	31.9	0.220
4- 50	4- 840	0.136	66.2	13.4	-1.78	0.661	91.3	0.304	1.225	183.1	790.0	0.853	1.597	1.56	1.082	104.5	355.7	4.3	0.292
4- 50	4- 850	0.312	187.4	-7.3	-1.51	0.845	63.8	0.459	1.856	100.3	357.0	---	2.708	1.48	1.205	89.0	87.7	31.9	0.211
4- 50	4- 850	0.123	81.0	15.7	-1.51	0.657	88.3	0.313	1.216	176.3	793.0	0.835	1.597	1.48	1.081	105.4	3.2	6.9	0.307
4- 100	4- 330	0.282	165.6	5.0	-0.67	0.576	67.5	0.569	1.127	160.2	244.9	---	1.768	-1.79	1.051	55.8	38.3	12.4	0.620
4- 100	4- 340	0.248	167.3	4.7	-0.37	0.600	70.1	0.515	1.163	158.5	252.9	---	1.762	-1.78	1.061	59.9	44.1	13.7	0.553
4- 100	4- 350	0.217	168.9	4.7	-0.06	0.619	72.3	0.466	1.197	157.0	261.1	---	1.754	-1.83	1.070	63.6	49.8	14.6	0.491
4- 100	4- 360	0.190	170.3	5.3	0.28	0.636	74.3	0.422	1.228	155.8	269.6	---	1.746	-1.94	1.078	67.0	55.4	15.1	0.434
4- 100	4- 370	0.167	171.6	6.5	0.67	0.650	76.0	0.384	1.255	154.9	278.3	---	1.737	-2.13	1.085	70.2	60.8	14.9	0.381
4- 100	4- 380	0.148	173.0	8.6	1.15	0.661	77.4	0.352	1.279	154.2	287.2	---	1.729	-2.43	1.090	73.1	65.9	13.8	0.333
4- 100	4- 390	0.132	174.7	12.3	1.82	0.671	78.6	0.325	1.299	153.8	296.4	---	1.721	-2.93	1.095	75.7	70.4	11.4	0.290
4- 100	4- 400	0.122	177.2	18.5	2.85	0.678	79.6	0.302	1.316	153.6	305.7	---	1.714	-3.80	1.099	78.2	74.4	6.3	0.254
4- 100	4- 410	0.122	182.2	29.8	4.84	0.684	80.3	0.285	1.330	153.6	315.1	---	1.709	-5.63	1.102	80.5	77.9	-4.5	0.232
4- 100	4- 420	0.166	194.3	50.2	10.81	0.688	80.9	0.272	1.340	153.5	324.5	---	1.704	-11.45	1.105	82.6	83.9	-29.6	0.273
4- 100	4- 440	0.155	141.9	-40.3	-10.20	0.693	81.6	0.256	1.353	153.5	344.0	---	1.699	9.86	1.110	86.8	35.1	77.5	0.224
4- 100	4- 450	0.111	153.8	-27.7	-5.41	0.694	81.6	0.254	1.356	153.2	353.2	---	1.700	5.22	1.113	88.6	43.7	58.7	0.158
4- 100	4- 460	0.100	159.9	-19.4	-3.64	0.694	81.4	0.255	1.356	152.8	362.4	1.010	1.702	3.61	1.115	90.5	39.8	46.5	0.143
4- 100	4- 470	0.099	164.4	-13.9	-2.69	0.694	81.1	0.259	1.356	152.1	371.3	1.004	1.707	2.81	1.116	92.3	36.3	37.6	0.147
4- 100	4- 480	0.102	168.3	-10.0	-2.06	0.693	80.5	0.267	1.353	151.2	380.1	0.993	1.714	2.36	1.118	94.2	34.9	31.5	0.161
4- 100	4- 490	0.110	171.9	-7.2	-1.59	0.692	79.7	0.277	1.350	150.1	388.8	0.976	1.724	2.08	1.120	96.1	35.5	27.7	0.183
4- 100	4- 500	0.121	175.2	-5.3	-1.21	0.690	78.6	0.291	1.346	149.8	397.3	0.954	1.738	1.91	1.121	98.2	37.9	25.6	0.210
4- 100	4- 510	0.136	178.2	-3.9	-0.87	0.688	77.3	0.310	1.341	149.4	405.9	0.925	1.756	1.82	1.123	100.4	41.5	24.7	0.243
4- 100	4- 520	0.156	180.8	-3.0	-0.56	0.686	75.6	0.333	1.335	146.9	414.4	0.890	1.780	1.78	1.124	102.8	46.0	24.5	0.281
4- 100	4- 530	0.181	183.0	-2.3	-0.25	0.683	73.4	0.363	1.330	144.7	423.1	0.847	1.812	1.80	1.125	105.5	51.1	24.8	0.326
4- 100	4- 540	0.213	184.8	-1.8	0.08	0.681	70.7	0.400	1.324	143.6	432.0	0.794	1.854	1.87	1.125	108.7	56.6	25.3	0.380
4- 100	4- 550	0.255	185.9	-1.4	0.46	0.679	67.2	0.448	1.318	143.0	441.5	0.727	1.909	2.02	1.126	112.6	62.3	25.8	0.445
4- 100	4- 670	0.260	75.9	19.9	-1.54	0.597	104.9	0.477	1.159	197.7	617.6	0.606	1.711	-2.06	1.069	62.6	10.1	0.2	0.513
4- 100	4- 680	0.260	148.3	10.7	-1.16	0.526	75.0	0.588	1.061	168.9	598.6	0.437	1.684	-1.90	1.028	54.1	27.1	8.5	0.642
4- 100	4- 680	0.200	94.1	20.6	-1.16	0.582	96.2	0.455	1.135	187.6	617.3	0.619	1.652	-1.90	1.058	63.7	19.1	4.1	0.488
4- 100	4- 830	0.349	205.3	-17.7	-3.13	0.816	61.8	0.479	1.808	108.3	322.5	---	2.674	3.17	1.195	78.1	125.6	32.2	0.300
4- 100	4- 840	0.338	206.8	-16.8	-2.96	0.817	62.6	0.468	1.814	106.9	330.7	---	2.663	2.57	1.198	80.8	125.5	31.4	0.264
4- 100	4- 850	0.330	208.0	-16.1	-1.82	0.818	63.2	0.459	1.819	105.8	339.3	---	2.655	2.21	1.201	83.5	122.8	31.6	0.235
4- 100	4- 850	0.277	60.7	17.0	-1.82	0.657	108.3	0.418	1.271	210.3	803.9	0.740	1.802	2.21	1.098	111.7	357.9	4.9	0.424
4- 100	4- 860	0.325	208.8	-15.5	-1.40	0.819	63.6	0.454	1.823	105.0	348.4	---	2.651	1.99	1.204	86.4	117.1	32.5	0.215
4- 100	4- 860	0.185	74.9	18.4	-1.40	0.637	99.0	0.365	1.230	196.4	799.7	0.782	1.678	1.99	1.088	108.6	8.6	9.8	0.367
4- 100	4- 870	0.324	209.2	-14.8	-1.04	0.820	64.6	0.453	1.826	104.8	358.0	---	2.653	1.86	1.206	89.4	108.4	33.3	0.208
4- 100	4- 870	0.149	90.3	19.6	-1.04	0.628	94.1	0.358	1.213	187.4	800.6	0.778	1.648	1.86	1.086	108.5	17.3	13.1	0.363
4- 100	4- 880	0.327	209.3	-14.0	-0.72	0.820	63.4	0.457	1.827	105.0	368.2	0.993	2.662	1.79	1.209	92.6	98.7	33.2	0.218
4- 100	4- 880	0.133	109.1	19.4	-0.72	0.622	89.9	0.366	1.201	179.8	802.9	0.762	1.640	1.79	1.085	109.1	25.6	15.9	0.374
4- 100	4- 890	0.335	209.0	-13.1	-0.41	0.820	62.8	0.466	1.828	105.9	379.0	0.976	2.681	1.78	1.211	96.0	90.7	32.2	0.246
4- 100	4- 890	0.134	129.1	17.1	-0.41	0.617	85.8	0.382	1.192	173.2	606.3	0.736	1.647	1.78	1.084	110.4	43.7	18.4	0.395
4- 100	4- 900	0.350	208.3	-12.1	-0.09	0.820	61.7	0.483	1.828	107.5	390.6	0.945	2.711	1.83	1.213	99.9	85.8	30.9	0.291
4- 100	4- 900	0.102	146.3	13.5	-0.09	0.612	81.6	0.408	1.184	167.4	810.5	0.701	1.667	1.83	1.084	112.3	41.7	20.6	0.426
4- 150	4- 340	0.263	176.5	0.7	-0.39	0.529	74.4	0.581	1.084	168.1	240.4	---	1.713	-1.93	1.031	54.7	50.1	15.7	0.630
4- 150	4- 350	0.226	178.2	0.6	-0.06	0.560	76.7	0.519	1.125	167.0	249.0	---	1.710	-1.86	1.045	59.2	55.6	16.6	0.557
4- 150	4- 360	0.194	179.6	1.0	0.25	0.586	78.6	0.464	1.164	166.2	257.9	---	1.705	-1.84	1.057	63.3	61.0	17.2	0.490
4- 150	4- 370	0.166	180.6	2.0	0.57	0.607	80.3	0.416	1.200	165.8	267.1	---	1.700	-1.88	1.068	67.9	66.3	17.3	0.428
4- 150	4- 380	0.143	181.4	3.7	0.90	0.625	81.7	0.375	1.232	165.7	276.6	---	1.694	-1.97	1.076	70.2	71.3	16.9	0.372
4- 150	4- 390	0.124	182.0	6.3	1.28	0.639	83.0	0.341	1.260	165.9	286.3	---	1.689	-2.13	1.084	73.4	75.8	15.9	0.322
4- 150	4- 400	0.109	182.6	10.2	1.74	0.650	84.0	0.313	1.283	166.4	296.3	---	1.685	-2.40	1.090	76.2	79.6	13.8	0.276
4- 150	4- 410	0.099	183.6	15.7	2.35	0.659	84.8	0.291	1.302	167.0	306.4	---	1.681	-2.83	1.095	78.7	82.4	10.3	0.237
4- 150	4- 420	0.094	185.7	23.5	3.26	0.666	85.4	0.274	1.317	167.6	316.6	---	1.678	-3.57	1.099	81.1	83.9	4.2	0.206
4- 150	4- 430	0.099	190.3	34.3	4.88	0.670	85.8	0.262	1.328	168.1	326.6	---	1.676	-5.02	1.103	83.2	84.2	-7.1	0.189
4- 150	4- 440	0.132	200.7	49.3	8.89	0.674	86.1	0.254	1.336	168.3	336.7	---	1.675	-8.88	1.106	85.3	84.6	-28.9	0.215
4- 150	4- 460	0.183	137.0	-49.3	-13.73	0.676	86.2	0.248	1.342	168.2	356.8	---	1.675	14.05	1.111	89.2	317.7	79.8	0.284
4- 150	4- 470	0.102	156.0	-35.4	-5.77	0.676	85.9	0.249	1.342	167.4	364.5	1.008	1.677	6.25	1.113	90.9	33.6	62.7	0.170
4- 150	4- 480	0.088	166.9	-24.2	-3.44	0.675	85.4	0.253	1.340	166.3	373.1	1.000	1.679	4.08	1.115	92.6	38.8	47.5	0.156
4- 150	4- 490	0.088	174.6	-17.0	-2.28	0.674	84.8	0.260	1.336	164.8	381.4	0.988	1.684	3.09	1.116	94.4	40.8	38.3	0.164
4- 150	4- 500	0.093	181.0	-12.7	-1.55	0.672	84.0	0.269	1.331	163.1	389.5	0.972	1.690	2.54	1.118	96.1	43.5	33.0	0.182
4- 150	4- 510	0.103	186.5	-10.1	-1.03	0.669	82.9	0.282	1.325	161.1	397.4	0.952	1.698	2.21	1.119	98.0	47.2	30.1	0.205
4- 150	4- 520	0.116	191.2	-8.7	-0.61	0.666	81.6	0.297	1.319	159.0	405.2	0.927	1.710	2.01	1.120	99.9	51.8	28.7	0.233
4- 150	4- 530	0.133	195.2	-8.0	-0.25	0.663	80.0	0.316	1.311	156.7	412.9	0.897	1.726	1.89	1.120	102.0	57.1	28.1	0.264
4- 150	4- 540	0.155	198.6	-7.7	0.08	0.660	78.1	0.340	1.304	154.5	420.7	0.861	1.747	1.84	1.120	104.3	63.0	27.9	0.300
4- 150	4- 550	0.181	201.4	-7.7	0.40	0.657	75.7	0.369	1.296	152.3	428.6	0.818	1.775	1.85	1.120	106.9	69.3	27.9	0.342
4- 150	4- 560	0.214	203.6	-7.8	0.74	0.653	72.8	0.406	1.289	150.4	436.8	0.766	1.812	1.92	1.120	109.9	75.9	28.0	0.393

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 150	4- 570	0.256	205.1	-7.8	1.12	0.650	69.1	0.452	1.282	148.8	445.4	0.702	1.862	2.06	1.119	113.5	82.5	27.9	0.454
4- 150	4- 680	0.295	106.5	20.5	-1.48	0.550	109.5	0.574	1.112	196.0	603.6	0.473	1.750	-2.49	1.049	55.4	25.1	6.8	0.630
4- 150	4- 690	0.230	127.2	17.2	-0.97	0.531	97.9	0.544	1.086	186.7	604.2	0.496	1.677	-2.18	1.036	57.3	34.0	10.2	0.590
4- 150	4- 850	0.361	227.8	-23.9	-2.81	0.799	62.1	0.471	1.774	111.2	322.6	---	2.610	3.53	1.195	78.2	147.2	28.3	0.294
4- 150	4- 860	0.354	229.2	-22.6	-1.90	0.800	62.9	0.460	1.781	109.8	331.0	---	2.599	2.79	1.198	81.0	146.6	27.1	0.257
4- 150	4- 870	0.347	230.3	-21.6	-1.29	0.801	63.4	0.451	1.786	108.8	339.9	---	2.592	2.36	1.201	83.8	143.9	27.5	0.228
4- 150	4- 880	0.342	231.0	-20.8	-0.82	0.802	63.8	0.447	1.789	108.1	349.1	---	2.589	2.10	1.204	86.6	138.2	28.9	0.209
4- 150	4- 890	0.342	231.3	-20.1	-0.43	0.803	63.8	0.446	1.792	107.9	358.8	---	2.591	1.95	1.207	89.6	129.7	30.5	0.203
4- 150	4- 890	0.192	103.2	22.1	-0.43	0.615	101.5	0.414	1.214	197.3	808.2	0.711	1.717	1.95	1.091	112.2	32.8	18.1	0.430
4- 150	4- 900	0.345	231.3	-19.4	-0.09	0.803	63.6	0.450	1.793	108.1	369.1	0.987	2.600	1.86	1.209	92.8	120.4	31.3	0.214
4- 150	4- 900	0.154	123.2	20.0	-0.09	0.603	95.2	0.403	1.193	187.8	808.8	0.712	1.674	1.86	1.087	111.8	42.5	21.0	0.419
4- 150	4- 910	0.353	230.9	-18.6	0.23	0.803	62.9	0.460	1.794	109.0	380.0	0.969	2.618	1.84	1.211	96.3	112.7	31.1	0.243
4- 150	4- 910	0.144	144.6	15.5	0.23	0.595	90.1	0.411	1.179	180.1	811.1	0.695	1.663	1.84	1.084	112.5	51.7	23.2	0.428
4- 150	4- 920	0.367	230.1	-17.7	0.56	0.803	61.8	0.476	1.794	110.4	391.6	0.939	2.648	1.87	1.213	100.1	108.0	30.3	0.288
4- 150	4- 920	0.157	163.4	9.5	0.56	0.589	85.1	0.430	1.169	173.4	814.6	0.666	1.672	1.87	1.083	113.9	60.6	24.9	0.451
4- 150	4- 930	0.187	177.2	4.3	0.92	0.584	79.9	0.461	1.160	167.8	819.0	0.625	1.696	1.97	1.081	116.2	69.3	26.1	[illegible]
4- 150	4- 940	0.233	186.6	0.5	1.33	0.579	74.1	0.505	1.154	163.1	824.6	0.570	1.737	2.16	1.080	119.3	77.6	26	[illegible]
4- 150	4- 950	0.295	192.5	-1.9	1.84	0.575	67.4	0.566	1.148	159.8	831.4	0.499	1.797	2.46	1.078	123.6	85.4	[illegible]	
4- 200	4- 340	0.297	180.3	-0.9	-0.48	0.450	84.4	0.667	0.999	177.2	227.7	---	1.666	-2.12	0.993	48.2	56.6	[illegible]	
4- 200	4- 350	0.249	182.1	-1.1	-0.06	0.499	85.2	0.590	1.048	176.7	236.8	---	1.666	-1.88	1.014	53.9	61.[illegible]		
4- 200	4- 360	0.207	183.3	-0.7	0.27	0.540	86.3	0.519	1.096	176.5	246.3	---	1.665	-1.74	1.032	59.0	66[illegible]		
4- 200	4- 370	0.173	183.8	0.4	0.57	0.572	87.3	0.457	1.142	176.8	256.2	---	1.664	-1.66	1.048	63.5	71[illegible]		
4- 200	4- 380	0.145	183.6	2.2	0.84	0.599	88.3	0.405	1.184	177.5	266.5	---	1.663	-1.63	1.061	67.5	76[illegible]		
4- 200	4- 390	0.122	182.7	5.0	1.12	0.620	89.2	0.361	1.221	178.7	277.2	---	1.662	-1.65	1.072	71.1	80[illegible]		
4- 200	4- 400	0.105	181.2	8.8	1.40	0.637	90.0	0.326	1.253	180.1	288.2	---	---	-1.72	1.081	74.3	84[illegible]		
4- 200	4- 410	0.093	179.5	13.6	1.73	0.650	90.7	0.299	1.280	181.7	299.3	---	---	-1.84	1.089	77.2	87.0		
4- 200	4- 420	0.084	178.1	19.2	2.11	0.659	91.2	0.279	1.301	183.2	310.3	---	---	-2.05	1.095	79.8	88.4		
4- 200	4- 430	0.080	177.6	25.4	2.60	0.666	91.6	0.264	1.316	184.5	321.1	---	---	-2.38	1.100	82.2	88.2		
4- 200	4- 440	0.080	178.9	32.3	3.31	0.671	91.8	0.254	1.327	185.3	331.6	---	---	-2.94	1.104	84.3	85.9		
4- 200	4- 450	0.087	183.5	40.3	4.51	0.673	91.9	0.248	1.334	185.7	341.5	---	---	-3.99	1.107	86.4	81.9	-7.6	[illegible]
4- 200	4- 460	0.110	194.2	50.1	7.16	0.674	91.8	0.246	1.336	185.5	350.9	---	---	-6.50	1.110	88.2	78.[illegible]	-24.9	0.170
4- 200	4- 470	0.249	215.2	59.9	19.56	0.674	91.5	0.245	1.336	184.7	359.6	---	---	-18.75	1.112	89.9	81.[illegible]	-57.6	0.363
4- 200	4- 480	0.224	134.5	-52.4	-17.48	0.673	91.2	0.248	1.333	183.7	368.9	1.003	---	18.42	1.113	91.8	302.[illegible]	72.7	0.360
4- 200	4- 490	0.095	157.2	-35.3	-5.33	0.671	90.6	0.251	1.329	181.8	376.6	0.994	---	6.41	1.114	93.3	34.3	59.5	0.184
4- 200	4- 500	0.080	172.3	-22.0	-2.70	0.668	89.9	0.257	1.322	179.7	384.2	0.982	1.662	3.93	1.115	94.9	45.4	44.4	0.173
4- 200	4- 510	0.081	183.4	-15.1	-1.51	0.665	89.0	0.265	1.314	177.2	391.6	0.966	1.663	2.89	1.116	96.5	51.0	36.8	0.185
4- 200	4- 520	0.089	192.4	-12.0	-0.80	0.661	87.9	0.275	1.306	174.4	398.8	0.947	1.665	2.33	1.116	98.1	56.2	32.9	0.204
4- 200	4- 530	0.100	199.9	-10.8	-0.30	0.657	86.6	0.287	1.297	171.5	405.8	0.925	1.670	2.01	1.116	99.7	61.9	30.9	0.226
4- 200	4- 540	0.114	206.2	-10.6	0.09	0.653	85.1	0.302	1.288	168.4	412.8	0.899	1.677	1.81	1.116	101.5	68.1	29.9	0.252
4- 200	4- 550	0.132	211.5	-10.9	0.42	0.649	83.2	0.321	1.278	165.2	419.7	0.868	1.688	1.69	1.115	103.4	74.8	29.3	0.281
4- 200	4- 560	0.155	215.9	-11.5	0.72	0.644	81.1	0.343	1.269	162.1	426.7	0.833	1.704	1.64	1.114	105.5	81.8	28.9	0.314
4- 200	4- 570	0.182	219.4	-12.1	1.01	0.640	78.5	0.371	1.259	159.1	433.8	0.792	1.727	1.64	1.113	107.9	89.0	28.4	0.352
4- 200	4- 580	0.216	222.2	-12.7	1.31	0.635	75.4	0.406	1.250	156.3	441.2	0.743	1.758	1.69	1.111	110.7	96.2	27.7	0.397
4- 200	4- 590	0.257	224.3	-13.3	1.64	0.631	71.6	0.450	1.242	153.9	449.1	0.683	1.800	1.80	1.109	114.1	103.3	26.9	0.453
4- 200	4- 700	0.279	147.2	12.2	-0.74	0.501	104.8	0.618	1.050	189.6	595.0	0.401	1.700	-2.29	1.018	51.9	47.8	15.0	0.674
4- 200	4- 870	0.384	251.4	-26.6	-2.05	0.792	62.5	0.463	1.736	112.8	322.1	---	2.540	3.34	1.195	78.2	167.3	20.2	0.290
4- 200	4- 880	0.376	252.6	-25.2	-1.14	0.793	63.3	0.451	1.742	111.5	330.6	---	2.529	2.59	1.198	81.0	166.9	18.9	0.253
4- 200	4- 890	0.367	253.4	-24.2	-0.54	0.794	63.9	0.443	1.748	110.5	339.6	---	2.521	2.16	1.201	83.8	164.4	19.2	0.223
4- 200	4- 900	0.363	254.0	-23.4	-0.11	0.795	64.2	0.438	1.751	109.8	348.9	---	2.518	1.90	1.204	86.6	159.3	20.9	0.203
4- 200	4- 910	0.362	254.2	-22.7	0.25	0.796	64.3	0.437	1.754	109.5	358.7	---	2.520	1.75	1.206	89.6	151.6	23.1	0.197
4- 200	4- 920	0.365	254.1	-22.1	0.56	0.796	64.0	0.440	1.755	109.7	369.0	0.983	2.528	1.66	1.208	92.8	142.9	24.9	0.206
4- 200	4- 920	0.182	138.8	18.3	0.56	0.599	101.1	0.440	1.184	194.9	814.2	0.663	1.706	1.66	1.088	114.4	61.0	24.4	0.461
4- 200	4- 930	0.373	253.7	-23.5	0.85	0.796	63.5	0.449	1.756	110.4	379.9	0.967	2.545	1.63	1.209	96.1	135.6	25.7	0.233
4- 200	4- 930	0.157	161.2	11.6	0.85	0.587	94.4	0.433	1.164	185.8	815.3	0.660	1.669	1.63	1.083	114.2	71.3	25.9	0.453
4- 200	4- 940	0.386	252.8	-20.9	1.15	0.796	62.4	0.466	1.756	111.8	391.4	0.[illegible]	2.573	1.66	1.210	99.8	131.0	25.5	0.276
4- 200	4- 940	0.164	181.0	4.0	1.15	0.578	88.7	0.445	1.151	178.4	817.9	0.639	1.663	1.66	1.079	115.1	81.1	26.7	0.465
4- 200	4- 950	0.193	195.8	-2.2	1.46	0.572	83.0	0.470	1.141	172.0	821.8	0.605	1.677	1.73	1.076	117.0	90.[illegible]	26.8	0.493
4- 200	4- 960	0.237	205.9	-6.5	1.81	0.566	77.0	0.508	1.133	166.7	826.6	0.557	1.708	1.88	1.073	119.7	99.1	26.5	0.537
4- 200	4- 970	0.297	212.5	-9.2	2.25	0.561	70.[illegible]	[illegible]63	1.126	162.6	832.8	0.493	1.760	2.14	1.070	123.6	107.2	25.7	0.601
4- 250	4- 360	0.258	179.4	1.0	0.34	0.508	101.[illegible]	[illegible]8	1.038	187.6	235.3	---	---	-1.60	1.007	53.3	72.5	20.4	0.640
4- 250	4- 370	0.209	178.7	2.5	0.66	0.555	99.[illegible]	[illegible]5	1.095	189.1	246.4	---	---	-1.41	1.029	59.2	76.7	20.6	0.546
4- 250	4- 380	0.172	176.8	4.8	0.92	0.593	98.[illegible]	[illegible]6	1.149	191.2	258.0	---	---	-1.29	1.049	64.3	80.7	20.5	0.464
4- 250	4- 390	0.144	173.8	8.1	1.14	0.623	98.5	0.390	1.199	193.8	270.1	---	---	-1.22	1.065	68.7	84.4	20.5	0.392
4- 250	4- 400	0.125	169.9	11.9	1.34	0.606	98.5	0.346	1.243	196.8	282.7	---	---	-1.18	1.078	72.6	87.4	19.7	0.329
4- 250	4- 410	0.112	165.7	16.1	1.54	0.664	98.6	0.314	1.279	199.8	295.3	---	---	-1.19	1.089	75.9	89.6	18.9	0.275
4- 250	4- 420	0.104	161.8	20.1	1.74	0.676	98.7	0.291	1.308	202.7	307.6	---	---	-1.22	1.09[illegible]	78.9	90.5	17.7	0.228
4- 250	4- 430	0.099	158.8	23.7	1.96	0.685	98.8	0.275	1.329	204.9	319.4	---	---	-1.30	1.10[illegible]	81.6	89.7	16.0	0.190
4- 250	4- 440	0.097	157.3	26.9	2.22	0.691	98.8	0.265	1.343	206.4	330.5	---	---	-1.43	1.108	83.9	86.7	13.6	0.161
4- 250	4- 450	0.096	157.6	29.8	2.5[illegible]	0.694	98.7	0.259	1.350	207.1	340.7	---	---	-1.63	1.11[illegible]	86.1	81.7	10.2	0.141
4- 250	4- 460	0.095	159.9	32.8	3.01	0.695	98.5	0.255	1.352	206.9	350.2	---	---	-1.98	1.11[illegible]	88.0	75.3	5.6	0.131
4- 250	4- 470	0.097	164.9	36.7	3.74	0.694	98.2	0.253	1.350	205.9	358.9	---	---	-2.60	1.115	89.8	69.6	-0.5	0.133
4- 250	4- 480	0.105	174.4	42.8	5.21	0.692	97.7	0.253	1.345	204.3	367.0	1.004	---	-3.97	1.116	91.4	66.2	-10.3	0.148
4- 250	4- 490	0.151	196.9	53.9	10.29	0.688	97.1	0.255	1.337	202.1	374.4	0.996	---	-8.95	1.117	92.9	67.4	-32.8	0.215
4- 250	4- 510	0.093	161.1	-25.5	-4.03	0.680	95.6	0.261	1.316	196.3	388.4	0.972	---	5.58	1.116	95.8	47.0	52.3	0.197
4- 250	4- 520	0.081	177.6	-12.4	-1.48	0.675	94.6	0.267	1.304	192.9	395.1	0.956	---	3.13	1.116	97.2	58.2	38.8	0.194
4- 250	4- 530	0.083	190.4	-8.6	-0.46	0.669	93.5	0.273	1.292	189.3	401.4	0.938	---	2.22	1.115	98.5	65.2	33.6	0.207
4- 250	4- 540	0.090	201.4	-8.[illegible]	0.12	0.663	92.1	0.282	1.279	185.4	407.6	0.918	---	1.76	1.114	99.9	71.9	31.1	0.225
4- 250	4- 550	0.100	211.0	-9.4	0.51	0.657	90.6	0.293	1.266	181.5	413.8	0.896	---	1.49	1.112	101.4	78.9	29.8	0.244
4- 250	4- 560	0.114	219.3	-10.9	0.91	0.652	88.9	0.306	1.254	177.5	419.9	0.871	1.637	1.33	1.110	102.9	86.1	28.8	0.266
4- 250	4- 570	0.132	226.3	-12.5	1.05	0.646	86.9	0.322	1.242	173.4	426.0	0.842	1.642	1.24	1.108	104.6	93.7	28.0	0.291

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 250	4- 580	0.154	232.1	-13.9	1.27	0.640	84.6	0.342	1.230	169.4	432.2	0.810	1.651	1.19	1.105	106.4	101.3	27.0	0.319
4- 250	4- 590	0.181	236.9	-15.2	1.48	0.634	81.9	0.367	1.219	165.6	438.5	0.772	1.667	1.18	1.102	108.5	108.9	25.9	0.352
4- 250	4- 600	0.214	240.8	-16.2	1.70	0.628	78.8	0.398	1.209	162.0	445.7	0.728	1.690	1.21	1.099	111.0	116.4	24.5	0.391
4- 250	4- 610	0.254	243.8	-17.1	1.93	0.623	75.0	0.438	1.199	158.7	452.0	0.674	1.724	1.29	1.094	114.0	123.7	22.8	0.439
4- 250	4- 720	0.296	184.3	-1.7	0.14	0.464	99.5	0.660	0.993	185.0	587.5	0.337	1.649	-1.75	0.986	48.7	71.5	20.5	0.709
4- 250	4- 890	0.407	275.6	-25.5	-0.91	0.795	62.9	0.456	1.693	113.3	320.2	---	2.465	2.61	1.193	77.8	186.7	8.6	0.290
4- 250	4- 900	0.396	276.5	-24.1	-0.15	0.796	63.8	0.443	1.700	111.9	328.8	---	2.454	1.97	1.196	80.6	186.9	7.1	0.253
4- 250	4- 910	0.389	277.1	-23.2	0.32	0.797	64.4	0.434	1.706	110.8	337.8	---	2.445	1.62	1.199	83.3	185.4	7.2	0.222
4- 250	4- 920	0.384	277.5	-22.6	0.66	0.798	64.8	0.427	1.710	110.0	347.1	---	2.440	1.41	1.201	86.1	181.3	8.7	0.200
4- 250	4- 930	0.382	277.7	-22.0	0.93	0.799	65.0	0.425	1.713	109.6	356.8	---	2.441	1.28	1.203	89.1	174.6	11.2	0.190
4- 250	4- 940	0.384	277.6	-21.6	1.16	0.799	64.8	0.427	1.714	109.7	367.1	0.982	2.447	1.21	1.204	92.1	166.6	13.9	0.195
4- 250	4- 945	0.227	153.2	14.5	1.16	0.612	108.8	0.483	1.180	202.2	819.6	0.610	1.751	1.21	1.089	117.4	80.4	25.5	0.508
4- 250	4- 950	0.390	277.2	-21.3	1.37	0.799	64.3	0.435	1.715	110.2	377.8	0.969	2.461	1.18	1.205	95.4	159.4	15.8	0.216
4- 250	4- 950	0.173	177.7	6.1	1.37	0.592	98.7	0.448	1.147	191.1	818.6	0.633	1.661	1.18	1.078	115.4	92.0	25.9	0.466
4- 250	4- 960	0.402	276.5	-21.0	1.58	0.799	63.4	0.449	1.715	111.4	389.1	0.945	2.485	1.19	1.205	98.9	154.5	16.6	0.255
4- 250	4- 960	0.172	198.6	-2.3	1.58	0.581	92.2	0.449	1.131	182.8	820.5	0.623	1.638	1.19	1.072	115.7	102.3	25.4	0.466
4- 250	4- 970	0.197	214.7	-8.6	1.51	0.573	86.3	0.466	1.119	175.7	823.7	0.597	1.641	1.24	1.067	117.0	111.8	24.4	0.485
4- 250	4- 980	0.239	226.0	-12.7	2.05	0.566	80.1	0.498	1.110	169.7	827.9	0.557	1.663	1.34	1.063	119.2	120.5	22.9	0.520
4- 250	4- 990	0.296	233.5	-15.3	2.36	0.561	73.3	0.546	1.103	164.9	833.2	0.501	1.704	1.51	1.059	122.6	128.5	21.2	0.574
4- 260	4- 330	0.673	173.9	1.5	-2.76	0.344	139.6	0.924	0.901	185.9	199.9	---	---	-4.40	0.939	22.6	62.1	19.5	1.088
4- 260	4- 340	0.446	176.2	1.0	-0.91	0.389	120.6	0.825	0.929	187.5	211.2	---	---	-2.65	0.954	34.6	65.8	20.0	0.920
4- 260	4- 350	0.351	177.5	1.0	-0.10	0.450	110.6	0.719	0.976	188.7	222.1	---	---	-1.93	0.978	44.1	69.6	20.4	0.781
4- 260	4- 360	0.279	177.8	1.7	0.37	0.508	105.5	0.619	1.032	190.1	233.2	---	---	-1.56	1.004	51.8	73.6	20.7	0.664
4- 260	4- 370	0.225	176.8	3.3	0.70	0.557	102.9	0.551	1.090	192.0	244.6	---	---	-1.34	1.028	58.2	77.6	20.9	0.564
4- 260	4- 380	0.184	174.7	5.7	0.95	0.597	101.5	0.457	1.148	194.4	256.7	---	---	-1.20	1.048	63.6	81.4	20.8	0.477
4- 260	4- 390	0.155	171.3	8.9	1.16	0.628	100.9	0.398	1.201	197.4	269.2	---	---	-1.12	1.066	68.2	84.8	20.6	0.401
4- 260	4- 400	0.135	167.1	12.7	1.35	0.653	100.6	0.353	1.247	200.8	282.2	---	---	-1.08	1.080	72.2	87.7	20.1	0.335
4- 260	4- 410	0.122	162.7	16.5	1.53	0.671	100.5	0.319	1.286	204.3	295.2	---	---	-1.07	1.091	75.7	89.7	19.4	0.279
4- 260	4- 420	0.114	158.7	20.1	1.71	0.684	100.5	0.296	1.316	207.4	307.8	---	---	-1.08	1.099	78.8	90.4	18.4	0.231
4- 260	4- 430	0.109	155.8	23.2	1.90	0.693	100.4	0.280	1.338	209.8	319.8	---	---	-1.13	1.106	81.5	89.3	17.0	0.192
4- 260	4- 440	0.106	154.2	25.8	2.12	0.699	100.4	0.270	1.352	211.4	331.0	---	---	-1.22	1.110	83.9	86.1	15.0	0.162
4- 260	4- 450	0.104	154.3	28.1	2.38	0.702	100.2	0.264	1.360	212.1	341.2	---	---	-1.37	1.113	86.1	80.8	12.3	0.142
4- 260	4- 460	0.103	156.1	30.3	2.73	0.702	100.0	0.260	1.361	211.8	350.6	---	---	-1.62	1.116	88.1	74.4	8.7	0.131
4- 260	4- 470	0.103	160.0	33.0	3.35	0.701	99.6	0.258	1.358	210.8	359.2	---	---	-2.03	1.117	89.8	68.4	4.2	0.131
4- 260	4- 480	0.105	166.9	37.2	4.17	0.699	99.2	0.257	1.352	209.0	367.2	1.004	---	-2.86	1.118	91.5	64.7	-2.3	0.141
4- 260	4- 490	0.119	180.1	45.2	6.48	0.695	98.6	0.258	1.343	206.7	374.5	0.996	---	-5.08	1.118	93.0	64.5	-15.1	0.169
4- 260	4- 500	0.345	218.6	55.8	26.93	0.690	97.8	0.260	1.332	203.7	381.3	0.986	---	-25.44	1.118	94.3	65.6	-61.1	0.489
4- 260	4- 510	0.115	153.2	-33.6	-6.37	0.685	97.0	0.263	1.319	200.6	388.4	0.972	---	7.96	1.117	95.8	38.3	61.5	0.224
4- 260	4- 520	0.085	173.0	-13.1	-1.84	0.680	96.0	0.267	1.306	197.1	394.7	0.957	---	3.52	1.116	97.1	57.9	41.0	0.196
4- 260	4- 530	0.084	186.6	-7.6	-0.53	0.674	94.9	0.273	1.293	193.3	400.9	0.949	---	2.30	1.115	98.4	65.6	34.1	0.206
4- 260	4- 540	0.088	198.4	-6.9	0.13	0.668	93.6	0.280	1.279	189.3	406.9	0.941	---	1.74	1.114	99.7	72.5	31.2	0.222
4- 260	4- 550	0.097	209.0	-8.2	0.54	0.661	92.1	0.289	1.265	185.2	412.9	0.899	---	1.44	1.112	101.1	79.5	29.7	0.240
4- 260	4- 560	0.109	218.2	-10.0	0.85	0.655	90.4	0.301	1.252	181.0	418.8	0.876	---	1.26	1.109	102.6	86.8	28.7	0.260
4- 260	4- 570	0.125	226.1	-11.9	1.08	0.649	88.5	0.315	1.240	176.8	424.8	0.849	1.630	1.15	1.107	104.1	94.4	27.8	0.282
4- 260	4- 580	0.145	232.8	-13.6	1.29	0.643	86.3	0.333	1.227	172.6	430.8	0.819	1.636	1.09	1.104	105.8	102.1	26.8	0.308
4- 260	4- 590	0.169	238.4	-15.1	1.48	0.636	83.8	0.355	1.216	168.5	436.9	0.784	1.647	1.07	1.101	107.7	109.8	25.5	0.337
4- 260	4- 600	0.199	242.9	-16.3	1.67	0.630	80.9	0.382	1.204	164.6	443.2	0.744	1.665	1.08	1.097	110.0	117.4	24.1	0.372
4- 260	4- 610	0.236	246.5	-17.3	1.87	0.625	77.3	0.417	1.194	161.0	449.8	0.696	1.693	1.13	1.093	112.6	124.8	22.4	0.415
4- 260	4- 620	0.281	249.3	-18.1	2.10	0.619	73.1	0.462	1.185	157.9	456.8	0.637	1.732	1.22	1.089	115.9	131.8	20.5	0.469
4- 260	4- 630	0.337	251.2	-18.8	2.38	0.614	67.8	0.520	1.176	155.5	464.6	0.565	1.788	1.37	1.084	120.1	138.4	18.6	0.538
4- 260	4- 640	0.410	252.0	-19.3	2.74	0.610	60.9	0.595	1.169	154.4	473.5	0.473	1.865	1.63	1.080	125.6	144.2	16.6	0.630
4- 260	4- 650	0.507	251.3	-19.7	3.30	0.607	51.8	0.693	1.164	155.1	484.3	0.357	1.971	2.08	1.076	133.2	149.0	14.9	0.757
4- 260	4- 700	0.641	159.4	7.8	-1.65	0.500	139.3	0.850	1.023	193.7	572.4	0.153	1.893	-3.34	1.006	31.7	59.1	18.6	0.988
4- 260	4- 710	0.541	218.0	-15.6	-0.46	0.319	55.7	0.890	0.888	175.0	563.4	0.097	1.679	-2.25	0.926	27.4	75.4	21.8	1.011
4- 260	4- 710	0.406	163.9	6.5	-0.46	0.494	123.0	0.742	1.017	194.2	582.5	0.262	1.772	-2.25	1.000	42.1	63.9	19.4	0.823
4- 260	4- 720	0.431	215.8	-14.4	0.15	0.375	71.8	0.796	0.920	175.1	573.1	0.187	1.652	-1.73	0.944	37.4	79.9	22.0	0.869
4- 260	4- 720	0.315	178.4	1.0	0.15	0.476	107.5	0.672	0.999	189.1	587.1	0.328	1.671	-1.73	0.989	47.8	71.7	20.6	0.725
4- 260	4- 810	0.583	267.6	-21.8	2.23	0.766	48.6	0.662	1.560	134.2	258.3	---	2.592	-1.29	1.154	53.2	145.2	12.1	0.685
4- 260	4- 820	0.556	269.5	-21.3	2.53	0.771	51.0	0.630	1.581	131.1	264.8	---	2.576	-1.47	1.160	56.4	151.2	9.4	0.651
4- 260	4- 830	0.531	271.2	-20.5	2.94	0.776	53.2	0.599	1.600	128.2	271.5	---	2.558	-1.78	1.165	59.5	156.9	6.3	0.579
4- 260	4- 840	0.508	272.8	-19.4	3.61	0.781	55.2	0.571	1.617	125.4	278.4	---	2.540	-2.35	1.170	62.5	162.0	2.6	0.529
4- 260	4- 850	0.488	274.2	-17.2	4.95	0.785	57.0	0.544	1.633	122.7	285.5	---	2.522	-3.60	1.175	65.4	166.3	-2.8	0.483
4- 260	4- 860	0.479	274.5	-10.3	9.64	0.788	58.7	0.520	1.648	120.2	292.7	---	2.504	-8.20	1.179	68.2	167.5	-16.4	0.457
4- 260	4- 870	0.524	271.1	-53.5	-22.05	0.791	60.2	0.497	1.660	117.9	300.5	---	2.485	23.58	1.184	71.1	215.1	40.9	0.579
4- 260	4- 880	0.432	279.1	-29.1	-3.34	0.793	61.5	0.478	1.671	115.8	308.2	---	2.470	4.97	1.188	73.8	189.9	13.4	0.355
4- 260	4- 890	0.417	280.1	-25.5	-1.08	0.795	62.6	0.461	1.681	114.0	316.3	---	2.455	2.80	1.191	76.6	190.2	7.2	0.307
4- 260	4- 900	0.405	281.0	-23.9	-0.17	0.797	63.5	0.447	1.689	112.4	324.8	---	2.443	1.99	1.195	79.3	191.0	4.8	0.268
4- 260	4- 910	0.396	281.6	-22.9	0.35	0.799	64.3	0.435	1.695	111.1	333.5	---	2.433	1.58	1.197	82.1	190.5	4.2	0.234
4- 260	4- 920	0.389	282.1	-22.2	0.70	0.800	64.8	0.427	1.699	110.2	342.7	---	2.426	1.34	1.200	84.8	187.8	5.1	0.208
4- 260	4- 930	0.386	282.4	-21.7	0.96	0.800	65.1	0.423	1.703	109.6	352.3	---	2.424	1.20	1.201	87.7	182.4	7.2	0.191
4- 260	4- 940	0.386	282.4	-21.3	1.18	0.801	65.1	0.423	1.705	109.4	362.3	0.984	2.427	1.12	1.203	90.7	174.8	10.0	0.188
4- 260	4- 950	0.390	282.2	-20.9	1.33	0.801	64.8	0.428	1.706	109.7	372.7	0.976	2.437	1.07	1.203	93.8	167.0	12.5	0.202
4- 260	4- 950	0.190	171.4	8.5	1.38	0.601	102.8	0.459	1.154	193.1	819.2	0.625	1.683	1.07	1.001	116.0	91.8	25.6	0.478
4- 260	4- 950	0.439	141.7	17.1	1.38	0.664	128.9	0.665	1.271	211.8	834.9	0.425	2.116	1.07	1.117	130.0	84.0	24.6	0.737
4- 260	4- 960	0.399	281.6	-20.7	1.57	0.801	64.1	0.439	1.707	110.5	383.8	0.958	2.455	1.07	1.203	97.2	161.0	14.0	0.232
4- 260	4- 960	0.111	194.0	-0.3	1.57	0.587	95.6	0.447	1.133	186.8	820.1	0.627	1.638	1.07	1.073	115.5	102.5	25.2	0.463
4- 260	4- 960	0.537	141.3	17.0	1.57	0.683	137.1	0.750	1.315	210.4	843.6	0.329	2.300	1.07	1.128	136.9	90.8	24.4	0.858
4- 260	4- 970	0.415	286.7	-20.6	1.77	0.801	62.9	0.457	1.706	112.0	395.4	0.927	2.486	1.10	1.203	100.9	157.5	14.4	0.278
4- 260	4- 970	0.186	212.2	-7.6	1.77	0.578	89.3	0.456	1.119	179.2	822.6	0.608	1.629	1.10	1.067	116.3	112.3	24.1	0.473
4- 260	4- 980	0.438	279.3	-20.5	1.98	0.801	61.1	0.484	1.709	114.2	407.8	0.879	2.531	1.16	1.202	105.1	156.3	14.1	0.340

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MAR
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 260	4- 980	0.221	225.9	-12.4	1.98	0.571	83.3	0.481	1.109	172.7	826.2	0.576	3.641	1.16	1.062	118.1	121.3	22.6	0.499
4- 260	4- 990	0.472	277.4	-20.6	2.22	0.801	58.5	0.524	1.704	117.4	421.1	0.811	2.597	1.28	1.200	110.1	156.7	15.4	0.420
4- 260	4- 990	0.271	235.1	-15.4	2.22	0.565	76.9	0.520	1.100	167.2	830.9	0.528	1.673	1.28	1.058	120.8	129.6	20.7	0.543
4- 260	4-1000	0.522	274.7	-20.7	2.54	0.800	54.6	0.580	1.703	121.9	435.7	0.715	2.691	1.48	1.199	116.2	157.9	12.9	0.522
4- 260	4-1000	0.336	241.1	-17.2	2.54	0.560	69.5	0.577	1.094	163.1	836.9	0.463	1.725	1.48	1.054	124.8	137.0	18.7	0.608
4- 260	4-1010	0.594	271.0	-21.0	2.97	0.800	49.0	0.658	1.702	128.2	452.1	0.583	2.822	1.81	1.197	124.0	159.3	11.7	0.656
4- 260	4-1010	0.422	244.3	-18.4	2.97	0.556	60.5	0.655	1.089	160.7	844.6	0.376	1.803	1.81	1.049	130.6	143.4	16.7	0.703
4- 260	4-1020	0.533	245.0	-19.0	3.69	0.554	48.9	0.758	1.086	160.9	854.8	0.263	1.909	2.42	1.046	139.1	148.4	14.9	0.840
4- 260	4-1030	0.564	208.6	-10.0	5.20	0.228	66.3	0.929	0.851	178.1	1241.9	0.060	1.641	3.84	0.913	158.0	142.2	16.2	1.063
4- 270	4- 340	0.505	174.8	1.6	-1.12	0.407	131.0	0.861	0.936	188.9	208.1	---	---	-2.87	0.958	30.6	67.4	20.4	0.980
4- 270	4- 350	0.391	176.0	1.7	-0.12	0.457	118.1	0.750	0.975	190.8	219.7	---	---	-1.95	0.978	41.4	71.0	20.7	0.822
4- 270	4- 360	0.308	176.1	2.4	0.41	0.513	110.8	0.643	1.030	192.7	231.2	---	---	-1.51	1.003	50.0	74.7	21.0	0.693
4- 270	4- 370	0.246	176.9	4.1	0.75	0.563	106.8	0.548	1.090	195.0	243.1	---	---	-1.26	1.028	57.0	78.4	21.1	0.584
4- 270	4- 380	0.201	178.4	6.5	1.00	0.604	104.6	0.470	1.150	197.9	255.6	---	---	-1.11	1.049	62.7	82.0	21.1	0.491
4- 270	4- 390	0.170	180.8	9.7	1.20	0.637	103.5	0.407	1.206	201.4	268.6	---	---	-1.02	1.067	67.7	85.2	20.9	0.411
4- 270	4- 400	0.149	184.4	13.3	1.37	0.662	102.8	0.360	1.256	205.3	282.0	---	---	-0.97	1.082	71.9	87.8	20.5	0.342
4- 270	4- 410	0.135	190.0	16.8	1.53	0.680	102.5	0.326	1.297	209.1	295.4	---	---	-0.94	1.094	75.5	89.5	19.9	0.283
4- 270	4- 420	0.127	196.1	20.0	1.69	0.694	102.3	0.302	1.329	212.5	308.3	---	---	-0.95	1.102	78.7	90.0	19.1	0.234
4- 270	4- 430	0.122	153.3	22.6	1.85	0.703	102.2	0.287	1.352	215.1	320.5	---	---	-0.98	1.109	81.5	88.6	17.9	0.194
4- 270	4- 440	0.118	151.8	24.7	2.03	0.709	102.0	0.277	1.366	216.8	331.7	---	---	-1.04	1.114	84.0	85.2	16.3	0.164
4- 270	4- 450	0.116	151.8	26.5	2.24	0.711	101.8	0.270	1.373	217.4	341.9	---	---	-1.14	1.117	86.2	79.6	14.2	0.143
4- 270	4- 460	0.113	153.3	28.1	2.51	0.711	101.5	0.266	1.374	217.1	351.2	---	---	-1.31	1.119	88.2	73.0	11.3	0.133
4- 270	4- 470	0.111	156.5	29.9	2.88	0.710	101.1	0.264	1.369	215.9	359.7	---	---	-1.59	1.120	89.9	67.1	7.9	0.132
4- 270	4- 480	0.110	161.7	32.5	3.49	0.707	100.6	0.263	1.361	214.0	367.5	1.004	---	-2.11	1.120	91.6	63.2	3.6	0.139
4- 270	4- 490	0.114	170.5	37.5	4.73	0.703	100.0	0.263	1.350	211.4	374.8	0.996	---	-3.28	1.120	93.1	62.4	-3.8	0.155
4- 270	4- 500	0.150	191.4	49.7	9.40	0.698	99.3	0.263	1.338	208.4	381.5	0.985	---	-7.87	1.119	94.4	65.5	-25.2	0.212
4- 270	4- 510	0.234	142.1	-49.4	-10.50	0.692	98.5	0.266	1.324	205.1	388.3	0.972	---	17.12	1.118	95.8	340.7	73.0	0.358
4- 270	4- 520	0.092	168.0	-15.1	-2.48	0.686	97.4	0.269	1.309	201.4	394.4	0.957	---	4.18	1.117	97.1	56.9	44.4	0.200
4- 270	4- 530	0.086	182.7	-6.5	-0.62	0.680	96.3	0.273	1.295	197.4	400.4	0.941	---	2.41	1.116	98.4	65.9	34.8	0.206
4- 270	4- 540	0.088	195.0	-5.4	0.15	0.673	95.0	0.279	1.280	193.3	406.3	0.922	---	1.72	1.114	99.6	73.0	31.2	0.220
4- 270	4- 550	0.094	206.2	-6.7	0.59	0.666	93.6	0.287	1.265	189.0	412.2	0.902	---	1.38	1.112	100.9	80.1	29.5	0.236
4- 270	4- 560	0.104	216.4	-8.8	0.89	0.660	92.0	0.297	1.251	184.7	417.9	0.880	---	1.17	1.109	102.3	87.5	28.4	0.255
4- 270	4- 570	0.118	225.3	-11.0	1.12	0.653	90.1	0.309	1.238	180.3	423.7	0.855	---	1.05	1.106	103.7	95.1	27.5	0.275
4- 270	4- 580	0.136	232.9	-13.1	1.32	0.646	88.0	0.325	1.225	175.9	429.5	0.827	1.622	0.98	1.103	105.3	102.8	26.4	0.298
4- 270	4- 590	0.158	239.3	-14.8	1.49	0.640	85.6	0.344	1.212	171.6	435.4	0.795	1.629	0.95	1.100	107.0	110.6	25.2	0.325
4- 270	4- 600	0.185	244.6	-16.2	1.66	0.633	82.9	0.369	1.201	167.5	441.4	0.758	1.643	0.94	1.096	109.1	118.3	23.7	0.356
4- 270	4- 610	0.219	248.9	-17.3	1.83	0.627	79.6	0.399	1.190	163.5	447.7	0.715	1.665	0.97	1.091	111.4	125.8	22.0	0.393
4- 270	4- 620	0.259	252.3	-18.2	2.02	0.622	75.7	0.438	1.180	160.0	454.3	0.662	1.697	1.03	1.087	114.3	133.0	20.0	0.440
4- 270	4- 630	0.310	254.7	-19.0	2.24	0.616	70.9	0.489	1.170	157.1	461.6	0.598	1.743	1.14	1.082	118.0	139.7	17.9	0.500
4- 270	4- 640	0.375	256.2	-19.6	2.52	0.612	64.8	0.555	1.162	155.1	469.7	0.517	1.808	1.32	1.078	122.7	145.9	15.8	0.580
4- 270	4- 650	0.459	256.5	-20.1	2.92	0.608	56.9	0.642	1.156	154.7	479.3	0.434	1.898	1.62	1.073	129.2	151.2	13.9	0.687
4- 270	4- 660	0.572	255.0	-20.5	3.57	0.605	46.1	0.752	1.152	156.8	491.3	0.285	2.039	2.19	1.069	138.3	155.3	12.3	0.837
4- 270	4- 710	0.587	222.3	-16.9	-0.55	0.296	49.4	0.921	0.872	175.6	559.4	0.069	1.675	-2.34	0.915	23.2	78.0	22.2	1.063
4- 270	4- 710	0.460	166.3	3.5	-0.55	0.496	129.7	0.788	1.012	194.4	578.1	0.214	1.810	-2.34	0.998	38.0	66.2	20.0	0.886
4- 270	4- 720	0.486	222.0	-16.5	0.17	0.348	65.0	0.842	0.898	174.9	568.3	0.142	1.655	-1.71	0.931	32.9	82.9	22.4	0.930
4- 270	4- 720	0.348	176.1	1.9	0.17	0.484	114.1	0.698	1.000	191.7	585.1	0.302	1.698	-1.71	0.990	45.7	72.7	20.9	0.758
4- 270	4- 820	0.573	273.5	-21.5	2.30	0.771	50.0	0.643	1.563	132.5	261.6	---	2.567	-1.21	1.156	54.9	152.9	9.3	0.654
4- 270	4- 830	0.547	275.3	-20.9	2.67	0.776	52.3	0.612	1.582	129.5	268.2	---	2.550	-1.43	1.162	58.1	158.7	6.4	0.601
4- 270	4- 840	0.523	277.0	-20.0	3.13	0.781	54.4	0.582	1.601	126.6	275.0	---	2.532	-1.80	1.167	61.1	164.2	3.1	0.550
4- 270	4- 850	0.501	278.4	-18.6	3.94	0.785	56.3	0.554	1.617	123.8	282.0	---	2.514	-2.53	1.172	64.1	169.0	-1.1	0.502
4- 270	4- 860	0.483	279.4	-15.3	6.01	0.789	58.1	0.529	1.633	121.2	289.2	---	2.496	-4.52	1.177	67.0	172.4	-8.4	0.459
4- 270	4- 870	0.557	272.6	7.6	25.26	0.792	59.6	0.506	1.646	118.9	296.5	---	2.479	-23.69	1.181	69.7	167.2	-49.0	0.594
4- 270	4- 880	0.446	283.7	-31.6	-5.27	0.794	61.0	0.485	1.658	116.6	304.4	---	2.461	6.93	1.186	72.6	195.0	16.3	0.384
4- 270	4- 890	0.427	284.6	-25.5	-1.35	0.797	62.2	0.466	1.668	114.6	312.4	---	2.446	3.09	1.189	75.3	193.5	6.1	0.325
4- 270	4- 900	0.414	285.4	-23.6	-0.19	0.799	63.3	0.451	1.676	112.9	320.7	---	2.432	2.02	1.193	78.0	194.6	2.7	0.284
4- 270	4- 910	0.403	286.1	-22.5	0.38	0.800	64.1	0.438	1.683	111.5	329.3	---	2.421	1.53	1.196	80.8	195.2	1.5	0.248
4- 270	4- 920	0.396	286.7	-21.7	0.74	0.801	64.7	0.428	1.689	110.4	338.3	---	2.412	1.27	1.198	83.5	193.7	1.7	0.218
4- 270	4- 930	0.391	287.0	-21.2	1.01	0.802	65.1	0.422	1.693	109.6	347.7	---	2.408	1.11	1.200	86.3	189.6	3.2	0.196
4- 270	4- 940	0.389	287.2	-20.7	1.22	0.803	65.3	0.420	1.696	109.2	357.5	---	2.408	1.01	1.201	89.2	183.0	5.8	0.186
4- 270	4- 950	0.391	287.1	-20.4	1.40	0.803	65.2	0.422	1.697	109.3	367.7	0.981	2.414	0.96	1.202	92.3	175.2	8.7	0.192
4- 270	4- 950	0.228	163.8	11.0	1.40	0.615	108.7	0.486	1.169	202.5	820.9	0.601	1.737	0.96	1.086	117.7	90.9	25.3	0.510
4- 270	4- 950	0.368	148.7	15.2	1.40	0.650	122.8	0.603	1.232	211.2	829.6	0.489	1.975	0.96	1.106	125.4	86.6	24.7	0.653
4- 270	4- 960	0.398	286.7	-20.2	1.57	0.803	64.7	0.430	1.698	109.8	378.4	0.968	2.428	0.94	1.202	95.5	168.2	10.8	0.214
4- 270	4- 960	0.176	186.5	1.9	1.57	0.595	99.0	0.449	1.136	191.3	820.0	0.626	1.646	0.94	1.074	115.6	102.5	24.9	0.466
4- 270	4- 960	0.492	146.3	15.5	1.57	0.677	133.5	0.713	1.288	211.3	839.9	0.370	2.206	0.94	1.121	133.8	92.6	24.4	0.802
4- 270	4- 970	0.410	286.0	-20.1	1.74	0.803	63.8	0.444	1.698	110.9	389.8	0.944	2.452	0.95	1.202	99.0	163.5	11.9	0.252
4- 270	4- 970	0.178	209.2	-6.1	1.74	0.584	92.4	0.449	1.119	183.0	821.8	0.617	1.622	0.95	1.067	115.8	112.6	23.8	0.464
4- 270	4- 970	0.579	146.6	15.2	1.74	0.693	140.6	0.785	1.327	209.1	847.9	0.285	2.368	0.95	1.131	140.1	99.7	23.9	0.911
4- 270	4- 980	0.429	284.9	-20.1	1.92	0.803	62.3	0.467	1.697	112.8	401.8	0.905	2.490	1.00	1.201	103.0	161.3	12.0	0.305
4- 270	4- 980	0.205	225.0	-11.8	1.92	0.576	86.4	0.466	1.108	175.9	824.9	0.591	1.624	1.00	1.062	117.1	121.9	22.2	0.482
4- 270	4- 990	0.458	283.3	-20.2	2.12	0.803	60.1	0.500	1.696	115.5	414.6	0.848	2.545	1.08	1.199	107.5	161.0	11.6	0.375
4- 270	4- 990	0.248	236.0	-15.3	2.12	0.569	80.2	0.498	1.099	169.9	829.0	0.552	1.645	1.08	1.057	119.3	130.5	20.2	0.516
4- 270	4-1000	0.499	281.0	-20.4	2.36	0.803	56.9	0.548	1.695	119.3	428.5	0.767	2.624	1.22	1.198	113.0	161.8	10.8	0.465
4- 270	4-1000	0.306	243.5	-17.5	2.36	0.564	73.4	0.545	1.092	165.0	834.2	0.496	1.687	1.22	1.053	122.6	138.3	18.1	0.570
4- 270	4-1010	0.560	277.9	-20.7	2.69	0.803	52.2	0.614	1.694	126.6	443.9	0.653	2.735	1.44	1.196	119.8	163.2	9.9	0.582
4- 270	4-1010	0.381	248.0	-18.8	2.69	0.560	65.2	0.612	1.086	161.6	840.9	0.421	1.751	1.44	1.048	127.5	145.1	15.9	0.649
4- 270	4-1020	0.480	250.0	-19.6	3.18	0.557	55.0	0.704	1.082	160.4	849.7	0.321	1.843	1.85	1.044	134.5	150.7	13.9	0.764
4- 270	4-1030	0.520	206.5	-9.2	4.08	0.245	86.3	0.903	0.852	179.6	1238.9	0.082	1.621	2.66	0.913	154.2	143.8	15.5	1.010
4- 270	4-1070	0.534	165.3	5.6	-1.20	0.491	138.3	0.849	1.007	193.2	931.9	0.152	1.862	-2.94	0.997	31.9	64.2	19.7	0.981
4- 280	4- 340	0.587	173.5	2.2	-1.46	0.451	144.2	0.901	0.964	189.9	204.5	---	---	-3.23	0.974	25.7	69.0	20.7	1.060

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 280	4- 350	0.446	174.5	2.3	-0.14	0.476	126.9	0.786	0.986	192.9	217.1	---	---	-1.97	0.983	38.2	72.3	21.1	0.875
4- 280	4- 360	0.346	174.3	3.2	0.46	0.525	116.9	0.671	1.035	195.5	229.3	---	---	-1.45	1.005	47.9	75.7	21.3	0.720
4- 280	4- 370	0.274	172.9	4.9	0.81	0.573	111.3	0.569	1.095	198.3	241.8	---	---	-1.18	1.030	55.5	79.1	21.4	0.608
4- 280	4- 380	0.224	170.2	7.4	1.05	0.615	108.1	0.485	1.158	201.8	254.8	---	---	-1.01	1.052	61.8	82.4	21.4	0.508
4- 280	4- 390	0.189	166.4	10.4	1.24	0.648	106.3	0.418	1.217	205.8	268.4	---	---	-0.91	1.071	67.1	85.3	21.2	0.423
4- 280	4- 400	0.166	162.0	13.8	1.40	0.674	105.3	0.369	1.270	210.2	282.3	---	---	-0.85	1.086	71.5	87.7	20.9	0.350
4- 280	4- 410	0.152	157.7	17.0	1.54	0.693	104.6	0.335	1.313	214.4	296.1	---	---	-0.82	1.098	75.3	89.1	20.4	0.289
4- 280	4- 420	0.143	154.0	19.7	1.68	0.706	104.3	0.311	1.347	218.1	309.3	---	---	-0.81	1.107	78.6	89.2	19.7	0.238
4- 280	4- 430	0.137	151.5	21.9	1.82	0.715	104.0	0.296	1.370	220.8	321.6	---	---	-0.82	1.113	81.5	87.5	18.8	0.197
4- 280	4- 440	0.133	150.2	23.6	1.96	0.721	103.7	0.286	1.385	222.5	332.8	---	---	-0.86	1.118	84.1	83.8	17.5	0.166
4- 280	4- 450	0.130	150.2	24.9	2.13	0.723	103.4	0.279	1.391	223.0	342.9	---	---	-0.93	1.121	86.3	78.0	15.8	0.146
4- 280	4- 460	0.126	151.5	26.1	2.33	0.722	103.1	0.274	1.390	222.5	352.1	---	---	-1.05	1.122	88.3	71.4	13.5	0.135
4- 280	4- 470	0.123	154.1	27.2	2.60	0.720	102.7	0.271	1.384	221.2	360.4	1.008	---	-1.24	1.123	90.1	65.5	11.0	0.134
4- 280	4- 480	0.119	158.3	28.8	3.01	0.717	102.1	0.270	1.374	219.1	368.0	1.003	---	-1.57	1.123	91.7	61.7	8.0	0.140
4- 280	4- 490	0.118	164.7	31.6	3.74	0.712	101.5	0.269	1.361	216.4	375.1	0.995	---	-2.23	1.122	93.2	60.7	3.7	0.152
4- 280	4- 500	0.125	176.1	38.5	5.65	0.706	100.8	0.269	1.346	213.3	381.8	0.985	---	-4.06	1.121	94.6	62.7	-6.3	0.175
4- 280	4- 510	0.373	220.1	53.3	28.77	0.700	99.4	0.269	1.331	209.6	387.9	0.973	---	-27.12	1.120	95.8	62.2	-59.3	0.524
4- 280	4- 520	0.105	162.2	-20.4	-3.82	0.693	98.9	0.272	1.314	205.9	394.3	0.957	---	5.55	1.118	97.1	53.9	50.6	0.212
4- 280	4- 530	0.091	178.8	-5.8	-0.77	0.686	97.8	0.275	1.298	201.8	400.1	0.941	---	2.57	1.116	98.3	66.0	35.7	0.206
4- 280	4- 540	0.091	191.3	-3.6	0.17	0.679	96.5	0.279	1.282	197.5	405.9	0.924	---	1.70	1.114	99.5	73.4	31.2	0.218
4- 280	4- 550	0.094	203.0	-4.9	0.65	0.672	95.1	0.286	1.266	193.0	411.5	0.904	---	1.30	1.112	100.8	80.6	29.3	0.234
4- 280	4- 560	0.101	213.8	-7.3	0.95	0.665	93.5	0.294	1.251	188.5	417.1	0.883	---	1.08	1.109	102.0	88.0	28.1	0.250
4- 280	4- 570	0.113	223.6	-9.9	1.17	0.658	91.7	0.305	1.236	184.0	422.8	0.860	---	0.95	1.106	103.4	95.7	27.1	0.269
4- 280	4- 580	0.128	232.2	-12.3	1.35	0.651	89.7	0.318	1.222	179.4	428.4	0.834	1.611	0.87	1.102	104.8	103.4	26.1	0.290
4- 280	4- 590	0.148	239.6	-14.3	1.51	0.644	87.4	0.335	1.209	174.9	434.1	0.804	1.614	0.82	1.099	106.4	111.3	24.8	0.313
4- 280	4- 600	0.173	245.7	-15.9	1.65	0.637	84.8	0.356	1.197	170.5	439.9	0.771	1.623	0.81	1.095	108.3	119.0	23.3	0.341
4- 280	4- 610	0.203	250.7	-17.2	1.80	0.631	81.8	0.383	1.185	166.3	445.9	0.731	1.639	0.82	1.090	110.4	126.7	21.5	0.374
4- 280	4- 620	0.240	254.8	-18.2	1.95	0.625	78.2	0.417	1.175	162.4	452.1	0.685	1.665	0.86	1.085	113.0	134.0	19.5	0.415
4- 280	4- 630	0.285	257.9	-19.1	2.13	0.619	73.8	0.461	1.165	159.0	458.9	0.628	1.702	0.93	1.081	116.1	141.0	17.3	0.467
4- 280	4- 640	0.343	260.1	-19.8	2.34	0.614	68.4	0.519	1.156	156.4	466.3	0.556	1.756	1.05	1.076	120.2	147.8	15.1	0.535
4- 280	4- 650	0.417	261.2	-20.4	2.63	0.609	61.4	0.595	1.149	155.0	475.0	0.466	1.832	1.26	1.071	125.7	153.1	13.0	0.627
4- 280	4- 660	0.515	260.8	-20.9	3.06	0.606	52.1	0.694	1.144	155.6	485.5	0.350	1.937	1.62	1.066	133.4	157.9	11.1	0.754
4- 280	4- 710	0.525	169.8	4.0	-0.67	0.497	137.2	0.840	1.006	193.7	572.8	0.161	1.851	-2.47	0.995	32.9	69.1	20.6	0.963
4- 280	4- 720	0.537	227.5	-18.0	0.19	0.323	58.4	0.881	0.879	175.1	563.9	0.104	1.654	-1.68	0.918	28.5	85.7	22.6	0.987
4- 280	4- 720	0.393	176.0	2.0	0.19	0.490	120.7	0.734	0.998	193.3	582.1	0.265	1.731	-1.68	0.989	42.8	74.3	21.3	0.805
4- 280	4- 730	0.437	223.7	-16.5	0.64	0.385	75.9	0.777	0.915	175.8	574.3	0.204	1.626	-1.30	0.939	39.2	89.8	22.5	0.837
4- 280	4- 730	0.315	194.0	-5.2	0.64	0.467	103.8	0.674	0.977	186.9	585.3	0.318	1.635	-1.30	0.975	47.6	83.0	22.0	0.720
4- 280	4- 820	0.591	277.0	-21.6	2.22	0.771	49.0	0.657	1.544	133.9	258.3	---	2.553	-0.90	1.153	53.4	154.5	9.1	0.678
4- 280	4- 830	0.564	279.4	-21.1	2.45	0.776	51.4	0.625	1.564	130.8	264.9	---	2.542	-1.13	1.159	56.6	160.5	6.4	0.625
4- 280	4- 840	0.539	281.1	-20.3	2.77	0.781	53.5	0.594	1.583	127.8	271.6	---	2.524	-1.37	1.164	59.7	166.2	3.3	0.573
4- 280	4- 850	0.515	282.6	-19.3	3.29	0.785	55.5	0.566	1.601	125.0	278.5	---	2.507	-1.82	1.169	62.7	171.4	-0.2	0.523
4- 280	4- 860	0.495	283.9	-17.5	4.37	0.789	57.4	0.539	1.617	122.3	285.6	---	2.488	-2.82	1.174	65.6	175.8	-5.1	0.478
4- 280	4- 870	0.484	283.9	-11.4	8.43	0.793	59.0	0.515	1.631	119.8	293.0	---	2.471	-6.82	1.179	68.5	177.3	-17.4	0.445
4- 280	4- 880	0.481	287.8	-41.7	-12.82	0.796	60.5	0.492	1.644	117.4	300.7	---	2.463	14.51	1.183	71.3	208.2	28.5	0.466
4- 280	4- 890	0.438	289.1	-25.7	-1.81	0.798	61.8	0.473	1.655	115.4	308.5	---	2.437	3.57	1.187	74.0	196.9	5.7	0.346
4- 280	4- 900	0.423	289.9	-23.1	-0.23	0.800	62.9	0.456	1.664	113.5	316.6	---	2.422	2.06	1.191	76.8	198.2	0.9	0.301
4- 280	4- 910	0.412	290.6	-21.9	0.43	0.802	63.9	0.441	1.672	111.9	325.1	---	2.409	1.48	1.194	79.5	199.4	-1.1	0.264
4- 280	4- 920	0.403	291.2	-21.1	0.80	0.803	64.6	0.430	1.678	110.6	333.9	---	2.399	1.16	1.197	82.2	199.1	-1.5	0.231
4- 280	4- 930	0.396	291.6	-20.5	1.06	0.804	65.1	0.422	1.683	109.6	343.1	---	2.393	1.01	1.199	85.0	196.4	-0.6	0.204
4- 280	4- 940	0.393	291.9	-20.1	1.26	0.805	65.4	0.418	1.686	109.0	352.6	---	2.390	0.90	1.200	87.8	191.1	1.5	0.188
4- 280	4- 950	0.393	291.9	-19.7	1.43	0.806	65.4	0.418	1.688	108.8	362.7	0.983	2.393	0.84	1.201	90.8	183.6	4.4	0.185
4- 280	4- 960	0.397	291.7	-19.5	1.58	0.806	65.1	0.422	1.689	109.1	373.1	0.976	2.403	0.81	1.201	93.9	176.0	7.1	0.199
4- 280	4- 960	0.192	182.2	4.3	1.58	0.605	103.0	0.459	1.142	196.4	820.4	0.618	1.667	0.81	1.076	116.2	102.3	24.6	0.477
4- 280	4- 980	0.440	151.7	13.9	1.58	0.668	129.2	0.668	1.258	211.8	835.8	0.418	2.099	0.81	1.113	130.3	94.6	24.3	0.738
4- 280	4- 970	0.406	291.1	-19.4	1.72	0.806	64.5	0.433	1.690	110.0	384.2	0.958	2.422	0.81	1.200	97.2	170.1	8.9	0.229
4- 280	4- 970	0.176	204.7	-4.3	1.72	0.591	95.6	0.446	1.121	187.1	821.3	0.621	1.621	0.81	1.068	115.6	112.9	23.5	0.460
4- 280	4- 970	0.539	151.2	13.7	1.72	0.688	137.5	0.753	1.302	210.3	844.5	0.322	2.282	0.81	1.125	137.2	101.4	23.8	0.859
4- 280	4- 980	0.421	290.3	-19.4	1.87	0.806	63.3	0.451	1.689	111.4	395.8	0.927	2.452	0.84	1.200	100.9	166.7	9.6	0.274
4- 280	4- 980	0.193	222.9	-10.9	1.87	0.582	89.5	0.455	1.107	179.4	823.8	0.604	1.611	0.84	1.062	116.4	122.4	21.8	0.469
4- 280	4- 990	0.445	289.0	-19.6	2.03	0.806	61.5	0.479	1.689	113.7	408.2	0.880	2.497	0.89	1.198	105.1	165.6	9.5	0.336
4- 280	4- 990	0.228	236.1	-15.1	2.03	0.575	83.5	0.479	1.097	172.8	827.3	0.572	1.623	0.89	1.057	118.1	131.2	19.8	0.494
4- 280	4-1000	0.480	287.1	-19.8	2.22	0.805	58.8	0.519	1.687	116.9	421.5	0.812	2.563	0.98	1.196	110.3	165.9	8.9	0.415
4- 280	4-1000	0.279	245.2	-17.5	2.22	0.569	77.0	0.518	1.089	167.3	831.9	0.525	1.653	0.98	1.052	120.8	139.3	17.5	0.537
4- 280	4-1010	0.530	284.5	-20.2	2.46	0.805	54.9	0.576	1.686	121.4	436.1	0.715	2.657	1.14	1.194	116.2	167.1	8.1	0.517
4- 280	4-1010	0.346	251.1	-19.0	2.46	0.564	69.6	0.575	1.083	163.1	837.7	0.461	1.705	1.14	1.047	124.8	136.5	15.2	0.602
4- 280	4-1020	0.432	254.4	-20.0	2.81	0.560	66.5	0.654	1.078	160.6	845.3	0.374	1.783	1.40	1.043	130.6	152.7	13.0	0.698
4- 280	4-1030	0.547	255.0	-20.7	3.37	0.558	48.8	0.758	1.075	160.8	855.5	0.260	1.891	1.89	1.039	139.2	157.5	11.1	0.836
4- 280	4-1030	0.507	198.3	-6.1	3.37	0.280	112.6	0.893	0.860	182.9	1237.5	0.092	1.628	1.89	0.920	152.9	144.5	15.0	0.994
4- 280	4-1030	0.554	188.3	-2.1	3.37	0.316	132.7	0.917	0.876	185.0	1239.7	0.073	1.679	1.89	0.931	156.2	143.7	15.1	1.046
4- 280	4-1040	0.578	218.8	-13.8	4.60	0.230	64.1	0.931	0.842	177.9	1242.5	0.058	1.625	3.04	0.903	158.2	151.3	12.8	1.059
4- 280	4-1080	0.456	172.0	3.4	-0.18	0.493	128.9	0.787	1.002	194.1	937.8	0.214	1.789	-2.01	0.992	38.1	71.3	20.9	0.880
4- 290	4- 350	0.521	173.0	3.0	-0.17	0.516	130.8	0.828	1.017	194.9	214.4	---	---	-2.01	0.999	34.1	73.5	21.4	0.945
4- 290	4- 360	0.397	172.6	3.9	0.52	0.548	123.9	0.705	1.053	198.4	227.5	---	---	-1.38	1.014	45.2	76.5	21.6	0.774
4- 290	4- 370	0.312	171.0	5.6	0.89	0.591	116.3	0.594	1.111	201.9	240.7	---	---	-1.07	1.036	53.9	79.6	21.7	0.639
4- 290	4- 380	0.253	168.1	8.1	1.13	0.631	111.9	0.503	1.175	206.0	254.4	---	---	-0.90	1.058	60.7	82.6	21.7	0.528
4- 290	4- 390	0.214	164.2	11.0	1.30	0.664	109.4	0.433	1.237	210.7	268.6	---	---	-0.79	1.077	66.4	85.2	21.6	0.437
4- 290	4- 400	0.188	159.9	14.1	1.45	0.690	107.9	0.382	1.292	215.6	283.0	---	---	-0.73	1.093	71.1	87.3	21.3	0.360
4- 290	4- 410	0.172	155.8	17.0	1.57	0.709	106.9	0.346	1.338	220.3	297.2	---	---	-0.69	1.105	75.1	88.4	20.9	0.296
4- 290	4- 420	0.162	152.5	19.3	1.68	0.722	106.3	0.323	1.373	224.2	310.7	---	---	-0.67	1.113	78.6	88.1	20.4	0.243
4- 290	4- 430	0.156	150.2	21.2	1.80	0.730	105.9	0.308	1.397	227.0	323.0	---	---	-0.67	1.120	81.6	86.0	19.7	0.201

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 290	4- 440	0.151	149.1	22.5	1.91	0.735	105.5	0.297	1.411	228.4	334.2	---	---	-0.70	1.124	84.2	81.9	18.6	0.179
4- 290	4- 450	0.146	149.2	23.5	2.04	0.737	105.1	0.290	1.415	228.9	344.1	---	---	-0.74	1.126	86.4	76.0	17.2	0.149
4- 290	4- 460	0.141	150.4	24.3	2.19	0.735	104.7	0.285	1.412	228.5	353.1	---	---	-0.82	1.127	88.5	69.3	15.4	0.139
4- 290	4- 470	0.137	152.7	24.9	2.38	0.733	104.3	0.282	1.403	226.7	361.3	1.008	---	-0.94	1.128	90.3	63.7	13.4	0.138
4- 290	4- 480	0.132	156.2	25.7	2.65	0.728	103.7	0.279	1.391	224.5	368.7	1.003	---	-1.15	1.127	91.9	60.1	11.4	0.144
4- 290	4- 490	0.127	161.1	27.1	3.10	0.722	103.0	0.277	1.375	221.6	375.6	0.995	---	-1.53	1.126	93.4	59.1	8.9	0.154
4- 290	4- 500	0.125	168.7	30.4	4.04	0.718	102.3	0.275	1.358	218.3	382.1	0.984	---	-2.41	1.124	94.7	60.7	4.2	0.168
4- 290	4- 510	0.146	185.8	42.2	7.80	0.709	101.4	0.275	1.340	214.5	388.2	0.972	---	-6.13	1.122	96.0	65.4	-13.9	0.206
4- 290	4- 520	0.150	192.3	-36.2	-8.62	0.702	100.4	0.276	1.321	210.5	394.2	0.957	---	10.36	1.120	97.2	36.4	66.3	0.268
4- 290	4- 530	0.098	175.1	-5.7	-1.03	0.694	99.3	0.277	1.303	206.2	399.9	0.941	---	2.84	1.118	98.4	65.9	37.0	0.209
4- 290	4- 540	0.095	187.7	-1.9	0.20	0.686	98.0	0.281	1.285	201.8	405.5	0.924	---	1.67	1.115	99.5	73.8	31.1	0.218
4- 290	4- 550	0.096	199.4	-2.9	0.72	0.679	96.6	0.285	1.268	197.2	411.0	0.906	---	1.20	1.112	100.7	81.0	28.9	0.232
4- 290	4- 560	0.100	210.7	-5.4	1.03	0.671	95.1	0.292	1.251	192.5	416.5	0.886	---	0.97	1.109	101.8	88.5	27.7	0.247
4- 290	4- 570	0.109	223.2	-8.4	1.24	0.663	93.3	0.301	1.236	187.8	421.9	0.864	---	0.83	1.106	103.1	96.2	26.7	0.264
4- 290	4- 580	0.122	230.8	-11.2	1.40	0.656	91.4	0.312	1.221	183.1	427.4	0.840	---	0.74	1.102	104.4	104.0	25.6	0.282
4- 290	4- 590	0.139	239.1	-13.5	1.54	0.649	89.2	0.327	1.207	178.4	432.9	0.812	1.601	0.70	1.098	105.9	111.9	24.4	0.304
4- 290	4- 600	0.161	246.2	-15.4	1.66	0.642	86.7	0.345	1.194	173.8	438.5	0.782	1.606	0.67	1.094	107.6	119.7	22.8	0.328
4- 290	4- 610	0.188	252.1	-16.9	1.78	0.635	83.9	0.369	1.182	169.3	443.2	0.746	1.617	0.67	1.089	109.5	127.4	21.0	0.357
4- 290	4- 620	0.222	256.9	-18.1	1.90	0.628	80.6	0.398	1.170	165.1	450.1	0.704	1.636	0.69	1.084	111.7	134.9	18.9	0.393
4- 290	4- 630	0.262	260.7	-19.0	2.04	0.622	76.6	0.437	1.160	161.3	456.5	0.654	1.666	0.74	1.079	114.5	142.0	16.7	0.438
4- 290	4- 640	0.314	263.6	-19.7	2.20	0.617	71.7	0.486	1.151	158.1	463.3	0.591	1.710	0.82	1.074	118.1	148.7	14.4	0.496
4- 290	4- 650	0.379	265.4	-20.4	2.40	0.612	65.5	0.552	1.143	155.9	471.1	0.512	1.773	0.95	1.068	122.7	154.8	12.1	0.574
4- 290	4- 660	0.465	266.0	-21.0	2.69	0.607	57.5	0.639	1.136	155.2	480.5	0.410	1.862	1.18	1.064	129.2	160.1	10.0	0.681
4- 290	4- 670	0.580	264.7	-21.5	3.17	0.605	46.5	0.751	1.132	157.1	492.3	0.282	1.983	1.60	1.060	138.3	164.1	8.3	0.831
4- 290	4- 720	0.588	232.0	-19.2	0.22	0.299	51.5	0.915	0.862	175.6	559.7	0.073	1.651	-1.64	0.905	24.1	88.4	22.9	1.043
4- 290	4- 720	0.448	177.4	1.4	0.22	0.494	127.7	0.779	0.995	194.0	578.1	0.220	1.769	-1.64	0.987	38.9	76.5	21.7	0.865
4- 290	4- 730	0.461	231.3	-18.6	0.72	0.3	67.6	0.831	0.890	175.1	568.8	0.150	1.630	-1.21	0.923	34.2	93.2	22.2	0.906
4- 290	4- 730	0.343	189.4	-3.1	0.72	0.4	111.7	0.694	0.981	190.5	584.2	0.301	1.662	-1.21	0.978	46.1	83.6	22.2	0.745
4- 290	4- 830	0.582	283.5	-21.0	2.28	0.776	50.3	0.639	1.546	132.1	261.6	---	2.533	-0.87	1.155	55.1	162.2	6.2	0.649
4- 290	4- 840	0.555	285.2	-20.4	2.50	0.781	52.6	0.607	1.565	129.1	268.2	---	2.516	-1.02	1.161	58.2	168.1	3.3	0.596
4- 290	4- 850	0.531	286.8	-19.6	2.83	0.786	54.7	0.578	1.584	126.2	275.0	---	2.499	-1.30	1.166	61.3	173.6	0.1	0.545
4- 290	4- 860	0.508	288.2	-18.4	3.44	0.790	56.6	0.550	1.600	123.4	282.0	---	2.481	-1.84	1.172	64.2	178.6	-3.7	0.497
4- 290	4- 870	0.489	289.1	-15.8	5.02	0.794	58.4	0.524	1.616	120.8	289.3	---	2.463	-3.36	1.177	67.1	182.4	-9.9	0.452
4- 290	4- 880	0.562	280.8	7.6	24.91	0.797	59.5	0.501	1.629	118.4	296.7	---	2.446	-23.19	1.181	69.9	175.6	-52.5	0.585
4- 290	4- 890	0.450	293.8	-26.6	-2.80	0.800	61.4	0.489	1.641	116.1	304.5	---	2.428	4.58	1.185	72.7	200.7	6.6	0.369
4- 290	4- 900	0.434	294.3	-22.6	-0.29	0.802	62.6	0.461	1.653	114.1	312.5	---	2.413	2.12	1.189	75.5	201.5	-0.8	0.320
4- 290	4- 910	0.421	295.0	-21.1	0.49	0.804	63.6	0.446	1.659	112.3	320.8	---	2.399	1.40	1.192	78.2	203.3	-3.4	0.280
4- 290	4- 920	0.410	295.7	-20.3	0.88	0.806	64.4	0.433	1.666	110.9	329.5	---	2.387	1.07	1.195	80.9	204.0	-4.4	0.245
4- 290	4- 930	0.402	296.2	-19.7	1.14	0.807	65.1	0.423	1.672	109.7	338.5	---	2.379	0.89	1.197	83.6	202.7	-4.2	0.215
4- 290	4- 940	0.397	296.5	-19.2	1.32	0.808	65.5	0.417	1.676	108.9	347.8	---	2.374	0.78	1.198	86.4	198.7	-2.7	0.194
4- 290	4- 950	0.395	296.7	-18.9	1.47	0.808	65.7	0.414	1.679	108.5	357.6	---	2.374	0.72	1.199	89.3	192.2	-0.1	0.183
4- 290	4- 960	0.397	296.6	-18.7	1.60	0.809	65.5	0.416	1.680	108.5	367.8	0.981	2.380	0.68	1.200	92.3	184.4	2.8	0.188
4- 290	4- 960	0.228	174.5	7.0	1.60	0.620	108.8	0.486	1.157	202.7	822.0	0.595	1.718	0.68	1.081	117.8	101.5	24.3	0.507
4- 290	4- 960	0.370	158.8	11.7	1.60	0.656	123.1	0.605	1.221	211.3	830.7	0.482	1.959	0.68	1.102	125.8	97.2	24.2	0.654
4- 290	4- 970	0.404	296.2	-18.6	1.72	0.809	65.1	0.424	1.681	109.1	378.6	0.969	2.394	0.67	1.199	95.5	177.5	5.3	0.209
4- 290	4- 970	0.180	199.2	-2.2	1.72	0.600	99.1	0.448	1.124	191.6	821.1	0.621	1.628	0.67	1.069	115.7	112.9	23.2	0.462
4- 290	4- 970	0.495	156.1	12.1	1.72	0.682	133.7	0.715	1.276	211.4	840.8	0.363	2.188	0.67	1.118	134.1	103.2	23.6	0.803
4- 290	4- 980	0.416	295.6	-18.6	1.84	0.809	64.2	0.438	1.681	110.2	389.9	0.945	2.417	0.68	1.198	99.0	172.8	6.7	0.247
4- 290	4- 980	0.184	219.6	-9.6	1.84	0.589	92.6	0.447	1.109	183.2	822.9	0.613	1.603	0.68	1.062	115.8	122.8	21.5	0.460
4- 290	4- 980	0.582	156.4	11.6	1.84	0.699	140.8	0.787	1.314	209.1	848.8	0.279	2.349	0.68	1.127	140.4	110.3	22.7	0.912
4- 290	4- 990	0.435	294.5	-18.7	1.97	0.809	62.7	0.460	1.681	112.0	401.8	0.907	2.454	0.71	1.197	102.9	170.6	-7.1	0.300
4- 290	4- 990	0.212	235.2	-14.5	1.97	0.581	86.6	0.463	1.096	176.1	825.9	0.589	1.604	0.71	1.056	117.0	131.8	19.4	0.476
4- 290	4-1000	0.463	293.0	-19.0	2.11	0.809	60.5	0.494	1.680	114.7	414.6	0.851	2.509	0.77	1.195	107.4	170.3	6.8	0.369
4- 290	4-1000	0.255	246.2	-17.4	2.11	0.574	80.5	0.494	1.088	170.0	829.9	0.550	1.625	0.77	1.051	119.2	160.2	17.0	0.509
4- 290	4-1010	0.505	290.9	-19.5	2.29	0.808	57.3	0.541	1.179	118.6	428.6	0.770	2.587	0.87	1.193	112.8	171.1	6.1	0.458
4- 290	4-1010	0.314	253.6	-19.1	2.29	0.569	73.6	0.541	1.081	165.0	835.0	0.496	1.665	0.87	1.046	122.5	147.7	14.5	0.562
4- 290	4-1020	0.567	287.9	-20.1	2.52	0.808	52.6	0.609	1.676	124.0	444.0	0.656	2.699	1.04	1.191	119.7	172.3	5.4	0.575
4- 290	4-1020	0.390	258.2	-20.2	2.52	0.565	65.5	0.609	1.075	161.5	841.5	0.421	1.729	1.04	1.041	127.3	156.4	12.1	0.641
4- 290	4-1030	0.490	260.2	-21.0	2.88	0.562	55.2	0.701	1.071	160.2	850.2	0.321	1.822	1.34	1.037	134.3	159.8	9.9	0.756
4- 290	4-1040	0.529	217.2	-13.3	3.55	0.248	83.8	0.903	0.842	179.3	1239.2	0.082	1.602	1.95	0.903	154.0	152.9	12.0	1.000
4- 290	4-1080	0.523	174.8	2.2	-0.22	0.498	136.8	0.838	0.999	193.7	932.7	0.162	1.836	-2.06	0.990	33.1	74.0	21.5	0.956
4- 290	4-1090	0.532	144.5	15.1	0.50	0.793	134.3	0.698	1.611	226.1	614.7	0.486	2.736	-1.40	1.165	50.5	61.8	19.2	0.759
4- 290	4-1090	0.392	180.7	0.3	0.50	0.495	120.6	0.730	0.995	193.6	942.2	0.269	1.722	-1.40	0.986	43.1	79.1	21.9	0.797
4- 300	4- 360	0.468	171.1	4.6	0.62	0.588	131.8	0.746	1.097	201.5	225.9	---	---	-1.27	1.032	41.9	77.2	21.9	0.836
4- 300	4- 370	0.363	169.3	6.3	1.00	0.619	122.0	0.625	1.144	206.0	240.0	---	---	-0.94	1.048	51.8	80.0	22.0	0.678
4- 300	4- 380	0.292	166.3	8.7	1.22	0.655	116.2	0.526	1.206	210.9	254.5	---	---	-0.76	1.068	59.4	82.6	22.0	0.554
4- 300	4- 390	0.246	162.4	11.5	1.38	0.686	112.8	0.452	1.270	216.2	269.4	---	---	-0.66	1.087	65.6	84.9	21.9	0.454
4- 300	4- 400	0.217	158.3	14.3	1.50	0.710	110.7	0.398	1.328	221.7	284.4	---	---	-0.59	1.102	70.6	86.5	21.8	0.372
4- 300	4- 410	0.198	154.5	16.8	1.61	0.729	109.4	0.363	1.376	226.7	298.9	---	---	-0.55	1.114	74.9	87.2	21.5	0.304
4- 300	4- 420	0.186	151.5	18.9	1.70	0.741	108.5	0.339	1.412	230.8	312.5	---	---	-0.53	1.122	78.5	86.5	21.1	0.249
4- 300	4- 430	0.178	149.5	20.4	1.79	0.749	107.9	0.324	1.435	233.6	324.8	---	---	-0.53	1.128	81.6	84.0	20.5	0.206
4- 300	4- 440	0.172	148.6	21.4	1.87	0.752	107.4	0.313	1.446	235.0	335.8	---	---	-0.53	1.132	84.3	79.5	19.6	0.175
4- 300	4- 450	0.166	148.0	22.1	1.97	0.753	106.9	0.306	1.448	235.2	345.6	---	---	-0.56	1.133	86.6	73.4	18.4	0.155
4- 300	4- 460	0.160	150.0	22.6	2.08	0.751	106.4	0.300	1.442	234.3	354.4	---	---	-0.61	1.134	88.7	67.0	16.9	0.145
4- 300	4- 470	0.154	152.0	22.9	2.21	0.747	105.9	0.295	1.429	232.5	362.3	1.008	---	-0.68	1.133	90.5	61.6	15.4	0.144
4- 300	4- 480	0.147	155.1	23.2	2.39	0.741	105.3	0.290	1.413	230.0	369.5	1.002	---	-0.81	1.132	92.1	58.4	14.0	0.149
4- 300	4- 490	0.140	159.2	23.7	2.66	0.735	104.6	0.287	1.394	227.0	376.2	0.994	---	-1.03	1.130	93.6	57.7	12.6	0.158
4- 300	4- 500	0.135	164.8	24.9	3.15	0.728	103.8	0.284	1.373	223.4	382.5	0.983	---	-1.47	1.128	94.9	59.2	10.4	0.170
4- 300	4- 510	0.133	173.7	29.4	4.47	0.720	102.9	0.282	1.352	219.5	388.5	0.971	---	-2.74	1.125	96.2	62.9	4.1	0.187
4- 300	4- 520	0.367	220.4	51.2	27.56	0.711	101.9	0.281	1.331	215.3	394.1	0.957	---	-25.79	1.123	97.3	63.0	-54.0	0.510

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 300	4- 530	0.108	171.4	-7.2	-1.57	0.703	100.8	0.262	1.310	210.9	399.8	0.941	---	2.35	1.120	98.4	65.3	39.6	0.214
4- 300	4- 540	0.102	184.6	-0.2	0.25	0.695	99.5	0.283	1.290	206.3	405.3	0.925	---	1.62	1.117	99.5	74.1	30.8	0.219
4- 300	4- 550	0.100	195.8	-0.8	0.83	0.686	98.2	0.286	1.271	201.6	410.6	0.907	---	1.08	1.113	100.6	81.4	28.3	0.231
4- 300	4- 560	0.101	207.1	-3.4	1.13	0.678	96.6	0.291	1.253	196.7	415.9	0.888	---	0.83	1.110	101.7	88.9	27.1	0.245
4- 300	4- 570	0.107	218.2	-6.6	1.32	0.670	94.9	0.298	1.236	191.8	421.2	0.867	---	0.69	1.106	102.9	96.6	26.2	0.260
4- 300	4- 580	0.117	228.6	-9.8	1.46	0.662	93.1	0.308	1.220	186.9	426.5	0.845	---	0.61	1.102	104.1	104.5	25.1	0.277
4- 300	4- 590	0.132	237.9	-12.6	1.58	0.654	91.0	0.320	1.205	182.1	431.8	0.819	---	0.56	1.097	105.5	112.4	23.9	0.295
4- 300	4- 600	0.151	245.9	-14.8	1.68	0.647	88.6	0.336	1.191	177.3	437.2	0.791	1.591	0.53	1.093	106.9	120.3	22.5	0.317
4- 300	4- 610	0.175	252.8	-16.5	1.77	0.639	85.9	0.356	1.178	172.6	442.7	0.759	1.598	0.53	1.088	108.7	128.1	20.5	0.343
4- 300	4- 620	0.205	258.4	-17.8	1.87	0.633	82.8	0.382	1.166	168.1	448.3	0.721	1.611	0.53	1.084	110.7	135.7	18.4	0.374
4- 300	4- 630	0.242	263.0	-18.6	1.97	0.626	79.2	0.415	1.155	163.9	454.3	0.676	1.634	0.56	1.077	113.1	142.9	16.1	0.413
4- 300	4- 640	0.287	266.6	-19.6	2.08	0.620	74.8	0.458	1.145	160.2	460.7	0.621	1.669	0.61	1.072	116.2	149.8	13.6	0.462
4- 300	4- 650	0.345	269.2	-20.3	2.22	0.615	69.3	0.514	1.136	157.3	467.8	0.552	1.721	0.69	1.066	120.2	156.2	11.2	0.528
4- 300	4- 660	0.420	270.6	-20.9	2.41	0.610	62.2	0.590	1.129	155.6	476.1	0.463	1.795	0.83	1.061	125.6	161.9	8.9	0.618
4- 300	4- 670	0.520	270.5	-21.5	2.70	0.606	52.8	0.689	1.124	155.9	486.3	0.349	1.898	1.06	1.056	133.2	166.6	6.9	0.744
4- 300	4- 720	0.515	180.1	0.1	0.28	0.497	135.6	0.831	0.989	193.7	573.0	0.167	1.812	-1.59	0.984	35.8	79.3	22.2	0.941
4- 300	4- 730	0.539	237.2	-20.1	0.82	0.528	60.1	0.875	0.869	175.2	564.1	0.109	1.630	-1.08	0.908	29.4	96.2	22.8	0.968
4- 300	4- 730	0.385	187.8	-2.4	0.82	0.488	118.8	0.727	0.981	192.7	581.7	0.268	1.694	-1.08	0.978	43.4	85.0	22.4	0.787
4- 300	4- 740	0.408	232.1	-18.2	1.11	0.396	79.2	0.761	0.909	176.5	575.1	0.218	1.600	-0.84	0.933	40.8	99.8	22.5	0.808
4- 300	4- 740	0.322	209.3	-10.6	1.11	0.460	100.5	0.678	0.956	185.1	583.6	0.308	1.603	-0.84	0.962	47.5	94.5	22.5	0.715
4- 300	4- 840	0.573	289.4	-20.3	2.29	0.782	51.6	0.621	1.547	130.4	264.8	---	2.508	-0.73	1.158	56.7	169.9	3.1	0.620
4- 300	4- 850	0.547	291.0	-19.6	2.50	0.787	53.8	0.591	1.566	127.4	271.5	---	2.491	-0.90	1.163	59.8	175.6	0.2	0.569
4- 300	4- 860	0.523	292.5	-18.7	2.85	0.791	55.8	0.562	1.584	124.5	278.4	---	2.473	-1.19	1.169	62.8	181.0	-3.1	0.519
4- 300	4- 870	0.502	293.7	-17.3	3.58	0.795	57.7	0.535	1.600	121.8	285.6	---	2.455	-1.88	1.174	65.7	185.8	-7.2	0.472
4- 300	4- 880	0.486	293.9	-12.8	6.50	0.799	59.3	0.510	1.614	119.3	292.9	---	2.437	-4.76	1.179	68.6	188.3	-16.8	0.433
4- 300	4- 890	0.468	298.9	-31.1	-6.40	0.802	60.8	0.488	1.626	116.9	300.6	---	2.420	8.19	1.183	71.4	207.7	13.3	0.409
4- 300	4- 900	0.464	298.7	-21.9	-0.38	0.804	62.1	0.468	1.637	114.8	308.4	---	2.404	2.22	1.187	74.1	204.5	-2.2	0.340
4- 300	4- 910	0.430	299.4	-20.2	0.58	0.806	63.3	0.451	1.647	112.8	316.6	---	2.389	1.30	1.190	76.9	206.8	-5.6	0.299
4- 300	4- 920	0.418	300.1	-19.3	0.99	0.808	64.2	0.436	1.654	111.2	325.1	---	2.376	0.94	1.193	79.6	208.4	-7.1	0.261
4- 300	4- 930	0.409	300.7	-18.7	1.23	0.810	65.0	0.425	1.661	109.9	333.9	---	2.366	0.76	1.195	82.3	208.3	-7.4	0.229
4- 300	4- 940	0.402	301.1	-18.2	1.39	0.811	65.5	0.417	1.665	108.9	343.0	---	2.359	0.65	1.197	85.0	205.9	-6.6	0.202
4- 300	4- 950	0.399	301.3	-17.9	1.52	0.811	65.8	0.412	1.669	108.2	352.6	---	2.356	0.58	1.198	87.8	200.6	-4.6	0.186
4- 300	4- 960	0.398	301.4	-17.7	1.63	0.812	65.8	0.412	1.671	108.0	362.6	0.983	2.359	0.54	1.198	90.7	193.2	-1.8	0.182
4- 300	4- 970	0.402	301.2	-17.6	1.73	0.812	65.6	0.416	1.672	108.3	373.0	0.976	2.368	0.53	1.198	93.8	185.6	1.1	0.194
4- 300	4- 970	0.194	192.8	0.1	1.73	0.611	103.2	0.457	1.130	196.7	821.5	0.614	1.647	0.53	1.072	116.2	112.7	22.9	0.472
4- 300	4- 970	0.443	161.6	10.2	1.73	0.675	129.4	0.670	1.246	212.0	836.8	0.412	2.081	0.53	1.109	130.6	105.2	23.3	0.738
4- 300	4- 980	0.411	300.7	-17.6	1.82	0.812	64.9	0.426	1.673	109.1	384.0	0.959	2.386	0.53	1.197	97.1	179.7	3.2	0.223
4- 300	4- 980	0.180	215.2	-8.0	1.82	0.597	95.8	0.443	1.109	187.4	822.3	0.618	1.601	0.53	1.063	115.6	123.0	21.1	0.455
4- 300	4- 980	0.542	160.9	10.0	1.82	0.694	137.6	0.755	1.290	210.4	845.3	0.318	2.263	0.53	1.120	137.5	111.9	22.4	0.859
4- 300	4- 990	0.426	299.9	-17.7	1.92	0.812	63.8	0.444	1.672	110.5	395.6	0.930	2.415	0.54	1.196	100.8	176.2	4.2	0.268
4- 300	4- 990	0.198	233.2	-13.7	1.92	0.588	89.7	0.451	1.096	179.7	824.7	0.602	1.530	0.54	1.056	116.2	132.3	18.9	0.462
4- 300	4-1000	0.449	298.7	-18.0	2.02	0.812	62.0	0.471	1.672	112.8	407.9	0.884	2.460	0.58	1.194	104.9	175.0	4.4	0.328
4- 300	4-1000	0.234	246.3	-17.1	2.02	0.580	83.8	0.474	1.086	173.0	828.2	0.571	1.601	0.58	1.050	117.9	140.9	16.5	0.486
4- 300	4-1010	0.484	297.0	-18.5	2.14	0.812	59.4	0.511	1.671	116.0	421.2	0.817	2.525	0.64	1.192	109.8	175.3	4.0	0.405
4- 300	4-1010	0.285	255.4	-19.1	2.14	0.575	77.4	0.512	1.078	167.4	832.6	0.526	1.631	0.64	1.045	120.5	148.7	13.9	0.528
4- 300	4-1020	0.535	294.6	-19.1	2.30	0.812	55.5	0.568	1.670	120.6	435.8	0.721	2.618	0.75	1.190	115.8	176.3	3.3	0.507
4- 300	4-1020	0.352	261.4	-20.2	2.30	0.570	70.0	0.569	1.672	163.0	838.3	0.463	1.682	0.75	1.040	124.4	155.8	11.3	0.592
4- 300	4-1030	0.440	284.8	-21.0	2.53	0.566	60.9	0.648	1.068	160.4	845.7	0.376	1.759	0.92	1.035	130.2	161.8	8.9	0.687
4- 300	4-1040	0.556	265.5	-21.7	2.91	0.564	49.1	0.754	1.065	160.6	855.7	0.262	1.867	1.25	1.031	138.8	166.5	6.9	0.826
4- 300	4-1040	0.507	210.5	-11.1	2.91	0.280	107.5	0.887	0.848	182.3	1237.4	0.096	1.600	1.25	0.908	152.1	153.9	11.4	0.974
4- 300	4-1040	0.575	195.5	-5.5	2.91	0.332	136.8	0.922	0.871	185.4	1240.6	0.068	1.675	1.25	0.925	157.0	152.7	11.7	1.052
4- 300	4-1050	0.590	229.5	-17.3	3.73	0.237	62.4	0.931	0.832	177.7	1242.7	0.058	1.607	2.03	0.892	158.0	160.3	9.0	1.049
4- 300	4-1090	0.590	151.7	12.5	0.59	0.796	138.8	0.752	1.604	221.7	605.6	0.398	2.811	-1.30	1.164	45.2	66.2	20.4	0.848
4- 300	4-1090	0.449	181.6	-0.2	0.59	0.502	127.8	0.775	0.994	194.5	938.4	0.224	1.764	-1.30	0.985	39.2	81.3	22.3	0.858
4- 300	4-1100	0.472	147.1	15.0	0.98	0.797	129.7	0.638	1.605	231.0	624.5	0.581	2.629	-0.95	1.162	55.9	66.9	20.3	0.662
4- 300	4-1100	0.590	247.6	-21.9	0.98	0.397	46.5	0.877	0.909	171.8	925.3	0.112	1.706	-0.95	0.935	28.9	99.9	22.7	0.985
4- 300	4-1100	0.342	191.7	-3.7	0.98	0.496	113.0	0.683	0.989	191.9	945.4	0.313	1.664	-0.95	0.981	46.9	87.8	22.5	0.731
4- 310	4- 360	0.570	169.8	5.1	0.76	0.658	140.6	0.799	1.199	204.8	224.4	---	---	-1.12	1.069	37.5	77.7	22.2	0.924
4- 310	4- 370	0.432	167.8	6.9	1.14	0.664	128.5	0.666	1.211	210.6	239.8	---	---	-0.77	1.071	49.1	80.0	22.3	0.733
4- 310	4- 380	0.344	164.8	9.2	1.35	0.689	121.0	0.558	1.263	216.4	255.2	---	---	-0.60	1.086	57.8	82.2	22.3	0.589
4- 310	4- 390	0.288	161.0	11.8	1.48	0.716	116.5	0.478	1.325	222.5	270.8	---	---	-0.50	1.102	64.6	84.1	22.3	0.477
4- 310	4- 400	0.252	157.1	14.4	1.58	0.738	113.7	0.422	1.384	228.5	286.4	---	---	-0.44	1.116	70.1	85.4	22.2	0.387
4- 310	4- 410	0.230	153.6	16.6	1.66	0.754	111.9	0.385	1.433	233.8	301.2	---	---	-0.41	1.127	74.6	85.6	22.0	0.315
4- 310	4- 420	0.215	151.0	18.3	1.72	0.765	110.8	0.362	1.468	237.9	314.8	---	---	-0.38	1.134	78.4	84.4	21.7	0.257
4- 310	4- 430	0.205	149.3	19.6	1.79	0.771	110.0	0.346	1.489	240.6	327.0	---	---	-0.37	1.139	81.7	81.5	21.2	0.213
4- 310	4- 440	0.196	148.7	20.4	1.85	0.774	109.3	0.335	1.497	241.8	337.8	---	---	-0.38	1.142	84.5	76.7	20.5	0.182
4- 310	4- 450	0.189	149.0	20.9	1.92	0.773	108.8	0.326	1.494	241.7	347.3	---	---	-0.39	1.143	86.9	70.5	19.5	0.162
4- 310	4- 460	0.181	150.1	21.1	1.99	0.769	108.2	0.319	1.482	240.5	355.8	---	---	-0.41	1.142	89.0	64.3	18.2	0.153
4- 310	4- 470	0.174	152.0	21.1	2.07	0.764	107.6	0.312	1.464	238.5	363.4	1.008	---	-0.46	1.141	90.8	59.4	17.0	0.152
4- 310	4- 480	0.165	154.7	21.1	2.18	0.757	107.0	0.306	1.442	235.8	370.4	1.002	---	-0.53	1.138	92.4	56.7	16.0	0.157
4- 310	4- 490	0.157	158.2	21.0	2.33	0.749	106.2	0.300	1.418	232.5	376.9	0.993	---	-0.64	1.136	93.9	56.3	15.3	0.165
4- 310	4- 500	0.149	162.8	21.1	2.59	0.741	105.4	0.295	1.393	228.8	383.0	0.982	---	-0.86	1.132	95.2	57.9	14.5	0.175
4- 310	4- 510	0.141	168.8	22.3	3.13	0.732	104.5	0.291	1.368	224.7	388.8	0.969	---	-1.37	1.129	96.4	61.3	12.4	0.187
4- 310	4- 520	0.144	180.5	30.0	5.42	0.723	103.5	0.289	1.343	220.3	394.4	0.955	---	-3.63	1.126	97.5	66.8	1.6	0.208
4- 310	4- 530	0.126	166.1	-14.9	-3.41	0.713	102.3	0.287	1.320	215.7	399.8	0.940	---	5.23	1.122	98.6	62.4	47.7	0.229
4- 310	4- 540	0.111	182.0	1.3	0.33	0.704	101.1	0.287	1.297	211.0	405.1	0.924	---	1.53	1.118	99.6	74.3	30.4	0.221
4- 310	4- 550	0.107	192.7	1.3	0.98	0.695	99.7	0.289	1.276	206.1	410.3	0.907	---	0.91	1.115	100.6	81.8	27.5	0.232
4- 310	4- 560	0.105	203.5	-1.2	1.26	0.686	98.2	0.292	1.256	201.1	415.4	0.889	---	0.66	1.111	101.7	89.3	26.4	0.244
4- 310	4- 570	0.108	214.6	-4.7	1.43	0.677	96.6	0.297	1.237	196.0	420.6	0.870	---	0.53	1.106	102.7	97.0	25.5	0.258
4- 310	4- 580	0.114	225.5	-8.2	1.55	0.669	94.7	0.305	1.220	191.0	425.7	0.848	---	0.46	1.102	103.9	104.9	24.5	0.272

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 310	4- 590	0.126	235.8	-11.3	1.64	0.660	92.7	0.315	1.204	185.4	430.8	0.825	---	0.41	1.097	105.1	112.9	23.3	0.289
4- 310	4- 600	0.142	244.9	-13.9	1.71	0.652	90.5	0.328	1.189	181.0	436.0	0.799	---	0.39	1.092	106.4	120.8	21.8	0.307
4- 310	4- 610	0.163	252.7	-15.9	1.78	0.645	87.9	0.345	1.175	176.1	441.3	0.770	1.581	0.38	1.087	108.0	128.7	19.9	0.330
4- 310	4- 620	0.190	259.3	-17.4	1.85	0.638	85.0	0.367	1.163	171.3	446.7	0.736	1.589	0.38	1.081	109.7	136.3	17.8	0.357
4- 310	4- 630	0.223	264.8	-18.5	1.92	0.631	81.7	0.395	1.151	166.8	452.4	0.696	1.606	0.39	1.076	111.9	143.7	15.4	0.390
4- 310	4- 640	0.263	269.2	-19.4	1.99	0.624	77.6	0.432	1.140	162.7	458.3	0.647	1.633	0.41	1.070	114.5	150.8	12.9	0.433
4- 310	4- 650	0.314	272.5	-20.1	2.08	0.618	72.7	0.481	1.131	159.2	464.8	0.587	1.675	0.46	1.064	117.9	157.4	10.4	0.489
4- 310	4- 660	0.380	274.8	-20.7	2.19	0.613	66.6	0.545	1.123	156.6	472.3	0.511	1.735	0.54	1.059	122.5	163.5	7.9	0.564
4- 310	4- 670	0.466	275.7	-21.3	2.36	0.609	58.4	0.632	1.116	155.6	481.2	0.411	1.821	0.66	1.054	128.8	168.8	5.7	0.668
4- 310	4- 680	0.583	274.8	-21.9	2.63	0.606	47.3	0.745	1.112	157.1	492.6	0.284	1.941	0.90	1.049	137.9	172.8	3.9	0.817
4- 310	4- 720	0.596	184.2	-1.7	0.37	0.499	144.6	0.888	0.982	192.0	566.6	0.110	1.854	-1.49	0.980	27.4	82.9	22.6	1.034
4- 310	4- 730	0.594	242.3	-21.1	0.98	0.303	52.5	0.912	0.851	175.6	559.7	0.075	1.627	-0.92	0.894	24.7	99.1	22.8	1.026
4- 310	4- 730	0.441	188.2	-2.7	0.98	0.495	126.2	0.771	0.979	193.8	578.0	0.224	1.733	-0.92	0.976	39.6	87.1	22.7	0.846
4- 310	4- 740	0.483	241.3	-20.4	1.25	0.361	69.1	0.823	0.880	175.2	568.9	0.156	1.605	-0.67	0.914	35.1	103.7	22.4	0.886
4- 310	4- 740	0.342	202.0	-7.7	1.25	0.479	109.8	0.689	0.964	189.6	583.3	0.299	1.628	-0.67	0.967	46.5	94.6	22.7	0.732
4- 310	4- 840	0.591	293.6	-20.0	2.12	0.782	50.6	0.636	1.528	131.8	261.3	---	2.500	-0.49	1.154	55.2	171.6	2.8	0.645
4- 310	4- 850	0.564	295.2	-19.4	2.25	0.788	52.8	0.604	1.548	128.7	268.0	---	2.483	-0.57	1.160	58.5	177.5	0.0	0.593
4- 310	4- 860	0.539	296.8	-18.7	2.44	0.793	55.0	0.574	1.566	125.7	274.8	---	2.466	-0.73	1.166	61.4	183.2	-2.9	0.543
4- 310	4- 870	0.516	298.1	-17.8	2.78	0.797	56.9	0.546	1.583	122.9	281.8	---	2.448	-1.04	1.171	64.3	188.6	-6.1	0.494
4- 310	4- 880	0.495	299.2	-16.0	3.71	0.801	58.6	0.520	1.598	120.2	289.1	---	2.430	-1.94	1.176	67.2	193.1	-10.7	0.448
4- 310	4- 890	0.535	292.2	3.7	19.50	0.804	60.2	0.497	1.612	117.8	296.5	---	2.412	-17.69	1.181	70.0	186.8	-48.2	0.517
4- 310	4- 900	0.456	303.2	-21.4	-0.59	0.807	61.6	0.476	1.623	115.5	304.3	---	2.395	2.43	1.185	72.8	207.5	-3.2	0.361
4- 310	4- 910	0.440	303.7	-19.1	0.72	0.809	62.9	0.457	1.633	113.4	312.3	---	2.380	1.15	1.188	75.5	210.0	-7.8	0.318
4- 310	4- 920	0.427	304.4	-18.2	1.14	0.811	63.9	0.441	1.642	111.6	320.6	---	2.366	0.77	1.191	78.2	212.4	-9.7	0.279
4- 310	4- 930	0.416	305.1	-17.5	1.35	0.812	64.8	0.428	1.649	110.1	329.3	---	2.354	0.59	1.193	80.9	213.5	-10.4	0.244
4- 310	4- 940	0.408	305.6	-17.1	1.49	0.814	65.4	0.418	1.654	108.9	338.2	---	2.345	0.49	1.195	83.6	212.4	-10.2	0.214
4- 310	4- 950	0.402	306.0	-16.8	1.59	0.815	65.9	0.411	1.658	108.0	347.6	---	2.340	0.43	1.196	86.4	208.7	-8.9	0.192
4- 310	4- 960	0.400	306.1	-16.6	1.67	0.815	66.1	0.408	1.661	107.6	357.3	---	2.340	0.40	1.197	89.2	202.3	-6.5	0.181
4- 310	4- 970	0.402	306.1	-16.4	1.75	0.816	66.0	0.410	1.663	107.6	367.5	0.981	2.345	0.38	1.197	92.2	194.5	-3.5	0.184
4- 310	4- 970	0.230	184.9	2.8	1.75	0.627	108.8	0.483	1.144	203.0	823.0	0.592	1.697	0.38	1.077	117.8	111.9	22.6	0.502
4- 310	4- 970	0.374	168.5	7.9	1.75	0.663	123.4	0.607	1.209	211.7	831.6	0.475	1.943	0.38	1.098	126.0	107.7	23.0	0.654
4- 310	4- 980	0.408	305.8	-16.4	1.81	0.816	65.5	0.417	1.664	108.1	378.1	0.970	2.358	0.37	1.196	95.3	187.4	-0.8	0.204
4- 310	4- 980	0.184	209.6	-6.1	1.81	0.606	99.3	0.444	1.113	192.0	822.1	0.618	1.607	0.37	1.064	115.6	123.1	20.8	0.456
4- 310	4- 980	0.499	165.8	8.2	1.81	0.689	133.9	0.717	1.264	211.5	841.6	0.358	2.169	0.37	1.113	134.3	113.6	23.0	0.802
4- 310	4- 990	0.419	305.2	-16.6	1.88	0.816	64.7	0.430	1.664	109.1	389.4	0.948	2.380	0.38	1.195	98.7	182.6	0.9	0.240
4- 310	4- 990	0.189	229.9	-12.6	1.88	0.595	92.9	0.442	1.096	183.6	823.9	0.611	1.581	0.38	1.056	115.7	132.7	18.5	0.452
4- 310	4- 990	0.586	165.9	7.7	1.88	0.706	141.0	0.789	1.302	209.2	849.4	0.275	2.328	0.38	1.122	140.7	120.6	20.8	0.910
4- 310	4-1000	0.438	304.3	-16.8	1.95	0.816	63.3	0.452	1.664	110.9	401.3	0.912	2.416	0.40	1.193	102.6	180.3	1.6	0.291
4- 310	4-1000	0.217	243.4	-16.7	1.95	0.587	87.0	0.458	1.085	176.4	826.7	0.589	1.582	0.40	1.050	116.8	141.5	16.0	0.407
4- 310	4-1010	0.466	302.9	-17.3	2.03	0.816	61.1	0.485	1.663	113.6	414.0	0.857	2.469	0.43	1.191	107.0	179.8	1.6	0.358
4- 310	4-1010	0.260	256.4	-18.9	2.03	0.581	80.9	0.487	1.076	170.2	830.6	0.552	1.601	0.43	1.044	118.8	149.6	13.2	0.499
4- 310	4-1020	0.508	301.0	-17.9	2.13	0.815	58.0	0.532	1.662	117.5	427.9	0.778	2.546	0.49	1.189	112.3	180.5	1.1	0.446
4- 310	4-1020	0.319	263.9	-20.2	2.13	0.576	74.1	0.534	1.070	165.0	835.5	0.499	1.640	0.49	1.039	122.0	156.9	10.5	0.550
4- 310	4-1030	0.569	298.1	-18.8	2.26	0.815	53.3	0.599	1.661	122.9	443.3	0.666	2.656	0.59	1.186	119.1	181.6	0.5	0.561
4- 310	4-1030	0.395	268.7	-21.0	2.26	0.572	66.0	0.600	1.064	161.4	841.8	0.425	1.703	0.59	1.034	126.7	163.5	7.9	0.627
4- 310	4-1040	0.496	270.8	-21.6	2.47	0.569	55.8	0.693	1.060	159.9	850.2	0.326	1.795	0.76	1.030	133.7	168.9	5.6	0.742
4- 310	4-1050	0.536	228.2	-17.0	2.85	0.255	81.8	0.899	0.832	179.1	1239.3	0.084	1.581	1.10	0.892	153.5	162.0	8.1	0.985
4- 310	4-1090	0.519	184.1	-1.3	0.73	0.508	135.9	0.828	0.992	194.2	933.3	0.170	1.813	-1.14	0.984	34.1	84.1	22.7	0.935
4- 310	4-1100	0.520	154.0	12.4	1.13	0.801	133.3	0.686	1.599	227.5	616.2	0.503	2.695	-0.78	1.161	51.5	71.1	21.3	0.737
4- 310	4-1100	0.387	190.5	-3.2	1.13	0.505	119.8	0.719	0.988	194.0	942.7	0.278	1.698	-0.78	0.981	44.1	89.3	22.8	0.777
4- 310	4-1110	0.422	150.2	14.7	1.34	0.801	125.9	0.586	1.599	235.1	633.4	0.662	2.535	-0.60	1.160	60.5	72.2	21.4	0.579
4- 310	4-1110	0.547	253.3	-22.3	1.34	0.415	53.1	0.836	0.914	171.0	929.3	0.150	1.678	-0.60	0.936	33.5	108.0	22.1	0.917
4- 310	4-1110	0.308	200.3	-8.5	1.34	0.497	105.8	0.647	0.980	189.1	947.3	0.346	1.615	-0.60	0.975	49.7	97.2	22.6	0.682
4- 320	4- 370	0.530	166.6	7.3	1.35	0.735	135.7	0.723	1.360	215.9	240.2	---	---	-0.53	1.113	45.6	79.7	22.6	0.812
4- 320	4- 380	0.414	163.6	9.5	1.51	0.740	126.3	0.603	1.373	222.8	256.7	---	---	-0.39	1.115	55.7	81.5	22.6	0.638
4- 320	4- 390	0.342	160.0	12.0	1.61	0.757	120.5	0.516	1.421	229.7	273.1	---	---	-0.32	1.125	63.4	82.9	22.7	0.509
4- 320	4- 400	0.297	156.3	14.3	1.67	0.774	117.0	0.457	1.477	236.2	289.1	---	---	-0.27	1.136	69.4	83.7	22.6	0.409
4- 320	4- 410	0.269	153.2	16.3	1.72	0.787	114.7	0.419	1.522	241.6	304.1	---	---	-0.25	1.145	74.3	83.5	22.5	0.331
4- 320	4- 420	0.250	150.8	17.8	1.77	0.795	113.2	0.394	1.553	245.6	317.6	---	---	-0.23	1.151	78.4	81.8	22.3	0.270
4- 320	4- 430	0.236	149.5	18.8	1.80	0.799	112.1	0.377	1.568	247.9	329.5	---	---	-0.22	1.154	81.8	78.4	21.9	0.224
4- 320	4- 440	0.226	149.1	19.4	1.84	0.799	111.3	0.364	1.569	248.8	339.9	---	---	-0.22	1.155	84.7	73.4	21.2	0.192
4- 320	4- 450	0.216	149.5	19.6	1.88	0.796	110.7	0.353	1.557	248.4	349.1	---	---	-0.22	1.155	87.2	67.3	20.3	0.172
4- 320	4- 460	0.207	150.7	19.7	1.92	0.791	110.0	0.343	1.538	246.9	357.3	---	---	-0.23	1.153	89.3	61.5	19.2	0.163
4- 320	4- 470	0.197	152.6	19.5	1.96	0.784	109.4	0.334	1.512	244.7	364.7	1.007	---	-0.25	1.150	91.2	57.2	18.2	0.162
4- 320	4- 480	0.187	155.0	19.2	2.02	0.776	108.7	0.325	1.482	241.7	371.5	1.001	---	-0.28	1.146	92.8	55.0	17.6	0.167
4- 320	4- 490	0.177	158.1	18.8	2.09	0.766	107.9	0.317	1.451	238.2	377.7	0.991	---	-0.34	1.143	94.2	54.9	17.3	0.175
4- 320	4- 500	0.166	162.0	18.3	2.21	0.756	107.1	0.310	1.420	234.3	383.6	0.980	---	-0.43	1.138	95.5	56.7	17.2	0.184
4- 320	4- 510	0.156	166.7	18.0	2.41	0.746	106.1	0.304	1.389	230.0	389.2	0.967	---	-0.62	1.134	96.7	60.1	16.9	0.194
4- 320	4- 520	0.147	173.1	19.0	2.98	0.735	105.1	0.299	1.360	225.4	394.6	0.954	---	-1.16	1.130	97.8	64.9	15.0	0.204
4- 320	4- 530	0.256	209.4	46.9	17.03	0.725	103.9	0.295	1.332	220.7	399.9	0.939	---	-15.19	1.125	98.8	70.7	-34.4	0.352
4- 320	4- 540	0.123	180.4	2.9	0.50	0.715	102.7	0.293	1.307	215.8	405.0	0.924	---	1.36	1.121	99.7	74.6	29.4	0.225
4- 320	4- 550	0.117	190.3	5.4	1.22	0.705	101.3	0.293	1.283	210.7	410.1	0.907	---	0.66	1.116	100.7	82.1	26.3	0.234
4- 320	4- 560	0.112	200.2	6.9	1.45	0.695	99.8	0.294	1.261	205.6	415.1	0.890	---	0.44	1.112	101.7	89.6	25.4	0.249
4- 320	4- 570	0.111	210.9	-2.6	1.57	0.685	98.2	0.297	1.240	200.4	420.1	0.871	---	0.34	1.107	102.6	97.3	24.7	0.254
4- 320	4- 580	0.114	222.0	-6.3	1.65	0.676	96.4	0.303	1.221	195.2	425.0	0.852	---	0.29	1.102	103.7	105.3	23.8	0.269
4- 320	4- 590	0.121	232.8	-9.8	1.71	0.667	94.5	0.311	1.204	190.0	430.0	0.830	---	0.25	1.097	104.8	113.3	22.7	0.283
4- 320	4- 600	0.135	242.9	-12.8	1.76	0.659	92.3	0.321	1.188	184.8	435.0	0.806	---	0.23	1.092	106.0	121.3	21.2	0.300
4- 320	4- 610	0.153	251.8	-15.2	1.80	0.651	89.9	0.336	1.173	179.8	440.1	0.779	1.567	0.22	1.086	107.4	129.2	19.3	0.319
4- 320	4- 620	0.176	259.5	-16.9	1.84	0.643	87.1	0.354	1.160	174.8	445.3	0.749	1.571	0.22	1.080	108.9	136.9	17.2	0.342
4- 320	4- 630	0.205	265.9	-18.1	1.88	0.636	84.0	0.379	1.147	170.0	450.7	0.713	1.582	0.22	1.074	110.8	144.4	14.8	0.371

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 320	4- 640	0.241	271.1	-19.0	1.92	0.629	80.3	0.410	1.136	165.5	456.3	0.670	1.602	0.23	1.068	113.1	151.6	12.2	0.407
4- 320	4- 650	0.286	275.3	-19.7	1.97	0.623	75.9	0.451	1.126	161.5	462.3	0.618	1.634	0.25	1.062	116.0	158.5	9.6	0.454
4- 320	4- 660	0.344	278.4	-20.3	2.03	0.617	70.5	0.506	1.117	158.2	469.0	0.552	1.682	0.29	1.056	119.8	164.9	7.0	0.517
4- 320	4- 670	0.418	280.3	-20.9	2.10	0.612	63.4	0.580	1.109	156.1	476.8	0.466	1.753	0.34	1.051	125.0	170.6	4.6	0.604
4- 320	4- 680	0.519	280.6	-21.5	2.22	0.609	54.0	0.679	1.104	156.0	486.6	0.354	1.854	0.44	1.046	132.5	175.4	2.5	0.727
4- 320	4- 730	0.511	190.4	-3.7	1.21	0.500	134.5	0.824	0.974	193.7	573.0	0.171	1.777	-0.66	0.974	34.5	89.9	23.0	0.923
4- 320	4- 740	0.546	247.7	-21.6	1.44	0.333	60.7	0.871	0.858	175.1	564.0	0.111	1.605	-0.45	0.898	30.0	107.0	22.3	0.953
4- 320	4- 740	0.383	199.1	-6.5	1.44	0.490	117.5	0.720	0.965	192.4	581.2	0.270	1.661	-0.45	0.967	44.0	95.8	22.9	0.771
4- 320	4- 750	0.406	241.6	-19.8	1.56	0.406	81.0	0.749	0.900	176.9	575.3	0.226	1.574	-0.35	0.926	41.9	110.1	21.9	0.786
4- 320	4- 750	0.332	223.4	-14.8	1.56	0.457	98.0	0.680	0.937	183.8	582.2	0.300	1.575	-0.35	0.950	47.4	105.8	22.3	0.709
4- 320	4- 850	0.582	299.4	-19.0	2.05	0.789	51.8	0.619	1.529	130.0	264.4	---	2.475	-0.31	1.157	56.8	179.4	-0.2	0.618
4- 320	4- 860	0.556	301.0	-18.3	2.14	0.794	54.0	0.588	1.548	127.0	271.2	---	2.458	-0.37	1.162	59.9	185.3	-3.0	0.567
4- 320	4- 870	0.531	302.5	-17.7	2.29	0.798	56.0	0.559	1.566	124.0	278.1	---	2.440	-0.50	1.168	62.9	191.0	-5.8	0.518
4- 320	4- 880	0.508	303.8	-16.7	2.60	0.802	57.9	0.532	1.582	121.3	285.2	---	2.422	-0.79	1.173	65.8	196.3	-8.9	0.470
4- 320	4- 890	0.489	304.5	-14.5	3.89	0.806	59.6	0.507	1.596	118.7	292.6	---	2.405	-2.06	1.178	68.6	200.5	-14.4	0.426
4- 320	4- 900	0.468	307.8	-21.4	-1.31	0.809	61.1	0.484	1.609	116.2	300.2	---	2.387	3.16	1.182	71.4	210.9	-2.7	0.384
4- 320	4- 910	0.451	308.0	-17.7	0.96	0.812	62.4	0.464	1.620	114.0	308.1	---	2.371	0.90	1.186	74.1	212.9	-10.0	0.338
4- 320	4- 920	0.436	308.7	-16.8	1.35	0.814	63.6	0.446	1.629	112.1	316.2	---	2.356	0.53	1.189	76.8	216.0	-12.1	0.298
4- 320	4- 930	0.424	309.5	-16.2	1.52	0.816	64.5	0.432	1.637	110.4	324.7	---	2.343	0.39	1.192	79.5	218.1	-13.2	0.261
4- 320	4- 940	0.414	310.1	-15.8	1.61	0.817	65.3	0.420	1.643	109.0	333.4	---	2.333	0.31	1.193	82.2	218.4	-13.4	0.229
4- 320	4- 950	0.407	310.5	-15.5	1.68	0.818	65.9	0.411	1.648	107.9	342.5	---	2.326	0.27	1.195	84.9	216.3	-12.7	0.202
4- 320	4- 960	0.403	310.8	-15.3	1.73	0.819	66.2	0.406	1.651	107.2	352.0	---	2.322	0.24	1.195	87.7	211.2	-11.0	0.184
4- 320	4- 970	0.402	310.9	-15.1	1.78	0.819	66.3	0.405	1.654	106.9	361.9	0.984	2.324	0.23	1.195	90.6	203.9	-8.3	0.179
4- 320	4- 980	0.405	310.8	-15.1	1.82	0.820	66.0	0.409	1.655	107.1	372.3	0.978	2.332	0.22	1.194	93.6	196.1	-5.4	0.189
4- 320	4- 980	0.198	203.0	-3.9	1.82	0.618	103.3	0.453	1.119	197.2	822.4	0.612	1.625	0.22	1.066	116.1	122.9	20.5	0.466
4- 320	4- 980	0.448	171.2	6.2	1.82	0.683	129.6	0.670	1.234	212.3	837.5	0.407	2.062	0.22	1.105	130.7	115.6	21.6	0.736
4- 320	4- 990	0.413	310.4	-15.2	1.86	0.820	65.4	0.419	1.656	107.9	383.2	0.963	2.349	0.22	1.193	96.8	189.9	-3.0	0.216
4- 320	4- 990	0.185	225.3	-11.2	1.86	0.604	96.1	0.438	1.098	187.9	823.3	0.617	1.579	0.22	1.057	116.4	132.9	18.1	0.447
4- 320	4- 990	0.547	170.5	6.0	1.86	0.702	137.7	0.755	1.277	210.6	846.0	0.313	2.242	0.22	1.116	137.7	122.2	20.3	0.857
4- 320	4-1000	0.428	309.7	-15.5	1.90	0.820	64.4	0.435	1.656	109.3	394.7	0.935	2.377	0.23	1.192	100.4	186.2	-1.6	0.258
4- 320	4-1000	0.202	243.2	-16.0	1.90	0.595	90.1	0.445	1.085	180.1	825.6	0.602	1.567	0.23	1.050	115.9	141.9	15.5	0.452
4- 320	4-1010	0.451	308.6	-15.9	1.94	0.820	62.7	0.462	1.655	111.5	407.0	0.891	2.419	0.24	1.190	104.4	184.8	-1.1	0.316
4- 320	4-1010	0.228	256.4	-18.6	1.94	0.588	84.2	0.466	1.075	173.3	828.8	0.574	1.576	0.24	1.044	117.5	150.2	12.7	0.475
4- 320	4-1020	0.485	307.1	-16.5	1.99	0.820	60.1	0.500	1.654	114.7	420.2	0.826	2.482	0.27	1.187	109.2	184.9	-1.3	0.392
4- 320	4-1020	0.289	265.7	-20.0	1.99	0.583	77.9	0.503	1.067	167.5	833.1	0.530	1.605	0.27	1.038	120.0	157.9	9.8	0.515
4- 320	4-1030	0.535	304.8	-17.4	2.06	0.819	56.3	0.556	1.653	119.2	434.7	0.733	2.573	0.31	1.185	115.1	185.8	-1.8	0.491
4- 320	4-1030	0.355	271.8	-20.8	2.06	0.578	70.7	0.558	1.061	163.0	838.5	0.469	1.654	0.31	1.033	123.8	164.9	7.0	0.577
4- 320	4-1040	0.442	275.4	-21.4	2.15	0.574	61.7	0.637	1.057	160.2	845.6	0.384	1.730	0.38	1.028	129.5	170.9	4.4	0.670
4- 320	4-1050	0.559	276.3	-22.0	2.31	0.572	49.9	0.744	1.054	160.1	855.4	0.270	1.838	0.52	1.024	138.0	175.5	2.4	0.808
4- 320	4-1050	0.507	222.2	-15.3	2.31	0.286	103.9	0.880	0.837	181.9	1237.2	0.101	1.574	0.52	0.896	151.0	163.0	7.5	0.952
4- 320	4-1050	0.592	203.4	-9.1	2.31	0.348	139.6	0.925	0.866	185.8	1241.1	0.065	1.667	0.52	0.918	157.4	161.5	8.0	1.052
4- 320	4-1060	0.597	240.6	-20.2	2.66	0.248	61.5	0.927	0.823	177.5	1242.6	0.060	1.586	0.85	0.881	157.3	169.2	5.0	1.033
4- 320	4-1100	0.581	161.2	9.5	1.34	0.805	137.8	0.741	1.592	223.0	606.8	0.412	2.772	-0.54	1.160	46.1	75.7	22.2	0.828
4- 320	4-1100	0.446	191.1	-3.6	1.34	0.513	127.2	0.765	0.987	195.0	938.8	0.232	1.742	-0.54	0.980	40.1	91.5	23.0	0.838
4- 320	4-1110	0.462	156.8	12.2	1.51	0.805	128.8	0.626	1.593	232.4	625.7	0.595	2.591	-0.40	1.159	56.8	76.2	22.2	0.643
4- 320	4-1110	0.340	201.6	-7.0	1.51	0.507	112.6	0.672	0.982	192.3	945.7	0.322	1.641	-0.40	0.976	47.8	98.1	22.8	0.712
4- 320	4-1120	0.381	153.8	14.2	1.60	0.805	122.7	0.741	1.592	238.7	641.6	0.731	2.454	-0.32	1.158	64.5	77.6	22.3	0.508
4- 320	4-1120	0.497	258.4	-22.3	1.60	0.435	60.3	0.787	0.920	170.7	933.6	0.196	1.644	-0.32	0.939	38.3	115.7	21.1	0.843
4- 320	4-1120	0.294	221.9	-13.7	1.60	0.496	98.4	0.625	0.971	185.1	948.1	0.364	1.578	-0.32	0.969	51.4	107.2	22.1	0.650
4- 330	4- 380	0.512	162.7	9.8	1.74	0.818	132.2	0.672	1.620	230.3	259.2	---	---	-0.12	1.163	52.9	80.2	23.0	0.711
4- 330	4- 390	0.415	159.3	12.1	1.78	0.816	125.0	0.574	1.612	237.9	276.4	---	---	-0.09	1.161	61.8	81.2	23.0	0.555
4- 330	4- 400	0.355	156.9	14.2	1.80	0.823	120.5	0.509	1.641	244.6	292.6	---	---	-0.08	1.165	68.5	81.5	23.0	0.440
4- 330	4- 410	0.318	155.1	15.9	1.81	0.829	117.6	0.467	1.671	250.0	307.5	---	---	-0.07	1.170	73.9	80.8	23.0	0.353
4- 330	4- 420	0.293	151.1	17.1	1.82	0.833	115.7	0.440	1.689	253.6	320.7	---	---	-0.06	1.173	78.3	78.7	22.8	0.287
4- 330	4- 430	0.275	150.0	17.9	1.84	0.833	114.4	0.420	1.690	255.6	332.2	---	---	-0.06	1.174	81.9	74.9	22.4	0.239
4- 330	4- 440	0.261	149.9	18.4	1.85	0.830	113.4	0.403	1.676	256.0	342.2	---	---	-0.06	1.173	84.9	69.7	21.8	0.206
4- 330	4- 450	0.248	150.4	18.5	1.85	0.825	112.6	0.389	1.650	255.3	351.0	---	---	-0.06	1.170	87.5	63.9	20.9	0.186
4- 330	4- 460	0.236	151.7	18.3	1.87	0.817	111.9	0.375	1.616	253.5	358.9	---	---	-0.06	1.166	89.7	58.6	19.9	0.177
4- 330	4- 470	0.224	153.5	18.0	1.88	0.808	111.2	0.362	1.577	250.9	366.0	1.007	---	-0.06	1.162	91.6	54.9	19.1	0.176
4- 330	4- 480	0.212	155.8	17.5	1.89	0.797	110.5	0.350	1.537	247.7	372.5	0.999	---	-0.07	1.157	93.2	53.3	18.7	0.180
4- 330	4- 490	0.200	158.7	16.8	1.91	0.786	109.6	0.338	1.495	244.0	378.6	0.990	---	-0.08	1.151	94.7	53.7	18.7	0.186
4- 330	4- 500	0.188	162.0	16.0	1.93	0.774	108.8	0.328	1.456	239.9	384.3	0.978	---	-0.10	1.146	95.9	55.7	19.1	0.194
4- 330	4- 510	0.175	166.0	15.1	1.97	0.762	107.8	0.319	1.418	235.4	389.7	0.965	---	-0.13	1.141	97.1	59.2	19.7	0.203
4- 330	4- 520	0.163	170.8	14.0	2.06	0.750	106.7	0.312	1.382	230.7	395.0	0.952	---	-0.21	1.135	98.1	63.9	20.1	0.212
4- 330	4- 530	0.152	176.9	13.9	2.42	0.738	105.6	0.306	1.350	225.8	400.0	0.937	---	-0.58	1.130	99.1	69.7	19.2	0.220
4- 330	4- 540	0.138	180.3	5.9	1.07	0.727	104.3	0.301	1.320	220.7	405.0	0.922	---	0.78	1.124	100.0	79.1	26.5	0.229
4- 330	4- 550	0.129	188.8	5.7	1.62	0.716	102.9	0.299	1.292	215.6	409.9	0.906	---	0.23	1.119	100.9	82.4	24.3	0.238
4- 330	4- 560	0.122	197.6	3.0	1.72	0.705	101.4	0.298	1.267	210.3	414.8	0.890	---	0.14	1.114	101.7	89.8	24.1	0.247
4- 330	4- 570	0.118	207.4	-0.5	1.76	0.695	99.8	0.299	1.245	205.0	419.6	0.872	---	0.10	1.108	102.6	97.6	23.7	0.257
4- 330	4- 580	0.117	218.1	-4.3	1.79	0.685	98.1	0.302	1.224	199.6	424.5	0.854	---	0.08	1.103	103.6	105.5	23.0	0.268
4- 330	4- 590	0.121	229.2	-8.2	1.81	0.675	96.2	0.308	1.205	194.3	429.3	0.834	---	0.07	1.097	104.6	113.6	21.9	0.280
4- 330	4- 600	0.130	240.0	-11.5	1.82	0.666	94.1	0.317	1.188	188.9	434.2	0.812	---	0.06	1.092	105.7	121.6	20.5	0.294
4- 330	4- 610	0.144	250.0	-14.2	1.83	0.658	91.8	0.328	1.172	183.7	439.1	0.787	---	0.06	1.086	106.9	129.6	18.7	0.310
4- 330	4- 620	0.164	258.8	-16.2	1.84	0.650	89.2	0.344	1.157	178.5	444.0	0.760	1.555	0.06	1.080	108.3	137.4	16.6	0.330
4- 330	4- 630	0.189	266.2	-17.7	1.85	0.642	86.3	0.364	1.144	173.5	449.1	0.728	1.561	0.06	1.073	109.9	145.0	14.1	0.354
4- 330	4- 640	0.221	272.4	-18.7	1.87	0.635	82.9	0.391	1.132	168.6	454.4	0.690	1.574	0.06	1.067	111.9	152.3	11.6	0.385
4- 330	4- 650	0.261	277.5	-19.4	1.88	0.628	78.9	0.426	1.121	164.2	460.0	0.644	1.598	0.06	1.061	114.4	159.4	8.8	0.425
4- 330	4- 660	0.311	281.4	-19.9	1.89	0.622	74.0	0.472	1.112	160.3	466.1	0.587	1.636	0.07	1.054	117.6	166.0	6.1	0.477
4- 330	4- 670	0.376	284.2	-20.4	1.91	0.616	67.9	0.534	1.103	157.3	473.1	0.514	1.693	0.08	1.049	121.9	172.2	3.5	0.549
4- 330	4- 680	0.462	285.6	-21.0	1.93	0.612	59.8	0.619	1.097	155.9	481.5	0.418	1.776	0.10	1.043	128.0	177.5	1.2	0.650

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 330	4- 690	0.579	285.1	-21.7	1.98	0.609	48.8	0.732	1.092	157.0	492.5	0.293	1.892	0.14	1.039	136.9	181.7	-0.6	0.795
4- 330	4- 730	0.598	194.2	-5.3	1.62	0.503	144.0	0.884	0.968	192.2	566.5	0.112	1.824	-0.24	0.971	27.9	93.6	23.3	1.020
4- 330	4- 740	0.440	198.8	-6.4	1.72	0.499	125.3	0.765	0.964	193.8	577.7	0.227	1.701	-0.14	0.967	40.2	97.8	23.1	0.830
4- 330	4- 750	0.491	252.1	-21.7	1.76	0.367	69.3	0.820	0.868	175.2	568.6	0.156	1.580	-0.11	0.904	35.5	114.5	21.5	0.873
4- 330	4- 750	0.344	213.8	-11.4	1.76	0.482	108.7	0.685	0.949	189.2	582.6	0.299	1.598	-0.11	0.957	46.9	105.5	22.6	0.719
4- 330	4- 860	0.573	305.3	-17.8	1.92	0.795	53.0	0.602	1.530	128.3	267.5	---	2.450	-0.09	1.159	58.3	187.2	-3.3	0.593
4- 330	4- 870	0.547	306.8	-17.2	1.95	0.800	55.1	0.572	1.548	125.3	274.3	---	2.433	-0.11	1.165	61.3	193.1	-5.9	0.542
4- 330	4- 880	0.523	308.2	-16.6	2.00	0.804	57.1	0.544	1.565	122.4	281.4	---	2.415	-0.16	1.170	64.3	198.9	-8.4	0.494
4- 330	4- 890	0.501	309.4	-15.9	2.15	0.808	58.9	0.517	1.580	119.6	288.6	---	2.398	-0.30	1.175	67.2	204.4	-11.0	0.447
4- 330	4- 900	0.485	309.2	-11.3	5.14	0.812	60.5	0.494	1.594	117.1	296.1	---	2.380	-3.29	1.180	70.0	207.0	-20.8	0.407
4- 330	4- 910	0.462	312.1	-15.9	1.48	0.814	61.9	0.472	1.605	114.7	303.8	---	2.363	0.37	1.184	72.7	215.3	-12.8	0.359
4- 330	4- 920	0.446	312.9	-15.2	1.68	0.817	63.1	0.453	1.616	112.6	311.8	---	2.347	0.18	1.187	75.5	219.3	-14.7	0.318
4- 330	4- 930	0.432	313.8	-14.7	1.75	0.819	64.2	0.437	1.624	110.7	320.0	---	2.333	0.12	1.190	78.1	222.4	-15.8	0.280
4- 330	4- 940	0.421	314.4	-14.3	1.78	0.820	65.1	0.423	1.631	109.1	328.6	---	2.321	0.09	1.192	80.8	223.9	-16.3	0.245
4- 330	4- 950	0.412	315.0	-14.0	1.80	0.822	65.8	0.413	1.637	107.9	337.5	---	2.312	0.08	1.193	83.5	223.3	-16.1	0.215
4- 330	4- 960	0.406	315.4	-13.8	1.82	0.823	66.3	0.405	1.641	106.9	346.8	---	2.306	0.07	1.194	86.2	219.8	-15.1	0.192
4- 330	4- 970	0.403	315.6	-13.7	1.83	0.823	66.5	0.402	1.644	106.4	356.4	---	2.305	0.06	1.194	89.0	213.6	-13.1	0.179
4- 330	4- 980	0.404	315.6	-13.7	1.84	0.824	66.4	0.403	1.646	106.3	366.5	0.983	2.309	0.06	1.193	91.9	205.7	-10.2	0.180
4- 330	4- 980	0.233	194.9	-1.3	1.84	0.635	108.9	0.479	1.132	203.6	823.8	0.590	1.674	0.06	1.071	117.7	122.1	20.3	0.496
4- 330	4- 980	0.378	178.2	3.8	1.84	0.671	123.5	0.606	1.197	212.2	832.4	0.471	1.923	0.06	1.093	126.1	118.0	21.0	0.650
4- 330	4- 990	0.409	315.4	-13.8	1.85	0.824	66.1	0.409	1.647	106.7	377.1	0.974	2.321	0.06	1.192	94.9	198.3	-7.4	0.197
4- 330	4- 990	0.188	219.4	-9.5	1.85	0.615	99.5	0.439	1.101	192.6	823.0	0.618	1.584	0.06	1.058	115.4	132.9	17.8	0.448
4- 330	4- 990	0.504	175.4	4.1	1.85	0.698	134.0	0.716	1.251	211.9	842.3	0.355	2.147	0.06	1.108	134.4	123.9	19.9	0.798
4- 330	4-1000	0.420	315.0	-14.0	1.86	0.824	65.3	0.421	1.647	107.8	388.3	0.953	2.342	0.06	1.190	98.3	193.1	-5.3	0.230
4- 330	4-1000	0.193	239.7	-15.1	1.86	0.604	93.2	0.436	1.085	184.2	824.7	0.612	1.558	0.06	1.050	115.4	142.2	15.0	0.442
4- 330	4-1000	0.592	175.4	3.6	1.86	0.714	141.1	0.788	1.289	209.5	850.0	0.273	2.305	0.06	1.117	140.8	130.7	18.2	0.906
4- 330	4-1010	0.438	314.2	-14.4	1.87	0.824	64.0	0.442	1.647	109.5	400.1	0.919	2.375	0.06	1.188	102.0	190.4	-4.2	0.279
4- 330	4-1010	0.220	255.3	-18.2	1.87	0.596	87.4	0.449	1.078	176.9	827.4	0.591	1.557	0.06	1.043	116.4	150.8	12.1	0.455
4- 330	4-1020	0.465	313.0	-15.0	1.88	0.824	61.9	0.473	1.646	112.1	412.7	0.867	2.426	0.07	1.186	106.3	189.7	-4.0	0.344
4- 330	4-1020	0.262	266.5	-19.8	1.88	0.590	81.5	0.478	1.066	170.5	831.0	0.557	1.575	0.07	1.037	118.3	158.7	9.1	0.485
4- 330	4-1030	0.506	311.2	-15.8	1.90	0.824	58.9	0.516	1.646	115.9	426.5	0.791	2.500	0.08	1.184	111.5	190.2	-4.2	0.429
4- 330	4-1030	0.320	274.2	-20.6	1.90	0.585	74.9	0.522	1.059	165.1	835.7	0.506	1.612	0.08	1.032	121.3	166.0	6.1	0.534
4- 330	4-1040	0.566	308.6	-16.8	1.92	0.824	54.3	0.585	1.645	121.3	441.8	0.683	2.607	0.09	1.181	118.1	191.3	-4.7	0.542
4- 330	4-1040	0.395	279.2	-21.1	1.92	0.581	67.0	0.587	1.054	161.2	841.7	0.435	1.672	0.09	1.027	125.9	172.5	3.4	0.609
4- 330	4-1050	0.495	281.6	-21.6	1.95	0.578	56.9	0.679	1.050	159.5	849.8	0.337	1.763	0.12	1.022	132.7	177.9	1.0	0.720
4- 330	4-1060	0.540	239.5	-20.0	2.01	0.267	80.8	0.892	0.823	178.9	1239.0	0.089	1.557	0.17	0.881	152.4	170.9	4.0	0.965
4- 330	4-1100	0.521	193.4	-4.6	1.68	0.520	135.5	0.821	0.985	194.9	933.7	0.176	1.793	-0.18	0.979	34.8	94.4	23.3	0.919
4- 330	4-1110	0.513	163.6	9.4	1.74	0.810	132.5	0.675	1.567	228.8	617.2	0.515	2.659	-0.12	1.158	52.2	80.7	23.0	0.720
4- 330	4-1110	0.36?	200.0	-6.5	1.74	0.517	119.6	0.708	0.982	194.6	943.0	0.286	1.677	-0.12	0.976	44.9	99.6	23.0	0.758
4- 330	4-1120	0.414	180.1	11.7	1.77	0.810	125.1	0.575	1.587	236.5	634.5	0.674	2.500	-0.09	1.157	61.2	81.7	23.1	0.562
4- 330	4-1120	0.569	265.1	-22.9	1.77	0.425	51.4	0.840	0.905	170.6	928.6	0.145	1.664	-0.09	0.929	33.2	118.7	20.8	0.916
4- 330	4-1120	0.308	216.9	-11.3	1.77	0.510	106.0	0.635	0.974	189.7	947.6	0.355	1.594	-0.09	0.971	50.6	107.4	22.4	0.663
4- 330	4-1130	0.347	157.6	13.5	1.80	0.810	120.2	0.503	1.586	241.8	649.3	0.789	2.383	-0.08	1.156	67.9	83.1	23.1	0.447
4- 330	4-1130	0.431	261.5	-22.0	1.80	0.459	69.3	0.722	0.930	171.4	938.9	0.259	1.600	-0.08	0.944	44.1	122.8	20.0	0.755
4- 330	4-1130	0.309	242.1	-18.6	1.80	0.492	89.4	0.623	0.958	179.6	947.1	0.361	1.555	-0.08	0.961	51.6	118.0	20.9	0.642
4- 340	4- 390	0.515	158.9	12.0	2.01	0.902	129.9	0.670	2.069	247.1	280.5	---	---	0.19	1.219	59.6	78.9	23.4	0.625
4- 340	4- 400	0.432	155.8	13.9	1.96	0.890	124.3	0.592	1.981	253.8	296.7	---	---	0.15	1.209	67.3	78.7	23.4	0.487
4- 340	4- 410	0.380	153.3	15.5	1.93	0.885	120.7	0.541	1.950	258.7	311.2	---	---	0.13	1.206	73.3	77.6	23.3	0.386
4- 340	4- 420	0.346	151.6	16.5	1.90	0.882	118.4	0.506	1.925	261.9	323.9	---	---	0.12	1.203	78.0	75.1	23.2	0.313
4- 340	4- 430	0.322	150.8	17.1	1.88	0.876	116.8	0.479	1.891	263.3	334.9	---	---	0.11	1.200	81.9	71.1	22.8	0.261
4- 340	4- 440	0.303	150.9	17.4	1.86	0.869	115.6	0.457	1.845	263.3	344.5	---	---	0.11	1.196	85.1	66.0	22.2	0.226
4- 340	4- 450	0.286	151.6	17.3	1.85	0.859	114.7	0.436	1.791	262.2	352.9	---	---	0.10	1.190	87.8	60.6	21.3	0.205
4- 340	4- 460	0.271	152.9	17.1	1.83	0.848	113.9	0.417	1.732	260.1	360.4	1.011	---	0.11	1.184	90.1	55.9	20.4	0.195
4- 340	4- 470	0.256	154.8	16.6	1.81	0.836	113.1	0.398	1.672	257.2	367.3	1.006	---	0.11	1.177	92.1	52.9	19.8	0.193
4- 340	4- 480	0.242	157.0	15.9	1.79	0.823	112.3	0.381	1.613	253.8	373.5	0.998	---	0.12	1.170	93.7	51.8	19.6	0.196
4- 340	4- 490	0.227	159.7	15.1	1.76	0.809	111.4	0.365	1.556	249.9	379.4	0.988	---	0.14	1.163	95.2	52.5	19.8	0.201
4- 340	4- 500	0.212	162.7	14.1	1.72	0.795	110.5	0.351	1.504	245.6	384.9	0.976	---	0.16	1.156	96.4	54.9	20.4	0.208
4- 340	4- 510	0.198	166.2	12.8	1.67	0.781	109.5	0.339	1.456	241.0	390.2	0.963	---	0.20	1.149	97.5	58.6	21.4	0.215
4- 340	4- 520	0.183	170.2	11.2	1.57	0.767	108.4	0.328	1.412	236.1	395.3	0.949	---	0.29	1.142	98.5	63.3	22.7	0.222
4- 340	4- 530	0.169	174.5	8.5	1.30	0.754	107.2	0.319	1.373	231.1	400.2	0.935	---	0.56	1.135	99.4	68.8	24.8	0.229
4- 340	4- 540	0.173	167.9	-22.1	-5.89	0.741	106.0	0.312	1.337	225.9	405.1	0.920	---	7.73	1.129	100.3	66.9	55.0	0.276
4- 340	4- 550	0.146	188.9	9.2	2.49	0.729	104.6	0.307	1.306	220.5	409.9	0.905	---	-0.65	1.123	101.1	82.8	20.3	0.244
4- 340	4- 560	0.135	195.9	5.1	2.14	0.717	103.1	0.304	1.277	215.1	414.6	0.889	---	-0.31	1.116	101.9	90.0	22.1	0.251
4- 340	4- 570	0.128	204.5	1.5	2.03	0.705	101.5	0.303	1.251	209.7	419.3	0.872	---	-0.21	1.110	102.7	97.8	22.4	0.259
4- 340	4- 580	0.123	214.4	-2.4	1.97	0.695	99.8	0.304	1.228	204.2	424.0	0.855	---	-0.16	1.104	103.6	105.7	22.0	0.268
4- 340	4- 590	0.123	225.2	-6.3	1.93	0.684	97.9	0.307	1.207	198.7	428.7	0.836	---	-0.14	1.098	104.4	113.8	21.1	0.278
4- 340	4- 600	0.128	236.4	-10.0	1.91	0.675	95.9	0.313	1.188	193.2	433.4	0.816	---	-0.12	1.092	105.4	121.9	19.8	0.289
4- 340	4- 610	0.138	247.2	-13.1	1.88	0.666	93.7	0.322	1.171	187.8	438.1	0.794	---	-0.11	1.085	106.5	129.9	18.0	0.303
4- 340	4- 620	0.154	257.0	-15.4	1.86	0.657	91.2	0.335	1.156	182.4	442.9	0.769	---	-0.11	1.079	107.7	137.8	15.9	0.320
4- 340	4- 630	0.176	265.6	-17.1	1.85	0.649	88.5	0.352	1.142	177.2	447.8	0.740	1.543	-0.10	1.072	109.1	145.5	13.5	0.340
4- 340	4- 640	0.203	272.9	-18.2	1.83	0.641	85.3	0.374	1.129	172.1	452.8	0.707	1.551	-0.11	1.066	110.8	152.9	10.9	0.366
4- 340	4- 650	0.238	279.0	-19.0	1.81	0.634	81.7	0.405	1.117	167.3	458.1	0.667	1.568	-0.11	1.059	112.9	160.1	8.1	0.400
4- 340	4- 660	0.282	283.8	-19.5	1.78	0.627	77.3	0.442	1.107	162.9	463.7	0.617	1.596	-0.12	1.053	115.6	167.0	5.3	0.443
4- 340	4- 670	0.338	287.5	-19.9	1.76	0.621	71.9	0.495	1.098	159.2	469.9	0.555	1.641	-0.14	1.046	119.2	173.4	2.6	0.502
4- 340	4- 680	0.412	289.9	-20.3	1.72	0.616	65.0	0.566	1.090	156.6	477.2	0.473	1.707	-0.17	1.041	124.2	179.3	0.0	0.585
4- 340	4- 690	0.511	290.8	-20.9	1.66	0.612	55.6	0.663	1.084	156.1	486.5	0.365	1.804	-0.21	1.035	131.4	184.2	-2.1	0.703
4- 340	4- 740	0.515	200.5	-7.2	2.15	0.505	134.0	0.820	0.960	193.9	572.7	0.[illegible]73	1.748	0.32	0.965	34.9	100.7	23.3	0.909
4- 340	4- 750	0.559	258.9	-22.3	2.04	0.337	60.2	0.871	0.845	175.0	563.4	0.[illegible]9	1.582	0.22	0.887	30.1	117.8	21.1	0.944
4- 340	4- 750	0.385	209.9	-10.0	2.04	0.496	116.8	0.715	0.951	192.3	580.7	0.[illegible]1	1.632	0.22	0.958	44.5	106.6	22.8	0.757
4- 340	4- 760	0.416	252.8	-21.1	1.98	0.412	80.7	0.747	0.887	176.8	574.7	0.225	1.549	0.17	0.917	42.3	120.9	20.5	0.775

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 340	4- 760	0.339	235.2	-17.3	1.98	0.462	97.2	0.677	0.923	183.5	581.4	0.298	1.548	[illegible]			21.3	0.698	
4- 340	4- 860	0.591	309.5	-17.0	1.75	0.797	51.9	0.617	1.510	129.6	263.8	---	2.443	[illegible]			169.0	-3.6	0.619
4- 340	4- 870	0.564	311.0	-16.5	1.70	0.802	54.1	0.586	1.530	126.5	270.6	---	2.426	[illegible]			195.2	-6.1	0.568
4- 340	4- 880	0.539	312.5	-16.0	1.63	0.806	56.2	0.557	1.547	123.5	277.5	---	2.408	[illegible]			201.2	-8.4	0.519
4- 340	4- 890	0.515	313.9	-15.7	1.48	0.811	58.1	0.529	1.563	120.7	284.6	---	2.391	[illegible]			207.2	-10.3	0.471
4- 340	4- 900	0.493	315.5	-16.0	0.86	0.814	59.8	0.504	1.578	118.0	292.0	---	2.373	[illegible]			213.4	-10.7	0.426
4- 340	4- 910	0.470	315.4	-12.1	3.34	0.817	61.3	0.481	1.591	115.5	299.5	---	2.356	[illegible]			216.4	-19.1	0.383
4- 340	4- 920	0.457	317.0	-13.1	2.26	0.820	62.7	0.460	1.602	113.2	307.4	---	2.339	[illegible]			222.1	-17.7	0.340
4- 340	4- 930	0.441	317.9	-12.9	2.08	0.822	63.8	0.443	1.611	111.2	315.5	---	2.324	[illegible]			226.2	-18.4	0.300
4- 340	4- 940	0.428	318.7	-12.7	2.00	0.824	64.8	0.427	1.619	109.4	323.8	---	2.311	[illegible]			224.8	-18.9	0.264
4- 340	4- 950	0.418	319.4	-12.4	1.95	0.826	65.6	0.415	1.625	107.9	332.5	---	2.300	[illegible]			229.6	-19.1	0.231
4- 340	4- 960	0.410	319.9	-12.3	1.92	0.827	66.2	0.406	1.630	106.7	341.6	---	2.292	[illegible]			227.9	-18.6	0.203
4- 340	4- 970	0.405	320.2	-12.1	1.90	0.828	66.6	0.400	1.634	106.0	351.0	---	2.288	[illegible]			223.2	-17.3	0.184
4- 340	4- 980	0.403	320.4	-12.1	1.87	0.828	66.7	0.398	1.637	105.6	360.8	0.985	2.289	[illegible]			215.9	-15.0	0.176
4- 340	4- 990	0.406	320.4	-12.2	1.86	0.828	66.6	0.401	1.638	105.7	371.0	0.981	2.296	[illegible]			207.8	-12.2	0.184
4- 340	4- 990	0.202	212.6	-7.5	1.86	0.627	103.5	0.448	1.107	198.0	823.3	0.611	1.603	-0.11	1.060	115.9	132.7	17.5	0.458
4- 340	4- 990	0.452	180.9	2.0	1.86	0.692	129.6	0.469	1.222	212.8	838.1	0.805	2.039	-0.11	1.100	136.7	125.0	19.3	0.730
4- 340	4-1000	0.413	320.1	-12.4	1.84	0.829	66.0	0.410	1.639	106.4	381.8	0.968	2.311	-0.11	1.189	96.3	201.1	-9.5	0.207
4- 340	4-1000	0.188	234.8	-12.9	1.84	0.614	96.4	0.431	1.087	188.6	824.1	0.618	1.556	-0.11	1.051	115.1	142.4	14.6	0.437
4- 340	4-1000	0.553	180.0	1.7	1.84	0.711	137.7	0.754	1.265	211.0	846.4	0.311	2.218	-0.11	1.111	137.7	132.3	17.7	0.851
4- 340	4-1010	0.427	319.5	-12.7	1.82	0.829	65.0	0.425	1.639	107.7	393.2	0.942	2.336	-0.11	1.187	99.8	197.0	-7.8	0.247
4- 340	4-1010	0.205	252.9	-17.6	1.82	0.605	90.6	0.436	1.074	180.8	826.3	0.605	1.542	-0.11	1.043	115.5	151.2	11.6	0.441
4- 340	4-1020	0.449	318.6	-13.3	1.80	0.829	63.5	0.450	1.639	109.8	405.4	0.901	2.376	-0.12	1.185	103.7	195.2	-6.9	0.302
4- 340	4-1020	0.240	266.3	-19.5	1.80	0.598	84.9	0.456	1.064	173.8	829.3	0.579	1.550	-0.12	1.037	115.9	159.3	8.4	0.461
4- 340	4-1030	0.481	317.3	-14.0	1.77	0.828	61.0	0.487	1.638	113.0	418.4	0.840	2.436	-0.13	1.183	108.3	195.0	-6.8	0.374
4- 340	4-1030	0.288	275.8	-20.3	1.77	0.592	78.7	0.491	1.057	167.3	833.3	0.538	1.576	-0.13	1.031	119.2	166.9	5.4	0.498
4- 340	4-1040	0.530	315.3	-15.0	1.79	0.828	57.4	0.541	1.637	117.4	432.8	0.751	2.523	-0.15	1.180	114.0	195.8	-7.1	0.470
4- 340	4-1040	0.353	282.2	-20.7	1.74	0.588	71.7	0.544	1.051	163.0	838.4	0.479	1.623	-0.15	1.025	122.8	173.8	2.4	0.557
4- 340	4-1050	0.603	312.3	-16.3	1.70	0.828	51.9	0.619	1.637	123.9	449.1	0.624	2.649	-0.18	1.177	121.5	196.8	-7.5	0.599
4- 340	4-1050	0.439	286.1	-21.1	1.70	0.584	62.9	0.621	1.046	159.9	845.2	0.397	1.696	-0.18	1.021	128.3	179.9	-0.2	0.647
4- 340	4-1060	0.555	287.4	-21.7	1.62	0.582	51.4	0.727	1.043	159.5	854.6	0.265	1.802	-0.25	1.017	136.6	184.7	-2.3	0.782
4- 340	4-1060	0.507	233.5	-18.7	1.62	0.297	101.8	0.871	0.827	181.8	1236.9	0.107	1.547	-0.27	0.885	149.8	171.9	3.4	0.929
4- 340	4-1070	0.600	252.1	-22.4	1.46	0.262	61.8	0.919	0.814	177.3	1242.1	0.066	1.562	-0.28	0.871	156.1	178.1	0.7	1.010
4- 340	4-1110	0.578	170.9	6.2	2.09	0.815	137.2	0.734	1.580	224.1	607.4	0.420	2.740	-0.26	1.157	46.7	85.7	23.7	0.814
4- 340	4-1110	0.449	200.4	-6.7	2.09	0.526	127.1	0.757	0.981	195.8	939.1	0.238	1.723	-0.26	0.975	40.8	101.8	23.2	0.822
4- 340	4-1120	0.457	166.6	9.0	2.01	0.815	126.1	0.617	1.581	233.7	626.6	0.606	2.557	-0.19	1.156	57.4	86.0	23.7	0.628
4- 340	4-1120	0.342	210.9	-9.9	2.01	0.521	112.8	0.661	0.976	193.1	946.0	0.331	1.620	-0.19	0.971	48.7	108.4	22.6	0.694
4- 340	4-1130	0.375	163.7	11.0	1.96	0.815	122.1	0.531	1.581	240.2	642.6	0.741	2.421	-0.16	1.155	65.1	87.2	23.8	0.493
4- 340	4-1130	0.525	270.7	-22.6	1.96	0.444	57.6	0.795	0.910	170.0	932.5	0.187	1.633	-0.16	0.932	37.7	126.6	19.3	0.848
4- 340	4-1130	0.293	230.7	-15.5	1.96	0.511	99.4	0.611	0.966	186.1	948.6	0.376	1.556	-0.16	0.966	52.5	117.2	21.3	0.629
4- 340	4-1140	0.319	161.8	12.6	1.93	0.815	118.0	0.470	1.580	244.5	656.5	0.837	2.323	-0.13	1.155	70.8	88.5	23.8	0.394
4- 350	4- 400	0.538	155.9	13.7	2.18	0.986	128.3	0.728	2.979	263.3	361.1	---	---	-0.44	1.277	65.6	75.4	23.7	0.559
4- 350	4- 410	0.463	153.7	15.0	2.08	0.961	124.0	0.659	2.608	267.6	314.9	---	---	-0.37	1.258	72.4	74.0	23.6	0.437
4- 350	4- 420	0.414	152.3	15.9	2.01	0.945	121.1	0.604	2.412	270.1	327.0	---	---	-0.32	1.246	77.7	71.2	23.4	0.352
4- 350	4- 430	0.380	151.8	16.3	1.95	0.931	119.2	0.564	2.267	271.0	337.4	---	---	-0.29	1.236	81.9	67.2	23.0	0.292
4- 350	4- 440	0.354	152.1	16.4	1.90	0.917	117.8	0.530	2.139	270.6	346.6	---	---	-0.28	1.227	85.3	62.4	22.4	0.254
4- 350	4- 450	0.332	153.0	16.2	1.85	0.902	116.8	0.500	2.022	269.0	354.6	---	---	-0.27	1.217	88.2	57.5	21.5	0.230
4- 350	4- 460	0.312	154.4	15.8	1.81	0.886	115.9	0.472	1.913	266.6	361.9	1.010	---	-0.27	1.207	90.6	53.5	20.8	0.219
4- 350	4- 470	0.294	156.3	15.2	1.76	0.870	115.0	0.446	1.813	263.5	368.4	1.005	---	-0.28	1.197	92.6	51.1	20.3	0.235
4- 350	4- 480	0.276	158.5	14.5	1.71	0.853	114.2	0.422	1.723	259.9	374.5	0.996	---	-0.30	1.187	94.3	50.5	20.2	0.216
4- 350	4- 490	0.258	161.1	13.5	1.65	0.836	113.3	0.400	1.642	255.8	380.2	0.985	---	-0.33	1.177	95.7	51.6	20.6	0.220
4- 350	4- 500	0.241	163.9	12.4	1.57	0.819	112.3	0.381	1.571	251.3	385.6	0.973	---	-0.38	1.168	97.0	54.2	21.4	0.225
4- 350	4- 510	0.224	167.1	11.0	1.46	0.803	111.3	0.363	1.508	246.6	390.7	0.960	---	-0.46	1.159	98.0	58.1	22.6	0.230
4- 350	4- 520	0.207	170.6	9.1	1.28	0.787	110.2	0.348	1.452	241.6	395.6	0.948	---	-0.62	1.150	99.0	62.9	24.1	0.235
4- 350	4- 530	0.191	174.2	6.3	0.89	0.771	109.0	0.336	1.404	236.4	400.5	0.932	---	-0.98	1.142	99.9	68.5	26.6	0.241
4- 350	4- 540	0.175	176.3	-1.9	-0.78	0.757	107.7	0.326	1.361	231.1	405.2	0.918	---	-2.62	1.134	100.6	74.0	34.4	0.250
4- 350	4- 550	0.177	193.6	19.0	5.51	0.743	106.3	0.318	1.323	225.7	409.8	0.903	---	-3.69	1.127	101.4	83.1	7.4	0.260
4- 350	4- 560	0.153	195.4	7.9	2.89	0.730	104.8	0.312	1.290	220.1	414.5	0.887	---	-1.09	1.120	102.1	90.2	18.8	0.258
4- 350	4- 570	0.141	202.5	3.4	2.42	0.717	103.2	0.309	1.261	214.6	419.0	0.872	---	-0.65	1.113	102.9	97.9	20.6	0.263
4- 350	4- 580	0.133	211.2	-0.6	2.22	0.705	101.5	0.307	1.255	208.9	423.6	0.855	---	-0.47	1.106	103.6	105.9	20.7	0.270
4- 350	4- 590	0.129	221.3	-4.6	2.10	0.694	99.7	0.309	1.211	203.3	428.2	0.838	---	-0.38	1.099	104.4	114.0	20.1	0.278
4- 350	4- 600	0.129	232.3	-7.4	2.02	0.684	97.7	0.312	1.191	197.7	432.7	0.819	---	-0.33	1.093	105.3	122.1	18.9	0.287
4- 350	4- 610	0.135	243.5	-11.8	1.95	0.674	95.5	0.319	1.172	192.1	437.3	0.799	---	-0.30	1.086	106.2	130.1	17.3	0.298
4- 350	4- 620	0.147	254.3	-14.5	1.90	0.665	93.2	0.328	1.155	186.6	442.0	0.776	---	-0.28	1.079	107.3	138.1	15.2	0.312
4- 350	4- 630	0.164	264.0	-16.4	1.85	0.656	90.6	0.342	1.140	181.1	446.6	0.751	---	-0.27	1.072	108.5	145.8	12.8	0.329
4- 350	4- 640	0.188	272.5	-17.7	1.80	0.648	87.7	0.360	1.126	175.8	451.4	0.721	1.532	-0.27	1.065	110.0	153.4	10.2	0.351
4- 350	4- 650	0.218	279.6	-18.5	1.75	0.640	84.3	0.384	1.114	170.7	456.3	0.686	1.542	-0.28	1.058	111.7	160.7	7.4	0.378
4- 350	4- 660	0.256	285.5	-19.0	1.70	0.633	80.3	0.417	1.103	165.9	461.5	0.643	1.562	-0.30	1.051	114.0	167.8	4.5	0.414
4- 350	4- 670	0.305	290.1	-19.4	1.64	0.627	75.5	0.460	1.093	161.6	467.2	0.590	1.596	-0.33	1.044	117.0	174.5	1.7	0.463
4- 350	4- 680	0.367	293.5	-19.7	1.56	0.621	69.5	0.520	1.084	158.2	473.7	0.521	1.648	-0.38	1.038	121.0	180.8	-1.0	0.530
4- 350	4- 690	0.452	295.6	-20.1	1.44	0.616	61.6	0.602	1.077	156.2	481.5	0.429	1.726	-0.47	1.033	126.8	186.3	-3.4	0.626
4- 350	4- 700	0.568	295.7	-20.8	1.25	0.613	50.8	0.713	1.073	156.8	491.8	0.308	1.838	-0.64	1.028	135.4	190.7	-5.3	0.766
4- 350	4- 750	0.446	209.0	-9.7	2.46	0.506	125.1	0.761	0.951	194.0	577.2	0.228	1.674	0.68	0.958	40.6	108.6	22.9	0.818
4- 350	4- 760	0.507	263.7	-22.:	2.25	0.370	68.2	0.822	0.854	174.9	567.7	0.152	1.557	0.50	0.893	35.4	125.3	19.8	0.847
4- 350	4- 760	0.349	224.6	-14.2	2.25	0.489	108.4	0.680	0.936	189.3	582.1	0.300	1.572	0.50	0.948	47.4	116.3	21.7	0.804
4- 350	4- 870	0.581	315.3	-15.6	1.52	0.804	53.1	0.601	1.511	127.9	266.8	---	2.419	0.41	1.158	58.2	197.1	-6.5	0.586
4- 350	4- 880	0.555	316.8	-15.2	1.38	0.809	55.2	0.570	1.529	124.8	273.6	---	2.402	0.52	1.164	61.2	203.3	-8.7	0.599
4- 350	4- 890	0.530	318.3	-14.9	1.14	0.813	57.2	0.542	1.546	121.8	280.6	---	2.384	0.75	1.169	64.2	209.6	-10.4	0.609
4- 350	4- 900	0.507	319.9	-15.3	0.47	0.817	59.0	0.515	1.562	119.0	287.8	---	2.366	1.35	1.174	67.0	216.1	-10.8	0.621
4- 350	4- 910	0.510	325.6	-31.7	-11.69	0.820	60.6	0.491	1.575	116.4	295.3	---	2.349	13.52	1.179	69.8	234.0	14.7	0.970

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 350	4- 920	0.469	320.5	-10.0	3.53	0.823	62.1	0.469	1.587	114.0	303.0	---	2.332	-1.72	1.182	72.6	224.2	-22.4	0.364
4- 350	4- 930	0.451	322.0	-10.8	2.61	0.826	63.4	0.450	1.598	111.7	310.9	---	2.316	-0.82	1.185	75.3	229.5	-21.3	0.322
4- 350	4- 940	0.436	323.0	-10.8	2.31	0.828	64.5	0.433	1.606	109.8	319.1	---	2.302	-0.55	1.188	77.9	233.3	-21.5	0.284
4- 350	4- 950	0.424	323.7	-10.7	2.16	0.829	65.4	0.419	1.614	108.1	327.6	---	2.289	-0.42	1.186	80.6	235.4	-21.7	0.249
4- 350	4- 960	0.414	324.4	-10.5	2.06	0.831	66.1	0.407	1.619	106.7	336.4	---	2.279	-0.35	1.190	83.2	235.3	-21.6	0.218
4- 350	4- 970	0.408	324.8	-10.4	1.99	0.832	66.7	0.400	1.624	105.7	345.5	---	2.273	-0.31	1.190	85.9	232.4	-20.9	0.193
4- 350	4- 980	0.404	325.1	-10.4	1.93	0.833	67.0	0.395	1.627	105.0	355.1	---	2.270	-0.29	1.190	88.6	226.4	-19.4	0.178
4- 350	4- 990	0.404	325.2	-10.5	1.88	0.833	67.0	0.395	1.629	104.8	365.0	0.985	2.273	-0.27	1.189	91.4	218.3	-17.0	0.176
4- 350	4- 990	0.239	204.2	-5.2	1.88	0.645	109.2	0.476	1.121	204.5	824.7	0.588	1.655	-0.27	1.066	117.6	132.0	17.3	0.490
4- 350	4- 990	0.381	188.0	-0.5	1.88	0.680	123.4	0.602	1.184	212.7	832.9	0.471	1.897	-0.27	1.088	125.9	128.2	18.4	0.642
4- 350	4-1000	0.408	325.1	-10.6	1.83	0.833	66.7	0.400	1.631	105.2	375.5	0.978	2.283	-0.27	1.188	94.4	216.4	-14.2	0.190
4- 350	4-1000	0.192	228.7	-12.4	1.83	0.625	99.9	0.433	1.090	193.5	823.8	0.618	1.562	-0.27	1.052	115.1	142.4	14.2	0.439
4- 350	4-1000	0.509	185.0	-0.2	1.83	0.707	133.9	0.714	1.238	212.4	842.7	0.354	2.122	-0.27	1.103	134.3	133.9	17.1	0.791
4- 350	4-1010	0.418	324.8	-11.0	1.78	0.833	66.0	0.411	1.631	106.1	386.5	0.960	2.302	-0.27	1.186	97.6	204.6	-11.8	0.219
4- 350	4-1010	0.195	249.0	-16.9	1.78	0.614	93.7	0.428	1.074	185.0	825.4	0.615	1.534	-0.27	1.045	114.9	151.4	11.1	0.431
4- 350	4-1010	0.598	185.0	-0.7	1.78	0.724	140.9	0.786	1.276	209.9	850.3	0.273	2.279	-0.27	1.212	140.7	140.6	15.2	0.899
4- 350	4-1020	0.434	324.1	-11.4	1.73	0.833	66.7	0.430	1.631	107.7	398.1	0.929	2.333	-0.29	1.184	101.2	201.4	-10.3	0.265
4- 350	4-1020	0.221	264.8	-19.1	1.73	0.606	88.1	0.439	1.064	177.6	828.0	0.597	1.531	-0.29	1.036	115.8	159.8	7.9	0.442
4- 350	4-1030	0.460	323.1	-12.1	1.67	0.833	62.8	0.460	1.630	110.3	410.6	0.881	2.280	-0.31	1.181	105.4	200.3	-9.7	0.326
4- 350	4-1030	0.261	276.3	-20.0	1.67	0.600	82.3	0.465	1.055	171.0	831.3	0.565	1.546	-0.31	1.030	117.5	167.7	4.6	0.469
4- 350	4-1040	0.500	321.6	-13.0	1.60	0.833	60.0	0.503	1.630	114.0	424.2	0.809	2.458	-0.35	1.179	110.4	200.6	-9.7	0.408
4- 350	4-1040	0.316	284.4	-20.4	1.60	0.595	75.9	0.507	1.049	165.4	835.7	0.517	1.580	-0.35	1.024	120.4	174.9	1.5	0.515
4- 350	4-1050	0.558	319.3	-14.2	1.51	0.833	55.6	0.567	1.629	119.3	439.4	0.706	2.552	-0.42	1.176	116.8	201.9	-9.9	0.516
4- 350	4-1050	0.389	289.7	-20.6	1.51	0.591	68.3	0.570	1.043	161.2	841.3	0.449	1.638	-0.42	1.019	124.7	181.5	-1.3	0.585
4- 350	4-1060	0.488	292.6	-20.9	1.36	0.588	58.5	0.659	1.040	159.1	849.0	0.354	1.725	-0.54	1.015	131.2	187.1	-3.7	0.693
4- 350	4-1070	0.539	250.7	-22.2	1.10	0.282	81.0	0.882	0.814	178.8	1238.5	0.096	1.532	-0.78	0.871	151.0	179.8	-0.3	0.939
4- 350	4-1110	0.530	202.7	-7.7	2.65	0.535	135.8	0.817	0.979	195.5	933.7	0.179	1.778	0.86	0.974	35.2	104.9	23.3	0.908
4- 350	4-1120	0.511	173.5	6.0	2.34	0.820	131.9	0.668	1.575	229.9	617.7	0.522	2.628	0.58	1.155	52.7	90.8	24.2	0.708
4- 350	4-1120	0.392	209.2	-9.3	2.34	0.532	119.8	0.700	0.976	195.5	943.2	0.293	1.658	0.58	0.971	45.7	110.0	22.7	0.743
4- 350	4-1130	0.410	170.8	8.3	2.18	0.820	126.5	0.567	1.576	238.0	635.3	0.683	2.469	0.44	1.154	61.8	91.6	24.3	0.549
4- 350	4-1130	0.597	277.2	-22.6	2.18	0.436	49.0	0.847	0.895	170.2	927.5	0.137	1.652	0.44	0.922	32.5	129.5	18.8	0.920
4- 350	4-1130	0.310	223.9	-13.4	2.18	0.525	106.6	0.623	0.969	190.7	948.0	0.345	1.573	0.44	0.967	51.5	117.6	21.6	0.845
4- 350	4-1140	0.343	167.7	10.1	2.08	0.820	119.6	0.494	1.575	243.3	650.2	0.796	2.353	0.37	1.154	68.4	92.8	24.3	0.434
4- 350	4-1140	0.470	275.3	-22.0	2.08	0.466	64.8	0.739	0.917	170.0	936.9	0.239	1.595	0.37	0.936	42.6	134.0	17.7	0.772
4- 350	4-1140	0.299	248.9	-19.0	2.08	0.511	92.2	0.601	0.956	181.5	948.3	0.381	1.530	0.37	0.990	53.2	127.5	19.5	0.613
4- 350	4-1150	0.297	166.2	11.5	2.01	0.820	116.3	0.443	1.574	247.0	663.4	0.876	2.272	0.32	1.154	73.4	93.8	24.4	0.348
4- 360	4- 410	0.576	154.2	14.6	2.28	1.068	127.4	0.840	5.634	276.3	318.4	---	---	0.65	1.338	71.1	70.2	23.8	0.517
4- 360	4- 420	0.503	153.2	15.3	2.14	1.030	124.0	0.753	3.876	278.1	329.8	---	---	0.55	1.308	77.1	67.4	23.6	0.410
4- 360	4- 430	0.453	153.0	15.5	2.04	1.001	121.7	0.687	3.164	278.5	339.7	---	---	0.50	1.286	81.7	63.6	23.1	0.339
4- 360	4- 440	0.416	153.5	15.5	1.95	0.977	120.1	0.633	2.744	277.6	348.4	---	---	0.46	1.268	85.5	59.2	22.9	0.293
4- 360	4- 450	0.387	154.6	15.2	1.87	0.954	118.9	0.587	2.448	275.7	356.1	---	---	0.44	1.252	88.6	54.9	21.7	0.265
4- 360	4- 460	0.361	156.1	14.6	1.80	0.932	117.9	0.545	2.221	273.1	363.1	1.010	---	0.44	1.237	91.1	51.6	21.0	0.240
4- 360	4- 470	0.338	158.0	13.9	1.72	0.910	117.0	0.508	2.039	269.8	369.4	1.004	---	0.44	1.222	93.2	49.7	20.6	0.243
4- 360	4- 480	0.316	160.3	13.1	1.64	0.889	116.1	0.474	1.891	265.9	375.3	0.994	---	0.46	1.208	94.9	49.6	20.7	0.241
4- 360	4- 490	0.295	162.7	12.0	1.56	0.868	115.2	0.444	1.768	261.7	380.9	0.983	---	0.50	1.195	96.4	51.0	21.1	0.242
4- 360	4- 500	0.275	165.5	10.8	1.45	0.848	114.2	0.418	1.666	257.1	386.1	0.970	---	0.56	1.183	97.6	53.8	22.0	0.245
4- 360	4- 510	0.255	168.4	9.3	1.30	0.828	113.1	0.395	1.580	252.2	391.1	0.936	---	0.66	1.172	98.7	57.7	23.3	0.248
4- 360	4- 520	0.235	171.6	7.5	1.08	0.809	112.0	0.374	1.507	247.1	395.9	0.943	---	0.84	1.161	99.6	62.7	25.0	0.252
4- 360	4- 530	0.217	174.9	4.8	0.67	0.792	110.8	0.357	1.445	241.8	400.7	0.929	---	1.20	1.151	100.4	68.4	27.4	0.255
4- 360	4- 540	0.199	177.7	-0.6	-0.41	0.775	109.4	0.343	1.392	236.4	405.3	0.914	---	2.25	1.142	101.1	74.5	32.5	0.261
4- 360	4- 550	0.334	164.7	-51.1	-21.08	0.759	108.0	0.332	1.347	230.9	409.7	0.900	---	22.88	1.133	101.8	14.3	77.2	0.495
4- 360	4- 560	0.177	197.1	12.6	4.51	0.744	106.5	0.323	1.308	225.2	414.3	0.885	---	-2.75	1.125	102.5	90.1	12.2	0.269
4- 360	4- 570	0.159	201.6	5.5	3.04	0.731	105.0	0.317	1.274	219.5	418.8	0.870	---	-1.32	1.117	103.1	97.9	17.9	0.270
4- 360	4- 580	0.147	208.9	1.1	2.57	0.718	103.3	0.313	1.244	213.8	423.3	0.855	---	-0.89	1.109	103.8	105.9	19.1	0.274
4- 360	4- 590	0.138	217.8	-2.9	2.32	0.705	101.4	0.312	1.218	208.1	427.7	0.838	---	-0.68	1.101	104.5	114.0	19.0	0.280
4- 360	4- 600	0.135	228.2	-6.8	2.17	0.694	99.5	0.313	1.195	202.3	432.2	0.821	---	-0.57	1.094	105.2	122.2	18.0	0.287
4- 360	4- 610	0.136	239.3	-10.4	2.05	0.683	97.4	0.317	1.174	196.6	436.6	0.802	---	-0.50	1.086	106.0	130.3	16.5	0.295
4- 360	4- 620	0.143	250.6	-13.4	1.95	0.674	95.1	0.323	1.156	191.0	441.1	0.782	---	-0.46	1.079	106.9	138.3	14.5	0.306
4- 360	4- 630	0.156	261.3	-15.7	1.87	0.664	92.7	0.334	1.139	185.3	445.6	0.759	---	-0.44	1.072	108.0	146.1	12.1	0.320
4- 360	4- 640	0.175	271.0	-17.2	1.80	0.655	89.9	0.348	1.125	179.8	450.2	0.733	1.516	-0.44	1.064	109.2	153.8	9.5	0.338
4- 360	4- 650	0.200	279.3	-18.1	1.72	0.647	86.8	0.368	1.111	174.4	454.9	0.702	1.521	-0.44	1.057	110.7	161.2	6.7	0.360
4- 360	4- 660	0.233	286.3	-18.6	1.64	0.640	83.2	0.395	1.099	169.3	459.7	0.665	1.534	-0.46	1.050	112.6	168.4	3.7	0.390
4- 360	4- 670	0.275	291.9	-18.9	1.54	0.633	78.9	0.431	1.089	164.5	464.9	0.620	1.558	-0.50	1.043	115.1	175.3	0.8	0.430
4- 360	4- 680	0.329	296.4	-19.1	1.43	0.626	73.6	0.480	1.079	160.4	470.7	0.561	1.598	-0.57	1.036	118.4	181.9	-2.0	0.484
4- 360	4- 690	0.400	299.5	-19.3	1.28	0.621	66.9	0.548	1.071	157.3	477.4	0.485	1.658	-0.66	1.030	123.0	188.0	-4.6	0.561
4- 360	4- 700	0.497	301.0	-19.7	1.05	0.617	57.8	0.642	1.065	156.1	486.0	0.382	1.749	-0.87	1.025	129.8	193.2	-6.8	0.673
4- 360	4- 750	0.526	210.6	-10.4	3.13	0.513	134.3	0.820	0.947	194.1	572.1	0.170	1.724	1.41	0.956	35.0	111.6	22.8	0.902
4- 360	4- 760	0.579	270.5	-22.7	2.63	0.340	58.7	0.875	0.831	174.9	562.5	0.104	1.559	0.94	0.874	29.7	128.7	19.1	0.941
4- 360	4- 760	0.393	220.2	-12.8	2.63	0.504	116.9	0.711	0.939	192.6	580.2	0.271	1.606	0.94	0.950	44.9	117.4	21.9	0.746
4- 360	4- 770	0.438	265.7	-21.7	2.37	0.412	78.2	0.755	0.870	176.1	573.2	0.213	1.527	0.72	0.905	41.7	132.0	18.4	0.776
4- 360	4- 770	0.343	244.7	-1[illegible]	2.37	0.473	98.1	0.669	0.914	184.1	581.2	0.303	1.524	0.72	0.934	48.5	127.1	19.8	0.682
4- 360	4- 870	0.600	319.5	-1[illegible]	1.38	0.805	51.9	0.617	1.491	129.3	263.0	---	2.411	0.60	1.154	56.5	199.0	-7.0	0.622
4- 360	4- 880	0.572	321.1	-14.2	1.21	0.810	54.2	0.595	1.511	126.1	269.7	---	2.395	0.73	1.161	59.6	205.3	-9.1	0.671
4- 360	4- 890	0.545	322.6	-13.9	0.92	0.815	56.3	0.[illegible]6	1.528	123.1	276.6	---	2.378	0.98	1.166	62.6	211.8	-10.8	0.523
4- 360	4- 900	0.521	324.2	-14.1	0.32	0.819	58.2	0.[illegible]8	1.545	120.1	283.7	---	2.360	1.54	1.171	65.5	218.4	-11.4	0.476
4- 360	4- 910	0.499	326.6	-17.0	-2.11	0.823	59.9	0.502	1.559	117.4	291.0	---	2.342	2.93	1.176	68.3	226.4	-7.1	0.436
4- 360	4- 920	0.491	321.8	-2.3	8.37	0.826	61.5	0.479	1.572	114.8	293.6	---	2.325	-6.59	1.180	71.1	224.1	-36.1	0.405
4- 360	4- 930	0.462	325.7	-8.0	3.55	0.829	62.9	0.458	1.584	112.4	306.3	---	2.308	-1.81	1.183	73.8	232.5	-25.1	0.346
4- 360	4- 940	0.445	327.0	-8.7	2.77	0.831	64.1	0.439	1.593	110.2	314.3	---	2.293	-1.07	1.185	76.5	237.3	-24.2	0.305
4- 360	4- 950	0.431	328.0	-8.7	2.44	0.833	65.1	0.423	1.601	108.4	322.6	---	2.279	-0.77	1.187	79.1	240.3	-24.1	0.268

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 360	4- 960	0.420	328.7	-8.7	2.24	0.835	66.0	0.410	1.608	106.7	331.2	---	2.268	-0.42	1.188	81.7	242.0	-24.1	0.235
4- 360	4- 970	0.411	329.3	-8.6	2.11	0.836	66.6	0.400	1.613	105.5	340.1	---	2.259	-0.53	1.189	84.4	240.9	-23.9	0.206
4- 360	4- 980	0.405	329.7	-8.6	2.00	0.837	67.1	0.394	1.617	104.6	349.4	---	2.254	-0.48	1.188	87.0	236.7	-23.1	0.185
4- 360	4- 990	0.403	330.0	-8.6	1.91	0.838	67.2	0.391	1.620	104.1	359.1	---	2.254	-0.45	1.188	89.7	229.6	-21.4	0.175
4- 360	4-1000	0.404	330.0	-8.8	1.84	0.838	67.2	0.393	1.622	104.1	369.2	0.985	2.259	-0.44	1.186	92.6	221.1	-19.0	0.178
4- 360	4-1000	0.208	221.5	-10.7	1.84	0.638	104.0	0.443	1.097	199.1	824.1	0.611	1.583	-0.44	1.055	115.7	142.2	13.9	0.450
4- 360	4-1000	0.456	190.6	-2.3	1.84	0.701	129.3	0.664	1.208	213.4	838.5	0.406	2.010	-0.44	1.094	130.5	135.8	16.3	0.721
4- 360	4-1010	0.410	329.9	-9.1	1.76	0.838	66.7	0.400	1.623	104.6	379.8	0.976	2.272	-0.44	1.185	95.6	213.7	-16.3	0.198
4- 360	4-1010	0.192	243.6	-16.0	1.76	0.624	97.0	0.424	1.076	189.7	824.8	0.620	1.532	-0.44	1.044	114.7	151.6	10.6	0.427
4- 360	4-1010	0.559	189.7	-2.6	1.76	0.721	137.5	0.751	1.251	211.5	846.7	0.312	2.190	-0.44	1.105	137.5	142.1	14.5	0.843
4- 360	4-1020	0.422	329.5	-9.5	1.68	0.838	65.8	0.414	1.623	105.8	391.0	0.951	2.295	-0.45	1.182	98.9	208.7	-14.2	0.233
4- 360	4-1020	0.206	261.9	-18.7	1.68	0.615	91.2	0.426	1.063	181.7	826.9	0.610	1.517	-0.45	1.036	115.0	160.2	7.3	0.428
4- 360	4-1030	0.442	328.7	-10.1	1.59	0.838	64.4	0.437	1.623	107.9	403.0	0.914	2.331	-0.48	1.180	102.7	206.3	-13.0	0.285
4- 360	4-1030	0.238	275.7	-19.8	1.59	0.608	85.7	0.444	1.054	174.6	829.7	0.586	1.522	-0.48	1.030	116.2	168.2	4.0	0.445
4- 360	4-1040	0.473	327.6	-10.9	1.49	0.838	62.1	0.471	1.622	110.9	415.9	0.858	2.380	-0.53	1.178	107.2	205.8	-12.5	0.353
4- 360	4-1040	0.284	285.6	-20.1	1.49	0.606	79.8	0.476	1.047	168.3	833.4	0.549	1.545	-0.53	1.024	118.3	175.8	0.7	0.479
4- 360	4-1050	0.520	325.8	-12.0	1.36	0.838	58.7	0.522	1.621	115.2	430.1	0.775	2.468	-0.61	1.175	112.6	206.3	-12.5	0.444
4- 360	4-1050	0.346	292.4	-20.1	1.36	0.598	73.0	0.526	1.041	163.2	838.1	0.494	1.588	-0.61	1.018	121.7	182.8	-2.3	0.534
4- 360	4-1060	0.590	323.2	-13.5	1.18	0.838	53.5	0.597	1.621	121.5	446.2	0.654	2.588	-0.75	1.173	119.8	207.2	-12.7	0.567
4- 360	4-1060	0.429	296.8	-20.2	1.18	0.595	64.6	0.549	1.036	159.7	844.4	0.415	1.658	-0.75	1.012	126.8	189.0	-5.0	0.619
4- 360	4-1070	0.544	298.6	-20.6	0.89	0.593	53.5	0.704	1.033	158.8	853.2	0.306	1.761	-1.01	1.009	134.7	194.1	-7.1	0.748
4- 360	4-1070	0.506	244.2	-21.3	0.89	0.311	101.6	0.859	0.818	181.9	1236.4	0.115	1.522	-1.01	0.874	148.3	180.8	-0.9	0.903
4- 360	4-1080	0.476	263.6	-23.7	0.27	0.278	63.5	0.907	0.805	177.0	1241.2	0.075	1.536	-1.59	0.860	154.2	187.1	-3.7	0.980
4- 360	4-1120	0.593	180.8	2.6	2.85	0.826	136.9	0.731	1.569	224.9	607.4	0.422	2.716	1.13	1.154	46.8	96.2	24.5	0.807
4- 360	4-1120	0.459	209.7	-9.6	2.85	0.541	127.6	0.752	0.975	196.6	939.1	0.242	1.708	1.13	0.971	91.3	112.5	22.8	0.811
4- 360	4-1130	0.457	176.3	5.4	2.49	0.826	127.6	0.613	1.570	235.0	627.1	0.611	2.529	0.82	1.154	57.8	96.2	24.6	0.617
4- 360	4-1130	0.347	219.9	-12.2	2.49	0.527	113.4	0.651	0.970	194.1	946.2	0.338	1.602	0.82	0.968	49.4	118.6	21.7	0.679
4- 360	4-1140	0.373	173.8	7.5	2.29	0.826	121.5	0.524	1.570	241.6	643.3	0.747	2.393	0.65	1.153	65.5	97.3	24.7	0.482
4- 360	4-1140	0.557	283.1	-21.9	2.29	0.454	54.5	0.806	0.899	169.4	931.1	0.174	1.624	0.65	0.925	36.6	137.3	16.8	0.858
4- 360	4-1140	0.293	238.8	-16.7	2.29	0.528	100.7	0.596	0.962	187.5	949.1	0.388	1.535	0.65	0.963	53.5	127.1	19.9	0.609
4- 360	4-1150	0.317	172.0	9.0	2.15	0.826	117.5	0.463	1.569	246.2	657.3	0.842	2.296	0.56	1.1[illegible]	71.3	98.4	24.8	0.383
4- 360	4-1160	0.279	170.7	10.1	2.04	0.825	114.8	0.421	1.568	249.5	670.0	0.908	2.229	0.50	1.154	75.7	98.7	25.0	0.309
4- 370	4- 420	0.624	154.1	14.7	2.32	1.148	127.0	0.989	87.563	285.6	332.0	---	---	0.83	1.399	76.1	64.0	23.6	0.501
4- 370	4- 430	0.549	154.2	14.8	2.16	1.096	124.2	0.871	7.682	285.5	341.4	---	---	0.72	1.356	81.4	60.6	23.1	0.408
4- 370	4- 440	0.495	154.9	14.6	2.02	1.055	122.4	0.781	4.591	284.3	349.8	---	---	0.66	1.324	85.5	56.7	22.5	0.348
4- 370	4- 450	0.454	156.2	14.1	1.91	1.020	121.0	0.707	3.452	282.2	357.2	---	---	0.62	1.298	88.9	53.0	21.8	0.311
4- 370	4- 460	0.420	157.9	13.5	1.81	0.989	119.9	0.644	2.838	279.3	364.0	1.010	---	0.60	1.276	91.6	50.3	21.2	0.290
4- 370	4- 470	0.391	159.9	12.7	1.70	0.960	119.0	0.590	2.445	275.8	370.2	1.002	---	0.60	1.255	93.8	48.9	20.9	0.278
4- 370	4- 480	0.363	162.2	11.7	1.60	0.932	118.1	0.543	2.168	271.9	376.0	0.992	---	0.62	1.236	95.6	49.0	21.0	0.273
4- 370	4- 490	0.338	164.6	10.6	1.48	0.906	117.1	0.501	1.964	267.5	381.4	0.980	---	0.66	1.219	97.1	50.7	21.6	0.270
4- 370	4- 500	0.314	167.3	9.3	1.35	0.881	116.1	0.465	1.807	262.8	386.5	0.967	---	0.72	1.203	98.3	53.6	22.5	0.270
4- 370	4- 510	0.290	170.1	7.8	1.18	0.858	115.0	0.434	1.683	257.9	391.4	0.953	---	0.83	1.188	99.4	57.7	23.8	0.270
4- 370	4- 520	0.268	173.1	6.0	0.94	0.836	113.9	0.407	1.584	252.7	396.2	0.939	---	1.01	1.175	100.3	62.7	25.4	0.271
4- 370	4- 530	0.246	176.2	3.5	0.55	0.815	112.6	0.385	1.502	247.3	400.8	0.925	---	1.34	1.163	101.0	68.5	27.7	0.273
4- 370	4- 540	0.226	179.1	-0.6	-0.28	0.796	111.3	0.366	1.435	241.8	405.3	0.911	---	2.12	1.151	101.7	74.8	31.5	0.275
4- 370	4- 550	0.213	179.1	-13.4	-3.63	0.778	109.9	0.350	1.379	236.2	409.8	0.897	---	5.41	1.141	102.3	80.4	44.4	0.291
4- 370	4- 560	0.238	206.6	26.1	10.73	0.761	108.4	0.338	1.332	230.6	414.3	0.882	---	-9.00	1.131	102.9	88.1	-9.0	0.321
4- 370	4- 570	0.182	202.1	8.4	4.16	0.746	106.7	0.328	1.293	224.7	418.6	0.868	---	-2.49	1.122	103.5	97.7	13.5	0.281
4- 370	4- 580	0.164	207.5	2.7	3.09	0.731	105.0	0.321	1.257	218.8	423.0	0.853	---	-1.47	1.113	104.0	105.9	17.0	0.281
4- 370	4- 590	0.152	215.2	-1.5	2.63	0.718	103.2	0.317	1.227	213.0	427.3	0.838	---	-1.06	1.104	104.6	114.1	17.5	0.284
4- 370	4- 600	0.144	224.4	-5.4	2.36	0.705	101.3	0.316	1.201	207.2	431.7	0.832	---	-0.86	1.096	105.3	122.3	16.9	0.289
4- 370	4- 610	0.140	234.9	-9.0	2.17	0.694	99.3	0.317	1.178	201.3	436.0	0.805	---	-0.73	1.088	105.9	130.4	15.6	0.295
4- 370	4- 620	0.142	246.2	-12.3	2.03	0.683	97.1	0.321	1.158	195.5	440.4	0.786	---	-0.66	1.080	106.7	138.5	13.7	0.303
4- 370	4- 630	0.150	257.6	-14.9	1.91	0.673	94.7	0.328	1.140	189.8	444.8	0.766	---	-0.62	1.072	107.6	146.3	11.4	0.314
4- 370	4- 640	0.164	268.3	-16.7	1.80	0.664	92.1	0.339	1.124	184.1	449.2	0.742	---	-0.60	1.064	108.7	154.0	8.8	0.328
4- 370	4- 650	0.185	277.9	-17.8	1.70	0.655	89.2	0.355	1.110	178.5	453.6	0.715	1.564	-0.60	1.056	109.9	161.6	5.9	0.346
4- 370	4- 660	0.212	286.1	-18.3	1.59	0.647	85.8	0.377	1.097	173.1	458.2	0.683	1.510	-0.62	1.049	111.5	168.9	3.0	0.370
4- 370	4- 670	0.248	292.0	-18.5	1.47	0.639	82.0	0.406	1.085	167.9	463.0	0.644	1.524	-0.66	1.041	113.5	176.0	0.0	0.402
4- 370	4- 680	0.294	298.4	-18.5	1.33	0.633	77.3	0.446	1.075	163.2	468.2	0.595	1.555	-0.73	1.034	116.2	182.9	-2.9	0.446
4- 370	4- 690	0.354	302.6	-18.6	1.16	0.627	71.5	0.502	1.066	159.3	474.0	0.531	1.601	-0.84	1.028	119.9	189.4	-5.7	0.508
4- 370	4- 700	0.435	305.4	-18.7	0.91	0.621	63.9	0.579	1.059	156.7	481.2	0.446	1.673	-1.03	1.022	125.3	195.2	-8.1	0.597
4- 370	4- 710	0.548	306.3	-19.3	0.51	0.618	53.4	0.687	1.054	156.4	490.7	0.330	1.778	-1.38	1.017	133.3	200.0	-9.9	0.729
4- 370	4- 760	0.458	219.1	-12.6	3.21	0.514	125.5	0.760	0.938	194.3	576.6	-0.225	1.652	1.48	0.950	40.7	119.5	21.9	0.811
4- 370	4- 770	0.529	275.7	-22.1	2.72	0.372	66.0	0.830	0.839	174.6	566.4	0.143	1.535	1.14	0.881	54.8	136.2	17.4	0.869
4- 370	4- 770	0.357	234.4	-16.2	2.72	0.499	108.9	0.675	0.925	189.8	581.6	0.301	1.549	1.14	0.941	47.9	126.9	20.3	0.694
4- 370	4- 880	0.589	325.3	-13.0	1.08	0.812	53.0	0.601	1.492	127.6	265.8	---	2.388	0.90	1.157	57.9	207.3	-9.7	0.599
4- 370	4- 890	0.561	326.9	-12.7	0.78	0.817	55.2	0.570	1.510	124.4	272.6	---	2.371	1.14	1.163	61.0	213.9	-11.3	0.549
4- 370	4- 900	0.536	328.5	-12.8	0.25	0.822	57.2	0.541	1.527	121.4	279.6	---	2.354	1.62	1.168	63.9	220.6	-12.2	0.502
4- 370	4- 910	0.512	330.5	-14.1	-1.16	0.826	59.1	0.514	1.543	118.5	286.8	---	2.336	2.97	1.173	66.8	227.8	-10.6	0.458
4- 370	4- 920	0.555	337.3	-37.7	-19.52	0.829	60.7	0.490	1.557	115.8	294.1	---	2.319	21.28	1.177	69.6	250.7	23.2	0.561
4- 370	4- 930	0.477	328.6	-3.6	5.71	0.832	62.3	0.467	1.569	113.2	301.8	---	2.301	-4.00	1.180	72.3	234.6	-31.9	0.375
4- 370	4- 940	0.455	330.9	-6.0	3.51	0.835	63.6	0.447	1.580	110.8	309.6	---	2.285	-1.86	1.183	75.0	240.9	-27.4	0.329
4- 370	4- 950	0.439	332.1	-6.5	2.83	0.837	64.7	0.429	1.589	108.8	317.7	---	2.271	-1.24	1.185	77.6	245.4	-26.5	0.290
4- 370	4- 960	0.426	333.0	-6.6	2.49	0.839	65.7	0.415	1.596	108.9	326.1	---	2.258	-0.95	1.186	80.2	248.1	-26.3	0.254
4- 370	4- 970	0.415	333.7	-6.6	2.27	0.840	66.5	0.403	1.602	109.4	334.8	---	2.247	-0.79	1.187	82.8	248.7	-26.2	0.223
4- 370	4- 980	0.407	334.3	-6.6	2.10	0.841	67.1	0.394	1.607	110.3	343.8	---	2.240	-0.70	1.187	85.4	246.5	-25.9	0.197
4- 370	4- 990	0.402	334.7	-6.7	1.97	0.842	67.4	0.389	1.610	111.5	353.2	---	2.236	-0.64	1.186	88.1	241.0	-25.1	0.179
4- 370	4-1000	0.401	334.9	-6.8	1.86	0.843	67.5	0.388	1.613	113.2	362.9	0.988	2.238	-0.61	1.185	90.8	232.9	-23.4	0.173
4- 370	4-1000	0.210	212.7	-8.6	1.86	0.657	110.0	0.475	1.112	205.9	825.7	0.584	1.641	-0.61	1.061	117.7	141.4	13.9	0.487
4- 370	4-1000	0.381	198.2	-4.8	1.86	0.689	122.7	0.592	1.169	213.3	833.0	0.477	1.661	-0.61	1.081	125.3	138.2	15.2	0.627

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MAR
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 370	4-1010	0.404	334.9	-7.1	1.75	0.843	67.3	0.391	1.614	103.4	373.2	0.983	2.246	-0.60	1.183	93.7	224.3	-20.9	0.133
4- 370	4-1010	0.198	237.1	-14.8	1.75	0.636	100.5	0.426	1.080	194.8	824.7	0.619	1.541	-0.60	1.046	134.8	151.5	10.3	0.430
4- 370	4-1010	0.513	194.8	-4.6	1.75	0.717	133.5	0.708	1.224	213.0	842.8	0.357	2.091	-0.60	1.097	134.0	143.7	13.1	0.780
4- 370	4-1020	0.412	334.7	-7.4	1.65	0.843	66.7	0.400	1.615	104.2	384.0	0.968	2.262	-0.61	1.181	96.8	217.5	-18.4	0.208
4- 370	4-1020	0.197	257.4	-18.2	1.65	0.625	94.4	0.418	1.064	186.2	826.1	0.619	1.510	-0.61	1.037	114.5	160.4	6.8	0.419
4- 370	4-1030	0.427	324.2	-8.0	1.53	0.843	65.6	0.417	1.615	105.7	395.5	0.941	2.289	-0.64	1.179	100.3	213.4	-16.6	0.249
4- 370	4-1030	0.219	273.6	-19.6	1.53	0.617	88.9	0.427	1.054	178.6	828.4	0.603	1.504	-0.64	1.039	115.1	168.7	3.4	0.427
4- 370	4-1040	0.451	313.4	-8.7	1.41	0.843	63.9	0.444	1.615	108.1	407.8	0.898	2.332	-0.69	1.178	104.2	211.7	-15.2	0.306
4- 370	4-1040	0.257	285.6	-19.8	1.41	0.611	83.4	0.450	1.045	171.8	831.5	0.575	1.516	-0.69	1.023	116.6	176.5	-0.0	0.451
4- 370	4-1050	0.488	332.1	-9.7	1.25	0.843	61.3	0.485	1.614	111.6	421.2	0.832	2.396	-0.78	1.174	109.0	211.6	-15.2	0.382
4- 370	4-1050	0.309	294.2	-19.7	1.25	0.606	77.2	0.489	1.039	165.9	835.5	0.531	1.547	-0.78	1.017	119.2	183.0	-5.2	0.492
4- 370	4-1060	0.544	330.1	-11.1	1.05	0.843	57.2	0.544	1.614	116.7	438.1	0.735	2.492	-0.92	1.171	115.1	212.3	-15.2	0.485
4- 370	4-1060	0.379	300.0	-19.5	1.05	0.602	69.9	0.548	1.034	161.3	840.7	0.468	1.600	-0.92	1.012	123.2	190.6	-6.1	0.558
4- 370	4-1070	0.474	303.4	-19.5	0.75	0.599	60.6	0.634	1.030	158.6	847.8	0.377	1.683	-1.17	1.008	129.3	196.4	-6.5	0.659
4- 370	4-1080	0.533	261.5	-23.6	0.20	0.299	82.6	0.808	0.806	178.91	237.7	0.106	1.505	-1.66	0.861	149.1	188.8	-4.7	0.907
4- 370	4-1120	0.548	212.1	-10.6	3.68	0.550	136.7	0.818	0.973	196.1	933.4	0.177	1.768	2.03	0.970	35.1	115.6	23.6	0.905
4- 370	4-1130	0.517	183.6	2.3	2.94	0.831	131.7	0.665	1.565	230.9	617.7	0.525	2.606	1.33	1.153	52.8	101.4	25.8	0.702
4- 370	4-1130	0.402	218.3	-11.8	2.94	0.547	120.5	0.694	0.970	196.5	943.3	0.297	1.643	1.33	0.968	46.1	120.4	24.8	0.731
4- 370	4-1140	0.412	180.1	4.6	2.57	0.831	124.1	0.561	1.565	239.3	635.6	0.687	2.443	1.01	1.152	62.1	101.9	24.9	0.540
4- 370	4-1140	0.315	232.2	-15.0	2.57	0.542	107.6	0.673	0.964	192.0	948.3	0.374	1.555	1.01	0.964	52.3	127.7	20.2	0.629
4- 370	4-1150	0.343	177.9	6.4	2.33	0.831	119.1	0.488	1.564	244.9	650.7	0.801	2.328	0.84	1.153	68.7	103.0	25.0	0.425
4- 370	4-1150	0.511	288.5	-21.0	2.33	0.474	60.3	0.759	0.904	169.0	934.8	0.218	1.591	0.84	0.928	41.0	144.9	14.7	0.792
4- 370	4-1150	0.292	255.3	-19.0	2.33	0.530	94.8	0.581	0.953	183.5	949.3	0.399	1.567	0.84	0.959	54.7	137.0	17.6	0.597
4- 370	4-1160	0.296	176.4	1.6	2.16	0.831	115.8	0.437	1.564	248.7	664.1	0.880	2.247	0.73	1.153	73.8	104.7	25.2	0.339
4- 370	4-1170	0.265	375.3	8.5	2.03	0.831	113.6	0.403	1.563	251.3	676.3	0.934	2.192	0.66	1.154	77.8	103.2	25.6	0.275
4- 380	4- 450	0.679	155.4	14.1	2.31	1.225	126.8	1.158	-6.262	292.0	342.5	---	---	0.91	1.459	80.6	58.3	23.1	0.511
4- 380	4- 440	0.598	156.3	13.8	2.22	1.158	124.7	0.999	36.560	290.6	350.6	---	---	0.88	1.404	85.3	55.0	22.5	0.427
4- 380	4- 450	0.540	157.8	13.2	1.97	1.105	123.2	0.878	8.268	288.3	357.9	---	---	0.81	1.362	89.0	52.0	21.9	0.375
4- 380	4- 460	0.493	159.7	12.4	1.83	1.060	122.0	0.781	4.599	285.3	364.6	1.009	---	0.78	1.327	92.0	49.7	21.4	0.345
4- 380	4- 470	0.454	161.9	11.4	1.70	1.021	121.0	0.700	3.340	281.7	370.7	1.001	---	0.76	1.298	94.4	48.6	21.2	0.323
4- 380	4- 480	0.420	164.2	10.4	1.57	0.985	120.0	0.633	2.894	277.7	376.3	0.990	---	0.77	1.272	96.3	49.0	21.4	0.312
4- 380	4- 490	0.388	166.7	9.2	1.43	0.952	119.1	0.575	2.299	273.2	381.7	0.977	---	0.80	1.245	97.9	50.7	21.9	0.305
4- 380	4- 500	0.359	169.3	7.9	1.28	0.922	118.1	0.526	2.031	268.5	386.8	0.963	---	0.87	1.228	99.1	53.7	22.9	0.301
4- 380	4- 510	0.332	172.1	6.3	1.09	0.893	117.0	0.484	1.839	263.4	391.6	0.949	---	0.97	1.209	100.2	57.8	24.1	0.297
4- 380	4- 520	0.306	175.0	4.6	0.84	0.867	115.8	0.449	1.695	258.2	396.3	0.934	---	1.14	1.192	101.0	62.9	25.7	0.295
4- 380	4- 530	0.281	177.9	2.3	0.46	0.843	114.5	0.419	1.583	252.8	400.0	0.920	---	1.44	1.177	101.8	68.7	27.7	0.294
4- 380	4- 540	0.258	180.8	-1.1	-0.21	0.820	113.2	0.394	1.494	247.2	405.9	0.906	---	2.09	1.163	102.4	75.2	30.7	0.293
4- 380	4- 550	0.237	182.7	-4.0	-1.97	0.799	111.7	0.373	1.423	241.5	409.7	0.892	---	3.03	1.150	102.9	82.0	33.5	0.297
4- 380	4- 560	0.383	172.8	-53.4	-23.57	0.780	0.2	0.356	1.364	235.7	413.9	0.879	---	25.27	1.139	103.4	25.2	79.8	0.545
4- 380	4- 570	0.216	205.3	14.2	6.74	0.763	108.6	0.343	1.316	229.9	418.4	0.865	---	-5.11	1.128	103.9	96.8	4.5	0.303
4- 380	4- 580	0.187	207.4	4.7	3.93	0.747	106.9	0.332	1.275	224.0	422.7	0.851	---	-2.37	1.118	104.4	109.6	13.8	0.291
4- 380	4- 590	0.170	213.5	-0.1	3.06	0.732	105.1	0.325	1.240	218.1	427.0	0.836	---	-1.58	1.108	104.9	114.0	15.7	0.291
4- 380	4- 600	0.158	221.4	-4.1	2.62	0.718	103.2	0.321	1.210	212.1	431.2	0.821	---	-1.21	1.099	105.4	122.3	15.7	0.293
4- 380	4- 610	0.150	230.9	-7.8	2.34	0.705	101.2	0.319	1.184	206.2	435.5	0.806	---	-1.00	1.090	106.0	130.5	14.6	0.296
4- 380	4- 620	0.146	241.6	-11.1	2.14	0.693	99.0	0.327	1.161	200.3	439.7	0.789	---	-0.88	1.081	106.6	138.5	12.8	0.302
4- 380	4- 630	0.149	253.1	-14.0	1.97	0.683	97.7	0.325	1.142	194.4	444.0	0.770	---	-0.81	1.072	107.4	146.5	10.6	0.310
4- 380	4- 640	0.158	264.5	-16.1	1.82	0.674	94.2	0.333	1.124	188.6	448.2	0.750	---	-0.77	1.064	108.2	154.3	8.1	0.320
4- 380	4- 650	0.173	276.1	-17.4	1.69	0.666	91.5	0.345	1.109	182.8	452.5	0.726	---	-0.76	1.056	109.3	161.9	5.2	0.335
4- 380	4- 660	0.195	284.7	-18.0	1.56	0.658	88.4	0.362	1.095	177.2	456.9	0.698	1.491	-0.77	1.048	110.6	169.3	2.5	0.354
4- 380	4- 670	0.225	292.8	-18.3	1.41	0.647	84.8	0.386	1.083	171.7	461.3	0.665	1.500	-0.81	1.040	112.3	176.6	-0.8	0.380
4- 380	4- 680	0.264	299.5	-18.1	1.25	0.639	80.7	0.418	1.072	166.5	466.1	0.623	1.520	-0.88	1.033	114.4	183.7	-3.7	0.415
4- 380	4- 690	0.315	304.8	-17.9	1.06	0.633	75.6	0.463	1.062	161.9	471.3	0.570	1.554	-0.99	1.026	117.4	190.5	-6.6	0.464
4- 380	4- 700	0.382	308.8	-17.9	0.81	0.627	69.2	0.526	1.054	158.3	476.4	0.500	1.608	-1.16	1.020	121.6	196.8	-9.2	0.535
4- 380	4- 710	0.475	311.1	-18.0	0.43	0.622	60.5	0.615	1.047	156.3	485.1	0.404	1.691	-1.47	1.014	127.9	202.4	-11.6	0.638
4- 380	4- 760	0.547	220.7	-13.2	4.20	0.622	135.4	0.825	0.835	194.2	571.1	0.164	1.707	2.62	0.948	34.5	122.7	21.7	0.503
4- 380	4- 770	0.405	230.0	-15.1	3.22	0.514	117.6	0.710	0.928	193.2	579.6	0.209	1.586	1.71	0.943	45.1	128.1	20.4	0.758
4- 380	4- 780	0.468	279.1	-21.4	2.74	0.410	74.6	0.770	0.852	175.2	571.2	0.196	1.508	1.30	0.891	48.6	143.2	15.6	0.787
4- 380	4- 780	0.345	252.7	-19.2	2.74	0.488	100.0	0.659	0.930	185.3	581.2	0.309	1.503	1.30	0.929	45.3	137.2	17.9	0.565
4- 380	4- 890	0.578	331.1	-11.3	0.68	0.819	54.1	0.566	1.491	125.8	268.7	---	2.376	1.26	1.159	59.3	215.8	-11.9	0.577
4- 380	4- 900	0.551	332.7	-11.2	0.20	0.824	56.3	0.556	1.509	122.7	275.5	---	2.346	1.67	1.165	62.3	223.7	-13.0	0.529
4- 380	4- 910	0.526	334.5	-12.0	-0.80	0.829	58.2	0.527	1.526	119.6	282.6	---	2.331	2.60	1.170	65.2	229.8	-12.4	0.485
4- 380	4- 920	0.506	337.6	-16.6	-4.54	0.832	60.0	0.501	1.541	116.8	289.8	---	2.314	6.26	1.174	68.0	230.7	-9.7	0.451
4- 380	4- 930	0.522	326.0	8.9	15.05	0.836	61.6	0.477	1.554	114.1	297.3	---	2.295	-13.39	1.178	70.8	235.6	-54.5	0.463
4- 380	4- 940	0.467	334.3	-2.5	4.89	0.839	63.0	0.455	1.566	111.6	305.0	---	2.279	-3.29	1.181	73.5	244.2	-32.0	0.356
4- 380	4- 950	0.448	336.1	-4.0	3.43	0.841	64.3	0.436	1.575	109.3	312.9	---	2.263	-1.91	1.183	76.1	249.7	-28.2	0.333
4- 380	4- 960	0.432	337.2	-4.4	2.45	0.843	65.4	0.420	1.584	107.3	321.0	---	2.249	-1.37	1.184	78.7	253.6	-28.4	0.275
4- 380	4- 970	0.419	338.1	-4.5	2.48	0.845	66.3	0.406	1.591	105.5	329.5	---	2.237	-1.10	1.185	81.3	255.7	-28.2	0.241
4- 380	4- 980	0.410	338.8	-4.5	2.24	0.846	67.0	0.395	1.596	104.1	338.2	---	2.228	-0.94	1.185	83.9	256.3	-27.6	0.212
4- 380	4- 990	0.405	339.3	-4.6	2.05	0.847	67.5	0.388	1.601	103.1	347.3	---	2.221	-0.85	1.184	86.5	251.9	-27.8	0.188
4- 380	4-1000	0.399	339.6	-4.8	1.90	0.848	67.8	0.384	1.604	102.4	356.8	---	2.219	-0.79	1.183	86.1	245.2	-24.9	0.175
4- 380	4-1010	0.399	339.0	-5.0	1.76	0.848	67.8	0.384	1.606	102.3	366.7	0.989	2.223	-0.77	1.182	91.9	236.4	-23.2	0.174
4- 380	4-1010	0.217	229.5	-13.4	1.76	0.650	104.7	0.439	1.087	200.6	825.0	0.610	1.565	-0.77	1.049	115.6	151.3	9.0	0.444
4- 380	4-1010	0.458	300.9	-6.7	1.76	0.710	128.7	0.655	1.193	244.0	828.5	0.412	1.975	-0.77	1.087	139.9	145.6	12.8	0.706
4- 380	4-1020	0.404	335.1	-5.3	1.63	0.848	67.4	0.390	1.607	102.7	377.2	0.981	2.233	-0.76	1.030	94.8	228.0	-22.0	0.189
4- 380	4-1020	0.196	251.5	-17.1	1.63	0.636	97.7	0.416	1.067	191.1	825.6	0.623	1.510	-0.76	1.038	114.3	160.5	6.1	0.416
4- 380	4-1020	0.563	199.6	-6.4	1.63	0.730	137.0	0.744	1.237	212.2	846.7	0.316	2.158	-0.76	1.098	137.1	151.7	10.1	0.830
4- 380	4-1030	0.414	339.5	-5.8	1.49	0.848	68.7	0.402	1.607	103.7	388.2	0.962	2.253	-0.75	1.178	98.0	222.0	-20.[illegible]	0.219
4- 380	4-1030	0.206	270.0	-19.4	1.49	0.627	92.1	0.416	1.054	185.0	827.4	0.616	1.492	-0.75	1.030	114.4	169.0	-2.8	0.414
4- 380	4-1040	0.432	339.0	-6.5	1.34	0.848	69.4	0.422	1.607	105.6	399.9	0.929	2.285	-0.84	1.175	101.6	218.7	-19.0	0.266
4- 380	4-1040	0.234	284.3	-19.8	1.34	0.620	86.6	0.430	1.045	175.7	830.0	0.595	1.454	-0.84	1.023	119.3	177.0	-0.7	0.428

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 380	4-1050	0.461	330.0	-7.4	1.17	0.848	63.3	0.453	1.607	108.4	412.6	0.879	2.335	-0.92	1.113	105.8	217.6	-18.3	0.329
4- 380	4-1050	0.276	294.8	-19.4	1.17	0.615	81.1	0.459	1.037	169.2	833.4	0.562	1.513	-0.92	1.017	117.2	184.6	-4.	0.459
4- 380	4-1060	0.504	336.6	-8.5	0.95	0.848	60.2	0.501	1.600	112.6	426.6	0.802	2.410	-1.[illegible]	1.170	111.0	217.8	-17.8	0.434
4- 380	4-1066	0.335	302.3	-18.9	0.95	0.610	74.6	0.504	1.031	163.7	837.7	0.511	1.552	-1.08	1.011	120.3	191.8	-7.1	0.509
4- 380	4-1070	0.571	334.3	-10.1	0.65	0.848	55.4	0.510	1.606	118.6	442.3	0.690	2.522	-1.29	1.168	117.7	218.5	-17.7	0.530
4- 380	4-1070	0.41[illegible]	[illegible].2	-18.6	0.65	0.607	66.7	0.573	1.027	159.6	843.4	0.438	1.616	-1.29	1.006	125.0	198.3	-9.7	0.587
4- 380	4-1080	0.524	299.7	-18.7	0.16	0.604	56.1	0.674	1.020	158.1	851.5	0.334	1.714	-1.70	1.002	132.4	203.7	-11.8	0.708
4- 380	4-1080	0.503	294.0	-23.0	0.16	0.330	103.2	0.847	0.811	182.4	1235.9	0.124	1.498	-1.70	0.865	146.8	189.7	-5.2	0.878
4- 380	4-1090	0.585	274.9	-24.3	-0.82	0.296	66.7	0.891	0.797	176.9	1240.0	0.087	1.508	-2.62	0.850	151.8	196.3	-8.1	0.943
4- 380	4-1150	0.597	191.2	-1.2	3.63	0.837	137.1	0.733	1.558	225.2	606.6	0.416	2.701	2.09	1.151	46.5	107.2	24.7	0.809
4- 380	4-1150	0.476	219.9	-12.1	3.63	0.557	126.6	0.752	0.969	197.4	938.8	0.240	1.698	2.09	0.967	41.3	122.9	21.7	0.807
4- 380	4-1140	0.463	186.8	1.6	2.96	0.837	127.4	0.608	1.560	236.0	626.9	0.611	2.508	1.48	1.152	57.9	106.9	24.9	0.612
4- 380	4-1140	0.357	228.5	-14.1	2.96	0.553	114.3	0.645	0.965	195.4	946.3	0.343	1.588	1.48	0.965	50.0	128.9	20.4	0.667
4- 380	4-1150	0.376	184.0	3.6	2.58	0.837	121.2	0.519	1.560	245.0	643.5	0.750	2.369	1.17	1.152	55.8	107.7	25.1	0.475
4- 380	4-1150	0.592	295.3	-20.3	2.58	0.465	51.0	0.821	0.888	169.0	929.4	0.159	1.617	1.17	0.917	35.2	147.9	13.7	0.874
4- 380	4-1150	0.296	246.2	-17.4	2.58	0.546	102.3	0.563	0.958	189.1	949.6	0.399	1.517	1.17	0.961	54.5	136.9	18.1	0.591
4- 380	4-1160	0.318	189.2	5.0	2.32	0.837	117.1	0.458	1.559	247.8	657.8	0.845	2.273	0.99	1.152	71.5	108.6	25.3	0.375
4- 380	4-1160	0.452	292.5	-20.0	2.32	0.496	87.6	0.699	0.912	169.3	939.3	0.275	1.550	0.99	0.935	46.0	151.9	12.5	0.715
4- 380	4-1160	0.312	273.5	-20.0	2.32	0.530	87.7	0.583	0.942	178.4	948.4	0.393	1.491	0.99	0.953	54.6	147.2	14.6	0.584
4- 380	4-1170	0.280	180.9	5.9	2.13	0.837	114.5	0.416	1.558	251.0	670.6	0.910	2.206	0.88	1.153	76.0	108.7	25.6	0.301
4- 380	4-1180	0.254	180.1	6.5	1.98	0.837	112.7	0.388	1.558	253.2	682.4	0.954	2.161	0.82	1.155	79.7	107.2	26.3	0.246
4- 390	4- 440	0.738	157.7	13.0	2.26	1.300	127.0	1.337	-2.984	296.3	350.9	---	---	1.13	1.519	84.8	54.4	22.7	0.543
4- 390	4- 450	0.650	159.5	12.3	2.05	1.217	125.3	1.128	-7.886	293.9	358.1	---	---	1.02	1.450	89.0	51.8	22.1	0.463
4- 390	4- 460	0.585	161.5	11.3	1.87	1.152	124.0	0.974	38.405	290.9	364.7	1.009	---	0.96	1.398	92.3	49.9	21.7	0.413
4- 390	4- 470	0.532	163.8	10.3	1.71	1.098	123.0	0.852	6.749	287.3	370.8	1.000	---	0.93	1.355	94.9	49.1	21.5	0.382
4- 390	4- 480	0.488	166.3	9.1	1.55	1.051	122.0	0.754	4.005	283.2	376.4	0.988	---	0.92	1.319	97.0	49.5	21.7	0.362
4- 390	4- 490	0.448	168.9	7.8	1.39	1.009	121.1	0.672	2.972	278.8	381.7	0.974	---	0.94	1.288	98.7	51.3	22.3	0.348
4- 390	4- 500	0.413	171.6	6.4	1.22	0.970	120.1	0.605	2.428	274.0	386.8	0.959	---	1.00	1.260	100.0	54.2	23.2	0.338
4- 390	4- 510	0.380	174.3	4.9	1.02	0.936	119.0	0.548	2.091	268.9	391.6	0.945	---	1.09	1.236	101.1	58.6	24.4	0.330
4- 390	4- 520	0.349	177.1	3.2	0.76	0.904	117.8	0.501	1.864	263.7	396.3	0.930	---	1.25	1.215	101.9	63.3	25.8	0.324
4- 390	4- 530	0.321	180.0	1.1	0.40	0.875	116.5	0.462	1.701	258.2	400.8	0.915	---	1.51	1.195	102.6	69.1	27.7	0.319
4- 390	4- 540	0.294	182.8	-1.8	-0.17	0.849	115.2	0.429	1.578	252.6	405.2	0.901	---	2.00	1.178	103.2	75.6	30.1	0.315
4- 390	4- 550	0.269	185.3	-4.5	-1.36	0.824	113.7	0.402	1.494	246.9	409.6	0.888	---	3.10	1.163	103.6	82.7	34.5	0.314
4- 390	4- 560	0.257	184.7	-20.4	-5.73	0.802	112.1	0.379	1.400	241.0	413.9	0.874	---	7.35	1.149	104.1	89.2	48.9	0.334
4- 390	4- 570	0.335	220.5	30.4	18.39	0.782	110.5	0.362	1.348	235.1	418.3	0.860	---	-16.81	1.136	104.5	89.5	-23.9	0.432
4- 390	4- 580	0.217	208.9	7.9	5.51	0.764	108.8	0.348	1.299	229.2	422.4	0.847	---	-4.01	1.124	104.9	105.0	8.4	0.308
4- 390	4- 590	0.193	212.9	3.3	3.73	0.747	107.0	0.337	1.257	223.2	426.6	0.834	---	-2.31	1.113	105.3	113.7	13.3	0.301
4- 390	4- 600	0.176	219.5	-3.0	2.99	0.732	105.1	0.329	1.223	217.2	430.8	0.820	---	-1.66	1.103	105.7	122.2	14.1	0.300
4- 390	4- 610	0.163	227.7	-6.7	2.46	0.718	103.1	0.325	1.193	211.2	435.0	0.806	---	-1.33	1.093	106.1	130.4	13.5	0.301
4- 390	4- 620	0.155	237.4	-10.1	2.27	0.705	101.0	0.323	1.167	205.2	439.2	0.790	---	-1.14	1.083	106.7	138.6	11.9	0.303
4- 390	4- 630	0.152	248.3	-13.1	2.05	0.693	98.8	0.325	1.145	199.2	443.3	0.774	---	-1.02	1.074	107.3	146.6	9.8	0.308
4- 390	4- 640	0.156	259.9	-15.5	1.87	0.682	96.3	0.329	1.126	193.3	447.4	0.755	---	-0.96	1.065	108.0	154.4	7.3	0.316
4- 390	4- 650	0.165	271.4	-17.1	1.70	0.672	93.7	0.338	1.109	187.4	451.6	0.734	---	-0.92	1.056	108.8	162.1	4.5	0.327
4- 390	4- 660	0.182	282.1	-17.9	1.54	0.663	90.8	0.351	1.094	181.5	455.7	0.710	---	-0.92	1.048	109.9	169.6	1.6	0.342
4- 390	4- 670	0.206	291.5	-18.1	1.37	0.654	87.6	0.369	1.081	175.8	460.0	0.682	1.480	-0.95	1.040	111.2	177.0	-1.5	0.362
4- 390	4- 680	0.238	299.5	-17.9	1.19	0.647	83.8	0.395	1.069	170.3	464.4	0.647	1.491	-1.01	1.032	113.0	184.3	-4.5	0.390
4- 390	4- 690	0.280	306.0	-17.5	0.99	0.639	79.3	0.431	1.058	165.2	469.0	0.602	1.515	-1.11	1.025	113.4	191.3	-7.5	0.429
4- 390	4- 700	0.337	311.2	-17.1	0.73	0.633	73.7	0.481	1.045	160.7	474.3	0.544	1.555	-1.27	1.018	113.7	198.1	-10.2	0.484
4- 390	4- 710	0.413	314.8	-17.0	0.37	0.627	66.5	0.553	1.042	157.4	480.7	0.466	1.618	-1.54	1.012	123.5	204.4	-12.6	0.565
4- 390	4- 720	0.520	316.7	-17.2	-0.20	0.625	56.5	0.655	1.036	156.3	489.3	0.357	1.715	-2.03	1.007	130.9	209.6	-14.5	0.686
4- 390	4- 770	0.478	225.0	-14.9	4.01	0.524	126.7	0.764	0.927	194.8	575.7	0.218	1.636	2.58	0.943	40.4	130.4	20.3	0.810
4- 390	4- 780	0.557	287.8	-21.1	3.17	0.372	63.0	0.842	0.823	174.4	564.8	0.130	1.516	1.82	0.867	33.7	147.1	14.3	0.877
4- 390	4- 780	0.368	243.5	-17.5	3.17	0.511	110.1	0.672	0.915	190.7	581.1	0.300	1.530	1.82	0.935	48.2	137.3	18.3	0.684
4- 390	4- 890	0.595	335.3	-9.8	0.61	0.821	52.9	0.603	1.472	127.3	264.7	---	2.359	1.36	1.155	57.6	217.8	-12.6	0.606
4- 390	4- 900	0.567	336.9	-9.7	0.17	0.826	55.2	0.571	1.491	124.1	271.4	---	2.342	1.71	1.161	60.6	224.7	-13.7	0.557
4- 390	4- 910	0.540	338.7	-10.0	-0.61	0.831	57.2	0.541	1.508	120.9	278.4	---	2.325	2.40	1.167	63.6	231.8	-13.7	0.510
4- 390	4- 920	0.517	342.9	-12.1	-2.56	0.835	59.1	0.514	1.524	118.0	285.5	---	2.308	4.26	1.171	66.5	239.5	-10.5	0.468
4- 390	4- 930	0.564	347.8	-34.6	-20.21	0.839	60.8	0.489	1.538	115.1	292.7	---	2.291	21.83	1.175	69.2	259.5	22.0	0.579
4- 390	4- 940	0.485	336.2	3.5	8.23	0.842	62.4	0.465	1.551	112.4	300.4	---	2.273	-6.66	1.178	72.0	247.0	-41.3	0.495
4- 390	4- 950	0.457	339.8	-0.8	4.42	0.845	63.8	0.445	1.562	110.0	308.1	---	2.256	-2.96	1.181	74.6	253.6	-32.7	0.339
4- 390	4- 960	0.439	341.3	-1.8	3.32	0.847	65.0	0.427	1.571	107.8	316.0	---	2.241	-1.94	1.182	77.2	258.5	-30.6	0.298
4- 390	4- 970	0.425	342.4	-2.2	2.76	0.849	66.0	0.411	1.579	105.8	324.3	---	2.228	-1.48	1.183	79.8	261.9	-29.8	0.262
4- 390	4- 980	0.413	343.2	-2.3	2.42	0.850	66.8	0.398	1.585	104.1	332.8	---	2.217	-1.23	1.183	82.3	263.2	-29.6	0.229
4- 390	4- 990	0.404	343.9	-2.5	2.16	0.851	67.5	0.389	1.590	102.8	341.6	---	2.208	-1.08	1.184	84.9	261.9	-29.5	0.202
4- 390	4-1000	0.398	344.3	-2.4	1.96	0.852	67.9	0.382	1.594	101.9	350.8	---	2.204	-0.99	1.182	87.5	257.3	-29.4	0.182
4- 390	4-1010	0.395	344.7	-2.8	1.78	0.853	68.1	0.380	1.597	101.4	360.4	0.990	2.203	-0.94	1.180	90.1	249.5	-28.6	0.172
4- 390	4-1010	0.271	219.0	-11.6	1.78	0.671	111.5	0.481	1.107	208.1	827.1	0.574	1.640	-0.94	1.056	118.2	150.3	10.2	0.492
4- 390	4-1010	0.372	209.2	-9.2	1.78	0.696	121.2	0.572	1.150	215.6	832.5	0.492	1.808	-0.94	1.072	124.1	148.1	11.5	0.600
4- 390	4-1020	0.397	344.8	-3.1	1.62	0.853	68.0	0.382	1.599	101.4	370.4	0.988	2.209	-0.92	1.178	92.9	240.3	-26.9	0.176
4- 390	4-1020	0.205	2[illegible].4	-16.7	1.62	0.648	101.4	0.421	1.071	196.5	825.5	0.620	1.522	-0.92	1.040	114.6	160.4	6.1	0.422
4- 390	4-1020	0.516	204.9	-8.8	1.62	0.726	132.8	0.699	1.209	213.7	842.7	0.364	2.054	-0.92	1.090	133.4	153.4	10.0	0.764
4- 390	4-1030	0.403	344.7	-3.6	1.46	0.853	67.5	0.389	1.600	102.1	381.0	0.977	2.222	-0.93	1.176	95.8	232.3	-24.7	0.196
4- 390	4-1030	0.199	264.7	-19.2	1.46	0.637	95.3	0.409	1.055	187.8	826.7	0.623	1.487	-0.93	1.030	114.0	169.1	2.3	0.407
4- 390	4-1040	0.416	344.4	-4.2	1.29	0.854	66.6	0.404	1.600	103.4	392.2	0.954	2.246	-0.97	1.174	99.1	227.0	-22.6	0.232
4- 390	4-1040	0.216	281.4	-19.8	1.29	0.629	90.0	0.415	1.044	180.0	828.8	0.611	1.478	-0.97	1.023	114.4	177.4	-1.3	0.412
4- 390	4-1050	0.438	343.8	-5.0	1.10	0.854	65.1	0.427	1.600	105.6	404.3	0.916	2.284	-1.05	1.171	102.9	224.4	-21.3	0.284
4- 390	4-1050	0.249	294.1	-19.3	1.10	0.623	84.7	0.434	1.036	173.0	831.7	0.586	1.486	-1.05	1.016	115.7	185.3	-4.7	0.432
4- 390	4-1060	0.472	342.7	-6.0	0.87	0.853	62.7	0.464	1.599	108.9	417.4	0.857	2.342	-1.18	1.169	107.4	223.8	-20.6	0.355
4- 390	4-1060	0.297	303.9	-18.5	0.87	0.618	78.8	0.469	1.030	166.7	835.2	0.547	1.512	-1.18	1.010	117.9	192.8	-7.9	0.469
4- 390	4-1070	0.523	341.0	-7.4	0.57	0.853	59.0	0.519	1.599	113.8	432.0	0.769	2.429	-1.38	1.167	113.1	224.1	-20.2	0.450

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 390	4-1070	0.362	309.9	-17.9	0.57	0.614	71.9	0.523	1.024	161.6	839.9	0.489	1.560	-1.38	1.005	121.5	199.8	-10.8	0.528
4- 390	4-1080	0.602	338.3	-9.2	0.14	0.853	53.3	0.601	1.599	120.9	448.8	0.638	2.560	-1.73	1.165	120.7	224.7	-20.1	0.581
4- 390	4-1080	0.452	314.0	-17.6	0.14	0.611	63.1	0.603	1.021	158.3	846.3	0.405	1.636	-1.73	1.001	127.1	206.1	-15.2	0.621
4- 390	4-1090	0.581	315.4	-17.9	-0.63	0.609	51.0	0.720	1.010	158.1	855.7	0.289	1.751	-2.44	0.997	136.1	210.9	-14.9	0.767
4- 390	4-1090	0.524	271.7	-24.4	-0.63	0.318	85.7	0.851	0.799	179.31	236.8	0.119	1.478	-2.41	0.851	147.0	197.9	-9.0	0.877
4- 390	4- 30	0.576	221.9	-13.2	4.83	0.565	138.3	0.825	0.967	196.5	932.4	0.169	1.765	3.36	0.966	34.4	126.5	21.3	0.912
4- 390	4- 40	0.530	194.1	-1.6	3.54	0.843	131.8	0.668	1.554	231.4	616.8	0.517	2.591	2.14	1.151	52.5	112.4	24.7	0.704
4- 390	4- 40	0.418	227.2	-13.9	3.54	0.563	121.7	0.693	0.965	197.6	943.0	0.297	1.634	2.14	0.965	46.2	130.8	20.3	0.726
4- 390	4-1150	0.419	190.5	0.7	2.92	0.843	123.9	0.559	1.555	240.3	635.3	0.686	2.424	1.61	1.151	62.1	112.7	24.9	0.537
4- 390	4-1150	0.328	240.1	-16.2	2.92	0.558	108.9	0.604	0.960	193.5	948.5	0.380	1.540	1.61	0.962	52.9	137.7	18.4	0.616
4- 390	4-1160	0.347	186.2	2.3	2.54	0.843	116.4	0.484	1.554	246.3	650.8	0.802	2.304	1.31	1.152	68.9	113.5	25.1	0.419
4- 390	4-1160	0.553	201.1	-19.0	2.54	0.482	56.0	0.780	0.892	198.2	932.7	0.196	1.588	1.31	0.921	39.2	155.5	11.2	0.815
4- 390	4-1160	0.288	261.3	-18.9	2.54	0.569	91.2	0.704	0.951	195.6	950.2	0.415	1.487	1.31	0.958	55.9	146.4	15.5	0.565
4- 390	4-1170	0.299	186.7	3.4	2.27	0.[illegible]	115.5	0.483	1.554	250.4	664.4	0.881	2.226	1.14	1.152	74.0	114.1	25.4	0.333
4- 390	4-1180	0.268	185.6	4.0	2.06	0.[illegible]	114.3	0.[illegible]	1.[illegible]	253.1	676.8	0.934	2.172	1.03	1.154	78.1	113.4	26.1	0.269
4- 390	4-1190	0.247	184.9	4.4	1.88	0.[illegible]	[illegible]	[illegible]	[illegible]	255.0	680.3	0.969	2.136	0.96	1.155	81.5	110.6	27.1	0.221
4- 400	4- 450	0.801	361.0	11.4	2.16	1.[illegible]	[illegible]	[illegible]	[illegible]	299.2	357.[illegible]	---	---	1.24	1.578	88.6	52.6	22.5	0.591
4- 400	4- 460	0.703	163.3	10.4	1.94	1.21[illegible]	[illegible]	[illegible]	0.927	296.2	364.4	1.009	---	1.15	1.495	92.4	51.0	22.1	0.510
4- 400	4- 470	0.630	165.8	9.2	1.74	1.[illegible]	[illegible]	[illegible]	0.965	292.6	370.4	0.999	---	1.10	1.432	95.4	50.3	22.0	0.459
4- 400	4- 480	0.571	168.4	7.9	1.53	1.[illegible]	[illegible]	[illegible]	0.996	288.5	376.1	0.987	---	1.07	1.381	97.7	50.7	22.1	0.425
4- 400	4- 490	0.521	171.1	6.5	1.37	1.[illegible]	[illegible]	0.803	4.922	284.1	381.5	0.972	---	1.08	1.338	99.5	52.3	22.6	0.402
4- 400	4- 500	0.477	173.9	5.1	1.18	1.[illegible]	[illegible]	0.704	3.280	279.3	386.5	0.956	---	1.12	1.302	101.0	55.2	23.4	0.385
4- 400	4- 510	0.437	176.6	3.5	0.96	0.987	121.0	0.632	2.553	274.3	391.4	0.941	---	1.20	1.271	102.1	59.1	24.5	0.371
4- 400	4- 520	0.401	179.4	1.8	0.70	0.948	119.8	0.568	2.144	269.0	396.1	0.925	---	1.34	1.243	102.9	64.0	25.9	0.360
4- 400	4- 530	0.367	182.3	-0.2	0.36	0.913	118.6	0.516	1.882	263.6	400.6	0.910	---	1.57	1.219	103.6	69.8	27.5	0.350
4- 400	4- 540	0.336	185.1	-2.6	-0.15	0.882	117.2	0.473	1.702	258.0	405.0	0.896	---	1.97	1.198	104.1	76.3	29.6	0.342
4- 400	4- 550	0.307	187.7	-6.3	-1.04	0.853	115.7	0.438	1.570	252.2	409.3	0.882	---	2.76	1.179	104.5	83.4	32.7	0.336
4- 400	4- 560	0.283	189.3	-13.6	-3.23	0.828	114.[illegible]	0.409	1.471	246.4	413.6	0.869	---	4.86	1.162	104.8	91.0	39.9	0.337
4- 400	4- 570	0.387	182.3	-50.8	-21.30	0.805	112.5	0.385	1.393	240.4	417.7	0.857	---	22.83	1.146	105.1	70.6	77.6	0.526
4- 400	4- 580	0.266	213.8	14.9	9.45	0.784	110.8	0.367	1.332	234.4	422.1	0.843	---	-8.02	1.133	105.5	102.7	-3.2	0.347
4- 400	4- 590	0.221	213.6	3.2	4.84	0.765	109.0	0.352	1.281	228.4	426.3	0.830	---	-3.50	1.120	106.8	113.2	9.6	0.317
4- 400	4- 600	0.199	218.6	-2.0	3.52	0.748	107.1	0.341	1.240	222.4	430.4	0.817	---	-2.28	1.108	106.1	122.0	12.2	0.310
4- 400	4- 610	0.182	225.4	-5.9	2.87	0.732	105.1	0.333	1.206	216.3	434.5	0.804	---	-1.73	1.097	106.4	130.4	12.1	0.308
4- 400	4- 620	0.169	233.9	-9.2	2.46	0.718	103.0	0.328	1.176	210.2	438.6	0.790	---	-1.43	1.086	106.8	138.6	10.9	0.308
4- 400	4- 630	0.161	243.8	-12.3	2.16	0.705	100.8	0.327	1.151	204.2	442.7	0.775	---	-1.26	1.076	107.3	146.6	9.0	0.310
4- 400	4- 640	0.159	254.9	-14.8	1.93	0.693	98.4	0.328	1.130	198.1	446.7	0.759	---	-1.15	1.066	107.8	154.5	6.6	0.314
4- 400	4- 650	0.162	266.7	-16.7	1.72	0.682	95.9	0.333	1.111	192.1	450.7	0.741	---	-1.09	1.057	108.5	162.2	3.9	0.322
4- 400	4- 660	0.173	278.3	-17.8	1.53	0.672	93.2	0.343	1.094	186.2	454.8	0.720	---	-1.07	1.048	109.4	169.8	0.9	0.333
4- 400	4- 670	0.190	288.9	-18.1	1.35	0.663	90.1	0.357	1.080	180.3	458.8	0.695	---	-1.08	1.039	110.4	177.3	-2.1	0.348
4- 400	4- 680	0.216	298.3	-17.8	1.15	0.654	86.7	0.377	1.067	174.5	462.9	0.665	1.469	-1.13	1.031	111.8	184.7	-5.2	0.370
4- 400	4- 690	0.251	306.2	-17.3	0.93	0.647	82.7	0.405	1.056	169.0	467.2	0.628	1.483	-1.22	1.023	113.7	192.0	-8.2	0.401
4- 400	4- 700	0.297	312.6	-16.7	0.67	0.639	77.8	0.445	1.046	163.9	471.9	0.580	1.511	-1.36	1.016	116.3	199.1	-11.1	0.444
4- 400	4- 710	0.360	317.5	-16.2	0.33	0.633	71.7	0.502	1.037	159.6	477.3	0.517	1.558	-1.59	1.010	120.1	205.9	-13.7	0.506
4- 400	4- 720	0.447	320.8	-15.9	-0.17	0.628	63.6	0.584	1.030	156.8	484.2	0.429	1.632	-1.99	1.004	125.7	212.0	-15.8	0.600
4- 400	4- 730	0.572	322.0	-16.3	-1.02	0.625	52.1	0.701	1.026	156.7	493.7	0.307	1.745	-2.75	1.000	134.5	216.7	-17.3	0.744
4- 400	4- 770	0.579	231.2	-15.6	5.42	0.531	137.4	0.837	0.923	194.2	569.6	0.151	1.696	4.06	0.940	33.4	133.8	19.8	0.915
4- 400	4- 780	0.424	239.4	-16.7	3.82	0.524	119.0	0.713	0.917	193.9	578.7	0.264	1.571	2.55	0.937	44.9	138.7	18.4	0.737
4- 400	4- 790	0.502	292.1	-20.0	3.07	0.405	70.5	0.790	0.833	174.5	568.9	0.175	1.490	1.90	0.876	39.0	154.2	12.1	0.804
4- 400	4- 790	0.351	260.1	-19.3	3.07	0.503	102.3	0.651	0.899	186.8	581.2	0.314	1.484	1.90	0.925	50.0	147.1	15.4	0.652
4- 400	4- 900	0.583	341.1	-8.0	0.15	0.828	54.0	0.588	1.472	125.6	267.4	---	2.337	1.73	1.158	58.9	226.7	-14.5	0.585
4- 400	4- 910	0.555	342.8	-8.2	-0.49	0.833	56.2	0.557	1.490	122.4	274.2	---	2.320	2.27	1.163	61.9	233.8	-14.8	0.537
4- 400	4- 920	0.529	344.9	-9.3	-1.78	0.838	56.2	0.528	1.507	119.2	281.2	---	24303	3.46	1.168	64.8	241.2	-13.2	0.493
4- 400	4- 930	0.512	348.2	-14.8	-6.18	0.842	60.0	0.501	1.522	116.3	288.3	---	2.285	7.76	1.172	67.7	250.2	-3.7	0.466
4- 400	4- 950	0.470	342.7	3.6	6.34	0.848	63.2	0.454	1.548	110.8	303.3	---	2.250	-4.95	1.178	73.1	257.5	-38.3	0.370
4- 400	4- 960	0.448	345.2	1.1	4.07	0.850	64.5	0.434	1.558	108.4	311.1	---	2.235	-2.78	1.180	75.7	263.1	-33.2	0.323
4- 400	4- 970	0.431	346.6	0.3	3.17	0.853	65.6	0.417	1.567	106.2	319.1	---	2.220	-1.98	1.181	78.3	267.5	-31.5	0.284
4- 400	4- 980	0.417	347.6	-0.0	2.66	0.854	66.6	0.403	1.574	104.4	327.4	---	2.208	-1.57	1.181	80.8	270.2	-30.8	0.249
4- 400	4- 990	0.406	348.4	-0.2	2.31	0.856	67.3	0.391	1.580	102.8	335.9	---	2.197	-1.34	1.181	83.3	270.8	-30.7	0.218
4- 400	4-1000	0.397	349.0	-0.4	2.05	0.857	67.9	0.382	1.584	101.6	344.8	---	2.190	-1.20	1.180	85.8	268.4	-30.8	0.193
4- 400	4-1010	0.392	349.5	-0.6	1.83	0.858	68.3	0.377	1.588	100.8	354.1	---	2.187	-1.12	1.179	88.4	262.6	-30.8	0.177
4- 400	4-1020	0.391	349.7	-0.9	1.63	0.858	68.4	0.376	1.590	100.4	563.8	0.992	2.188	-1.08	1.177	91.0	253.9	-30.1	0.171
4- 400	4-1020	0.230	236.5	-15.7	1.63	0.663	105.9	0.439	1.080	202.7	828.1	0.606	1.554	-1.08	1.043	115.6	160.1	15.9	0.441
4- 400	4-1020	0.456	211.2	-10.8	1.63	0.718	127.6	0.641	1.176	214.7	828.1	0.423	1.930	-1.08	1.079	129.0	155.2	8.9	0.685
4- 400	4-1030	0.394	349.8	-1.3	1.45	0.858	68.1	0.380	1.592	100.6	374.0	0.988	2.196	-1.07	1.175	93.8	244.5	-28.5	0.180
4- 400	4-1030	0.201	258.1	-18.9	1.45	0.648	98.7	0.409	1.058	193.0	826.4	0.625	1.491	-1.07	1.031	113.9	169.2	2.0	0.407
4- 400	4-1040	0.566	209.9	-11.1	1.41	0.739	136.2	0.735	1.224	213.0	846.3	0.324	2.119	-1.07	1.091	136.3	161.2	6.9	0.813
4- 400	4-1040	0.403	349.7	-1.8	1.26	0.859	67.5	0.389	1.592	101.5	384.8	0.973	2.212	-1.10	1.173	96.9	257.1	-26.4	0.205
4- 400	4-1040	0.205	276.9	-19.9	1.26	0.639	93.2	0.405	1.045	184.7	828.0	0.622	1.468	-1.10	1.023	113.8	177.6	-1.8	0.401
4- 400	4-1050	0.418	349.4	-2.5	1.05	0.859	66.4	0.406	1.593	103.2	396.3	0.945	2.240	-1.17	1.170	100.3	232.6	-24.6	0.246
4- 400	4-1050	0.228	291.9	-19.5	1.05	0.632	88.0	0.416	1.036	177.2	830.3	0.605	1.462	-1.17	1.016	114.5	185.7	-5.3	0.412
4- 400	4-1060	0.444	348.6	-3.5	0.81	0.859	64.6	0.434	1.592	105.6	408.7	0.901	2.284	-1.28	1.168	104.2	230.6	-23.4	0.304
4- 400	4-1060	0.265	303.2	-18.5	0.81	0.627	82.6	0.440	1.028	170.4	833.3	0.576	1.481	-1.28	1.010	116.1	193.5	-8.7	0.437
4- 400	4-1070	0.484	347.4	-4.7	0.52	0.858	61.9	0.477	1.592	109.7	422.3	0.833	2.351	-1.46	1.165	109.1	230.3	-22.8	0.382
4- 400	4-1070	0.319	311.5	-17.4	0.52	0.622	78.5	0.481	1.023	164.5	837.1	0.531	1.515	-1.46	1.004	118.7	201.0	-11.7	0.482
4- 400	4-1080	0.545	345.5	-6.2	0.12	0.858	57.5	0.541	1.592	115.3	437.7	0.731	2.453	-1.75	1.163	115.4	230.7	-22.5	0.489
4- 400	4-1080	0.392	317.2	-16.6	0.12	0.619	69.1	0.544	1.018	1[illegible].9	842.2	0.464	1.572	-1.75	1.000	122.0	207.9	-14.3	0.552
4- 400	4-1090	0.496	320.4	-16.4	-0.51	0.616	59.2	0.638	1.015	157.5	849.5	0.367	1.662	-2.28	0.996	129.7	213.8	-16.4	0.663
4- 400	4-1090	0.504	262.2	-24.1	-0.51	0.351	107.0	0.836	0.805	183.51	235.4	0.132	1.479	-2.28	0.858	145.4	198.7	-9.3	0.857
4- 400	4-1100	0.567	285.4	-24.1	-1.71	0.316	71.4	0.879	0.790	177.11	238.7	0.106	1.478	-3.40	0.841	149.1	205.7	-12.4	0.903
4- 400	4-1140	0.503	228.4	-14.4	4.48	0.572	130.3	0.758	0.964	198.2	938.0	0.233	1.695	3.16	0.964	40.7	133.6	20.8	0.312

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 400	4-1150	0.477	197.4	-2.4	3.41	0.848	127.5	0.610	1.549	236.6	626.0	0.604	2.494	2.19	1.150	57.5	118.0	24.5	0.615
4- 400	4-1150	0.372	236.9	-15.6	3.41	0.569	115.7	0.642	0.941	196.8	946.2	0.384	1.577	2.19	0.963	50.2	139.0	18.4	0.661
4- 400	4-1160	0.384	194.5	-0.5	2.88	0.848	121.0	0.518	1.550	244.2	643.1	0.748	2.352	1.71	1.151	65.7	118.6	24.7	0.473
4- 400	4-1160	0.301	253.1	-17.9	2.84	0.563	104.0	0.573	0.954	191.0	949.9	0.407	1.501	1.71	0.760	55.2	146.7	15.9	0.577
4- 400	4-1170	0.324	192.6	0.7	2.46	0.848	116.9	0.455	1.549	249.2	657.7	0.845	2.253	1.43	1.152	71.6	119.3	25.0	0.371
4- 400	4-1170	0.507	306.2	-17.6	2.46	0.501	61.4	0.733	0.897	167.8	936.3	0.240	1.555	1.43	0.926	43.3	162.9	8.6	0.752
4- 400	4-1170	0.291	277.3	-19.2	2.46	0.552	91.9	0.555	0.943	181.5	950.0	0.420	1.466	1.43	0.954	56.5	156.0	12.2	0.552
4- 400	4-1180	0.28	191.3	1.5	2.18	0.848	114.2	0.612	1.548	252.7	670.8	0.910	2.187	1.26	1.153	76.2	119.3	25.6	0.297
4- 400	4-1190	0.251	190.4	1.9	1.95	0.848	112.4	0.584	1.548	255.0	682.7	0.953	2.143	1.16	1.155	79.9	117.4	26.0	0.241
4- 400	4-1200	0.242	189.7	1.9	1.75	0.848	111.3	0.566	1.548	256.5	693.9	0.981	2.115	1.10	1.157	83.1	113.4	28.1	0.201
4- 410	4- 470	0.757	167.7	8.1	1.78	1.326	126.8	1.382	-2.618	297.5	369.7	1.000	---	1.28	1.538	95.6	52.2	22.5	0.564
4- 410	4- 480	0.676	170.5	6.7	1.37	1.238	125.9	1.153	-6.444	293.6	375.5	0.986	---	1.22	1.464	98.3	52.5	22.6	0.509
4- 410	4- 490	0.610	173.4	5.3	1.36	1.165	125.0	0.982	52.560	289.2	380.9	0.970	---	1.22	1.406	100.3	53.9	23.0	0.471
4- 410	4- 500	0.554	176.3	3.7	1.15	1.103	124.1	0.848	6.234	284.5	386.0	0.953	---	1.24	1.357	101.9	56.6	23.7	0.443
4- 410	4- 510	0.505	179.1	2.1	0.92	1.049	123.1	0.741	3.620	279.5	390.9	0.937	---	1.31	1.315	103.1	60.3	24.7	0.421
4- 410	4- 520	0.461	181.9	0.5	0.65	1.001	121.9	0.656	2.674	274.3	395.6	0.921	---	1.42	1.280	104.0	65.1	25.9	0.403
4- 410	4- 530	0.421	184.6	-1.4	0.32	0.959	120.7	0.586	2.189	268.9	400.2	0.905	---	1.52	1.249	104.6	70.7	27.4	0.387
4- 410	4- 540	0.384	187.6	-3.7	-0.13	0.921	119.3	0.530	1.895	263.3	404.6	0.891	---	1.95	1.222	105.1	77.1	29.1	0.374
4- 410	4- 550	0.351	190.3	-6.6	-0.84	0.888	117.8	0.484	1.699	257.5	409.0	0.877	---	2.55	1.199	105.5	84.2	31.5	0.363
4- 410	4- 560	0.321	192.6	-11.4	-2.26	0.857	116.2	0.446	1.560	251.7	413.2	0.864	---	3.85	1.178	105.8	91.9	35.8	0.357
4- 410	4- 570	0.306	192.3	-24.4	-6.95	0.851	114.6	0.416	1.456	245.7	417.4	0.851	---	8.43	1.160	106.0	99.9	49.1	0.374
4- 410	4- 580	0.528	238.1	31.9	33.42	0.806	112.9	0.392	1.377	239.7	422.0	0.837	---	-32.04	1.144	106.3	82.2	-37.0	0.672
4- 410	4- 590	0.259	216.1	6.8	7.05	0.785	111.0	0.372	1.314	233.7	425.8	0.826	---	-5.77	1.128	106.4	111.9	3.2	0.342
4- 410	4- 600	0.227	218.8	-0.8	4.35	0.765	109.1	0.356	1.264	227.6	429.9	0.814	---	-3.20	1.115	106.6	121.6	9.5	0.325
4- 410	4- 610	0.205	224.3	-5.2	3.30	0.748	107.1	0.345	1.223	221.5	434.0	0.802	---	-2.26	1.102	106.8	130.2	10.5	0.318
4- 410	4- 620	0.188	231.4	-8.6	2.71	0.732	105.0	0.337	1.189	215.4	438.1	0.789	---	-1.79	1.090	107.1	138.5	9.8	0.315
4- 410	4- 630	0.175	240.1	-11.6	2.32	0.717	102.9	0.332	1.160	209.3	442.1	0.775	---	-1.53	1.079	107.4	146.6	8.1	0.324
4- 410	4- 640	0.167	250.3	-14.3	2.02	0.704	100.6	0.330	1.136	203.2	446.0	0.761	---	-1.37	1.068	107.8	154.6	5.8	0.315
4- 410	4- 650	0.165	261.6	-16.4	1.77	0.692	98.1	0.332	1.115	197.1	450.0	0.745	---	-1.27	1.059	108.4	162.4	3.2	0.320
4- 410	4- 660	0.169	273.4	-17.7	1.54	0.681	95.5	0.338	1.096	191.0	453.9	0.726	---	-1.22	1.049	109.0	170.0	0.3	0.327
4- 410	4- 670	0.180	285.0	-18.3	1.33	0.672	92.6	0.347	1.080	185.0	457.8	0.705	---	-1.22	1.039	109.9	177.6	-2.8	0.338
4- 410	4- 680	0.199	295.7	-18.1	1.12	0.662	89.4	0.363	1.066	179.2	461.7	0.680	1.453	-1.25	1.031	111.0	185.1	-5.9	0.355
4- 410	4- 690	0.227	305.2	-17.4	0.89	0.654	85.8	0.385	1.054	173.2	465.7	0.649	1.459	-1.32	1.023	112.5	192.5	-8.9	0.378
4- 410	4- 700	0.264	312.8	-16.5	0.62	0.646	81.5	0.416	1.043	167.6	470.0	0.609	1.477	-1.44	1.015	114.5	199.9	-11.9	0.412
4- 410	4- 710	0.315	319.0	-15.7	0.30	0.640	78.2	0.460	1.034	162.6	474.7	0.558	1.510	-1.64	1.008	117.4	207.0	-14.5	0.460
4- 410	4- 720	0.386	323.7	-15.0	-0.15	0.634	69.4	0.525	1.026	158.5	480.3	0.487	1.564	-1.96	1.002	121.7	213.7	-16.9	0.532
4- 410	4- 730	0.485	326.6	-14.7	-0.83	0.629	60.2	0.619	1.020	156.4	487.7	0.389	1.651	-2.54	0.997	128.2	219.6	-18.7	0.641
4- 410	4- 780	0.508	239.1	-16.8	4.89	0.534	128.8	0.775	0.516	195.1	574.3	0.206	1.626	3.70	0.936	39.5	141.2	18.0	0.820
4- 410	4- 790	0.588	299.7	-19.1	3.62	0.369	59.5	0.857	0.806	174.2	562.9	0.115	1.498	2.53	0.853	32.2	157.8	10.7	0.892
4- 410	4- 790	0.385	252.1	-18.3	3.62	0.522	111.9	0.673	0.906	191.7	580.5	0.296	1.515	2.53	0.930	48.2	147.6	15.8	0.682
4- 410	4- 800	0.414	290.8	-19.3	2.94	0.456	83.0	0.704	0.856	177.0	575.3	0.255	1.458	1.96	0.895	46.3	159.9	10.4	0.699
4- 410	4- 800	0.377	283.8	-19.6	2.94	0.477	89.7	0.669	0.870	179.9	578.1	0.288	1.452	1.96	0.906	48.9	158.4	11.3	0.662
4- 410	4- 910	0.571	347.0	-6.3	-0.42	0.835	55.0	0.573	1.472	123.9	270.0	---	2.315	2.18	1.160	66.2	235.8	-15.7	0.566
4- 410	4- 920	0.543	348.9	-6.9	-1.37	0.840	57.2	0.543	1.490	120.7	276.9	---	2.298	3.02	1.165	63.2	243.1	-15.0	0.519
4- 410	4- 930	0.519	351.3	-9.4	-3.63	0.844	59.1	0.515	1.506	117.6	283.9	---	2.281	5.17	1.169	66.0	250.9	-10.6	0.480
4- 410	4- 940	0.554	357.6	-28.3	-18.21	0.848	60.8	0.489	1.520	114.6	291.0	---	2.264	19.64	1.173	68.8	266.2	17.8	0.558
4- 410	4- 950	0.498	342.9	11.7	11.52	0.851	62.5	0.464	1.533	111.8	298.7	---	2.245	-10.20	1.175	71.6	262.7	-50.8	0.427
4- 410	4- 960	0.458	348.6	4.8	5.37	0.854	63.9	0.443	1.544	109.2	306.2	---	2.229	-4.16	1.177	74.2	267.6	-37.0	0.351
4- 410	4- 970	0.437	350.6	3.2	3.76	0.856	65.1	0.424	1.554	106.9	314.0	---	2.214	-2.66	1.179	76.7	272.6	-33.4	0.308
4- 410	4- 980	0.421	351.9	2.5	2.99	0.858	66.2	0.408	1.562	104.7	322.1	---	2.200	-2.01	1.179	79.3	276.4	-31.9	0.271
4- 410	4- 990	0.408	352.9	2.2	2.51	0.860	67.1	0.394	1.569	102.9	330.4	---	2.188	-1.65	1.179	81.7	278.5	-31.4	0.238
4- 410	4-1000	0.398	353.6	1.9	2.17	0.861	67.8	0.384	1.574	101.4	339.0	---	2.178	-1.44	1.178	84.2	278.2	-31.4	0.209
4- 410	4-1030	0.390	354.2	1.7	1.89	0.862	68.3	0.376	1.578	100.3	348.0	---	2.172	-1.31	1.177	86.7	274.8	-31.7	0.186
4- 410	4-1020	0.386	354.6	1.6	1.66	0.863	68.6	0.372	1.581	99.7	357.3	---	2.170	-1.24	1.176	89.3	267.9	-31.9	0.173
4- 410	4-1030	0.386	354.9	1.6	1.44	0.863	68.6	0.373	1.584	99.5	367.1	0.994	2.174	-1.22	1.174	91.9	258.5	-31.4	0.172
4- 410	4-1030	0.215	250.7	-18.4	1.44	0.661	102.6	0.418	1.064	198.8	826.4	0.619	1.509	-1.22	1.034	114.5	169.0	1.7	0.417
4- 410	4-1030	0.515	215.6	-12.9	1.44	0.733	131.7	0.685	1.192	214.5	842.2	0.375	2.009	-1.22	1.082	132.4	162.8	5.9	0.742
4- 410	4-1040	0.391	355.0	0.5	1.23	0.863	68.3	0.378	1.585	99.9	377.5	0.986	2.184	-1.23	1.171	94.8	249.3	-29.9	0.186
4- 410	4-1040	0.201	270.8	-20.0	1.23	0.649	96.5	0.401	1.047	189.9	827.4	0.627	1.467	-1.23	1.024	113.5	177.7	-2.2	0.397
4- 410	4-1050	0.402	354.8	-0.1	1.01	0.864	67.5	0.390	1.585	101.0	388.4	0.967	2.203	-1.27	1.169	97.9	242.5	-28.0	0.216
4- 410	4-1050	0.212	288.0	-19.8	1.01	0.641	91.3	0.403	1.036	181.9	829.3	0.619	1.451	-1.27	1.016	113.7	186.0	-5.9	0.398
4- 410	4-1060	0.421	354.4	-0.9	0.77	0.864	66.2	0.410	1.586	103.0	400.2	0.935	2.236	-1.37	1.167	101.4	238.7	-26.4	0.262
4- 410	4-1060	0.240	301.6	-18.7	0.77	0.635	86.1	0.418	1.028	174.6	831.8	0.598	1.458	-1.37	1.009	110.7	194.1	-9.3	0.414
4- 410	4-1070	0.451	353.5	-2.0	0.48	0.864	64.1	0.443	1.585	106.1	413.0	0.884	2.287	-1.52	1.164	105.6	237.2	-25.4	0.326
4- 410	4-1070	0.282	311.8	-17.3	0.48	0.630	80.6	0.448	1.021	168.0	835.0	0.564	1.479	-1.52	1.009	116.6	201.9	-12.5	0.445
4- 410	4-1080	0.497	352.1	-3.3	0.11	0.863	60.9	0.492	1.585	110.6	427.3	0.805	2.365	-1.77	1.162	110.9	237.1	-24.8	0.413
4- 410	4-1080	0.361	319.2	-16.0	0.11	0.626	74.1	0.496	1.016	162.4	839.1	0.512	1.520	-1.77	0.999	119.7	209.3	-15.3	0.498
4- 410	4-1090	0.517	349.8	-5.1	-0.43	0.863	55.8	0.567	1.585	117.2	443.5	0.687	2.483	-2.19	1.160	117.9	237.5	-24.4	0.534
4- 410	4-1090	0.425	324.1	-15.2	-0.43	0.623	66.0	0.569	1.012	158.4	844.7	0.436	1.588	-2.19	0.994	124.7	216.1	-17.6	0.581
4- 410	4-1100	0.545	326.5	-15.1	-1.33	0.621	54.8	0.679	1.009	157.1	854.0	0.524	1.695	-2.98	0.991	132.8	221.5	-19.2	0.713
4- 410	4-1100	0.512	280.5	-24.5	-1.33	0.339	90.4	0.834	0.792	180.1	1236.0	0.132	1.453	-2.98	0.844	144.9	207.2	-13.0	0.846
4- 410	4-1150	0.554	205.1	-5.6	4.17	0.854	132.4	0.676	1.544	231.2	614.9	0.500	2.588	3.03	1.149	51.6	123.9	23.7	0.717
4- 410	4-1150	0.443	236.3	-15.6	4.17	0.579	123.4	0.698	0.960	198.7	942.4	0.290	1.630	3.03	0.962	45.9	141.2	18.2	0.730
4- 410	4-1160	0.433	201.2	-3.4	3.25	0.854	124.0	0.561	1.545	241.0	634.3	0.678	2.412	2.22	1.150	61.8	123.8	24.1	0.540
4- 410	4-1160	0.337	247.8	-17.1	3.25	0.575	110.5	0.600	0.956	195.2	948.5	0.382	1.530	2.22	0.961	53.3	147.6	16.1	0.609
4- 410	4-1170	0.357	198.8	-2.0	2.71	0.854	128.7	0.483	1.544	247.5	650.3	0.798	2.291	1.79	1.151	68.8	124.5	24.4	0.418
4- 410	4-1170	0.592	313.0	-16.2	2.71	0.590	91.8	0.802	0.880	167.8	930.6	0.174	1.507	1.79	0.914	37.2	165.9	7.3	0.841
4- 410	4-1170	0.289	267.0	-18.7	2.71	0.307	99.5	0.550	0.948	187.9	950.7	0.426	1.470	1.79	0.956	55.8	155.8	12.9	0.548
4- 410	4-1180	0.307	197.2	-1.1	2.33	0.854	115.3	0.431	1.544	251.8	664.2	0.879	2.209	1.54	1.152	74.0	124.9	24.9	0.331
4- 410	4-1180	0.445	309.7	-16.3	2.33	0.522	83.5	0.671	0.906	168.4	940.8	0.298	1.513	1.54	0.933	48.3	169.8	6.1	0.676

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEEC
4- 410	4-1180	0.320	294.5	-18.0	2.33	0.550	85.1	0.564	0.931	176.2	948.6	0.406	1.457	1.54	0.949	56.0	166.0	8.4	0.658
4- 410	4-1190	0.274	196.1	-0.7	2.00	0.854	113.1	0.396	1.543	254.8	676.8	0.933	2.154	1.38	1.154	76.1	124.2	25.8	0.266
4- 410	4-1200	0.253	195.2	-0.5	1.80	0.854	111.7	0.373	1.543	256.7	688.4	0.968	2.119	1.28	1.156	81.6	121.3	27.2	0.218
4- 410	4-1210	0.240	194.6	-0.7	1.58	0.854	110.8	0.360	1.544	258.0	699.4	0.989	2.099	1.23	1.158	84.6	119.6	29.1	0.186
4- 420	4- 490	0.721	175.6	4.1	1.36	1.277	126.9	1.235	-4.134	294.0	379.9	0.970	---	1.35	1.496	101.0	56.2	23.5	0.560
4- 420	4- 500	0.648	178.6	2.4	1.13	1.195	126.0	1.038	24.779	289.4	385.2	0.952	---	1.36	1.429	102.8	58.6	24.1	0.516
4- 420	4- 510	0.587	181.6	0.8	0.89	1.126	125.1	0.888	8.368	284.5	390.1	0.934	---	1.40	1.374	104.2	62.0	24.9	0.483
4- 420	4- 520	0.533	184.5	-0.9	0.62	1.066	124.0	0.771	3.996	279.4	394.9	0.916	---	1.50	1.327	105.1	66.5	25.9	0.456
4- 420	4- 530	0.485	187.4	-2.7	0.30	1.014	122.8	0.677	2.789	274.0	399.5	0.900	---	1.66	1.282	105.8	71.9	27.3	0.433
4- 420	4- 540	0.441	190.3	-4.6	-0.11	0.969	121.5	0.602	2.226	268.4	404.0	0.885	---	1.93	1.254	106.3	78.1	28.0	0.414
4- 420	4- 550	0.402	193.0	-7.3	-0.71	0.928	120.0	0.542	1.902	262.7	408.4	0.871	---	2.35	1.225	106.6	85.1	30.5	0.398
4- 420	4- 560	0.367	195.6	-10.9	-1.74	0.893	118.4	0.493	1.692	256.9	412.7	0.857	---	3.29	1.199	106.8	92.7	33.3	0.385
4- 420	4- 570	0.338	197.2	-17.7	-4.13	0.861	116.7	0.454	1.547	251.0	416.9	0.845	---	5.56	1.177	106.9	101.1	36.8	0.380
4- 420	4- 580	0.593	193.2	-46.3	-18.08	0.835	114.9	0.421	1.441	245.0	420.9	0.834	---	14.39	1.157	107.0	103.9	70.1	0.502
4- 420	4- 590	0.331	223.2	15.6	13.22	0.808	113.2	0.397	1.360	238.9	425.4	0.820	---	-12.03	1.140	107.2	107.4	-11.5	0.409
4- 420	4- 600	0.262	220.4	1.2	5.80	0.785	111.2	0.376	1.297	232.8	429.4	0.809	---	-4.73	1.124	107.3	120.7	5.3	0.346
4- 420	4- 610	0.244	224.3	-4.4	3.94	0.765	109.2	0.360	1.247	226.7	433.5	0.798	---	-3.00	1.109	107.4	129.9	8.5	0.333
4- 420	4- 620	0.212	230.1	-8.1	3.06	0.747	107.1	0.348	1.206	220.6	437.5	0.786	---	-2.25	1.096	107.6	138.4	8.5	0.326
4- 420	4- 630	0.194	237.5	-11.1	2.52	0.731	105.0	0.340	1.173	214.4	441.5	0.774	---	-1.85	1.085	107.8	146.6	7.1	0.322
4- 420	4- 640	0.181	246.4	-13.8	2.14	0.717	102.7	0.335	1.145	208.3	445.4	0.761	---	-1.61	1.071	108.0	154.6	5.0	0.320
4- 420	4- 650	0.173	256.7	-16.0	1.83	0.704	100.3	0.334	1.121	202.1	449.3	0.747	---	-1.47	1.060	108.4	162.5	2.5	0.321
4- 420	4- 660	0.171	268.1	-17.7	1.57	0.692	97.8	0.336	1.100	196.0	453.1	0.731	---	-1.39	1.050	108.9	170.2	-0.4	0.325
4- 420	4- 670	0.175	280.1	-18.5	1.33	0.681	95.0	0.342	1.082	189.9	456.9	0.712	---	-1.35	1.040	109.5	177.8	-3.4	0.332
4- 420	4- 680	0.187	291.8	-18.5	1.10	0.671	92.0	0.352	1.067	183.8	460.7	0.691	---	-1.36	1.031	110.3	185.4	-6.5	0.344
4- 420	4- 690	0.207	302.4	-17.8	0.86	0.662	88.7	0.369	1.053	177.7	464.5	0.665	1.442	-1.41	1.022	111.5	192.9	-9.6	0.362
4- 420	4- 700	0.237	311.6	-16.7	0.59	0.654	84.8	0.393	1.042	171.9	468.4	0.632	1.451	-1.51	1.014	113.1	200.4	-12.5	0.387
4- 420	4- 710	0.278	319.3	-15.5	0.27	0.646	80.2	0.428	1.031	166.3	472.6	0.590	1.472	-1.68	1.007	115.3	207.9	-15.3	0.424
4- 420	4- 720	0.335	325.4	-14.4	-0.13	0.640	74.4	0.478	1.022	161.4	477.3	0.534	1.513	-1.94	1.000	116.5	215.1	-17.8	0.479
4- 420	4- 730	0.414	329.9	-13.6	-0.71	0.634	66.9	0.551	1.015	157.7	483.2	0.456	1.574	-2.39	0.995	123.4	221.8	-19.8	0.561
4- 420	4- 740	0.520	332.3	-13.5	-1.65	0.630	56.3	0.659	1.010	156.4	491.5	0.344	1.675	-3.21	0.991	131.2	227.3	-21.3	0.689
4- 420	4- 790	0.451	248.8	-16.0	4.46	0.534	121.1	0.722	0.907	194.6	577.5	0.252	1.562	3.47	0.931	44.2	149.3	15.7	0.744
4- 420	4- 800	0.538	304.5	-17.8	3.39	0.399	66.3	0.812	0.814	174.0	566.5	0.153	1.475	2.51	0.862	37.0	165.0	8.1	0.825
4- 420	4- 800	0.361	267.1	-19.3	3.39	0.516	104.7	0.648	0.892	188.4	580.9	0.314	1.470	2.51	0.922	50.3	157.0	12.6	0.645
4- 420	4- 910	0.586	251.2	-4.4	-0.37	0.836	53.8	0.590	1.453	125.6	265.9	---	2.230	2.12	1.156	58.4	237.8	-16.6	0.595
4- 420	4- 920	0.557	253.0	-4.6	-1.12	0.841	56.0	0.559	1.471	122.2	272.7	---	2.204	2.74	1.161	61.5	245.1	-16.3	0.547
4- 420	4- 930	0.531	255.1	-4.8	-2.57	0.846	58.1	0.529	1.489	119.0	279.6	---	2.276	4.07	1.166	64.4	252.6	-13.9	0.504
4- 420	4- 940	0.514	258.5	-11.7	-7.02	0.850	60.0	0.502	1.504	115.9	286.6	---	2.259	8.39	1.170	67.2	261.1	-3.9	0.478
4- 420	4- 960	0.473	250.9	10.3	8.06	0.857	63.2	0.453	1.530	110.2	301.5	---	2.224	-6.93	1.175	72.6	272.6	-43.8	0.389
4- 420	4- 970	0.446	254.4	6.5	4.71	0.859	64.6	0.433	1.541	107.6	309.1	---	2.208	-3.70	1.176	75.2	277.5	-35.9	0.235
4- 420	4- 980	0.427	256.1	5.3	3.46	0.862	65.8	0.415	1.550	105.3	316.9	---	2.193	-2.58	1.177	77.7	282.0	-33.1	0.295
4- 420	4- 990	0.411	257.5	4.7	2.78	0.863	66.8	0.399	1.558	103.3	325.0	---	2.180	-2.02	1.177	80.2	285.3	-31.9	0.259
4- 420	4-1000	0.399	358.2	4.3	2.33	0.865	67.7	0.387	1.564	101.5	333.4	---	2.169	-1.72	1.177	82.7	286.7	-31.5	0.227
4- 420	4-1010	0.389	359.0	4.0	1.99	0.866	68.3	0.377	1.569	100.1	342.0	---	2.160	-1.52	1.176	85.1	285.5	-31.7	0.200
4- 420	4-1020	0.383	359.5	3.7	1.71	0.867	68.7	0.371	1.573	99.1	351.0	---	2.155	-1.42	1.174	87.6	283.0	-32.4	0.180
4- 420	4-1030	0.380	359.9	3.4	1.46	0.868	68.9	0.368	1.575	98.6	360.5	0.996	2.155	-1.36	1.172	90.1	279.1	-32.8	0.170
4- 420	4-1030	0.252	242.4	-17.7	1.46	0.677	107.7	0.444	1.076	205.5	627.4	0.598	1.554	-1.36	1.039	116.0	168.6	1.8	0.446
4- 420	4-1030	0.446	222.5	-14.7	1.46	0.723	125.8	0.618	1.156	215.3	837.2	0.441	1.871	-1.36	1.070	127.5	164.8	4.6	0.654
4- 420	4-1040	0.381	0.2	2.9	1.22	0.868	68.8	0.370	1.577	98.6	370.4	0.994	2.160	-1.35	1.170	92.8	263.3	-32.4	0.174
4- 420	4-1040	0.209	263.6	-20.0	1.22	0.660	100.0	0.405	1.051	195.5	827.2	0.625	1.477	-1.35	1.026	113.7	177.7	-2.2	0.402
4- 420	4-1040	0.565	220.7	-15.0	1.22	0.746	135.0	0.721	1.204	213.9	845.7	0.337	2.072	-1.35	1.083	135.3	170.6	2.7	0.790
4- 420	4-1050	0.388	0.2	2.3	0.99	0.868	68.4	0.377	1.578	99.3	380.9	0.983	2.173	-1.38	1.168	95.7	254.4	-31.1	0.193
4- 420	4-1050	0.206	282.5	-20.3	0.99	0.651	94.5	0.396	1.038	187.0	828.6	0.627	1.448	-1.38	1.017	113.3	186.2	-6.3	0.341
4- 420	4-1060	0.401	360.0	1.6	0.73	0.868	67.5	0.391	1.579	100.7	392.1	0.961	2.196	-1.45	1.165	98.9	248.4	-29.4	0.229
4- 420	4-1060	0.221	298.3	-19.2	0.73	0.644	89.5	0.402	1.028	179.3	830.7	0.614	1.441	-1.45	1.009	113.7	194.5	-9.9	0.397
4- 420	4-1070	0.423	359.4	0.7	0.45	0.868	66.0	0.415	1.579	103.0	404.2	0.923	2.230	-1.58	1.163	102.6	245.2	-28.0	0.279
4- 420	4-1070	0.252	310.6	-17.5	0.45	0.638	84.3	0.422	1.020	172.1	833.3	0.590	1.451	-1.58	1.003	115.0	202.6	-13.1	0.417
4- 420	4-1080	0.459	358.5	-0.5	0.10	0.868	63.5	0.453	1.578	106.6	417.5	0.864	2.293	-1.79	1.161	107.1	244.1	-27.1	0.350
4- 420	4-1080	0.300	319.9	-15.8	0.10	0.634	78.6	0.457	1.015	165.8	836.6	0.551	1.479	-1.79	0.998	117.2	210.4	-16.1	0.456
4- 420	4-1090	0.514	356.8	-2.0	-0.38	0.868	59.7	0.510	1.578	111.9	432.4	0.773	2.383	-2.12	1.159	112.8	244.1	-25.5	0.447
4- 420	4-1090	0.366	326.5	-14.4	-0.38	0.630	71.7	0.513	1.010	160.5	841.1	0.491	1.528	-2.12	0.993	120.9	217.8	-18.6	0.517
4- 420	4-1100	0.600	354.1	-4.0	-1.09	0.868	53.7	0.597	1.578	119.6	449.7	0.636	2.520	-2.71	1.158	120.8	244.3	-26.0	0.555
4- 420	4-1100	0.461	330.7	-13.7	-1.09	0.628	62.6	0.599	1.006	157.2	847.4	0.403	1.609	-2.71	0.990	126.8	224.3	-20.5	0.616
4- 420	4-1100	0.517	267.6	-24.7	-1.09	0.377	114.3	0.833	0.803	185.3	1235.4	0.134	1.472	-2.71	0.853	145.0	207.8	-13.1	0.851
4- 420	4-1100	0.594	256.0	-23.8	-1.09	0.412	133.3	0.879	0.821	188.0	1238.7	0.100	1.543	-2.71	0.870	151.6	206.9	-12.4	0.935
4- 420	4-1110	0.544	294.7	-23.5	-2.59	0.335	77.4	0.847	0.784	177.7	1237.4	0.120	1.448	-3.89	0.834	146.2	215.5	-16.3	0.862
4- 420	4-1150	0.541	238.1	-16.3	5.44	0.587	132.6	0.773	0.958	198.7	936.6	0.217	1.700	4.39	0.962	39.4	144.4	17.6	0.830
4- 420	4-1160	0.499	208.6	-6.4	3.86	0.859	128.1	0.619	1.540	236.6	624.1	0.587	2.492	2.93	1.149	56.7	129.5	23.1	0.627
4- 420	4-1160	0.395	245.4	-16.9	3.86	0.584	117.6	0.646	0.956	198.2	945.7	0.339	1.573	2.93	0.961	49.9	149.2	16.0	0.663
4- 420	4-1170	0.399	205.4	-4.7	3.06	0.859	121.2	0.520	1.540	244.9	641.9	0.739	2.261	2.24	1.150	65.3	129.8	23.9	0.477
4- 420	4-1170	0.312	259.8	-18.2	3.06	0.579	105.9	0.567	0.951	193.0	950.0	0.411	1.490	2.24	0.959	55.6	156.3	13.2	0.560
4- 420	4-1180	0.335	203.3	-3.7	2.54	0.859	116.8	0.454	1.539	250.4	657.0	0.840	2.239	1.86	1.151	71.4	130.4	23.9	0.372
4- 420	4-1180	0.553	318.5	-14.4	2.54	0.507	56.4	0.762	0.884	167.1	933.7	0.210	1.559	1.86	0.919	40.8	173.4	4.4	0.786
4- 420	4-1180	0.287	281.5	-18.5	2.54	0.570	95.0	0.536	0.941	194.3	951.0	0.436	1.446	1.86	0.955	57.8	165.0	9.5	0.530
4- 420	4-1190	0.294	201.9	-3.2	2.17	0.859	114.0	0.411	1.539	254.1	670.4	0.907	2.171	1.62	1.153	76.1	130.3	24.7	0.296
4- 420	4-1200	0.267	200.9	-3.0	1.87	0.859	112.2	0.382	1.539	256.6	682.5	0.951	2.127	1.48	1.155	79.9	128.7	26.0	0.239
4- 420	4-1210	0.250	200.2	-3.1	1.61	0.859	111.1	0.364	1.539	258.3	693.9	0.978	2.099	1.39	1.157	83.1	124.5	27.9	0.199
4- 420	4-1220	0.241	199.6	-3.5	1.37	0.859	110.5	0.355	1.540	259.2	704.6	0.994	2.086	1.35	1.160	86.0	117.3	30.3	0.174
4- 430	4- 510	0.687	184.1	-0.5	0.87	1.223	127.1	0.091	10.256	289.3	389.1	0.951	---	1.49	1.450	105.2	64.2	25.1	0.562
4- 430	4- 520	0.619	187.2	-2.2	0.59	1.147	126.1	0.925	12.243	284.3	394.0	0.913	---	1.56	1.389	106.3	68.3	26.0	0.523
4- 430	4- 530	0.561	190.2	-4.0	0.28	1.082	125.0	0.797	4.413	279.0	398.7	0.895	---	1.69	1.338	107.1	73.5	27.0	0.490

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 430	4- 540	0.509	193.1	-5.9	-0.10	1.026	123.7	0.697	2.898	273.5	403.2	0.879	---	1.91	1.295	107.6	179.5	28.2	0.463
4- 430	4- 550	0.462	195.9	-8.2	-0.62	0.977	122.3	0.617	2.256	267.9	407.6	0.864	---	2.28	1.258	107.9	86.2	29.6	0.440
4- 430	4- 560	0.420	198.6	-11.0	-1.42	0.939	120.7	0.553	1.904	262.1	412.0	0.851	---	2.94	1.227	108.0	93.7	31.6	0.420
4- 430	4- 570	0.383	200.9	-13.5	-2.94	0.897	119.0	0.502	1.684	256.2	417.2	0.838	---	4.32	1.199	108.1	101.8	35.3	0.406
4- 430	4- 580	0.362	201.5	-26.5	-7.42	0.864	117.2	0.461	1.533	250.2	420.4	0.827	---	8.66	1.175	108.1	111.0	46.3	0.414
4- 430	4- 600	0.311	223.9	-4.5	8.89	0.809	113.4	0.402	1.343	238.1	428.8	0.803	---	-7.91	1.115	108.1	118.5	-2.3	0.384
4- 430	4- 610	0.268	225.3	-3.3	4.98	0.786	111.4	0.381	1.281	232.0	432.9	0.793	---	-4.13	1.113	108.1	129.4	5.6	0.353
4- 430	4- 620	0.241	229.9	-7.7	3.57	0.765	109.3	0.364	1.231	225.8	436.9	0.782	---	-2.86	1.103	108.1	138.2	6.9	0.341
4- 430	4- 630	0.219	236.1	-10.8	2.81	0.747	107.1	0.352	1.190	219.7	440.8	0.771	---	-2.24	1.089	108.2	146.6	6.0	0.333
4- 430	4- 640	0.201	243.6	-13.5	2.30	0.731	104.9	0.344	1.157	213.5	444.8	0.759	---	-1.89	1.076	108.4	154.7	4.2	0.328
4- 430	4- 650	0.186	252.6	-15.8	1.93	0.716	102.6	0.339	1.130	207.3	448.6	0.747	---	-1.68	1.064	108.6	162.5	1.8	0.326
4- 430	4- 660	0.179	263.1	-17.6	1.62	0.703	100.1	0.337	1.106	201.1	452.4	0.733	---	-1.56	1.052	108.9	170.3	-1.0	0.326
4- 430	4- 670	0.177	274.7	-18.7	1.35	0.691	97.4	0.340	1.086	194.9	456.1	0.717	---	-1.49	1.042	109.3	178.0	-4.0	0.330
4- 430	4- 680	0.182	286.7	-19.0	1.09	0.680	94.6	0.346	1.069	188.7	459.8	0.699	---	-1.47	1.032	109.9	185.6	-7.1	0.337
4- 430	4- 690	0.194	298.4	-18.4	0.84	0.670	91.4	0.358	1.054	182.6	463.5	0.677	---	-1.50	1.023	110.8	193.3	-10.1	0.350
4- 430	4- 700	0.216	309.1	-17.3	0.56	0.661	87.9	0.376	1.041	176.5	467.2	0.650	1.432	-1.57	1.014	112.0	200.9	-13.1	0.369
4- 430	4- 710	0.248	316.3	-15.8	0.26	0.653	83.8	0.402	1.030	170.6	471.0	0.616	1.444	-1.71	1.006	113.7	208.6	-15.9	0.397
4- 430	4- 720	0.293	325.9	-14.3	-0.12	0.646	78.8	0.440	1.020	165.0	475.1	0.571	1.469	-1.92	0.999	116.1	216.1	-18.5	0.438
4- 430	4- 730	0.355	331.8	-13.0	-0.62	0.640	72.5	0.497	1.011	160.3	479.9	0.509	1.514	-2.28	0.993	119.8	223.4	-20.7	0.500
4- 430	4- 740	0.446	335.9	-12.2	-1.36	0.634	64.0	0.581	1.004	157.0	486.3	0.421	1.588	-2.88	0.988	125.5	230.0	-22.4	0.595
4- 430	4- 750	0.580	337.7	-12.1	-2.69	0.631	51.8	0.705	1.000	156.9	495.7	0.295	1.705	-4.08	0.985	134.8	235.0	-23.5	0.747
4- 430	4- 790	0.549	249.4	-18.2	5.92	0.542	131.8	0.795	0.905	195.2	572.3	0.185	1.625	5.02	0.929	37.7	152.2	15.1	0.843
4- 430	4- 800	0.408	260.5	-18.8	4.06	0.532	114.2	0.680	0.897	192.9	579.5	0.287	1.507	3.29	0.925	47.7	157.8	12.8	0.686
4- 430	4- 810	0.474	307.1	-16.7	3.13	0.435	74.8	0.751	0.827	174.8	571.0	0.206	1.448	2.49	0.875	42.7	171.7	5.7	0.746
4- 430	4- 810	0.361	285.5	-18.8	3.13	0.503	96.2	0.644	0.873	183.5	579.7	0.311	1.435	2.49	0.910	50.8	167.0	8.6	0.632
4- 430	4- 920	0.572	357.2	-2.5	-0.95	0.842	54.9	0.576	1.453	123.9	268.5	---	2.289	2.54	1.157	59.7	247.2	-17.3	0.576
4- 430	4- 930	0.544	359.1	-3.3	-2.00	0.847	57.0	0.545	1.471	120.6	275.3	---	2.272	3.45	1.162	62.7	254.6	-15.9	0.530
4- 430	4- 940	0.520	1.6	-6.0	-4.33	0.852	59.0	0.516	1.488	117.4	282.2	---	2.255	5.65	1.166	65.5	262.2	-11.0	0.491
4- 430	4- 950	0.538	7.0	-21.0	-15.03	0.856	60.8	0.490	1.502	114.3	289.2	---	2.238	16.81	1.170	68.3	273.3	12.6	0.534
4- 430	4- 960	0.522	347.7	21.6	16.58	0.859	62.5	0.464	1.516	111.3	296.8	---	2.219	-15.52	1.172	71.1	285.6	-60.6	0.486
4- 430	4- 970	0.456	357.5	10.9	6.42	0.862	64.0	0.442	1.527	108.6	304.2	---	2.203	-5.50	1.174	73.7	282.6	-40.1	0.367
4- 430	4- 980	0.433	0.1	8.4	4.18	0.865	65.3	0.423	1.537	106.1	311.8	---	2.188	-3.40	1.175	76.2	287.2	-34.8	0.320
4- 430	4- 990	0.415	1.7	7.4	3.16	0.867	66.4	0.406	1.546	103.9	319.7	---	2.173	-2.52	1.175	78.7	291.2	-32.5	0.282
4- 430	4-1000	0.401	2.8	6.8	2.54	0.868	67.4	0.391	1.553	101.9	327.8	---	2.161	-2.05	1.175	81.1	293.9	-31.4	0.247
4- 430	4-1010	0.389	3.7	6.4	2.11	0.870	68.2	0.379	1.559	100.2	336.2	---	2.150	-1.78	1.174	83.5	294.6	-31.2	0.217
4- 430	4-1020	0.380	4.4	6.1	1.77	0.871	68.8	0.371	1.563	98.9	344.9	---	2.143	-1.61	1.172	85.9	292.5	-31.8	0.192
4- 430	4-1030	0.375	4.9	5.7	1.49	0.872	69.1	0.365	1.567	98.0	354.0	---	2.139	-1.52	1.171	88.4	287.0	-32.8	0.175
4- 430	4-1040	0.373	5.3	5.3	1.23	0.872	69.2	0.364	1.569	97.6	363.5	0.998	2.141	-1.48	1.169	90.9	278.3	-33.5	0.169
4- 430	4-1040	0.232	255.9	-19.9	1.23	0.674	104.3	0.420	1.059	201.6	827.6	0.614	1.504	-1.48	1.029	114.6	177.6	-2.5	0.418
4- 430	4-1040	0.508	326.9	-16.6	1.23	0.739	120.0	0.665	1.173	215.3	841.2	0.393	1.953	-1.48	1.073	130.9	172.3	1.5	0.713
4- 430	4-1050	0.376	5.5	4.7	0.97	0.873	69.0	0.367	1.571	97.8	373.6	0.994	2.148	-1.48	1.167	93.6	268.4	-33.2	0.178
4- 430	4-1050	0.207	275.6	-20.8	0.97	0.661	97.9	0.396	1.041	192.5	828.2	0.628	1.453	-1.48	1.018	113.2	186.3	-6.6	0.391
4- 430	4-1060	0.384	5.5	4.1	0.71	0.873	68.5	0.377	1.572	98.7	384.3	0.980	2.164	-1.53	1.164	96.6	260.0	-32.0	0.201
4- 430	4-1060	0.209	293.2	-20.0	0.71	0.653	92.8	0.393	1.029	184.3	829.9	0.625	1.433	-1.53	1.010	113.1	194.8	-10.3	0.387
4- 430	4-1070	0.400	5.2	3.2	0.42	0.875	67.4	0.394	1.572	100.4	395.7	0.953	2.191	-1.53	1.162	99.9	254.7	-30.5	0.241
- 430	4-1070	0.230	307.8	-18.1	0.42	0.647	87.8	0.403	1.020	176.8	832.1	0.609	1.432	-1.63	1.003	113.8	203.1	-13.7	0.398
4- 430	4-1080	0.427	4.6	2.2	0.09	0.873	65.6	0.421	1.572	103.2	408.2	0.910	2.234	-1.80	1.160	103.8	252.1	-29.3	0.297
4- 430	4-1080	0.265	319.1	-16.0	0.09	0.642	82.6	0.428	1.014	169.8	834.8	0.580	1.447	-1.80	0.998	115.3	211.2	-16.7	0.424
4- 430	4-1090	0.468	3.4	0.9	-0.34	0.873	62.8	0.465	1.572	107.3	422.0	0.841	2.302	-2.07	1.158	108.6	251.3	-28.4	0.376
4- 430	4-1090	0.318	327.5	-14.1	-0.34	0.637	76.5	0.469	1.008	163.7	838.3	0.535	1.481	-2.07	0.993	118.0	219.1	-19.4	0.469
4- 430	4-1100	0.533	1.5	-0.7	-0.93	0.873	58.3	0.531	1.572	113.4	437.7	0.737	2.407	-2.52	1.156	115.0	2[illegible].3	-27.8	0.485
4- 430	4-1100	0.393	333.5	-12.7	-0.93	0.634	69.0	0.534	1.004	158.9	843.1	0.468	1.541	-2.52	0.989	122.3	226.4	-21.5	0.541
4- 430	4-1110	0.502	337.0	-12.0	-1.88	0.632	58.9	0.634	1.001	156.5	850.3	0.366	1.636	-3.34	0.986	129.4	232.6	-23.0	0.659
4- 430	4-1110	0.503	287.5	-24.3	-1.88	0.359	96.7	0.818	0.788	181.5	1235.3	0.143	1.433	-3.34	0.838	143.1	216.7	-16.7	0.820
4- 430	4-1120	0.591	306.5	-21.7	-3.81	0.334	65.3	0.870	0.777	176.0	1239.3	0.101	1.454	-5.14	0.826	148.8	223.7	-19.2	0.898
4- 430	4-1160	0.589	216.8	-9.5	4.84	0.864	135.9	0.693	1.534	230.3	611.9	0.470	2.597	4.00	1.148	50.0	135.8	21.8	0.743
4- 430	4-1160	0.478	245.7	-17.1	4.84	0.592	125.8	0.711	0.955	199.6	941.2	0.276	1.634	4.00	0.960	44.8	151.7	15.5	0.745
4- 430	4-1170	0.456	212.5	-7.5	3.56	0.864	124.5	0.569	1.535	241.1	632.3	0.661	2.409	2.85	1.149	60.9	135.4	22.3	0.552
4- 430	4-1170	0.358	255.5	-17.9	3.56	0.589	112.5	0.602	0.952	196.9	948.1	0.378	1.525	2.85	0.960	53.1	157.5	13.3	0.609
4- 430	4-1180	0.372	209.8	-6.3	2.83	0.864	118.8	0.486	1.535	248.2	648.9	0.789	2.281	2.26	1.151	68.3	135.8	22.8	0.424
4- 430	4-1180	0.296	272.6	-18.5	2.83	0.583	101.7	0.542	0.945	190.3	951.0	0.433	1.458	2.26	0.958	57.4	165.2	10.0	0.538
4- 430	4-1190	0.319	208.0	-5.7	2.34	0.864	115.2	0.431	1.535	252.9	663.3	0.873	2.196	1.91	1.152	73.8	136.2	23.4	0.333
4- 430	4-1190	0.505	323.3	-12.6	2.34	0.523	61.6	0.716	0.890	166.8	937.1	0.253	1.526	1.91	0.925	44.8	180.8	1.5	0.727
4- 430	4-1190	0.295	296.4	-17.1	2.34	0.572	90.2	0.533	0.933	180.2	950.5	0.436	1.431	1.91	0.953	58.1	174.4	5.6	0.523
4- 430	4-1200	0.284	206.8	-5.4	1.97	0.864	112.9	0.395	1.534	256.1	678.2	0.929	2.140	1.70	1.154	78.0	135.5	24.5	0.266
4- 430	4-1210	0.262	205.9	-5.5	1.66	0.864	111.5	0.371	1.534	258.3	688.0	0.964	2.104	1.57	1.156	81.5	132.8	26.3	0.218
4- 430	4-1220	0.249	205.2	-5.9	1.39	0.864	110.6	0.358	1.534	259.6	699.1	0.986	2.083	1.50	1.159	84.5	127.3	28.7	0.185
4- 430	4-1230	0.243	204.7	-6.4	1.14	0.864	110.2	0.352	1.536	260.3	709.6	0.996	2.075	1.47	1.161	87.3	118.7	31.3	0.167
4- 440	4- 530	0.652	192.9	-5.3	0.27	1.167	127.1	0.959	1.613	283.8	397.5	0.991	---	1.73	1.404	108.3	75.5	26.9	0.561
4- 440	4- 540	0.588	196.0	-7.1	-0.10	1.097	125.9	0.821	4.883	278.4	402.2	0.874	---	1.90	1.346	108.9	81.1	27.8	0.523
4- 440	4- 550	0.532	198.9	-9.2	-0.56	1.037	124.6	0.714	3.002	272.8	406.7	0.858	---	2.19	1.301	109.2	87.6	28.9	0.491
4- 440	4- 560	0.483	201.7	-11.6	-1.21	0.985	123.0	0.630	2.282	267.1	411.1	0.844	---	2.69	1.261	109.4	94.8	30.3	0.464
4- 440	4- 570	0.439	204.3	-14.9	-2.30	0.940	121.3	0.564	1.904	261.5	415.4	0.831	---	3.62	1.228	109.4	102.7	32.5	0.442
4- 440	4- 580	0.402	206.3	-20.9	-4.65	0.900	119.5	0.510	1.673	255.4	419.6	0.819	---	5.83	1.198	109.3	111.5	37.7	0.429
4- 440	4- 590	0.418	205.0	-41.5	-15.07	0.866	117.6	0.467	1.519	249.4	423.7	0.809	---	16.10	1.173	109.1	121.4	59.8	0.495
4- 440	4- 600	0.426	234.4	17.4	19.50	0.836	115.8	0.435	1.409	243.2	428.2	0.796	---	-18.60	1.150	109.2	109.2	-20.9	0.511
4- 440	4- 610	0.312	227.7	-1.0	6.89	0.809	113.7	0.407	1.327	237.2	432.1	0.787	---	-6.13	1.131	109.0	128.1	0.9	0.383
4- 440	4- 620	0.276	230.7	-7.0	4.34	0.785	111.6	0.385	1.264	231.1	436.2	0.777	---	-3.73	1.113	108.9	137.9	4.7	0.360
4- 440	4- 630	0.249	235.7	-10.6	3.20	0.765	109.4	0.369	1.215	224.9	440.1	0.767	---	-2.74	1.097	108.9	146.5	4.7	0.348
4- 440	4- 640	0.227	242.1	-13.3	2.53	0.746	107.2	0.356	1.175	218.8	444.0	0.756	---	-2.23	1.082	108.9	154.7	3.3	0.339

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 440	4- 650	0.208	249.8	-15.6	2.05	0.730	104.8	0.348	1.142	212.6	447.9	0.745	---	-1.92	1.068	108.9	162.7	1.1	0.334
4- 440	4- 660	0.194	259.0	-17.5	1.69	0.715	102.4	0.343	1.115	206.4	451.7	0.733	---	-1.74	1.056	109.1	170.5	-1.6	0.331
4- 440	4- 670	0.186	269.5	-18.9	1.38	0.702	99.8	0.341	1.093	200.1	455.4	0.720	---	-1.63	1.044	109.3	178.2	-4.5	0.331
4- 440	4- 680	0.183	281.2	-19.5	1.10	0.690	97.1	0.344	1.073	193.9	459.0	0.704	---	-1.59	1.034	109.8	185.9	-7.6	0.335
4- 440	4- 690	0.188	293.3	-19.2	0.82	0.679	94.1	0.351	1.056	187.6	462.6	0.685	---	-1.59	1.024	110.4	193.6	-10.6	0.343
4- 440	4- 700	0.201	305.0	-18.2	0.54	0.669	90.8	0.364	1.042	181.4	466.1	0.663	---	-1.63	1.014	111.2	201.3	-13.6	0.356
4- 440	4- 710	0.224	315.7	-16.5	0.24	0.661	87.1	0.383	1.029	175.2	469.7	0.635	1.424	-1.74	1.006	112.5	209.1	-16.5	0.377
4- 440	4- 720	0.259	324.8	-14.7	-0.11	0.653	82.7	0.412	1.018	169.3	473.4	0.599	1.438	-1.91	0.999	114.3	216.9	-19.1	0.408
4- 440	4- 730	0.308	332.3	-12.9	-0.55	0.645	77.3	0.455	1.009	163.8	477.5	0.550	1.468	-2.19	0.992	117.1	224.6	-21.4	0.454
4- 440	4- 740	0.378	338.1	-11.4	-1.16	0.639	70.3	0.519	1.001	159.2	482.5	0.481	1.520	-2.65	0.986	121.3	231.9	-23.2	0.525
4- 440	4- 750	0.482	341.9	-10.5	-2.13	0.635	60.7	0.615	0.995	156.6	489.5	0.383	1.607	-3.47	0.982	128.0	238.3	-24.6	0.636
4- 440	4- 800	0.488	258.5	-18.8	5.15	0.542	124.1	0.740	0.897	195.2	575.8	0.234	1.561	4.48	0.925	42.8	159.9	12.5	0.763
4- 440	4- 810	0.573	316.1	-14.8	3.67	0.390	62.2	0.835	0.796	173.9	564.1	0.131	1.462	3.14	0.847	34.9	175.6	3.8	0.851
4- 440	4- 810	0.379	274.2	-19.1	3.67	0.527	107.5	0.651	0.885	190.0	580.2	0.309	1.461	3.14	0.918	50.1	166.8	9.4	0.646
4- 440	4- 920	0.587	1.4	-0.4	-0.84	0.843	53.6	0.594	1.434	125.7	264.3	---	2.285	2.39	1.153	57.9	249.2	-18.2	0.606
4- 440	4- 930	0.557	3.2	-0.8	-1.65	0.848	55.9	0.562	1.453	122.3	271.0	---	2.269	3.05	1.159	60.9	256.6	-17.3	0.558
4- 440	4- 940	0.530	5.4	-2.3	-3.14	0.853	58.0	0.531	1.470	118.9	277.8	---	2.252	4.40	1.163	63.9	264.0	-14.4	0.515
4- 440	4- 950	0.512	8.6	-7.7	-7.24	0.857	59.9	0.503	1.486	115.8	284.8	---	2.235	8.35	1.167	66.7	271.7	-4.8	0.488
4- 440	4- 970	0.477	358.7	17.9	10.29	0.864	63.3	0.453	1.513	109.8	299.4	---	2.199	-9.46	1.171	72.1	290.0	-48.6	0.416
4- 440	4- 980	0.441	3.8	12.2	5.37	0.867	64.7	0.432	1.524	107.1	306.9	---	2.183	-4.68	1.173	74.7	292.4	-37.4	0.349
4- 440	4- 990	0.420	5.9	10.3	3.71	0.870	65.9	0.413	1.534	104.6	314.5	---	2.168	-3.17	1.173	77.1	296.7	-33.3	0.306
4- 440	4-1000	0.403	7.3	9.5	2.85	0.871	67.0	0.397	1.543	102.4	322.4	---	2.154	-2.46	1.173	79.6	300.2	-31.4	0.269
4- 440	4-1010	0.389	8.4	8.9	2.29	0.873	67.9	0.383	1.549	100.5	330.6	---	2.142	-2.06	1.172	82.0	302.2	-30.6	0.236
4- 440	4-1020	0.378	9.3	8.5	1.87	0.874	68.7	0.373	1.554	98.9	339.0	---	2.133	-1.82	1.171	84.3	302.1	-30.7	0.208
4- 440	4-1030	0.371	9.9	8.1	1.54	0.875	69.2	0.365	1.558	97.7	347.8	---	2.127	-1.68	1.169	86.7	299.1	-31.6	0.186
4- 440	4-1040	0.366	10.4	7.6	1.24	0.876	69.5	0.361	1.561	97.0	356.9	---	2.124	-1.61	1.167	89.2	292.7	-32.9	0.172
4- 440	4-1040	0.290	247.1	-19.5	1.24	0.693	110.9	0.464	1.078	209.3	829.3	0.578	1.578	-1.61	1.037	117.4	176.9	-2.1	0.468
4- 440	4-1040	0.420	235.2	-18.2	1.24	0.723	122.5	0.580	1.130	215.5	835.4	0.474	1.785	-1.61	1.057	124.9	174.5	-0.1	0.604
4- 440	4-1050	0.366	10.8	7.1	0.97	0.877	69.6	0.361	1.563	96.8	366.6	1.000	2.127	-1.58	1.165	91.7	283.4	-33.8	0.170
4- 440	4-1050	0.223	268.1	-21.1	0.97	0.672	103.8	0.405	1.046	198.5	828.2	0.622	1.470	-1.58	1.021	113.8	186.3	-6.7	0.401
4- 440	4-1050	0.559	232.2	-18.4	0.97	0.751	133.3	0.701	1.185	214.8	844.6	0.354	2.016	-1.58	1.074	133.8	180.0	-1.8	0.760
4- 440	4-1060	0.370	10.9	6.5	0.69	0.877	69.2	0.366	1.565	97.2	376.8	0.993	2.137	-1.60	1.163	94.5	273.6	-33.7	0.182
4- 440	4-1060	0.208	286.7	-20.9	0.69	0.662	96.1	0.390	1.031	189.8	829.4	0.629	1.434	-1.60	1.011	112.9	194.9	-10.6	0.384
4- 440	4-1070	0.381	10.9	5.7	0.41	0.877	68.5	0.377	1.566	98.3	387.6	0.975	2.156	-1.68	1.161	97.5	266.0	-32.6	0.211
4- 440	4-1070	0.215	303.2	-19.2	0.41	0.655	91.2	0.391	1.021	181.8	831.1	0.621	1.421	-1.68	1.004	113.0	203.4	-14.1	0.385
4- 440	4-1080	0.400	10.5	4.8	0.08	0.877	67.2	0.397	1.566	100.4	399.4	0.944	2.187	-1.81	1.159	100.9	261.3	-31.3	0.255
4- 440	4-1080	0.239	316.6	-16.8	0.08	0.649	86.2	0.406	1.014	174.4	833.4	0.602	1.425	-1.81	0.997	114.0	211.8	-17.2	0.400
4- 440	4-1090	0.431	9.7	3.7	-0.31	0.877	65.1	0.429	1.566	103.6	412.3	0.894	2.238	-2.03	1.157	105.0	259.2	-30.2	0.318
4- 440	4-1090	0.279	327.1	-14.3	-0.31	0.644	80.8	0.435	1.007	167.6	836.3	0.569	1.446	-2.03	0.992	115.8	220.0	-20.0	0.432
4- 440	4-1100	0.479	8.4	2.3	-0.81	0.877	61.8	0.479	1.565	108.4	426.7	0.815	2.316	-2.38	1.155	110.3	258.7	-29.4	0.405
4- 440	4-1100	0.333	334.9	-12.3	-0.81	0.641	74.4	0.484	1.003	161.8	840.0	0.518	1.487	-2.38	0.988	118.9	228.0	-22.3	0.485
4- 440	4-1110	0.556	6.1	0.5	-1.56	0.877	56.6	0.556	1.566	115.5	443.3	0.694	2.437	-2.97	1.154	117.4	258.6	-28.8	0.528
4- 440	4-1110	0.422	340.3	-10.9	-1.56	0.638	66.1	0.559	0.999	157.5	845.4	0.440	1.557	-2.97	0.985	124.0	235.2	-24.0	0.571
4- 440	4-1120	0.549	343.0	-10.3	-2.84	0.636	54.6	0.676	0.996	156.3	853.7	0.323	1.669	-4.12	0.982	132.5	240.9	-25.0	0.711
4- 440	4-1120	0.522	302.2	-22.6	-2.84	0.353	84.6	0.825	0.779	178.8	1236.2	0.136	7.422	-4.12	0.828	143.6	229.5	-19.7	0.826
4- 440	4-1160	0.592	249.0	-17.9	6.60	0.599	136.3	0.799	0.953	198.6	934.3	0.192	1.714	5.86	0.959	37.1	155.3	14.5	0.864
4- 440	4-1170	0.533	220.4	-10.3	4.32	0.868	129.2	0.635	1.530	235.8	621.0	0.559	2.501	3.71	1.148	55.2	141.4	20.8	0.652
4- 440	4-1170	0.427	254.2	-17.9	4.32	0.597	119.9	0.657	0.951	199.5	948.7	0.326	1.576	3.71	0.960	49.1	159.4	13.0	0.675
4- 440	4-1180	0.421	216.7	-8.9	3.24	0.869	121.6	0.528	1.530	245.0	639.8	0.722	2.338	2.77	1.150	64.5	141.3	21.3	0.490
4- 440	4-1180	0.330	266.6	-18.4	3.24	0.593	108.0	0.568	0.947	195.0	949.8	0.409	1.484	2.77	0.959	55.6	166.0	10.2	0.567
4- 440	4-1190	0.352	214.4	-8.1	2.58	0.869	117.0	0.458	1.530	251.1	655.5	0.830	2.230	2.26	1.151	71.0	141.8	21.9	0.378
4- 440	4-1190	0.593	330.0	-10.7	2.58	0.561	52.0	0.790	0.872	186.8	931.2	0.183	1.561	2.26	0.912	38.4	183.8	0.1	0.820
4- 440	4-1190	0.287	285.9	-17.9	2.58	0.586	97.7	0.525	0.939	187.1	951.5	0.446	1.432	2.26	0.956	58.6	174.2	6.4	0.517
4- 440	4-1200	0.307	212.9	-7.8	2.11	0.868	114.0	0.412	1.530	255.1	669.2	0.900	2.159	1.95	1.153	75.8	141.8	22.7	0.299
4- 440	4-1200	0.441	326.4	-11.3	2.11	0.543	63.6	0.653	0.898	167.4	941.5	0.512	1.485	1.95	0.933	49.7	187.7	-1.0	0.652
4- 440	4-1200	0.323	312.5	-14.3	2.11	0.569	83.8	0.548	0.922	174.9	948.9	0.417	1.427	1.98	0.946	57.2	184.3	1.3	0.537
4- 440	4-1210	0.278	211.8	-7.8	1.74	0.868	112.1	0.382	[illegible]	247.9	681.7	0.946	2.113	1.76	1.155	79.3	140.4	24.2	0.241
4- 440	4-1220	0.261	211.0	-8.2	1.43	0.868	110.9	0.363	[illegible]	250.7	693.2	0.974	2.035	45	1.158	83.0	136.5	26.6	0.200
4- 440	4-1230	0.251	210.4	-8.7	1.14	0.869	110.3	0.353	1.530	260.	[illegible]	[illegible]	1.971	1.58	1.160	85.9	129.7	29.5	0.174
4- 440	4-1240	0.248	209.9	-9.4	0.87	0.869	110.1	0.350	1.532	261.2	714.1	0.98	2.068	1.58	1.163	88.6	120.3	32.1	0.163
4- 450	4- 540	0.685	198.9	-8.3	-0.09	1.185	128.3	0.98977	.685	283.2	400.9	0.869	---	1.89	1.417	110.3	83.2	27.5	0.598
4- 450	4- 550	0.616	202.0	-10.2	-0.51	1.110	126.9	0.843	5.414	277.7	405.5	0.852	---	2.12	1.357	110.7	89.3	28.3	0.555
4- 450	4- 560	0.557	204.9	-12.4	-1.06	1.046	125.4	0.730	3.101	272.1	410.0	0.837	---	2.56	1.307	110.8	96.2	29.2	0.518
4- 450	4- 570	0.504	207.7	-15.0	-1.90	0.991	123.8	0.642	2.303	266.3	414.4	0.824	---	3.16	1.264	110.8	103.8	30.6	0.488
4- 450	4- 580	0.458	210.2	-19.0	-3.40	0.944	122.0	0.573	1.902	260.4	418.6	0.812	---	4.51	1.228	110.7	112.2	33.3	0.464
4- 450	4- 590	0.426	211.6	-27.6	-7.36	0.903	120.1	0.518	1.662	254.5	422.8	0.801	---	8.32	1.197	110.4	121.8	41.5	0.458
4- 450	4- 610	0.376	232.5	4.6	11.42	0.836	116.1	0.490	1.393	242.3	431.3	0.780	---	-10.76	1.146	110.1	124.5	-8.4	0.439
4- 450	4- 620	0.318	232.6	-5.8	5.64	0.809	114.0	0.442	1.311	236.3	435.3	0.771	---	-5.13	1.125	109.9	137.2	1.6	0.387
4- 450	4- 630	0.285	236.4	-10.3	3.79	0.785	111.8	0.390	1.249	230.2	439.3	0.762	---	-3.43	1.107	109.7	146.4	3.2	0.368
4- 450	4- 640	0.257	241.7	-13.3	2.84	0.764	109.5	0.373	1.200	224.0	443.3	0.752	---	-2.65	1.090	109.5	154.7	2.3	0.355
4- 450	4- 650	0.235	248.2	-15.6	2.23	0.745	107.2	0.360	1.160	217.8	447.1	0.742	---	-2.21	1.075	109.5	162.8	0.3	0.346
4- 450	4- 660	0.216	256.0	-17.5	1.78	0.729	104.8	0.352	1.128	211.6	450.9	0.732	---	-1.95	1.061	109.5	170.6	-2.2	0.340
4- 450	4- 670	0.201	265.3	-19.0	1.42	0.714	102.2	0.347	1.102	205.4	454.6	0.720	---	-1.79	1.048	109.6	178.4	-5.0	0.336
4- 450	4- 680	0.192	275.9	-19.9	1.11	0.700	99.5	0.346	1.079	199.1	458.2	0.706	---	-1.70	1.036	109.8	186.1	-8.0	0.336
4- 450	4- 690	0.190	287.6	-20.0	0.82	0.689	96.7	0.349	1.061	192.8	461.8	0.691	---	-1.67	1.025	110.2	193.8	-11.1	0.340
4- 450	4- 700	0.195	299.8	-19.2	0.53	0.678	93.6	0.356	1.044	186.5	465.2	0.672	---	-1.69	1.016	110.8	201.6	-14.1	0.349
4- 450	4- 710	0.208	311.6	-17.6	0.23	0.668	90.1	0.370	1.030	180.2	468.6	0.649	---	-1.76	1.007	111.7	209.5	-16.9	0.363
4- 450	4- 720	0.233	322.2	-15.6	-0.10	0.659	86.2	0.391	1.018	174.0	472.1	0.620	1.416	-1.90	0.998	113.0	217.5	-19.6	0.386
4- 450	4- 730	0.270	331.4	-13.3	-0.50	0.651	81.5	0.424	1.007	166.0	475.7	0.581	1.434	-2.11	0.991	115.1	225.5	-21.9	0.420
4- 450	4- 740	0.328	338.8	-11.3	-1.02	0.644	75.6	0.472	0.998	162.6	479.9	0.527	1.469	-2.47	0.985	118.1	233.4	-23.9	0.472

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 450	4- 750	0.404	344.4	-9.7	-1.77	0.639	67.9	0.545	0.991	158.3	485.2	0.451	1.530	-3.06	0.980	123.0	240.7	-25.3	0.554
4- 450	4- 760	0.524	347.6	-8.8	-3.04	0.634	56.9	0.656	0.986	156.6	493.0	0.340	1.632	-4.18	0.976	130.9	246.7	-26.3	0.685
4- 450	4- 810	0.440	269.2	-19.1	4.51	0.539	117.1	0.695	0.888	193.8	578.1	0.271	1.535	4.08	0.920	46.6	168.1	9.3	0.702
4- 450	4- 820	0.516	319.8	-13.4	3.39	0.421	69.8	0.784	0.806	174.1	567.9	0.174	1.439	3.01	0.858	39.9	182.6	1.2	0.782
4- 450	4- 820	0.367	290.2	-18.1	3.29	0.516	100.2	0.639	0.869	185.9	579.7	0.314	1.425	3.01	0.909	51.2	176.3	5.3	0.625
4- 450	4- 930	0.571	7.5	1.4	-1.41	0.848	54.6	0.579	1.434	124.1	266.8	---	2.265	2.76	1.155	59.1	258.7	-18.4	0.588
4- 450	4- 940	0.541	9.4	0.6	-2.48	0.854	56.8	0.548	1.453	120.7	273.5	---	2.248	3.67	1.160	62.1	266.1	-16.4	0.542
4- 450	4- 950	0.516	11.9	-2.1	-4.71	0.858	58.9	0.518	1.470	117.4	280.4	---	2.231	5.74	1.163	65.0	273.3	-11.3	0.502
4- 450	4- 960	0.521	16.4	-13.8	-13.48	0.862	60.7	0.491	1.485	114.2	287.3	---	2.215	14.07	1.166	67.8	281.6	7.7	0.516
4- 450	4- 970	0.593	347.1	33.2	26.36	0.866	62.5	0.464	1.499	111.0	294.9	---	2.195	-25.63	1.169	70.6	329.1	-67.7	0.618
4- 450	4- 980	0.454	6.5	17.4	7.64	0.869	64.0	0.442	1.511	108.3	302.0	---	2.179	-7.05	1.170	73.1	298.5	-42.2	0.385
4- 450	4- 990	0.426	10.0	13.7	4.58	0.872	65.4	0.422	1.522	105.6	309.5	---	2.163	-4.14	1.171	75.6	301.8	-34.8	0.333
4- 450	4-1000	0.406	11.8	12.3	3.28	0.874	66.6	0.404	1.531	103.2	317.2	---	2.149	-3.00	1.171	78.0	305.7	-31.5	0.293
4- 450	4-1010	0.390	13.1	11.5	2.52	0.876	67.6	0.388	1.538	101.1	325.1	---	2.136	-2.41	1.170	80.4	308.7	-29.9	0.257
4- 450	4-1020	0.377	14.1	10.9	2.00	0.877	68.5	0.376	1.544	99.2	333.3	---	2.125	-2.07	1.169	82.9	310.1	-29.4	0.226
4- 450	4-1030	0.367	14.9	10.4	1.61	0.878	69.1	0.366	1.549	97.7	341.7	---	2.116	-1.86	1.168	85.1	309.3	-29.8	0.200
4- 450	4-1040	0.361	15.6	10.0	1.27	0.879	69.6	0.359	1.553	96.7	350.6	---	2.111	-1.74	1.166	87.5	305.4	-31.2	0.180
4- 450	4-1050	0.357	16.1	9.5	0.97	0.880	69.8	0.356	1.556	96.1	359.8	---	2.110	-1.68	1.164	90.0	298.1	-32.8	0.169
4- 450	4-1050	0.260	260.4	-21.2	0.97	0.687	106.8	0.471	1.057	205.2	829.0	0.602	1.513	-1.68	1.026	115.4	186.0	-6.5	0.430
4- 450	4-1050	0.491	239.1	-19.7	0.97	0.740	127.5	0.635	1.150	216.0	839.7	0.419	1.880	-1.68	1.062	128.8	181.9	-3.1	0.672
4- 450	4-1060	0.358	16.4	8.9	0.68	0.880	69.7	0.358	1.558	96.0	369.6	1.001	2.115	-1.68	1.162	92.5	288.5	-33.9	0.172
4- 450	4-1060	0.218	279.3	-21.6	0.68	0.672	99.8	0.396	1.036	195.6	829.2	0.626	1.446	-1.68	1.013	113.2	195.0	-10.7	0.390
4- 450	4-1070	0.365	16.5	8.2	0.39	0.881	69.8	0.364	1.559	96.6	379.9	0.991	2.127	-1.72	1.160	95.3	279.1	-33.8	0.189
4- 450	4-1070	0.210	297.0	-20.4	0.39	0.663	94.5	0.386	1.023	187.2	830.5	0.628	1.418	-1.72	1.005	112.7	203.6	-14.4	0.380
4- 450	4-1080	0.378	16.3	7.3	0.08	0.881	68.4	0.378	1.559	98.1	391.1	0.970	2.149	-1.82	1.158	98.4	272.2	-32.9	0.222
4- 450	4-1080	0.221	312.4	-17.9	0.08	0.656	89.6	0.392	1.014	179.4	832.4	0.617	1.411	-1.82	0.998	113.1	212.2	-17.6	0.385
4- 450	4-1090	0.400	15.9	6.3	-0.28	0.881	66.9	0.402	1.560	100.5	403.1	0.933	2.186	-1.99	1.156	102.0	268.2	-31.7	0.271
4- 450	4-1090	0.249	325.0	-15.1	-0.28	0.651	84.6	0.410	1.007	172.2	834.8	0.594	1.421	-1.99	0.992	114.2	220.8	-20.5	0.405
4- 450	4-1100	0.436	14.9	5.1	-0.73	0.881	64.5	0.439	1.559	104.2	416.5	0.875	2.244	-2.26	1.154	106.4	266.6	-30.8	0.341
4- 450	4-1100	0.293	334.8	-12.4	-0.73	0.647	79.0	0.445	1.002	165.5	837.8	0.556	1.447	-2.26	0.987	116.4	229.2	-22.8	0.443
4- 450	4-1110	0.493	13.3	3.6	-1.34	0.881	60.7	0.497	1.559	109.7	431.6	0.785	2.334	-2.71	1.153	112.2	266.2	-30.0	0.438
4- 450	4-1110	0.359	342.1	-10.3	-1.34	0.644	72.1	0.501	0.997	160.0	841.8	0.497	1.497	-2.71	0.984	120.1	237.1	-24.7	0.505
4- 450	4-1120	0.584	10.6	1.6	-2.28	0.881	54.4	0.587	1.560	118.0	449.3	0.645	2.475	-3.49	1.152	120.2	265.9	-29.4	0.578
4- 450	4-1120	0.456	346.8	-8.9	-2.28	0.641	62.9	0.589	0.994	156.5	847.9	0.408	1.579	-3.49	0.981	126.1	244.1	-26.0	0.607
4- 450	4-1120	0.506	292.0	-24.1	-2.28	0.381	105.2	0.811	0.786	183.7	1235.0	0.149	1.424	-3.49	0.835	142.3	226.4	-19.7	0.810
4- 450	4-1130	0.557	314.5	-20.1	-4.04	0.350	73.6	0.842	0.772	176.8	1237.7	0.122	1.423	-5.11	0.820	145.4	234.3	-22.3	0.851
4- 450	4-1170	0.525	255.8	-18.3	5.60	0.604	129.1	0.735	0.950	200.0	939.2	0.252	1.648	5.10	0.959	42.8	162.3	12.2	0.774
4- 450	4-1180	0.487	224.4	-11.4	3.84	0.873	125.5	0.585	1.525	240.4	629.2	0.634	2.417	3.48	1.149	59.5	147.1	19.6	0.576
4- 450	4-1180	0.386	263.6	-18.4	3.84	0.601	114.9	0.612	0.947	198.5	947.3	0.367	1.527	3.48	0.959	52.4	167.4	10.0	0.619
4- 450	4-1190	0.395	221.3	-10.5	2.90	0.873	119.3	0.494	1.525	248.3	646.7	0.772	2.279	2.70	1.150	67.5	147.4	20.1	0.436
4- 450	4-1190	0.309	278.3	-18.3	2.90	0.596	104.0	0.541	0.942	192.6	950.9	0.432	1.451	2.70	0.958	57.5	174.6	6.8	0.536
4- 450	4-1200	0.336	219.3	-10.1	2.29	0.873	115.4	0.434	1.525	253.5	661.6	0.863	2.188	2.25	1.152	73.2	147.8	20.8	0.340
4- 450	4-1200	0.551	335.1	-8.6	2.29	0.525	56.5	0.751	0.876	166.2	934.2	0.219	1.534	2.25	0.918	41.9	191.4	-2.9	0.769
4- 450	4-1200	0.287	299.5	-16.4	2.29	0.587	93.6	0.517	0.932	183.4	951.4	0.451	1.414	2.25	0.955	59.2	183.3	2.6	0.506
4- 450	4-1210	0.299	218.0	-10.1	1.84	0.873	112.9	0.396	1.525	257.0	674.8	0.921	2.128	1.98	1.155	77.6	147.2	22.0	0.270
4- 450	4-1220	0.275	217.0	-10.4	1.48	0.872	111.4	0.371	1.525	259.4	686.9	0.959	2.091	1.81	1.157	81.2	144.9	24.0	0.220
4- 450	4-1230	0.261	216.3	-10.9	1.16	0.873	110.5	0.357	1.525	260.8	698.2	0.981	2.069	1.72	1.159	84.3	139.9	26.9	0.185
4- 450	4-1240	0.254	215.8	-11.6	0.87	0.873	110.0	0.350	1.526	261.6	708.8	0.992	2.060	1.68	1.162	87.1	131.9	30.1	0.166
4- 450	4-1250	0.254	215.3	-12.4	0.58	0.873	110.0	0.349	1.528	261.9	719.0	0.994	2.062	1.69	1.165	89.7	122.2	32.6	0.163
4- 460	4- 560	0.645	208.2	-13.3	-0.96	1.122	127.8	0.862	6.033	276.8	408.6	0.831	---	2.34	1.365	112.4	97.9	28.3	0.586
4- 460	4- 570	0.581	211.1	-15.5	-2.63	1.055	126.3	0.745	3.199	271.2	413.1	0.816	---	2.84	1.311	112.4	105.1	29.1	0.545
4- 460	4- 580	0.526	213.9	-18.4	-2.70	0.997	124.5	0.654	2.322	265.4	417.5	0.804	---	3.74	1.266	112.2	113.1	30.5	0.511
4- 460	4- 590	0.479	216.3	-23.4	-4.87	0.948	122.6	0.582	1.898	259.5	421.8	0.793	---	5.75	1.228	111.9	121.9	34.1	0.486
4- 460	4- 600	0.465	217.1	-37.6	-12.51	0.905	120.6	0.526	1.651	253.6	425.9	0.783	---	13.23	1.195	111.6	133.0	48.9	0.509
4- 460	4- 620	0.371	235.8	-3.0	8.20	0.836	116.5	0.446	1.378	241.4	434.4	0.763	---	-7.79	1.142	111.0	135.3	-3.7	0.428
4- 460	4- 630	0.327	238.0	-9.7	4.71	0.808	114.2	0.417	1.296	235.3	438.4	0.755	---	-4.46	1.120	110.7	146.0	1.0	0.394
4- 460	4- 640	0.294	242.3	-13.2	3.28	0.784	112.0	0.395	1.234	229.2	442.4	0.746	---	-3.20	1.101	110.4	154.7	1.0	0.376
4- 460	4- 650	0.266	247.8	-15.6	2.47	0.763	109.6	0.378	1.185	223.1	446.3	0.738	---	-2.56	1.083	110.2	162.9	-0.5	0.362
4- 460	4- 660	0.243	254.4	-17.6	1.92	0.744	107.2	0.365	1.147	216.9	450.1	0.728	---	-2.18	1.067	110.1	170.8	-2.8	0.352
4- 460	4- 670	0.223	262.3	-19.1	1.49	0.727	104.7	0.356	1.115	210.7	453.8	0.718	---	-1.96	1.053	110.0	178.6	-5.5	0.345
4- 460	4- 680	0.208	271.7	-20.2	1.14	0.712	102.1	0.351	1.089	204.4	457.4	0.707	---	-1.83	1.040	110.0	186.4	-8.5	0.342
4- 460	4- 690	0.199	282.3	-20.6	0.83	0.699	99.3	0.350	1.067	198.1	460.9	0.693	---	-1.76	1.028	110.2	194.1	-11.4	0.342
4- 460	4- 700	0.196	294.1	-20.2	0.53	0.687	96.3	0.354	1.049	191.8	464.3	0.678	---	-1.75	1.017	110.6	202.0	-14.4	0.346
4- 460	4- 710	0.201	306.3	-18.9	0.23	0.676	93.1	0.362	1.033	185.4	467.7	0.659	---	-1.79	1.008	111.2	209.9	-17.3	0.355
4- 460	4- 720	0.216	318.1	-16.9	-0.10	0.666	89.4	0.377	1.019	179.0	471.0	0.635	1.403	-1.88	0.999	112.2	218.0	-19.9	0.371
4- 460	4- 730	0.242	328.8	-14.3	-0.47	0.658	85.2	0.401	1.007	172.8	474.3	0.604	1.411	-2.05	0.991	113.6	226.2	-22.3	0.396
4- 460	4- 740	0.282	337.9	-11.8	-0.92	0.650	80.1	0.437	0.997	166.8	477.9	0.562	1.432	-2.32	0.984	115.9	234.4	-24.3	0.434
4- 460	4- 750	0.343	345.2	-9.5	-1.53	0.643	73.7	0.491	0.988	161.5	482.2	0.503	1.474	-2.76	0.979	119.4	242.4	-25.9	0.494
4- 460	4- 760	0.433	350.5	-7.8	-2.45	0.637	65.0	0.575	0.981	157.7	487.9	0.418	1.545	-3.52	0.974	125.0	249.6	-26.9	0.588
4- 460	4- 770	0.573	353.1	-7.3	-4.14	0.634	52.3	0.702	0.977	157.1	496.9	0.291	1.663	-5.06	0.972	134.5	255.0	-27.5	0.744
4- 460	4- 810	0.537	268.7	-19.2	5.96	0.549	126.0	0.768	0.887	195.3	573.4	0.206	1.568	5.63	0.920	40.3	170.5	8.6	0.798
4- 460	4- 820	0.405	281.7	-18.7	3.94	0.533	110.5	0.663	0.876	191.4	579.1	0.295	1.458	3.76	0.914	49.2	176.8	5.7	0.658
4- 460	4- 930	0.585	11.6	3.6	-1.24	0.848	53.3	0.598	1.415	126.1	262.7	---	2.261	2.54	1.151	57.3	260.7	-19.2	0.618
4- 460	4- 940	0.554	13.6	3.1	-2.06	0.853	55.6	0.565	1.435	122.5	269.3	---	2.245	3.19	1.156	60.4	268.2	-17.8	0.570
4- 460	4- 950	0.526	15.8	1.6	-3.50	0.858	57.8	0.534	1.453	119.1	276.0	---	2.239	4.46	1.160	63.3	275.4	-16.5	0.526
4- 460	4- 960	0.506	18.7	3.1	-7.03	0.863	59.8	0.505	1.469	115.8	282.9	---	2.211	7.03	1.163	66.1	282.3	-5.9	0.495
4- 460	4- 980	0.487	5.6	26.7	13.58	0.870	63.3	0.483	1.497	109.6	297.4	---	2.176	-13.08	1.167	71.6	310.7	-52.9	0.456
4- 460	4- 990	0.434	13.5	18.0	6.07	0.873	64.7	0.461	1.509	106.8	304.6	---	2.160	-5.73	1.168	74.1	307.3	-37.6	0.364
4- 460	4-1000	0.410	16.2	15.4	3.92	0.876	66.0	0.442	1.519	104.2	312.1	---	2.144	-3.74	1.169	76.5	310.8	-32.2	0.318
4- 460	4-1010	0.392	17.8	14.1	2.85	0.878	67.2	0.395	1.527	101.9	319.8	---	2.130	-2.85	1.169	78.9	314.3	-29.5	0.280

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 460	4-1020	0.377	19.0	13.4	2.18	0.879	68.2	0.380	1.534	99.8	327.7	---	2.118	-2.36	1.167	81.3	316.8	-28.2	0.246
4- 460	4-1030	0.365	20.0	12.8	1.70	0.881	68.9	0.369	1.540	98.1	335.9	---	2.108	-2.06	1.166	83.6	317.6	-28.0	0.216
4- 460	4-1040	0.356	20.8	12.3	1.32	0.882	69.5	0.360	1.545	96.7	344.5	---	2.100	-1.89	1.164	85.9	315.9	-28.8	0.192
4- 460	4-1050	0.350	21.4	11.7	0.99	0.883	69.9	0.354	1.548	95.7	353.4	---	2.096	-1.79	1.163	88.3	311.2	-30.5	0.175
4- 460	4-1060	0.348	21.8	11.2	0.68	0.883	70.1	0.353	1.551	95.3	362.7	1.004	2.097	-1.75	1.161	90.7	303.2	-32.4	0.168
4- 460	4-1060	0.246	271.9	-22.1	0.68	0.684	104.1	0.413	1.044	202.1	829.5	0.613	1.476	-1.75	1.017	114.3	194.9	-10.6	0.410
4- 460	4-1060	0.544	244.5	-21.1	0.68	0.752	130.9	0.674	1.163	215.6	843.1	0.379	1.946	-1.75	1.064	131.8	189.6	-6.2	0.722
4- 460	4-1070	0.351	22.1	10.5	0.39	0.884	69.9	0.355	1.552	95.4	372.6	1.001	2.104	-1.76	1.159	93.3	293.5	-33.6	0.175
4- 460	4-1070	0.217	289.8	-21.5	0.39	0.672	98.1	0.389	1.027	193.1	830.2	0.627	1.426	-1.76	1.006	112.9	203.8	-14.5	0.383
4- 460	4-1080	0.359	22.1	9.7	0.08	0.884	69.3	0.364	1.553	96.3	383.2	0.988	2.119	-1.83	1.157	96.1	284.7	-33.6	0.196
4- 460	4-1080	0.213	306.5	-19.4	0.08	0.664	95.0	0.385	1.016	184.9	831.7	0.625	1.406	-1.83	0.999	112.6	212.5	-17.9	0.378
4- 460	4-1090	0.375	21.9	8.8	-0.27	0.884	68.3	0.381	1.554	98.0	394.6	0.962	2.145	-1.95	1.155	99.3	278.6	-32.8	0.234
4- 460	4-1090	0.228	32.1	-16.4	-0.27	0.658	88.2	0.394	1.008	177.2	832.7	0.611	1.404	-1.95	0.992	113.2	221.3	-20.8	0.388
4- 460	4-1100	0.401	21.3	7.7	-0.67	0.884	66.5	0.408	1.554	100.9	407.0	0.920	2.187	-2.16	1.153	103.1	275.3	-31.8	0.290
4- 460	4-1100	0.259	333.0	-13.2	-0.67	0.653	83.0	0.417	1.001	170.0	836.2	0.584	1.418	-2.16	0.987	114.6	230.0	-23.3	0.413
4- 460	4-1110	0.443	20.2	6.4	-1.19	0.884	63.7	0.451	1.554	105.2	420.9	0.853	2.254	-2.50	1.152	107.9	274.0	-30.9	0.367
4- 460	4-1110	0.303	342.3	-10.4	-1.19	0.649	77.1	0.457	0.996	163.6	839.3	0.541	1.451	-2.50	0.983	117.2	238.5	-25.2	0.457
4- 460	4-1120	0.510	18.2	4.8	-1.91	0.884	59.2	0.518	1.554	111.5	436.8	0.749	2.359	-3.07	1.151	114.3	273.6	-30.2	0.476
4- 460	4-1120	0.383	349.0	-8.2	-1.91	0.646	69.6	0.522	0.992	158.5	843.7	0.474	1.510	-3.07	0.980	121.5	246.5	-26.6	0.530
4- 460	4-1130	0.494	353.1	-6.9	-3.11	0.644	59.3	0.625	0.989	155.9	850.7	0.371	1.607	-4.10	0.978	128.7	253.0	-27.4	0.650
4- 460	4-1130	0.508	307.6	-21.7	-3.11	0.370	93.0	0.809	0.776	180.7	1235.5	0.149	1.404	-4.10	0.824	141.8	235.7	-22.4	0.802
4- 460	4-1180	0.578	233.1	-13.9	4.80	0.876	131.1	0.660	1.520	233.9	616.5	0.516	2.524	4.54	1.148	52.8	153.4	17.4	0.691
4- 460	4-1180	0.469	263.6	-18.6	4.80	0.607	123.0	0.679	0.946	200.4	943.0	0.304	1.589	4.54	0.958	47.4	169.6	9.4	0.701
4- 460	4-1190	0.452	228.8	-12.8	3.38	0.876	122.6	0.542	1.521	244.3	636.6	0.696	2.345	3.28	1.150	63.1	153.1	18.1	0.512
4- 460	4-1190	0.355	273.8	-18.6	3.38	0.604	110.4	0.576	0.943	196.9	949.2	0.400	1.486	3.28	0.958	55.0	175.6	6.8	0.576
4- 460	4-1200	0.374	226.2	-12.3	2.55	0.876	117.4	0.465	1.521	251.1	653.0	0.813	2.228	2.62	1.152	70.1	153.5	18.7	0.392
4- 460	4-1200	0.296	290.6	-17.5	2.55	0.598	100.2	0.522	0.936	189.6	951.6	0.447	1.425	2.62	0.957	58.8	183.4	3.1	0.513
4- 460	4-1210	0.325	224.5	-12.2	1.99	0.876	114.2	0.415	1.520	255.6	667.2	0.889	2.152	2.23	1.154	75.2	153.6	19.6	0.307
4- 460	4-1210	0.500	339.5	-6.8	1.99	0.540	61.8	0.704	0.882	166.0	937.6	0.261	1.502	2.23	0.925	45.9	198.8	-5.7	0.711
4- 460	4-1210	0.296	313.7	-13.7	1.99	0.586	89.1	0.518	0.924	179.1	950.8	0.445	1.403	2.23	0.952	59.1	192.7	-1.6	0.506
4- 460	4-1220	0.294	223.3	-12.5	1.56	0.876	112.1	0.383	1.520	258.6	680.0	0.938	2.102	1.99	1.156	79.2	152.5	21.2	0.246
4- 460	4-1230	0.275	222.4	-13.0	1.20	0.876	110.8	0.363	1.520	260.6	693.8	0.968	2.072	1.85	1.159	82.6	149.2	23.7	0.202
4- 460	4-1240	0.264	221.8	-13.6	0.88	0.876	110.1	0.352	1.521	261.8	702.9	0.986	2.056	1.77	1.161	85.6	148.1	27.1	0.175
4- 460	4-1250	0.260	221.3	-14.5	0.57	0.877	109.9	0.348	1.522	262.3	713.4	0.993	2.052	1.75	1.164	88.3	134.3	30.4	0.162
4- 460	4-1260	0.592	3.2	1.7	0.27	0.764	51.2	0.642	1.188	141.5	602.5	0.425	1.950	1.78	1.084	51.0	233.4	-16.9	0.688
4- 460	4-1260	0.261	220.9	-15.4	0.27	0.877	110.0	0.350	1.525	262.4	723.4	0.991	2.058	1.78	1.167	90.9	124.8	32.6	0.165
4- 470	4- 580	0.606	217.6	-18.5	-2.25	1.063	127.1	0.759	3.298	270.2	416.1	0.796	---	3.22	1.315	113.9	114.2	28.5	0.570
4- 470	4- 590	0.548	220.4	-21.8	-3.66	1.002	125.3	0.665	2.339	264.4	420.5	0.784	---	4.45	1.268	113.5	122.5	30.1	0.533
4- 470	4- 600	0.503	222.6	-28.3	-6.97	0.951	123.3	0.591	1.894	258.5	424.7	0.774	---	7.60	1.227	113.1	132.0	35.5	0.512
4- 470	4- 610	0.589	226.4	-56.5	-27.06	0.907	121.2	0.533	1.640	252.6	428.7	0.766	---	27.52	1.193	112.6	142.0	66.7	0.682
4- 470	4- 620	0.460	242.3	5.0	15.42	0.869	119.1	0.489	1.477	246.4	433.4	0.755	---	-15.11	1.163	112.3	129.0	-15.4	0.517
4- 470	4- 630	0.377	240.6	-8.3	6.35	0.836	116.9	0.452	1.364	240.4	437.4	0.747	---	-6.21	1.137	111.9	145.1	-2.4	0.430
4- 470	4- 640	0.337	243.9	-13.0	3.96	0.808	114.5	0.423	1.282	234.4	441.4	0.739	---	-3.98	1.114	111.5	154.6	0.5	0.402
4- 470	4- 650	0.304	248.5	-15.7	2.81	0.783	112.2	0.400	1.220	228.3	445.3	0.732	---	-3.00	1.094	111.1	163.1	1.5	0.383
4- 470	4- 660	0.276	254.1	-17.7	2.10	0.761	109.7	0.393	1.172	222.2	449.1	0.723	---	-2.47	1.076	110.8	171.1	3.5	0.369
4- 470	4- 670	0.252	260.8	-19.2	1.59	0.742	107.2	0.370	1.133	216.0	452.9	0.714	---	-2.15	1.060	110.6	178.9	6.0	0.359
4- 470	4- 680	0.231	268.7	-20.4	1.19	0.725	104.6	0.361	1.102	209.7	456.5	0.705	---	-1.96	1.045	110.5	186.7	8.8	0.352
4- 470	4- 690	0.216	278.1	-21.1	0.84	0.710	101.9	0.356	1.077	203.5	460.1	0.694	---	-1.85	1.032	110.5	194.5	11.8	0.348
4- 470	4- 700	0.206	288.8	-21.1	0.53	0.696	99.0	0.355	1.055	197.1	463.5	0.680	---	-1.81	1.021	110.6	202.4	14.7	0.348
4- 470	4- 710	0.202	300.5	-20.2	0.22	0.684	95.9	0.359	1.037	190.7	466.8	0.665	---	-1.81	1.010	111.0	210.4	17.5	0.352
4- 470	4- 720	0.207	312.8	-18.4	-0.10	0.674	92.5	0.369	1.022	184.3	470.0	0.645	---	-1.87	1.000	111.6	218.5	20.2	0.362
4- 470	4- 730	0.223	324.6	-15.8	-0.44	0.664	88.6	0.385	1.008	177.8	473.2	0.620	1.397	-2.00	0.992	112.7	226.8	22.6	0.380
4- 470	4- 740	0.251	335.3	-12.9	-0.85	0.655	84.1	0.411	0.997	171.5	476.5	0.587	1.407	-2.20	0.984	114.3	235.2	24.6	0.407
4- 470	4- 750	0.296	344.4	-10.0	-1.36	0.647	78.7	0.452	0.987	165.5	480.1	0.541	1.433	-2.53	0.978	116.8	243.6	26.2	0.451
4- 470	4- 760	0.363	351.6	-7.5	-2.08	0.641	71.6	0.514	0.979	160.4	484.5	0.476	1.481	-3.07	0.973	120.8	251.6	27.4	0.519
4- 470	4- 770	0.467	356.5	-5.8	-3.22	0.636	61.7	0.610	0.973	157.3	490.9	0.380	1.566	-4.06	0.969	127.5	258.5	28.0	0.630
4- 470	4- 820	0.483	278.5	-18.9	4.99	0.541	120.8	0.721	0.878	194.4	576.0	0.245	1.510	4.92	0.915	44.5	178.4	5.4	0.732
4- 470	4- 830	0.551	331.0	-9.8	3.40	0.404	65.8	0.815	0.788	174.0	565.2	0.146	1.430	3.49	0.844	37.2	193.4	-3.4	0.816
4- 470	4- 840	0.385	296.1	-17.2	3.40	0.522	103.7	0.647	0.862	187.8	579.0	0.305	1.420	3.49	0.907	50.7	186.0	1.6	0.632
4- 470	4- 950	0.599	16.1	5.7	-1.12	0.846	51.9	0.617	1.396	128.7	258.6	---	2.257	2.37	1.146	55.4	262.8	-19.8	0.649
4- 470	4- 960	0.566	18.0	5.4	-1.78	0.852	54.3	0.583	1.416	124.5	265.1	---	2.242	2.84	1.152	58.6	270.3	-18.8	0.599
4- 470	4- 950	0.536	19.9	4.6	-2.81	0.858	56.6	0.551	1.435	121.0	271.8	---	2.226	3.69	1.156	61.6	277.6	-16.4	0.553
4- 470	4- 960	0.510	22.3	2.1	-4.81	0.863	58.7	0.520	1.453	117.6	278.5	---	2.209	5.52	1.160	64.5	284.5	-11.4	0.512
4- 470	4- 970	0.504	26.0	-7.0	-11.06	0.867	60.6	0.493	1.469	114.4	285.4	---	2.192	11.61	1.163	67.2	291.0	3.6	0.504
4- 470	4- 990	0.450	15.5	24.4	9.20	0.878	64.0	0.442	1.496	108.2	299.9	---	2.157	-8.97	1.166	72.6	314.9	-43.4	0.408
4- 470	4-1000	0.416	20.2	19.1	4.95	0.877	65.4	0.421	1.507	105.5	307.2	---	2.141	-4.88	1.166	75.0	315.9	-33.6	0.346
4- 470	4-1010	0.395	22.4	17.0	3.33	0.879	66.7	0.402	1.516	102.9	314.7	---	2.126	-3.43	1.166	77.4	319.3	-29.4	0.304
4- 470	4-1020	0.377	23.9	15.9	2.44	0.881	67.8	0.386	1.524	100.6	322.4	---	2.112	-2.71	1.165	79.8	322.4	-27.1	0.267
4- 470	4-1030	0.363	25.1	15.2	1.84	0.883	68.7	0.373	1.531	98.7	330.4	---	2.101	-2.30	1.164	82.1	324.4	-26.2	0.235
4- 470	4-1040	0.352	26.0	14.5	1.39	0.884	69.4	0.362	1.536	97.3	338.6	---	2.092	-2.05	1.163	84.4	324.5	-26.3	0.207
4- 470	4-1050	0.344	26.7	14.0	1.02	0.885	69.9	0.354	1.540	95.7	347.2	---	2.085	-1.90	1.161	86.7	322.0	-27.6	0.185
4- 470	4-1060	0.340	27.3	13.4	0.69	0.886	70.2	0.350	1.543	94.9	356.2	---	2.083	-1.82	1.159	89.0	316.4	-29.7	0.171
4- 470	4-1060	0.311	263.9	-22.4	0.69	0.702	111.0	0.462	1.264	209.9	831.1	0.573	1.555	-1.82	1.026	117.3	194.3	-10.0	0.468
4- 470	4-1060	0.452	252.9	-22.1	0.69	0.734	123.2	0.586	1.118	216.0	837.3	0.463	1.773	-1.82	1.048	125.4	191.9	-7.9	0.609
4- 470	4-1070	0.339	27.7	12.7	0.38	0.886	70.3	0.349	1.545	94.5	365.6	1.006	2.085	-1.80	1.157	91.5	307.9	-31.8	0.168
4- 470	4-1070	0.239	282.6	-22.4	0.38	0.682	102.1	0.402	1.034	199.3	830.3	0.618	1.449	-1.80	1.009	113.7	203.8	-14.4	0.397
4- 470	4-1070	0.590	250.5	-22.4	0.38	0.761	133.7	0.705	1.173	215.0	846.0	0.346	1.999	-1.80	1.065	134.2	197.5	-9.4	0.764
4- 470	4-1080	0.343	27.9	11.9	0.07	0.886	70.0	0.354	1.547	95.0	375.7	1.000	2.094	-1.83	1.155	94.1	298.3	-33.0	0.179
4- 470	4-1080	0.217	299.6	-20.9	0.07	0.672	96.5	0.385	1.019	190.7	831.4	0.627	1.411	-1.83	1.000	112.7	212.7	-18.0	0.379
4- 470	4-1090	0.354	27.8	11.1	-0.25	0.887	69.3	0.365	1.548	96.1	386.5	0.983	2.112	-1.92	1.154	97.0	290.3	-33.0	0.206

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 470	4-1090	0.217	315.5	-18.1	-0.25	0.664	91.6	0.485	1.009	182.6	833.0	0.621	1.397	-1.92	0.993	112.6	221.7	-21.0	0.378
4- 470	4-1100	0.372	27.5	10.1	-0.62	0.887	68.1	0.384	1.548	98.2	398.2	0.953	2.143	-2.08	1.152	100.3	285.1	-32.3	0.249
4- 470	4-1100	0.235	329.4	-14.6	-0.62	0.659	86.7	0.398	1.002	175.0	835.0	0.603	1.400	-2.08	0.987	113.4	230.7	-23.5	0.393
4- 470	4-1110	0.403	26.7	9.0	-1.07	0.887	66.0	0.416	1.548	101.5	411.0	0.904	2.192	-2.34	1.151	104.4	282.4	-31.4	0.310
4- 470	4-1110	0.270	340.8	-11.1	-1.07	0.654	81.4	0.425	0.996	168.0	837.5	0.572	1.419	-2.34	0.983	115.1	239.6	-25.5	0.423
4- 470	4-1120	0.453	25.4	7.7	-1.67	0.887	62.8	0.466	1.548	106.5	425.5	0.827	2.269	-2.75	1.150	109.6	281.4	-30.6	0.396
4- 470	4-1120	0.325	349.5	-8.1	-1.67	0.650	75.0	0.472	0.991	161.8	840.9	0.523	1.459	-2.75	0.979	118.2	248.1	-27.0	0.475
4- 470	4-1130	0.532	23.0	6.0	-2.54	0.887	57.5	0.544	1.548	113.8	442.4	0.706	2.390	-3.46	1.150	116.7	281.0	-29.9	0.520
4- 470	4-1130	0.410	355.7	-5.9	-2.54	0.648	66.8	0.548	0.987	157.2	845.8	0.446	1.528	-3.46	0.977	123.2	255.9	-27.9	0.561
4- 470	4-1140	0.540	359.0	-4.8	-4.08	0.646	55.0	0.668	0.985	155.8	853.9	0.327	1.642	-4.84	0.976	131.9	261.8	-28.2	0.704
4- 470	4-1140	0.528	320.5	-18.7	-4.08	0.363	82.8	0.819	0.769	178.4	1236.5	0.139	1.399	-4.84	0.817	142.7	245.1	-24.5	0.815
4- 470	4-1180	0.586	266.7	-19.0	6.51	0.611	133.5	0.771	0.945	199.7	936.2	0.216	1.673	6.36	0.957	39.7	173.0	8.2	0.822
4- 470	4-1190	0.530	237.1	-14.9	4.10	0.879	127.3	0.609	1.515	238.7	624.8	0.593	2.438	4.10	1.149	57.3	159.1	15.8	0.612
4- 470	4-1190	0.425	272.3	-18.8	4.10	0.609	117.8	0.632	0.942	199.8	945.9	0.347	1.538	4.10	0.958	51.0	177.4	6.3	0.642
4- 470	4-1200	0.425	233.6	-14.3	2.92	0.879	120.2	0.507	1.516	247.6	643.3	0.747	2.285	3.09	1.151	66.2	159.1	16.4	0.458
4- 470	4-1200	0.331	284.6	-18.1	2.92	0.605	106.4	0.548	0.938	194.7	950.4	0.424	1.452	3.09	0.958	57.0	184.1	3.2	0.543
4- 470	4-1210	0.359	231.3	-14.2	2.19	0.879	115.9	0.442	1.516	253.4	658.8	0.846	2.185	2.53	1.153	72.3	159.5	17.1	0.354
4- 470	4-1210	0.586	346.2	-4.4	2.19	0.525	52.4	0.781	0.865	166.2	931.7	0.189	1.540	2.53	0.912	39.3	201.9	-7.2	0.807
4- 470	4-1210	0.289	303.3	-15.8	2.19	0.598	96.5	0.511	0.930	186.3	951.7	0.455	1.405	2.53	0.956	59.6	192.5	-0.8	0.499
4- 470	4-1220	0.318	229.8	-14.4	1.67	0.879	113.1	0.399	1.515	257.3	672.5	0.910	2.121	2.20	1.155	76.9	159.3	18.3	0.279
4- 470	4-1220	0.428	341.8	-5.7	1.67	0.557	69.4	0.637	0.891	167.0	942.2	0.324	1.459	2.20	0.934	51.0	205.9	-8.0	0.633
4- 470	4-1220	0.327	329.6	-9.6	1.67	0.580	82.4	0.542	0.912	173.5	948.7	0.417	1.407	2.20	0.948	57.6	202.9	-6.0	0.531
4- 470	4-1250	0.292	228.8	-14.9	1.25	0.879	111.4	0.373	1.515	259.9	684.9	0.951	2.080	1.99	1.158	80.7	157.5	20.3	0.225
4- 470	4-1240	0.276	228.1	-15.5	0.90	0.879	110.4	0.356	1.516	261.5	696.5	0.975	2.056	1.81	1.160	83.9	153.3	23.4	0.188
4- 470	4-1250	0.268	227.5	-16.3	0.58	0.879	109.9	0.348	1.517	262.4	707.3	0.988	2.045	1.81	1.163	86.7	146.1	27.1	0.167
4- 470	4-1260	0.266	227.1	-17.2	0.26	0.880	109.8	0.347	1.518	262.8	717.6	0.992	2.045	1.81	1.165	89.4	136.9	30.3	0.161
4- 470	4-1270	0.570	9.1	4.0	-0.07	0.769	52.7	0.621	1.189	140.2	605.0	0.450	1.928	1.87	1.087	52.6	242.6	-10.6	0.664
4- 470	4-1270	0.270	226.7	-18.2	-0.07	0.880	110.0	0.351	1.521	262.6	727.5	0.987	2.055	1.87	1.168	92.0	128.3	32.2	0.169
4- 480	4- 590	0.632	224.3	-21.4	-2.95	1.070	128.0	0.772	3.402	269.1	419.0	0.776	---	3.66	1.319	115.3	123.4	27.4	0.595
4- 480	4- 600	0.572	227.0	-25.2	-4.85	1.007	126.1	0.676	2.358	263.3	423.4	0.765	---	5.39	1.269	114.9	132.0	29.5	0.557
4- 480	4- 610	0.534	229.2	-34.7	-10.40	0.954	124.0	0.600	1.891	257.5	427.6	0.756	---	10.77	1.226	114.3	142.5	38.5	0.547
4- 480	4- 630	0.443	244.7	-4.5	9.95	0.869	119.6	0.496	1.444	245.5	436.2	0.738	---	-9.91	1.159	113.3	142.3	-8.6	0.485
4- 480	4- 640	0.387	246.2	-12.3	5.07	0.835	117.2	0.459	1.351	239.5	440.2	0.731	---	-5.19	1.132	112.7	154.2	-2.7	0.436
4- 480	4- 650	0.348	250.0	-15.7	3.30	0.806	114.8	0.429	1.269	233.4	444.2	0.724	---	-3.59	1.108	112.3	163.2	-2.6	0.410
4- 480	4- 660	0.315	254.8	-17.8	2.35	0.781	112.4	0.406	1.207	227.3	448.1	0.717	---	-2.82	1.088	111.8	171.3	-4.2	0.392
4- 480	4- 670	0.286	260.5	-19.4	1.72	0.759	109.9	0.388	1.159	221.2	451.9	0.709	---	-2.38	1.069	111.5	179.3	-6.5	0.377
4- 480	4- 680	0.261	267.2	-20.6	1.25	0.739	107.3	0.375	1.121	215.0	455.6	0.701	---	-2.11	1.053	111.2	187.1	-9.2	0.366
4- 480	4- 690	0.240	275.2	-21.4	0.87	0.722	104.6	0.366	1.091	208.8	459.2	0.691	---	-1.95	1.038	111.0	194.9	-12.1	0.358
4- 480	4- 700	0.223	284.5	-21.6	0.53	0.707	101.7	0.361	1.065	202.5	462.6	0.680	---	-1.86	1.025	111.0	202.8	-14.9	0.354
4- 480	4- 710	0.212	295.2	-21.2	0.22	0.693	98.7	0.361	1.044	196.1	465.9	0.667	---	-1.84	1.013	111.1	210.8	-17.7	0.354
4- 480	4- 720	0.209	307.0	-19.9	-0.09	0.681	95.5	0.366	1.027	189.6	469.2	0.651	---	-1.86	1.003	111.4	219.0	-20.4	0.359
4- 480	4- 730	0.214	319.3	-17.6	-0.42	0.670	91.9	0.376	1.011	183.1	472.3	0.631	---	-1.94	0.993	112.1	227.4	-22.7	0.370
4- 480	4- 740	0.230	331.1	-14.6	-0.79	0.661	87.8	0.394	0.998	176.6	475.3	0.605	1.392	-2.10	0.985	113.2	235.9	-24.7	0.390
4- 480	4- 750	0.261	341.9	-11.2	-1.24	0.652	83.0	0.424	0.987	170.2	478.5	0.569	1.405	-2.34	0.978	115.0	244.5	-26.4	0.421
4- 480	4- 760	0.311	351.0	-8.0	-1.81	0.644	77.0	0.469	0.978	164.3	482.2	0.519	1.436	-2.74	0.972	117.9	253.0	-27.6	0.470
4- 480	4- 770	0.387	358.0	-5.4	-2.65	0.638	69.1	0.540	0.970	159.5	486.9	0.446	1.494	-3.41	0.968	122.6	260.9	-28.2	0.549
4- 480	4- 780	0.508	2.4	-3.7	-4.09	0.633	57.8	0.651	0.968	157.3	494.1	0.337	1.592	-4.68	0.965	130.5	267.3	-28.5	0.680
4- 480	4- 820	0.599	279.9	-19.1	6.93	0.543	133.1	0.808	0.875	194.7	570.0	0.168	1.581	6.96	0.913	36.7	181.4	4.2	0.851
4- 480	4- 830	0.442	289.9	-18.1	4.17	0.533	114.1	0.686	0.867	192.4	577.3	0.272	1.462	4.36	0.910	47.5	186.8	1.7	0.683
4- 480	4- 840	0.478	332.0	-9.0	2.88	0.440	76.0	0.750	0.803	175.2	569.8	0.201	1.405	3.24	0.861	43.2	200.0	-5.6	0.735
4- 480	4- 840	0.387	314.2	-13.8	2.88	0.500	94.6	0.655	0.841	182.4	577.0	0.290	1.393	3.24	0.893	50.4	196.1	-3.1	0.635
4- 480	4- 940	0.579	22.4	7.6	-1.58	0.850	53.0	0.602	1.398	126.6	261.0	---	2.239	2.57	1.148	56.7	272.4	-19.5	0.630
4- 480	4- 950	0.547	24.2	7.1	-2.36	0.856	55.4	0.568	1.418	123.0	267.6	---	2.223	3.17	1.153	59.8	279.7	-17.7	0.581
4- 480	4- 960	0.518	26.3	5.6	-3.67	0.861	57.6	0.537	1.436	119.6	274.3	---	2.207	4.30	1.157	62.8	286.8	-14.2	0.536
4- 480	4- 970	0.496	29.0	1.5	-6.58	0.866	59.6	0.507	1.453	116.2	281.0	---	2.190	7.09	1.160	65.6	293.1	-6.6	0.502
4- 480	4- 990	0.545	33.0	-17.6	-20.36	0.870	61.4	0.480	1.468	113.0	287.8	---	2.174	20.65	1.162	68.3	300.3	21.5	0.580
4- 480	4- 990	0.517	9.4	37.3	19.40	0.874	63.3	0.453	1.482	109.8	295.3	---	2.154	-19.27	1.163	71.1	337.7	-56.6	0.531
4- 480	4-1000	0.425	23.6	24.0	6.87	0.877	64.8	0.431	1.494	106.9	302.4	---	2.138	-6.90	1.164	73.5	321.8	-36.8	0.380
4- 480	4-1010	0.398	26.9	20.2	4.07	0.879	66.1	0.411	1.504	104.2	308.7	---	2.123	-4.27	1.164	75.9	324.1	-29.9	0.329
4- 480	4-1020	0.379	28.8	18.5	2.79	0.882	67.3	0.393	1.513	101.7	317.2	---	2.108	-3.16	1.163	78.3	327.4	-26.5	0.290
4- 480	4-1030	0.362	30.2	17.5	2.02	0.884	68.3	0.378	1.521	99.5	325.0	---	2.095	-2.55	1.162	80.6	330.1	-24.6	0.255
4- 480	4-1040	0.349	31.2	16.7	1.49	0.885	69.2	0.365	1.527	97.6	333.0	---	2.085	-2.23	1.161	82.9	331.4	-24.0	0.224
4- 480	4-1050	0.339	32.1	16.1	1.06	0.886	69.8	0.355	1.532	96.1	341.3	---	2.076	-2.02	1.160	85.1	330.8	-24.6	0.198
4- 480	4-1060	0.332	32.8	15.4	0.71	0.887	70.3	0.349	1.536	94.9	349.9	---	2.071	-1.90	1.158	87.4	327.5	-26.3	0.179
4- 480	4-1070	0.329	33.3	14.8	0.38	0.888	70.5	0.346	1.538	94.3	359.0	---	2.070	-1.85	1.156	89.8	321.1	-28.7	0.168
4- 480	4-1070	0.285	275.5	-23.0	0.38	0.695	107.6	0.435	1.047	206.4	831.1	0.592	1.502	-1.85	1.015	115.7	203.5	-14.0	0.433
4- 480	4-1070	0.515	257.7	-23.1	0.38	0.746	127.5	0.634	1.135	216.2	840.9	0.415	1.855	-1.85	1.051	128.9	199.6	-18.7	0.569
4- 480	4-1080	0.330	33.6	14.0	0.07	0.888	70.5	0.347	1.540	94.2	368.7	1.006	2.074	-1.84	1.154	92.2	312.2	-31.0	0.169
4- 480	4-1080	0.235	292.5	-22.1	0.07	0.680	100.4	0.395	1.025	186.8	831.3	0.620	1.430	-1.84	1.003	113.3	212.8	-17.9	0.390
4- 480	4-1090	0.336	33.8	13.2	-0.25	0.889	70.1	0.353	1.542	94.8	378.9	0.997	2.086	-1.89	1.153	94.9	303.0	-32.1	0.185
4- 480	4-1090	0.218	308.8	-19.9	-0.25	0.671	95.2	0.383	1.012	188.4	832.5	0.624	1.400	-1.89	0.994	112.5	222.0	-21.0	0.377
4- 480	4-1100	0.349	33.6	12.3	-0.59	0.889	69.2	0.346	1.542	96.2	389.9	0.977	2.107	-2.01	1.151	97.9	295.9	-32.1	0.217
4- 480	4-1100	0.221	324.1	-16.5	-0.59	0.664	90.3	0.387	1.003	180.5	834.2	0.615	1.391	-2.01	0.988	112.7	231.1	-23.6	0.381
4- 480	4-1110	0.371	33.1	11.3	-0.99	0.889	67.8	0.389	1.542	98.7	402.0	0.942	2.145	-2.20	1.150	101.4	291.6	-31.5	0.265
4- 480	4-1110	0.242	337.4	-12.6	-0.99	0.659	85.3	0.405	0.996	173.0	836.2	0.594	1.398	-2.20	0.983	113.8	240.3	-25.7	0.400
4- 480	4-1120	0.407	32.2	10.2	-1.49	0.889	65.4	0.426	1.542	102.5	415.3	0.885	2.200	-2.51	1.149	105.8	289.5	-30.6	0.334
4- 480	4-1120	0.282	348.3	-8.9	-1.49	0.655	79.7	0.436	0.990	166.0	838.9	0.558	1.422	-2.51	0.979	115.0	249.3	-27.2	0.436
4- 480	4-1130	0.465	30.5	8.8	-2.17	0.889	61.5	0.484	1.542	108.2	430.5	0.796	2.289	-3.01	1.149	111.5	288.7	-29.9	0.430
4- 480	4-1130	0.344	356.6	-5.8	-2.17	0.651	72.9	0.491	0.986	160.2	842.5	0.502	1.470	-3.01	0.976	119.4	257.9	-28.1	0.497
4- 480	4-1140	0.559	27.6	7.1	-3.22	0.889	55.3	0.575	1.543	116.6	448.5	0.655	2.430	-3.90	1.148	119.5	288.1	-29.3	0.571

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 480	4-1140	0.441	2.2	-3.7	-3.22	0.649	63.6	0.580	0.983	156.3	848.2	0.413	1.552	-3.90	0.974	125.4	265.3	-28.6	0.599
4- 480	4-1140	0.513	310.4	-21.2	-3.22	0.387	103.7	0.805	0.776	183.4	1235.3	0.151	1.401	-3.90	0.824	141.4	246.2	-24.2	0.799
4- 480	4-1150	0.593	4.6	-2.8	-5.25	0.647	50.0	0.718	0.981	156.5	857.8	0.277	1.685	-5.76	0.974	135.8	270.3	-28.5	0.770
4- 480	4-1150	0.561	331.6	-15.4	-5.25	0.358	72.9	0.839	0.763	176.6	1237.9	0.123	1.404	-5.76	0.811	144.8	254.6	-25.9	0.845
4- 480	4-1190	0.524	273.9	-19.0	5.30	0.613	127.0	0.713	0.941	200.6	9[illegible].5	0.270	1.612	5.41	0.957	44.7	180.0	5.3	0.743
4- 480	4-1200	0.492	241.7	-16.2	3.46	0.881	124.1	0.565	1.511	242.6	632.1	0.658	2.364	3.73	1.150	61.1	164.9	13.9	0.546
4- 480	4-1200	0.389	281.7	-18.5	3.46	0.610	113.3	0.594	0.938	198.4	948.0	0.381	1.495	3.73	0.958	53.8	185.4	2.9	0.596
4- 480	4-1210	0.403	238.6	-15.9	2.47	0.881	118.2	0.478	1.511	250.2	649.4	0.789	2.233	2.91	1.152	68.7	165.2	14.5	0.413
4- 480	4-1210	0.313	296.0	-17.1	2.47	0.605	102.7	0.527	0.932	191.9	951.2	0.441	1.424	2.91	0.957	58.5	192.9	-0.6	0.519
4- 480	4-1220	0.348	236.7	-16.1	1.81	0.881	114.6	0.422	1.511	255.3	664.3	0.873	2.149	2.44	1.154	74.2	165.5	15.4	0.321
4- 480	4-1220	0.539	350.9	-2.4	1.81	0.536	57.2	0.740	0.869	165.8	934.7	0.226	1.512	2.44	0.919	42.9	209.7	-10.0	0.756
4- 480	4-1220	0.290	316.5	-13.1	1.81	0.595	92.4	0.508	0.923	182.4	951.3	0.454	1.392	2.44	0.954	59.8	201.8	-4.8	0.496
4- 480	4-1230	0.313	235.4	-16.6	1.33	0.881	112.3	0.387	1.510	258.6	677.4	0.927	2.094	2.15	1.157	78.5	164.8	16.8	0.255
4- 480	4-1240	0.231	234.5	-17.2	0.93	0.881	110.9	0.364	1.511	260.9	689.5	0.960	2.061	1.97	1.159	82.0	162.3	19.3	0.208
4- 480	4-1250	0.279	233.9	-18.0	0.59	0.881	110.1	0.351	1.511	262.2	700.8	0.980	2.042	1.87	1.162	85.0	157.1	22.8	0.177
4- 480	4-1260	0.274	233.4	-18.8	0.26	0.881	109.7	0.346	1.512	262.9	711.5	0.989	2.035	1.84	1.164	87.8	149.2	26.7	0.162
4- 480	4-1270	0.597	13.6	5.9	-0.06	0.767	50.3	0.656	1.176	142.1	600.7	0.407	1.946	1.86	1.082	50.0	244.7	-19.2	0.707
4- 480	4-1270	0.274	233.1	-19.8	-0.06	0.882	109.8	0.347	1.514	263.0	721.7	0.989	2.039	1.86	1.167	90.4	140.1	29.8	0.161
4- 480	4-1280	0.546	15.1	6.1	-0.41	0.774	54.2	0.601	1.191	138.9	607.6	0.476	1.907	1.94	1.089	54.2	251.9	-19.7	0.640
4- 480	4-1280	0.280	232.8	-20.8	-0.41	0.883	110.1	0.353	1.517	262.7	731.5	0.982	2.053	1.94	1.169	93.0	132.5	31.3	0.175
4- 490	4- 610	0.597	234.0	-29.8	-6.41	1.011	126.9	0.686	2.577	262.2	426.1	0.746	---	6.69	1.269	116.2	141.5	29.0	0.581
4- 490	4- 620	0.589	237.2	-44.8	-17.52	0.956	124.7	0.609	1.890	256.4	430.3	0.738	---	17.63	1.225	115.5	153.6	46.4	0.618
4- 490	4- 630	0.586	254.4	8.1	23.27	0.909	122.5	0.551	1.621	250.3	435.0	0.727	---	-23.32	1.187	115.0	129.5	-24.2	0.650
4- 490	4- 640	0.648	249.5	-10.4	7.19	0.869	120.1	0.503	1.453	244.4	438.9	0.722	---	-7.41	1.155	114.2	153.0	-6.4	0.482
4- 490	4- 650	0.399	252.3	-15.3	4.08	0.834	117.7	0.465	1.339	238.4	442.9	0.715	---	-4.46	1.127	113.6	163.1	-4.1	0.444
4- 490	4- 660	0.360	256.4	-17.9	2.71	0.804	115.2	0.436	1.256	232.4	446.9	0.709	---	-3.27	1.102	113.0	171.6	-5.0	0.419
4- 490	4- 670	0.326	261.3	-18.5	1.90	0.778	112.6	0.412	1.195	226.3	450.7	0.702	---	-2.64	1.081	112.5	179.7	-7.1	0.400
4- 490	4- 680	0.296	267.1	-20.7	1.34	0.756	110.0	0.394	1.147	220.2	454.5	0.695	---	-2.28	1.062	112.1	187.5	-9.6	0.385
4- 490	4- 690	0.270	273.6	-21.6	0.91	0.736	107.3	0.381	1.110	214.0	458.1	0.687	---	-2.06	1.046	111.7	195.3	-12.3	0.373
4- 490	4- 700	0.248	281.8	-22.0	0.55	0.719	104.5	0.372	1.079	207.8	461.6	0.678	---	-1.93	1.031	111.5	203.2	-15.1	0.365
4- 490	4- 710	0.231	291.0	-21.9	0.22	0.703	101.5	0.367	1.055	201.4	465.0	0.667	---	-1.86	1.018	111.4	211.3	-17.9	0.361
4- 490	4- 720	0.219	301.7	-21.0	-0.09	0.690	98.4	0.367	1.034	195.0	468.3	0.654	---	-1.85	1.005	111.5	219.5	-20.5	0.362
4- 490	4- 730	0.215	313.5	-19.2	-0.41	0.677	95.0	0.373	1.016	188.5	471.4	0.637	---	-1.90	0.996	111.9	227.9	-22.8	0.367
4- 490	4- 740	0.221	325.8	-16.5	-0.75	0.666	91.2	0.385	1.001	181.9	474.4	0.616	---	-2.00	0.987	112.6	236.5	-24.8	0.380
4- 490	4- 750	0.238	337.7	-13.2	-1.14	0.657	86.9	0.405	0.989	175.4	477.4	0.588	1.389	-2.18	0.979	113.9	245.2	-26.4	0.402
4- 490	4- 760	0.272	348.5	-9.3	-1.63	0.648	81.6	0.438	0.978	169.0	480.5	0.549	1.406	-2.47	0.972	115.9	254.0	-27.6	0.437
4- 490	4- 770	0.328	357.5	-5.8	-2.28	0.641	75.1	0.490	0.969	163.2	484.3	0.494	1.443	-2.95	0.967	119.2	262.5	-28.3	0.494
4- 490	4- 780	0.415	4.3	-3.1	-3.27	0.634	66.2	0.571	0.961	158.9	489.5	0.412	1.511	-3.77	0.963	124.7	270.1	-28.5	0.586
4- 490	4- 790	0.556	8.0	-1.5	-5.11	0.631	53.1	0.699	0.957	157.8	497.9	0.288	1.626	-5.44	0.961	134.2	275.9	-28.4	0.741
4- 490	4- 830	0.538	288.8	-18.3	5.50	0.537	125.4	0.758	0.866	194.4	573.1	0.209	1.523	5.78	0.909	41.4	189.0	1.0	0.778
4- 490	4- 840	0.579	341.1	-6.0	3.45	0.384	63.1	0.842	0.772	174.4	562.7	0.122	1.422	3.90	0.831	34.5	204.1	-7.7	0.850
4- 490	4- 840	0.413	303.2	-16.2	3.45	0.521	107.2	0.666	0.853	189.2	577.5	0.285	1.422	3.90	0.903	49.3	195.9	-2.4	0.653
4- 490	4- 940	0.592	26.8	9.6	-1.44	0.347	51.6	0.622	1.378	128.9	256.9	---	2.235	2.35	1.143	54.8	274.4	-20.1	0.660
4- 490	4- 950	0.558	28.7	9.3	-2.06	0.853	54.1	0.587	1.399	125.2	263.4	---	2.220	2.78	1.149	58.0	281.9	-18.5	0.611
4- 490	4- 960	0.527	30.7	8.4	-3.00	0.859	56.4	0.554	1.419	121.6	270.0	---	2.204	3.53	1.153	61.0	289.0	-15.9	0.563
4- 490	4- 970	0.500	32.9	6.2	-4.71	0.864	58.5	0.523	1.437	118.2	276.7	---	2.188	5.07	1.156	63.9	295.5	-11.1	0.521
4- 490	4- 980	0.486	35.9	-0.8	-9.27	0.869	60.5	0.494	1.453	114.8	283.5	---	2.171	9.47	1.159	66.7	301.1	0.6	0.498
4- 490	4-1000	0.449	24.3	32.3	11.42	0.876	64.0	0.442	1.481	108.5	297.8	---	2.136	-11.56	1.161	72.0	332.0	-44.3	0.437
4- 490	4-1010	0.404	31.1	24.2	5.32	0.879	65.5	0.420	1.492	105.7	304.9	---	2.120	-5.62	1.162	74.5	329.1	-31.5	0.358
4- 490	4-1020	0.380	33.6	21.4	3.32	0.882	66.8	0.401	1.502	103.0	312.3	---	2.105	-3.79	1.161	76.8	331.9	-26.3	0.314
4- 490	4-1030	0.362	35.3	19.9	2.28	0.884	67.9	0.384	1.511	100.6	319.8	---	2.091	-2.93	1.161	79.2	335.0	-23.5	0.276
4- 490	4-1040	0.347	36.5	18.9	1.62	0.885	68.8	0.370	1.518	98.5	327.6	---	2.079	-2.45	1.159	81.4	337.2	-22.0	0.243
4- 490	4-1050	0.335	37.5	18.1	1.13	0.887	69.6	0.358	1.523	96.7	335.7	---	2.069	-2.16	1.158	83.7	337.9	-21.8	0.214
4- 490	4-1060	0.326	38.3	17.4	0.73	0.888	70.2	0.349	1.528	95.3	344.0	---	2.062	-1.99	1.156	85.9	336.5	-22.9	0.190
4- 490	4-1070	0.320	39.0	16.7	0.39	0.889	70.6	0.344	1.531	94.3	352.8	---	2.058	-1.89	1.155	88.2	332.3	-25.0	0.173
4- 490	4-1080	0.318	39.4	16.0	0.07	0.889	70.7	0.342	1.534	93.8	362.0	1.009	2.059	-1.85	1.153	90.5	325.1	-27.6	0.166
4- 490	4-1080	0.273	285.8	-23.0	0.07	0.690	105.3	0.420	1.035	203.6	831.7	0.600	1.470	-1.85	1.008	114.8	212.7	-17.5	0.417
4- 490	4-1080	0.564	263.7	-23.8	0.07	0.755	130.5	0.669	1.146	215.7	843.9	0.379	1.914	-1.85	1.053	131.5	207.7	-13.6	0.715
4- 490	4-1090	0.321	39.7	15.2	-0.24	0.890	70.6	0.345	1.536	94.0	371.8	1.006	2.065	-1.87	1.152	93.0	316.1	-29.9	0.172
4- 490	4-1090	0.233	301.8	-21.4	-0.24	0.678	99.0	0.391	1.017	194.5	832.3	0.619	1.415	-1.87	0.997	113.0	222.1	-20.9	0.386
4- 490	4-1100	0.329	39.7	14.3	-0.57	0.890	70.1	0.353	1.537	94.9	382.3	0.994	2.080	-1.94	1.150	95.8	307.6	-30.9	0.193
4- 490	4-1100	0.220	317.5	-18.5	-0.57	0.669	93.9	0.384	1.006	186.2	833.7	0.620	1.391	-1.94	0.989	112.6	231.5	-23.6	0.378
4- 490	4-1110	0.345	39.4	13.4	-0.93	0.890	69.0	0.369	1.537	96.6	393.6	0.969	2.105	-2.08	1.149	98.9	301.5	-30.8	0.230
4- 490	4-1110	0.226	332.3	-14.6	-0.93	0.663	89.0	0.390	0.997	178.4	835.4	0.608	1.387	-2.08	0.984	113.0	240.9	-25.7	0.386
4- 490	4-1120	0.371	38.2	12.4	-1.36	0.890	67.3	0.396	1.537	99.5	406.0	0.928	2.147	-2.30	1.148	102.6	298.0	-30.2	0.284
4- 490	4-1120	0.251	345.2	-10.4	-1.36	0.658	83.8	0.411	0.991	171.0	837.5	0.583	1.398	-2.30	0.979	114.3	250.2	-27.3	0.410
4- 490	4-1130	0.414	37.6	11.3	-1.91	0.890	64.5	0.439	1.537	103.9	419.9	0.862	2.212	-2.67	1.148	107.3	296.4	-29.5	0.361
4- 490	4-1130	0.295	355.6	-6.5	-1.91	0.654	77.8	0.450	0.986	164.2	840.3	0.542	1.429	-2.67	0.976	116.7	259.3	-28.2	0.452
4- 490	4-1140	0.482	35.6	9.9	-2.69	0.890	60.0	0.507	1.537	110.3	435.9	0.758	2.317	-3.28	1.147	113.6	295.8	-28.8	0.489
4- 490	4-1140	0.366	3.5	-3.4	-2.69	0.651	70.3	0.514	0.981	158.7	844.3	0.477	1.486	-3.28	0.974	120.5	267.6	-28.6	0.525
4- 490	4-1150	0.594	32.0	8.2	-3.98	0.890	52.5	0.613	1.538	120.1	455.3	0.595	2.481	-4.40	1.148	122.9	294.9	-28.3	0.632
4- 490	4-1150	0.478	8.5	-1.3	-3.98	0.649	59.9	0.618	0.979	155.8	850.9	0.374	1.583	-4.40	0.973	128.1	274.5	-28.6	0.645
4- 490	4-1150	0.514	324.2	-17.7	-3.98	0.374	93.1	0.807	0.768	180.8	1235.9	0.149	1.387	-4.40	0.816	141.3	256.0	-25.6	0.798
4- 490	4-1200	0.585	250.9	-17.7	4.32	0.882	129.8	0.643	1.505	235.6	618.9	0.538	2.473	4.69	1.149	54.3	171.1	11.0	9,664
4- 490	4-1200	0.473	281.9	-18.7	4.32	0.613	121.5	0.663	0.937	200.5	943.7	0.316	1.559	4.69	0.958	48.7	187.5	2.2	0.679
4- 490	4-1210	0.462	246.6	-17.5	2.87	0.882	121.6	0.528	1.506	245.8	638.8	0.711	2.301	3.40	1.151	64.2	170.9	11.8	0.490
4- 490	4-1210	0.360	291.8	-17.8	2.87	0.609	109.2	0.564	0.933	196.4	949.4	0.407	1.460	3.40	0.958	55.9	193.8	-0.7	0.561
4- 490	4-1220	0.388	244.0	-17.6	2.02	0.882	116.6	0.454	1.506	252.4	655.1	0.823	2.189	2.73	1.153	71.0	171.3	12.4	0.375
4- 490	4-1220	0.301	307.9	-15.2	2.02	0.603	99.0	0.515	0.927	188.7	951.4	0.450	1.403	2.73	0.957	59.4	201.9	-4.4	0.504
4- 490	4-1230	0.341	242.4	-18.1	1.43	0.882	113.6	0.406	1.506	256.7	669.3	0.894	2.117	2.33	1.156	76.3	171.4	13.4	0.294

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 490	4-1230	0.480	354.5	-0.8	1.43	0.548	63.1	0.689	0.876	165.9	938.4	0.272	1.479	2.33	0.926	47.1	217.4	-12.4	0.698
4- 490	4-1230	0.301	330.8	-9.3	1.43	0.590	87.5	0.518	0.914	177.7	950.2	0.440	1.387	2.33	0.952	59.2	211.7	-8.8	0.506
4- 490	4-1240	0.311	241.3	-18.7	0.98	0.882	111.6	0.376	1.505	259.7	682.1	0.940	2.071	2.09	1.158	79.9	170.3	15.3	0.235
4- 490	4-1250	0.293	240.5	-19.4	0.60	0.882	110.5	0.347	1.506	261.5	693.9	0.968	2.044	1.94	1.161	83.2	167.0	18.2	0.194
4- 490	4-1260	0.284	240.0	-20.3	0.26	0.883	109.8	0.347	1.506	262.6	705.0	0.983	2.030	1.87	1.163	86.1	160.9	22.1	0.169
4- 490	4-1270	0.280	239.6	-21.2	-0.06	0.883	109.6	0.344	1.508	263.1	715.5	0.989	2.027	1.85	1.166	88.8	152.5	26.0	0.159
4- 490	4-1280	0.571	19.6	8.0	-0.40	0.771	51.8	0.633	1.179	140.8	603.3	0.432	1.925	1.89	1.085	51.7	254.1	-20.3	0.682
4- 490	4-1280	0.283	239.3	-22.1	-0.40	0.884	109.8	0.347	1.510	263.1	725.5	0.986	2.034	1.89	1.168	91.4	143.9	28.8	0.164
4- 490	4-1290	0.521	21.1	8.1	-0.76	0.778	55.7	0.580	1.193	137.7	610.2	0.502	1.885	2.00	1.091	55.8	261.4	-20.3	0.615
4- 490	4-1290	0.290	239.2	-23.1	-0.76	0.884	110.2	0.355	1.514	262.6	735.2	0.977	2.051	2.00	1.170	94.0	137.5	30.0	0.181
4- 500	4- 700	0.279	280.4	-22.2	0.57	0.732	107.4	0.387	1.099	213.0	460.6	0.673	---	-1.99	1.039	112.6	203.8	-15.3	0.381
4- 500	4- 710	0.256	288.3	-22.3	0.23	0.714	104.4	0.378	1.069	206.7	464.0	0.665	---	-1.89	1.024	112.0	211.8	-18.0	0.373
4- 500	4- 720	0.238	297.6	-21.8	-0.09	0.699	101.3	0.374	1.044	200.4	467.3	0.654	---	-1.84	1.011	111.9	220.0	-20.5	0.369
4- 500	4- 730	0.226	308.2	-20.5	-0.40	0.685	98.1	0.375	1.024	193.9	470.5	0.640	---	-1.85	0.999	112.0	228.4	-22.8	0.370
4- 500	4- 740	0.222	320.0	-18.3	-0.72	0.673	94.5	0.381	1.007	187.3	473.5	0.623	---	-1.92	0.989	112.4	237.1	-24.8	0.377
4- 500	4- 750	0.227	332.3	-15.0	-1.08	0.662	90.4	0.395	0.992	180.7	476.4	0.601	---	-2.04	0.980	113.2	245.9	-26.4	0.391
4- 500	4- 760	0.247	344.3	-11.1	-1.49	0.652	85.8	0.418	0.979	174.1	479.3	0.580	1.389	-2.25	0.973	114.6	254.8	-27.5	0.415
4- 500	4- 770	0.285	355.2	-7.1	-2.02	0.643	80.1	0.455	0.969	167.7	482.5	0.558	1.410	-2.59	0.967	116.9	263.6	-28.2	0.456
4- 500	4-1030	0.363	40.4	22.4	2.66	0.883	67.4	0.391	1.500	102.0	314.9	---	2.086	-3.39	1.159	77.7	339.3	-22.7	0.299
4- 500	4-1040	0.346	41.9	21.0	1.80	0.885	68.4	0.375	1.508	99.7	322.5	---	2.075	-2.71	1.158	80.0	342.1	-20.4	0.263
4- 500	4-1050	0.332	43.0	20.1	1.22	0.886	69.3	0.362	1.515	97.7	330.3	---	2.063	-2.32	1.156	82.2	343.8	-19.4	0.231
4- 500	4-1060	0.321	44.0	19.3	0.77	0.888	70.1	0.351	1.520	96.0	338.4	---	2.054	-2.08	1.155	84.4	343.8	-19.7	0.204
4- 500	4-1070	0.313	44.7	18.5	0.40	0.889	70.6	0.344	1.524	94.7	346.9	---	2.048	-1.93	1.153	86.7	341.6	-21.1	0.182
4- 500	4-1080	0.309	45.2	17.7	0.07	0.889	70.9	0.340	1.527	93.9	355.8	---	2.046	-1.86	1.152	88.9	336.4	-23.6	0.168
4- 500	4-1090	0.308	45.6	17.0	-0.24	0.890	70.9	0.339	1.530	93.6	365.1	1.011	2.048	-1.84	1.150	91.3	328.6	-26.4	0.166
4- 500	4-1090	0.266	295.3	-22.5	-0.24	0.686	103.5	0.412	1.026	201.1	832.6	0.603	1.448	-1.84	1.001	114.3	222.1	-20.5	0.408
4- 500	4-1100	0.313	45.8	16.1	-0.55	0.890	70.6	0.344	1.531	94.0	375.1	1.005	2.057	-1.88	1.149	93.9	323.8	-28.5	0.177
4- 500	4-1100	0.232	310.7	-20.3	-0.55	0.675	97.6	0.390	1.010	192.3	833.4	0.616	1.404	-1.88	0.992	112.9	227.7	-23.4	0.385
4- 500	4-1110	0.323	45.7	15.3	-0.89	0.891	69.9	0.355	1.532	95.2	385.9	0.988	2.075	-1.97	1.148	96.7	312.1	-29.4	0.203
4- 500	4-1110	0.223	325.9	-16.8	-0.89	0.667	92.6	0.386	1.000	184.1	834.8	0.614	1.385	-1.97	0.985	112.7	247.2	-25.6	0.382
4- 500	4-1120	0.342	45.3	14.3	-1.26	0.891	68.7	0.374	1.532	97.3	397.5	0.959	2.105	-2.13	1.147	100.0	307.0	-29.2	0.246
4- 500	4-1120	0.232	340.3	-12.4	-1.26	0.662	87.6	0.396	0.992	176.3	836.6	0.599	1.385	-2.13	0.980	113.3	250.8	-27.2	0.394
4- 500	4-1130	0.260	352.8	-7.9	-1.72	0.657	82.2	0.422	0.986	169.0	838.8	0.570	1.402	-2.39	0.976	114.9	260.2	-28.2	0.422
4- 500	4-1230	0.296	320.5	-12.5	1.57	0.599	95.2	0.510	0.920	185.0	951.2	0.451	1.389	2.55	0.955	59.7	211.3	-8.2	0.499
4- 500	4-1240	0.336	248.3	-19.9	1.05	0.883	112.7	0.393	1.500	257.9	673.9	0.911	2.090	2.22	1.157	77.5	177.3	11.3	0.270
4- 500	4-1250	0.311	247.4	-20.6	0.63	0.883	111.1	0.367	1.500	260.4	686.4	0.950	2.051	2.01	1.160	81.2	175.6	13.5	0.218
4- 500	4-1260	0.296	246.7	-21.5	0.27	0.883	110.1	0.352	1.501	261.9	697.9	0.973	2.028	1.90	1.162	84.3	171.5	16.9	0.183
4- 500	4-1270	0.289	246.3	-22.4	-0.06	0.883	109.6	0.344	1.502	262.8	708.8	0.985	2.019	1.84	1.164	87.1	168.7	21.0	0.163
4- 500	4-1280	0.288	246.0	-23.3	-0.39	0.884	109.6	0.343	1.503	263.1	719.2	0.987	2.019	1.85	1.166	89.8	166.1	24.8	0.158
4- 500	4-1290	0.292	245.8	-24.2	-0.73	0.884	109.8	0.348	1.506	262.9	729.2	0.982	2.030	1.92	1.169	92.4	148.2	27.2	0.167
4- 500	4-1300	0.301	245.7	-25.2	-1.10	0.885	110.4	0.357	1.510	262.3	738.7	0.971	2.050	2.05	1.170	94.9	143.1	28.2	0.188
4- 550	4- 760	0.295	321.7	-18.3	-1.22	0.679	103.9	0.423	1.023	200.7	474.3	0.590	---	-1.47	0.995	115.0	258.0	-26.1	0.426
4- 550	4- 770	0.273	330.9	-16.0	-1.47	0.662	99.9	0.422	0.998	194.1	477.2	0.577	---	-1.51	0.983	115.0	267.0	-26.6	0.425
4- 550	4- 780	0.258	341.7	-12.7	-1.74	0.646	95.4	0.429	0.979	187.3	480.0	0.559	---	-1.59	0.972	115.3	276.1	-26.6	0.431
4- 550	4- 790	0.256	354.0	-8.2	-2.05	0.632	90.4	0.445	0.962	180.5	482.7	0.534	---	-1.73	0.964	116.2	285.0	-26.1	0.448
4- 550	4- 800	0.271	7.1	-2.9	-2.44	0.620	84.5	0.474	0.948	173.8	485.6	0.499	1.397	-1.97	0.957	118.0	293.8	-25.2	0.479
4- 550	4-1060	0.307	72.6	26.6	1.34	0.873	68.1	0.376	1.477	103.5	314.2	---	2.033	-2.87	1.147	77.9	6.0	-9.6	0.290
4- 550	4-1070	0.291	73.8	24.8	0.59	0.875	69.2	0.361	1.485	101.2	321.7	---	2.021	-2.26	1.146	80.1	8.4	-7.3	0.255
4- 550	4-1080	0.278	74.7	23.5	-0.09	0.877	70.0	0.347	1.492	99.3	329.5	---	2.010	-1.91	1.145	82.3	9.8	-6.3	0.224
4- 550	4-1090	0.268	75.4	22.4	-0.28	0.878	70.7	0.337	1.497	97.7	337.6	---	2.002	-1.70	1.144	84.4	9.6	-6.6	0.197
4- 550	4-1100	0.261	76.0	21.5	-0.58	0.879	71.2	0.330	1.501	96.5	346.0	---	1.996	-1.57	1.143	86.5	7.2	-8.0	0.176
4- 550	4-1110	0.257	76.4	20.6	-0.84	0.880	71.5	0.326	1.504	95.7	354.8	---	1.995	-1.49	1.143	88.7	2.2	-10.5	0.163
4- 550	4-1120	0.257	76.6	19.8	-1.09	0.881	71.5	0.326	1.506	95.5	364.1	1.015	1.997	-1.47	1.142	91.0	355.0	-13.6	0.161
4- 550	4-1130	0.262	76.6	19.1	-1.34	0.881	71.2	0.331	1.508	95.8	374.0	1.009	2.006	-1.48	1.142	93.5	347.1	-16.2	0.172
4- 550	4-1130	0.296	324.3	-17.7	-1.34	0.669	103.2	0.434	1.008	198.6	836.7	0.571	1.445	-1.48	0.988	115.7	261.7	-26.2	0.437
4- 550	4-1140	0.272	76.3	18.5	-1.59	0.881	70.5	0.341	1.508	96.9	384.6	0.993	2.023	-1.54	1.142	96.2	340.5	-17.8	0.198
4- 550	4-1140	0.256	337.5	-14.1	-1.59	0.657	96.9	0.415	0.993	189.9	837.5	0.581	1.404	-1.54	0.980	114.5	271.9	-26.7	0.417
4- 550	4-1150	0.291	75.8	18.0	-1.88	0.881	69.3	0.360	1.509	98.8	396.0	0.965	2.052	-1.65	1.142	99.3	336.2	-18.3	0.239
4- 550	4-1150	0.240	351.7	-9.2	-1.88	0.649	91.2	0.415	0.982	181.6	838.8	0.574	1.390	-1.65	0.975	114.5	281.9	-26.5	0.419
4- 550	4-1160	0.320	74.9	17.6	-2.22	0.881	67.4	0.391	1.508	101.9	408.6	0.919	2.098	-1.83	1.143	103.1	334.0	-18.1	0.297
4- 550	4-1160	0.247	6.2	-3.6	-2.22	0.643	85.3	0.432	0.975	173.8	840.5	0.553	1.396	-1.83	0.971	115.5	291.4	-25.7	0.439
4- 550	4-1170	0.279	19.7	2.0	-2.66	0.638	78.7	0.469	0.969	166.7	843.0	0.514	1.423	-2.12	0.969	117.8	300.4	-24.4	0.480
4- 550	4-1270	0.384	282.3	-23.7	-0.08	0.872	113.4	0.401	1.472	253.9	668.3	0.882	2.062	1.80	1.159	75.9	209.1	-4.5	0.295
4- 550	4-1280	0.354	281.5	-24.5	-0.43	0.872	111.4	0.369	1.472	256.6	681.1	0.928	2.015	1.62	1.160	79.8	208.7	-3.3	0.236
4- 550	4-1290	0.335	281.0	-25.4	-0.72	0.872	110.2	0.349	1.471	258.4	693.0	0.958	1.985	1.52	1.162	83.1	206.3	-1.1	0.193
4- 550	4-1300	0.325	280.7	-26.1	-0.99	0.872	109.5	0.337	1.472	259.5	704.3	0.975	1.968	1.47	1.163	86.0	201.4	2.3	0.165
4- 550	4-1310	0.321	280.6	-26.9	-1.25	0.872	109.2	0.333	1.473	260.0	715.0	0.983	1.963	1.47	1.164	88.7	194.1	6.3	0.151
4- 550	4-1320	0.322	280.6	-27.5	-1.52	0.872	109.2	0.334	1.475	260.2	725.3	0.982	1.968	1.52	1.165	91.3	186.1	10.1	0.153
4- 550	4-1330	0.328	280.7	-28.2	-1.82	0.873	109.6	0.341	1.478	259.9	735.2	0.975	1.982	1.62	1.165	93.9	179.8	12.5	0.167
4- 550	4-1340	0.339	280.9	-28.9	-2.17	0.875	110.3	0.352	1.483	259.3	744.8	0.961	2.005	1.80	1.165	96.4	176.3	13.6	0.192
4- 550	4-1350	0.355	281.2	-29.6	-2.63	0.876	111.3	0.369	1.489	258.4	754.1	0.940	2.039	2.10	1.165	99.0	175.6	13.7	0.224
4- 600	4- 820	0.298	6.3	-1.8	-2.12	0.593	96.9	0.506	0.954	185.8	486.2	0.471	---	-0.80	0.964	120.2	313.2	-18.9	0.521
4- 600	4- 830	0.292	19.4	3.5	-2.29	0.574	89.0	0.530	0.934	179.5	489.1	0.439	1.429	-0.90	0.954	121.7	321.2	-16.6	0.545
4- 600	4-1070	0.286	102.6	29.5	2.22	0.840	66.8	0.394	1.440	112.1	302.0	---	2.007	-4.00	1.137	74.6	23.2	-4.2	0.342
4- 600	4-1080	0.267	103.2	24.1	0.22	0.843	68.1	0.374	1.451	109.7	309.3	---	1.993	-2.05	1.137	76.8	25.0	2.2	0.299
4- 600	4-1090	0.251	103.9	21.8	-0.49	0.846	69.2	0.356	1.460	107.6	316.8	---	1.980	-1.43	1.137	79.0	27.7	5.0	0.263
4- 600	4-1100	0.238	104.5	20.4	-0.86	0.848	70.1	0.342	1.468	105.7	324.6	---	1.970	-1.10	1.137	81.2	29.5	6.3	0.230
4- 600	4-1110	0.228	105.1	19.3	-1.11	0.849	70.8	0.330	1.474	104.2	332.6	---	1.961	-0.92	1.137	83.3	29.9	6.7	0.201
4- 600	4-1120	0.220	105.5	18.5	-1.29	0.851	71.3	0.322	1.479	103.0	340.9	---	1.955	-0.81	1.137	85.4	28.1	6.0	0.178
4- 600	4-1130	0.216	105.7	17.8	-1.43	0.852	71.6	0.317	1.482	102.1	349.6	---	1.952	-0.78	1.137	87.5	23.8	4.3	0.161

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 600	4-1140	0.214	105.9	17.2	-1.56	0.852	71.7	0.315	1.485	101.7	358.8	---	1.953	-0.71	1.137	89.7	17.1	1.7	0.155
4- 600	4-1150	0.217	105.9	16.9	-1.68	0.853	71.6	0.318	1.486	101.7	368.3	1.014	1.959	-0.69	1.138	92.0	9.5	-1.2	0.160
4- 600	4-1160	0.224	105.7	16.7	-1.79	0.853	71.1	0.326	1.487	102.3	378.5	1.003	1.971	-0.69	1.139	94.5	2.9	-3.6	0.179
4- 600	4-1170	0.237	105.4	16.7	-1.91	0.853	70.3	0.340	1.487	103.5	389.2	0.992	1.982	-0.71	1.140	97.3	358.4	-4.9	0.211
4- 600	4-1180	0.258	104.9	16.9	-2.04	0.853	68.9	0.363	1.487	105.4	400.7	0.978	2.026	-0.76	1.141	100.5	356.1	-5.3	0.257
4- 600	4-1180	0.279	4.8	-2.8	-2.04	0.614	95.7	0.470	0.977	186.5	841.8	0.518	1.437	-0.76	0.976	118.0	310.5	-19.6	0.485
4- 600	4-1190	0.290	104.0	17.4	-2.20	0.853	66.7	0.397	1.466	108.2	413.1	0.896	2.076	-0.84	1.143	104.4	355.6	-5.1	0.320
4- 600	4-1190	0.261	19.7	3.0	-2.20	0.604	88.5	0.479	0.966	178.4	843.3	0.504	1.429	-0.84	0.972	118.5	319.4	-17.3	0.496
4- 600	4-1200	0.275	35.8	9.1	-2.40	0.597	80.9	0.510	0.958	171.0	845.6	0.470	1.447	-0.97	0.970	120.5	327.7	-14.7	0.531
4- 600	4-1310	0.383	315.0	-20.4	-1.39	0.839	112.0	0.374	1.436	248.8	673.1	0.899	1.973	0.76	1.156	77.7	245.5	-18.3	0.268
4- 600	4-1320	0.359	314.6	-21.1	-1.53	0.839	110.3	0.347	1.435	250.4	684.9	0.937	1.932	0.71	1.156	81.2	245.4	-17.7	0.218
4- 600	4-1330	0.343	314.4	-21.6	-1.65	0.838	109.2	0.329	1.434	251.5	696.2	0.963	1.905	0.69	1.156	84.2	243.1	-16.6	0.180
4- 600	4-1340	0.334	314.4	-22.1	-1.78	0.838	108.9	0.318	1.434	252.1	707.0	0.978	1.890	0.69	1.155	86.9	237.8	-14.9	0.154
4- 600	4-1350	0.330	314.3	-22.4	-1.90	0.839	108.3	0.313	1.435	252.5	717.6	0.985	1.885	0.71	1.154	89.4	229.8	-12.3	0.142
4- 600	4-1360	0.331	314.4	-22.8	-2.04	0.839	108.3	0.315	1.437	252.7	727.9	0.985	1.889	0.76	1.153	91.9	221.1	-9.5	0.143
4- 600	4-1370	0.338	314.4	-23.0	-2.20	0.840	108.7	0.321	1.441	252.7	738.0	0.978	1.904	0.84	1.152	94.3	214.2	-7.2	0.158
4- 600	4-1380	0.273	82.9	17.6	-2.40	0.755	68.3	0.408	1.206	136.6	631.9	0.714	1.697	0.98	1.090	68.1	342.9	-4.7	0.421
4- 600	4-1380	0.349	314.5	-23.3	-2.51	0.842	109.5	0.334	1.446	252.5	747.8	0.963	1.929	0.98	1.151	96.9	210.4	-5.9	0.183
4- 600	4-1390	0.234	81.7	15.4	-2.71	0.762	71.3	0.360	1.219	135.6	640.9	0.781	1.658	1.21	1.092	71.7	347.5	-1.6	0.361
4- 600	4-1390	0.366	314.8	-23.6	-2.71	0.844	110.6	0.352	1.453	252.0	757.3	0.941	1.965	1.21	1.151	99.5	209.5	-5.3	0.218
4- 600	4-1400	0.202	80.0	11.9	-3.21	0.767	73.8	0.318	1.232	135.0	650.3	0.840	1.623	1.64	1.093	75.0	351.2	2.4	0.306
4- 600	4-1400	0.389	315.2	-24.2	-3.21	0.846	112.1	0.377	1.463	251.2	766.5	0.912	2.014	1.64	1.150	102.2	211.0	-5.0	0.259
4- 650	4-1070	0.289	126.1	16.7	-1.20	0.790	64.5	0.435	1.387	124.1	285.5	---	1.991	-0.68	1.125	69.4	27.6	9.5	0.415
4- 650	4-1080	0.266	127.9	18.0	-0.47	0.795	66.1	0.409	1.403	121.7	292.7	---	1.976	-1.39	1.126	72.0	33.7	9.3	0.372
4- 650	4-1100	0.233	127.5	9.4	-3.02	0.803	69.8	0.364	1.429	117.3	307.6	---	1.949	1.20	1.129	76.7	39.9	20.3	0.292
4- 650	4-1110	0.218	128.8	10.4	-2.43	0.806	69.8	0.347	1.439	115.5	315.4	---	1.938	0.63	1.129	79.0	43.7	19.6	0.256
4- 650	4-1120	0.205	129.5	10.4	-2.22	0.808	70.7	0.332	1.447	114.0	323.4	---	1.928	0.44	1.130	81.1	45.9	19.6	0.223
4- 650	4-1130	0.198	130.1	10.2	-2.10	0.810	71.3	0.321	1.453	112.7	331.7	---	1.920	0.30	1.131	83.2	46.1	19.4	0.195
4- 650	4-1140	0.189	130.6	10.0	-2.03	0.812	71.8	0.313	1.458	111.7	340.2	---	1.914	0.29	1.132	85.3	43.7	18.7	0.171
4- 650	4-1150	0.185	130.9	10.0	-1.97	0.813	72.1	0.308	1.462	111.0	349.1	---	1.912	0.25	1.133	87.4	38.7	17.1	0.156
4- 650	4-1160	0.184	131.2	10.1	-1.93	0.813	72.2	0.306	1.464	110.7	358.3	---	1.913	0.23	1.134	89.6	31.4	14.6	0.150
4- 650	4-1170	0.186	131.4	10.3	-1.89	0.814	72.0	0.309	1.466	110.7	367.9	1.012	1.919	0.22	1.136	91.9	23.7	11.6	0.156
4- 650	4-1180	0.193	131.5	10.7	-1.85	0.814	71.5	0.317	1.466	111.0	377.8	1.001	1.931	0.22	1.137	94.3	17.6	9.0	0.175
4- 650	4-1190	0.204	131.5	11.3	-1.81	0.814	70.7	0.331	1.466	111.8	388.2	0.981	1.950	0.22	1.139	96.9	14.0	7.3	0.206
4- 650	4-1200	0.222	131.4	12.1	-1.78	0.813	69.4	0.352	1.465	113.0	399.1	0.950	1.980	0.22	1.141	99.9	12.7	6.5	0.248
4- 650	4-1210	0.248	131.1	13.1	-1.73	0.813	67.6	0.382	1.463	114.8	410.6	0.904	2.022	0.24	1.143	103.4	13.0	6.5	0.303
4- 650	4-1220	0.286	130.4	14.2	-1.68	0.812	64.8	0.425	1.462	117.3	422.9	0.840	2.083	0.27	1.145	107.6	14.5	7.0	0.375
4- 650	4-1220	0.294	37.1	11.7	-1.68	0.549	92.2	0.552	0.959	181.8	847.4	0.730	1.489	0.27	0.976	123.4	344.4	-6.2	0.585
4- 650	4-1230	0.294	55.3	17.1	-1.62	0.538	82.1	0.580	0.948	174.4	849.8	0.698	1.498	0.31	0.972	125.3	352.2	-2.9	0.615
4- 650	4-1350	0.351	344.3	-11.2	-1.89	0.790	107.6	0.342	1.389	239.1	675.7	0.914	1.865	-0.22	1.144	79.1	288.0	-23.4	0.249
4- 650	4-1360	0.329	344.2	-11.5	-1.85	0.790	108.1	0.318	1.387	239.4	686.1	0.947	1.827	-0.22	1.142	82.0	289.4	-23.4	0.207
4- 650	4-1370	0.314	344.2	-11.7	-1.81	0.789	107.0	0.300	1.385	239.4	696.2	0.970	1.801	-0.22	1.140	84.6	288.5	-23.8	0.173
4- 650	4-1380	0.304	344.1	-11.7	-1.77	0.789	106.2	0.288	1.384	239.4	706.2	0.985	1.784	-0.23	1.138	86.9	284.7	-24.5	0.149
4- 650	4-1390	0.269	106.7	18.9	-1.73	0.703	67.0	0.460	1.177	144.9	621.7	0.636	1.718	-0.24	1.078	64.0	357.5	-1.6	0.490
4- 650	4-1390	0.299	344.1	-11.7	-1.73	0.789	105.8	0.282	1.384	239.4	716.2	0.994	1.775	-0.24	1.136	89.2	277.4	-25.3	0.134
4- 650	4-1400	0.220	104.1	18.2	-1.68	0.713	71.0	0.399	1.195	144.4	631.2	0.718	1.672	-0.27	1.081	68.4	2.4	-0.3	0.414
4- 650	4-1400	0.299	343.9	-11.7	-1.68	0.789	105.8	0.282	1.386	239.7	726.4	0.996	1.777	-0.27	1.133	91.4	267.5	-25.8	0.131
4- 650	4-1410	0.177	99.6	17.3	-1.61	0.721	74.6	0.344	1.212	144.9	641.5	0.795	1.630	-0.31	1.084	72.5	6.8	1.9	0.345
4- 650	4-1410	0.304	343.6	-11.5	-1.61	0.790	106.2	0.287	1.390	240.2	736.8	0.990	1.789	-0.31	1.132	93.7	257.7	-25.5	0.141
4- 650	4-1420	0.142	92.7	16.4	-1.51	0.728	77.7	0.298	1.228	144.9	652.9	0.862	1.593	-0.39	1.086	76.2	10.3	2.9	0.282
4- 650	4-1420	0.316	343.3	-11.2	-1.51	0.792	107.1	0.300	1.396	240.8	747.3	0.977	1.815	-0.39	1.131	96.2	250.8	-25.0	0.165
4- 650	4-1430	0.117	83.6	15.5	-1.35	0.734	80.1	0.261	1.240	148.8	665.0	0.917	1.564	-0.54	1.088	79.5	12.9	2.8	0.227
4- 650	4-1430	0.335	342.8	-10.8	-1.35	0.795	108.4	0.321	1.405	241.6	757.8	0.954	1.856	-0.54	1.130	98.9	247.5	-24.8	0.201
4- 650	4-1440	0.100	73.3	15.9	-0.97	0.738	82.0	0.234	1.250	151.5	677.5	0.958	1.543	-0.89	1.088	82.3	14.5	0.5	0.183
4- 650	4-1440	0.361	342.3	-9.9	-0.97	0.799	110.3	0.350	1.418	242.1	768.0	0.922	1.914	-0.89	1.131	101.9	247.2	-25.8	0.247
4- 650	4-1450	0.092	61.0	29.4	0.99	0.741	83.3	0.216	1.258	154.1	689.7	0.986	1.529	-2.84	1.088	84.8	19.1	-13.8	0.155
4- 700	4-1070	0.300	147.3	12.3	-0.54	0.731	62.6	0.484	1.325	155.7	270.8	---	1.967	-1.43	1.110	64.3	35.2	11.0	0.497
4- 700	4-1080	0.274	149.1	12.5	-0.13	0.739	64.6	0.451	1.347	133.2	278.1	---	1.953	-1.75	1.113	67.2	41.3	11.8	0.447
4- 700	4-1090	0.251	151.1	13.8	0.55	0.746	66.4	0.420	1.366	131.0	285.5	---	1.939	-2.33	1.116	70.0	47.4	11.3	0.400
4- 700	4-1100	0.232	153.8	17.5	1.97	0.752	67.9	0.393	1.383	128.9	293.0	---	1.926	-3.67	1.118	72.6	53.9	8.0	0.360
4- 700	4-1110	0.234	161.0	33.4	7.47	0.757	69.2	0.369	1.397	127.1	300.7	---	1.913	-9.08	1.120	75.0	63.9	-8.2	0.352
4- 700	4-1130	0.201	145.4	-9.3	-5.97	0.764	71.3	0.332	1.420	124.1	317.0	---	1.891	4.53	1.124	79.7	58.0	41.0	0.251
4- 700	4-1140	0.182	148.7	-4.3	-4.00	0.767	72.1	0.318	1.428	123.0	325.4	---	1.883	2.64	1.126	81.8	60.4	35.0	0.212
4- 700	4-1150	0.172	150.3	-2.2	-3.17	0.769	72.7	0.308	1.436	122.1	334.0	---	1.876	1.90	1.127	84.0	59.6	32.5	0.183
4- 700	4-1160	0.166	151.3	-0.9	-2.69	0.770	73.0	0.301	1.439	121.5	342.9	---	1.873	1.52	1.129	86.1	55.7	30.7	0.161
4- 700	4-1170	0.163	152.1	0.2	-2.37	0.771	73.2	0.298	1.442	121.0	352.0	---	1.872	1.29	1.131	88.2	48.9	28.3	0.149
4- 700	4-1180	0.163	152.7	1.1	-2.12	0.772	73.1	0.299	1.444	120.8	361.4	1.013	1.875	1.15	1.135	90.3	40.7	25.1	0.148
4- 700	4-1190	0.166	153.3	2.1	-1.91	0.772	72.9	0.303	1.444	120.8	371.0	1.006	1.883	1.07	1.134	92.5	33.6	21.6	0.158
4- 700	4-1200	0.173	153.8	3.2	-1.73	0.772	72.3	0.313	1.444	120.9	380.8	0.993	1.896	1.02	1.136	94.9	29.0	18.7	0.180
4- 700	4-1210	0.185	154.2	4.3	-1.56	0.772	71.4	0.327	1.443	121.3	390.9	0.970	1.915	1.01	1.138	97.5	27.0	16.8	0.213
4- 700	4-1220	0.203	154.5	5.5	-1.39	0.771	70.0	0.349	1.441	122.0	401.3	0.938	1.944	1.02	1.140	100.3	27.2	16.0	0.255
4- 700	4-1230	0.227	154.7	6.7	-1.20	0.770	68.2	0.379	1.439	123.0	412.2	0.894	1.984	1.06	1.142	103.6	28.8	15.9	0.307
4- 700	4-1240	0.262	154.5	8.0	-0.99	0.769	65.6	0.420	1.436	124.5	423.6	0.834	2.039	1.15	1.144	107.6	31.4	16.3	0.373
4- 700	4-1380	0.305	11.9	0.9	-1.72	0.734	107.2	0.335	1.334	225.0	665.6	0.888	1.781	-1.02	1.126	77.2	327.9	-17.2	0.260
4- 700	4-1390	0.277	12.4	1.2	-1.54	0.732	105.1	0.306	1.329	223.0	673.6	0.922	1.736	-1.01	1.122	79.6	332.4	-16.3	0.240
4- 700	4-1400	0.270	128.2	16.2	-1.37	0.646	66.8	0.510	1.148	152.6	613.1	0.562	1.734	-1.02	1.065	60.2	1.7	2.7	0.552
4- 700	4-1400	0.254	13.0	1.6	-1.37	0.730	103.2	0.284	1.324	220.5	681.0	0.948	1.700	-1.02	1.118	81.7	336.6	-15.6	0.207
4- 700	4-1410	0.209	123.6	16.7	-1.18	0.660	72.2	0.434	1.172	153.1	623.5	0.643	1.681	-1.07	1.071	65.6	15.3	4.1	0.460
4- 700	4-1410	0.233	13.9	2.2	-1.18	0.728	101.6	0.266	1.318	217.6	688.0	0.968	1.669	-1.07	1.114	83.4	340.3	-15.4	0.181
4- 700	4-1420	0.153	113.3	18.0	-0.97	0.673	77.5	0.361	1.197	155.8	636.0	0.765	1.630	-1.16	1.077	70.9	19.0	4.6	0.370

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 700	4-1420	0.215	15.0	3.1	-0.97	0.726	100.1	0.251	1.313	214.3	694.5	0.983	1.643	-1.16	1.110	85.0	343.5	-15.8	0.859
4- 700	4-1430	0.112	90.9	19.7	-0.11	0.686	82.8	0.295	1.223	162.0	652.0	0.862	1.584	-1.31	1.082	76.2	20.9	3.5	0.281
4- 700	4-1430	0.198	16.3	4.3	-0.11	0.723	98.7	0.239	1.307	210.5	700.5	0.994	1.620	-1.31	1.106	86.3	346.4	-16.9	0.142
4- 700	4-1440	0.105	54.4	17.4	-0.37	0.699	88.0	0.243	1.251	173.8	673.6	0.947	1.555	-1.56	1.088	81.4	18.5	-1.3	0.198
4- 700	4-1440	0.180	18.1	6.3	-0.37	0.721	97.2	0.229	1.300	205.9	705.6	1.002	[illegible]	-1.56	1.102	87.3	349.8	-18.8	0.131
4- 700	4-1470	0.174	13.6	21.6	3.45	0.720	96.2	0.222	1.299	202.7	731.4	1.011	1.587	-5.10	1.096	92.1	347.7	-51.3	0.147
4- 700	4-1470	0.215	8.8	16.5	3.45	0.728	99.8	0.244	1.320	214.7	743.3	0.998	1.641	-5.10	1.102	94.5	321.5	-53.6	0.165
4- 700	4-1490	0.178	43.9	-23.1	-8.87	0.714	92.9	0.215	1.283	190.8	738.7	1.007	1.560	7.35	1.090	93.3	311.1	35.8	0.179
4- 700	4-1500	0.139	41.5	-10.2	-4.77	0.711	91.7	0.216	1.278	186.2	743.5	1.002	1.555	3.37	1.089	94.1	324.3	14.2	0.142
4- 750	4-1080	0.289	166.8	5.6	-0.08	0.679	63.7	0.500	1.280	143.8	264.4	---	1.900	-1.81	1.096	62.4	47.7	14.3	0.523
4- 750	4-1090	0.263	168.7	5.8	0.31	0.684	65.0	0.462	1.305	141.6	271.9	---	1.908	-2.04	1.100	65.6	53.9	14.8	0.469
4- 750	4-1100	0.239	170.7	6.6	0.84	0.700	67.7	0.427	1.328	139.6	279.5	---	1.895	-2.41	1.105	68.5	59.8	14.5	0.419
4- 750	4-1110	0.219	173.0	8.5	1.63	0.708	69.3	0.397	1.348	137.9	287.3	---	1.883	-2.66	1.108	71.3	65.7	12.8	0.373
4- 750	4-1120	0.203	176.1	12.8	3.04	0.714	70.7	0.371	1.365	136.4	295.4	---	1.871	-4.34	1.112	73.9	71.4	8.2	0.334
4- 750	4-1130	0.202	181.9	24.9	6.64	0.720	71.9	0.348	1.380	135.1	303.6	---	1.860	-7.80	1.115	76.3	77.9	-4.8	0.317
4- 750	4-1150	0.225	151.2	-33.5	-12.41	0.728	73.8	0.313	1.402	133.2	321.0	---	1.841	11.51	1.120	81.0	77.2	71.1	0.297
4- 750	4-1160	0.170	163.2	-20.6	-6.01	0.730	74.4	0.302	1.409	132.5	329.8	---	1.835	5.24	1.122	83.1	74.7	52.5	0.206
4- 750	4-1170	0.156	167.2	-14.9	-4.08	0.732	74.8	0.294	1.415	132.0	338.8	---	1.831	3.45	1.125	85.2	71.1	45.6	0.172
4- 750	4-1180	0.149	169.4	-11.6	-3.11	0.734	75.0	0.290	1.419	131.6	348.0	---	1.830	2.62	1.127	87.3	64.3	41.4	0.153
4- 750	4-1190	0.147	171.0	-9.3	-2.50	0.734	75.0	0.289	1.421	131.3	357.3	---	1.832	2.16	1.129	89.4	55.7	37.2	0.145
4- 750	4-1200	0.149	172.2	-7.3	-2.07	0.735	74.8	0.292	1.422	131.0	366.7	1.007	1.837	1.88	1.132	91.5	47.8	32.7	0.150
4- 750	4-1210	0.154	173.2	-5.6	-1.72	0.734	74.3	0.299	1.421	130.9	376.3	0.996	1.846	1.71	1.134	93.7	42.5	28.6	0.167
4- 750	4-1220	0.163	174.1	-4.1	-1.42	0.734	73.6	0.310	1.420	130.7	385.9	0.979	1.861	1.61	1.136	96.1	40.1	25.6	0.192
4- 750	4-1230	0.176	174.9	-2.7	-1.14	0.733	72.5	0.327	1.418	130.7	395.7	0.954	1.881	1.56	1.138	98.6	40.2	23.8	0.226
4- 750	4-1240	0.195	175.5	-1.4	-0.87	0.732	71.0	0.350	1.415	130.8	405.6	0.919	1.910	1.56	1.140	101.4	42.1	23.0	0.269
4- 750	4-1250	0.220	175.9	-0.2	-0.59	0.731	69.1	0.381	1.411	131.1	415.9	0.874	1.948	1.61	1.141	104.6	45.2	22.9	0.320
4- 750	4-1260	0.253	176.1	0.9	-0.29	0.730	66.4	0.421	1.407	131.8	426.5	0.815	2.000	1.71	1.143	108.3	49.0	23.2	0.388
4- 750	4-1270	0.298	175.8	2.1	0.08	0.728	62.9	0.474	1.404	133.1	437.9	0.738	2.070	1.89	1.144	112.9	53.2	23.6	0.461
4- 750	4-1400	0.261	41.7	12.8	-1.38	0.678	105.3	0.365	1.276	211.[illegible]	647.4	0.810	1.741	-1.60	1.106	72.6	356.7	-6.6	0.353
4- 750	4-1410	0.279	147.6	11.1	-1.11	0.590	67.2	0.561	1.117	150.[illegible]	605.3	0.490	1.744	-1.56	1.051	56.3	23.4	7.4	0.613
4- 750	4-1410	0.221	45.0	14.0	-1.11	0.673	101.7	0.334	1.265	205.6	651.8	0.842	1.688	-1.56	1.100	74.6	3.6	-4.1	0.317
4- 750	4-1420	0.203	140.3	13.3	-0.84	0.610	74.8	0.467	1.149	161.0	617.1	0.612	1.686	-1.56	1.060	63.1	27.5	8.2	0.500
4- 750	4-1420	0.179	51.7	16.1	-0.84	0.666	97.7	0.313	1.251	197.5	653.6	0.859	1.643	-1.56	1.093	75.7	11.6	-1.1	0.295
4- 750	4-1430	0.125	100.1	20.8	-0.56	0.641	86.6	0.343	1.202	173.4	639.2	0.790	1.615	-1.61	1.076	72.2	27.1	6.1	0.347
4- 750	4-1430	0.127	83.2	20.9	-0.56	0.649	89.6	0.323	1.216	179.1	644.9	0.823	1.609	-1.61	1.080	73.9	24.5	4.6	0.319
4- 750	4-1540	0.190	48.0	5.0	-3.56	0.684	98.9	0.289	1.290	203.4	774.7	0.918	1.663	2.99	1.095	101.4	335.1	3.6	0.248
4- 750	4-1550	0.151	56.6	7.5	-2.80	0.676	95.0	0.277	1.273	193.4	774.3	0.920	1.620	2.37	1.092	101.0	344.7	5.1	0.239
4- 800	4-1090	0.281	184.2	-1.3	0.25	0.634	65.8	0.512	1.233	151.[illegible]	258.6	---	1.864	-1.91	1.080	60.8	60.2	17.2	0.542
4- 800	4-1100	0.254	186.3	-1.2	0.61	0.648	68.1	0.470	1.261	149.3	266.4	---	1.854	-2.05	1.087	64.2	66.2	17.5	0.484
4- 800	4-1110	0.229	188.3	-0.6	1.03	0.661	70.0	0.431	1.287	147.6	274.3	---	1.843	-2.27	1.093	67.4	72.1	17.1	0.450
4- 800	4-1120	0.208	190.5	0.6	1.58	0.671	71.7	0.398	1.311	146.2	282.5	---	1.832	-2.63	1.098	70.3	77.7	15.8	0.381
4- 800	4-1130	0.191	192.8	3.1	2.35	0.680	73.2	0.369	1.331	145.1	290.8	---	1.822	-3.24	1.103	73.1	82.7	13.1	0.336
4- 800	4-1140	0.179	195.8	7.8	3.63	0.687	74.4	0.344	1.348	144.2	299.4	---	1.812	-4.36	1.107	75.6	87.2	7.6	0.299
4- 800	4-1150	0.178	200.5	18.0	6.38	0.692	75.4	0.324	1.363	143.5	308.2	---	1.803	-6.94	1.111	78.0	91.2	-4.7	0.279
4- 800	4-1160	0.206	209.3	43.8	17.66	0.697	76.2	0.308	1.374	142.9	317.0	---	1.797	-18.07	1.114	80.3	99.5	-37.7	0.391
4- 800	4-1180	0.167	175.1	-35.6	-7.83	0.703	77.3	0.285	1.390	142.3	326.0	---	1.786	7.72	1.121	84.7	91.2	68.4	0.212
4- 800	4-1190	0.144	183.2	-26.0	-4.57	0.704	77.5	0.280	1.394	142.0	345.2	---	1.785	4.62	1.123	86.8	80.4	56.4	0.165
4- 800	4-1200	0.138	186.9	-20.5	-3.14	0.705	77.5	0.279	1.397	141.7	354.6	---	1.786	3.35	1.126	88.8	70.5	48.9	0.148
4- 800	4-1210	0.137	189.3	-16.8	-2.50	0.705	77.3	0.281	1.397	141.3	364.0	1.005	1.789	2.69	1.128	90.9	61.6	42.5	0.147
4- 800	4-1220	0.141	191.1	-14.1	-1.73	0.705	76.9	0.286	1.397	140.9	373.3	0.997	1.796	2.30	1.131	92.9	55.7	36.9	0.158
4- 800	4-1230	0.148	192.5	-12.0	-1.28	0.704	76.3	0.296	1.395	140.4	382.6	0.983	1.807	2.06	1.133	95.1	53.1	32.7	0.178
4- 800	4-1240	0.159	193.7	-10.3	-0.91	0.703	75.4	0.309	1.392	139.8	391.9	0.962	1.822	1.91	1.135	97.4	53.2	30.0	0.206
4- 800	4-1250	0.174	194.7	-8.9	-0.58	0.702	74.1	0.328	1.388	139.3	401.3	0.933	1.843	1.84	1.136	99.8	55.3	28.4	0.241
4- 800	4-1260	0.194	195.5	-7.8	-0.26	0.701	72.5	0.352	1.384	138.7	410.7	0.897	1.871	1.82	1.138	102.6	58.7	27.7	0.283
4- 800	4-1270	0.220	196.1	-6.8	0.06	0.699	70.3	0.383	1.379	138.3	420.3	0.851	1.908	1.86	1.139	105.6	63.1	27.4	0.333
4- 800	4-1280	0.253	196.3	-6.0	0.42	0.697	67.6	0.424	1.375	138.2	430.3	0.792	1.957	1.97	1.139	109.2	69.0	27.4	0.393
4- 800	4-1290	0.298	196.2	-5.2	0.83	0.695	63.9	0.476	1.370	138.6	440.9	0.718	2.022	2.15	1.140	113.6	73.2	27.4	0.468
4- 800	4-1310	0.363	72.9	20.2	-1.23	0.630	107.2	0.443	1.226	204.7	628.2	0.683	1.769	-2.04	1.089	65.8	14.2	1.3	0.464
4- 800	4-1420	0.209	80.[illegible]	21.2	-0.87	0.623	101.6	0.406	1.212	190.1	631.3	0.720	1.704	-1.90	1.081	68.1	21.7	4.2	0.421
4- 800	4-1430	0.209	156.4	8.5	-0.55	0.568	77.9	0.504	1.122	167.5	610.6	0.556	1.688	-1.83	1.048	60.3	39.8	12.3	0.543
4- 800	4-1430	0.159	101.9	21.4	-0.55	0.609	94.3	0.394	1.188	186.6	629.7	0.720	1.656	-1.83	1.071	68.4	31.4	8.0	0.410
4- 800	4-1570	0.364	212.4	-19.1	-2.70	0.822	61.3	0.491	1.558	107.1	324.6	---	2.770	2.99	1.203	78.5	135.0	30.0	0.297
4- 800	4-1580	0.354	213.8	-18.3	-2.01	0.823	62.0	0.480	1.864	105.7	333.0	---	2.759	2.48	1.206	81.3	132.4	29.6	0.262
4- 800	4-1580	0.191	73.1	16.3	-2.01	0.654	101.1	0.346	1.275	202.8	790.0	0.835	1.716	2.48	1.099	106.2	3.0	9.9	0.331
4- 800	4-1590	0.547	214.8	-17.6	-1.51	0.823	62.5	0.474	1.869	104.7	341.7	---	2.752	2.17	1.209	84.2	129.1	30.2	0.234
4- 800	4-1590	0.146	87.0	17.3	-1.51	0.645	95.9	0.329	1.254	192.3	789.4	0.841	1.667	2.12	1.095	105.4	12.4	13.2	0.316
4- 800	4-1600	0.343	215.5	-17.0	-1.30	0.824	62.8	0.469	1.872	104.1	350.9	---	2.749	1.98	1.212	87.1	122.7	31.4	0.217
4- 800	4-1600	0.123	103.6	17.6	-1.10	0.638	92.1	0.330	1.241	184.3	791.2	0.831	1.651	1.98	1.094	105.8	20.9	15.8	0.320
4- 850	4-1100	0.276	200.3	-7.6	0.54	0.595	69.1	0.523	1.182	157.9	253.0	---	1.800	-1.82	1.062	59.4	72.9	19.5	0.555
4- 850	4-1110	0.247	202.6	-7.5	0.86	0.614	71.3	0.476	1.214	156.4	261.0	---	1.792	-1.87	1.071	63.1	76.8	19.4	0.494
4- 850	4-1120	0.221	204.7	-7.0	1.20	0.630	73.3	0.433	1.244	155.1	269.4	---	1.783	-1.98	1.079	66.5	84.5	18.8	0.437
4- 850	4-1130	0.200	206.8	-6.0	1.59	0.644	75.0	0.396	1.271	154.2	277.9	---	1.775	-2.18	1.087	69.6	89.8	17.7	0.384
4- 850	4-1140	0.181	208.9	-4.3	2.09	0.655	76.4	0.364	1.295	153.4	286.7	---	1.766	-2.49	1.093	72.5	94.6	15.6	0.336
4- 850	4-1150	0.167	211.1	-1.4	2.77	0.664	77.6	0.337	1.315	153.0	295.8	---	1.758	-3.00	1.099	75.2	98.6	12.3	0.294
4- 850	4-1160	0.157	213.6	3.5	3.84	0.671	78.6	0.315	1.331	152.7	305.0	---	1.751	-3.90	1.104	77.7	101.5	6.4	0.258
4- 850	4-1170	0.157	217.0	12.5	5.92	0.676	79.4	0.298	1.345	152.5	314.4	---	1.745	-5.83	1.108	80.0	102.9	-5.1	0.237
4- 850	4-1180	0.201	222.5	31.9	12.39	0.680	80.0	0.285	1.355	152.4	323.8	---	1.741	-12.14	1.112	82.2	103.6	-31.8	0.285
4- 850	4-1200	0.165	187.1	-47.5	-8.97	0.685	80.7	0.269	1.367	152.3	343.3	---	1.736	9.53	1.119	86.5	115.1	79.2	0.222
4- 850	4-1210	0.133	200.3	-33.9	-4.43	0.686	80.7	0.267	1.370	152.0	352.7	---	1.736	5.14	1.122	88.5	87.5	62.5	0.169
4- 850	4-1220	0.128	205.3	-26.3	-2.71	0.687	80.5	0.269	1.371	151.6	362.0	1.003	1.739	3.58	1.125	90.4	76.3	51.8	0.140

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 850	4-1230	0.130	208.1	-21.7	-1.76	0.686	80.1	0.273	1.370	151.0	371.2	0.996	1.744	2.80	1.127	92.4	69.6	43.8	0.151
4- 850	4-1240	0.136	210.1	-18.6	-1.13	0.685	79.5	0.281	1.368	150.1	380.2	0.984	1.752	2.36	1.129	94.4	66.7	38.1	0.166
4- 850	4-1250	0.145	211.8	-16.4	-0.66	0.684	78.7	0.292	1.364	149.1	389.2	0.966	1.763	2.09	1.131	96.5	64.7	34.4	0.190
4- 850	4-1260	0.158	213.1	-14.9	-0.28	0.682	77.6	0.307	1.360	148.0	398.0	0.942	1.777	1.93	1.132	98.7	62.9	32.0	0.219
4- 850	4-1270	0.175	214.3	-13.8	0.06	0.680	76.2	0.327	1.355	146.8	406.8	0.912	1.797	1.84	1.133	101.0	72.6	30.6	0.253
4- 850	4-1280	0.197	215.2	-13.0	0.39	0.678	74.4	0.351	1.349	145.6	415.7	0.875	1.823	1.81	1.133	103.6	77.3	29.8	0.294
4- 850	4-1290	0.224	215.9	-12.5	0.71	0.676	72.1	0.383	1.344	144.5	424.7	0.829	1.858	1.84	1.134	106.6	82.7	29.1	0.341
4- 850	4-1300	0.258	216.3	-12.0	1.06	0.673	69.2	0.423	1.338	143.6	434.0	0.772	1.903	1.93	1.133	110.0	88.4	28.6	0.398
4- 850	4-1420	0.288	103.4	21.3	-1.07	0.595	111.3	0.527	1.181	202.3	613.5	0.558	1.804	-2.32	1.071	59.3	29.4	8.0	0.570
4- 850	4-1430	0.223	113.6	20.6	-0.62	0.586	103.9	0.480	1.166	196.1	617.1	0.607	1.726	-2.07	1.064	62.4	37.0	10.6	0.513
4- 850	4-1440	0.246	177.6	0.5	-0.25	0.526	78.1	0.567	1.092	170.6	661.3	0.468	1.695	-1.92	1.029	55.6	53.7	16.5	0.613
4- 850	4-1440	0.178	140.0	15.1	-0.25	0.568	94.1	0.467	139	184.7	615.5	0.607	1.670	-1.92	1.052	62.9	47.0	13.9	0.498
4- 850	4-1540	0.383	235.2	-24.3	-2.20	0.808	61.5	0.484	823	109.5	324.6	---	2.705	3.15	1.204	78.6	154.0	24.5	0.292
4- 850	4-1600	0.373	236.4	-23.2	-1.44	0.809	62.2	0.473	1.829	108.2	333.1	---	2.694	2.57	1.207	81.4	153.3	23.9	0.257
4- 850	4-1610	0.366	237.3	-22.3	-0.90	0.810	62.7	0.465	1.834	107.2	342.0	---	2.687	2.22	1.210	84.3	150.1	24.7	0.229
4- 850	4-1610	0.213	97.5	21.2	-0.90	0.642	105.4	0.403	1.267	205.8	800.6	0.756	1.778	2.22	1.104	110.5	26.0	16.8	0.405
4- 850	4-1620	0.363	237.9	-21.6	-0.47	0.810	63.0	0.461	1.837	106.6	351.3	---	2.685	2.00	1.212	87.3	144.1	26.4	0.212
4- 850	4-1620	0.149	79.9	19.7	-0.47	0.626	97.9	0.370	1.236	193.8	798.5	0.778	1.694	2.00	1.091	108.7	36.7	20.5	0.370
4- 850	4-1630	0.363	238.7	-20.9	-0.11	0.811	63.0	0.462	1.840	106.5	361.2	0.991	2.689	1.88	1.215	90.4	135.5	28.3	0.210
4- 850	4-1630	0.127	137.8	16.1	-0.11	0.617	93.0	0.369	1.220	185.2	800.0	0.770	1.670	1.88	1.093	108.8	46.1	22.8	0.370
4- 850	4-1640	0.367	238.0	-20.2	0.22	0.811	62.7	0.467	1.841	106.9	371.7	0.982	2.700	1.82	1.217	93.7	126.5	29.4	0.225
4- 850	4-1640	0.127	158.4	10.4	0.22	0.611	88.8	0.379	1.208	178.0	802.9	0.751	1.666	1.82	1.094	109.8	55.1	24.6	0.383
4- 850	4-1650	0.377	237.4	-19.5	0.54	0.811	61.9	0.478	1.841	107.9	382.8	0.961	2.721	1.82	1.218	97.3	119.5	29.4	0.258
4- 850	4-1650	0.144	175.1	4.7	0.54	0.606	84.6	0.398	1.199	171.8	806.7	0.721	1.677	1.82	1.093	111.2	64.0	25.9	0.407
4- 900	4-1110	0.272	215.4	-12.7	0.83	0.564	73.4	0.535	1.126	164.4	247.1	---	1.728	-1.55	1.041	58.1	86.0	21.0	0.567
4- 900	4-1120	0.241	217.9	-12.6	1.09	0.589	75.6	0.481	1.163	163.2	255.6	---	1.723	-1.54	1.053	62.1	91.7	20.6	0.501
4- 900	4-1130	0.215	220.2	-12.1	1.35	0.610	77.4	0.433	1.198	162.4	264.3	---	1.717	-1.57	1.064	65.7	97.2	19.8	0.441
4- 900	4-1140	0.191	222.3	-11.2	1.63	0.627	79.0	0.392	1.229	161.9	273.3	---	1.711	-1.65	1.074	69.0	102.3	18.6	0.385
4- 900	4-1150	0.172	224.1	-9.7	1.95	0.640	80.4	0.357	1.256	161.7	282.6	---	1.704	-1.79	1.082	72.1	106.8	17.0	0.334
4- 900	4-1160	0.156	225.9	-7.6	2.34	0.652	81.5	0.328	1.279	161.7	292.2	---	1.699	-2.02	1.090	74.9	110.6	14.6	0.289
4- 900	4-1170	0.145	227.6	-4.6	2.86	0.660	82.4	0.305	1.298	161.9	302.0	---	1.694	-2.36	1.096	77.5	113.3	11.2	0.248
4- 900	4-1180	0.137	229.3	-0.0	3.65	0.667	83.2	0.286	1.314	162.2	311.9	---	1.689	-3.04	1.102	79.9	114.3	5.8	0.215
4- 900	4-1190	0.137	231.5	7.5	5.09	0.672	83.7	0.272	1.325	162.5	321.8	---	1.684	-4.34	1.107	82.1	113.2	-4.1	0.192
4- 900	4-1200	0.159	234.6	22.0	8.86	0.675	84.0	0.263	1.334	162.7	331.6	---	1.674	-7.98	1.111	84.2	109.0	-25.5	0.209
4- 900	4-1220	0.159	201.5	-56.3	-9.20	0.679	84.3	0.254	1.342	162.7	351.3	---	1.663	10.34	1.118	88.2	147.4	83.7	0.226
4- 900	4-1230	0.122	219.4	-37.3	-3.61	0.679	84.1	0.255	1.343	162.1	360.5	1.000	1.685	4.85	1.120	90.1	93.8	62.4	0.152
4- 900	4-1240	0.120	224.5	-28.2	-1.84	0.679	83.7	0.259	1.341	161.8	369.5	0.994	1.688	3.25	1.123	91.9	84.8	49.6	0.144
4- 900	4-1250	0.124	227.3	-23.3	-0.93	0.678	83.2	0.265	1.339	160.2	378.3	0.984	1.693	2.49	1.124	93.8	81.2	41.6	0.154
4- 900	4-1260	0.133	229.4	-20.5	-0.35	0.676	82.4	0.274	1.334	158.8	386.9	0.969	1.700	2.06	1.126	95.7	81.0	36.7	0.173
4- 900	4-1270	0.145	231.1	-18.8	0.07	0.674	81.4	0.286	1.329	157.2	395.3	0.949	1.710	1.81	1.127	97.6	83.1	33.6	0.197
4- 900	4-1280	0.159	232.7	-17.7	0.42	0.671	80.2	0.302	1.324	155.4	403.6	0.924	1.723	1.66	1.127	99.7	86.8	31.6	0.226
4- 900	4-1290	0.177	234.0	-17.1	0.71	0.669	78.6	0.321	1.317	153.5	411.9	0.894	1.746	1.57	1.127	101.9	91.7	30.1	0.258
4- 900	4-1300	0.200	235.2	-16.8	0.99	0.666	76.7	0.346	1.310	151.6	420.1	0.858	1.765	1.54	1.126	104.3	97.3	29.0	0.296
4- 900	4-1310	0.227	236.1	-16.6	1.26	0.663	74.3	0.376	1.304	149.8	428.4	0.813	1.794	1.56	1.125	107.1	103.3	27.8	0.340
4- 900	4-1320	0.262	236.8	-16.6	1.56	0.660	71.4	0.411	1.297	148.2	437.1	0.760	1.834	1.52	1.124	110.3	109.5	26.6	0.392
4- 900	4-1440	0.264	138.6	15.7	-0.31	0.567	109.3	0.552	1.129	197.5	606.4	0.506	1.753	-2.04	1.048	57.0	51.3	15.6	0.597
4- 900	4-1450	0.209	157.5	9.9	0.09	0.552	99.6	0.516	1.109	189.2	607.8	0.536	1.681	-1.80	1.038	59.3	60.3	17.7	0.552
4- 900	4-1610	0.405	256.9	-26.0	-1.35	0.804	61.8	0.427	1.784	110.1	323.6	---	2.635	2.83	1.203	78.4	173.9	15.3	0.290
4- 900	4-1620	0.395	259.9	-24.8	-0.63	0.805	62.6	0.466	1.790	109.3	332.2	---	2.624	2.26	1.206	81.3	173.5	14.5	0.254
4- 900	4-1630	0.388	260.6	-23.9	-0.13	0.806	63.1	0.457	1.795	108.3	341.2	---	2.616	1.93	1.209	84.1	170.9	15.2	0.225
4- 900	4-1640	0.384	261.0	-23.3	0.24	0.806	63.4	0.453	1.799	107.7	350.6	---	2.613	1.73	1.212	87.1	165.6	17.1	0.207
4- 900	4-1640	0.193	131.3	19.3	0.24	0.632	104.9	0.419	1.235	202.9	805.9	0.718	1.752	1.73	1.102	112.1	55.9	25.6	0.427
4- 900	4-1650	0.384	261.2	-22.7	0.56	0.807	63.5	0.452	1.801	107.5	360.5	0.986	2.616	1.61	1.213	90.2	157.9	19.7	0.203
4- 900	4-1650	0.144	154.5	13.4	0.56	0.615	97.5	0.393	1.207	191.9	804.9	0.733	1.691	1.61	1.095	115.7	65.0	23.7	0.398
4- 900	4-1660	0.388	261.0	-22.1	0.85	0.807	63.2	0.457	1.802	107.8	371.0	0.979	2.626	1.55	1.215	93.4	149.6	21.7	0.215
4- 900	4-1660	0.136	176.2	5.8	0.85	0.606	92.3	0.393	1.191	183.6	806.7	0.723	1.660	1.55	1.091	111.0	75.1	26.7	0.400
4- 900	4-1670	0.397	260.4	-21.7	1.12	0.807	62.5	0.467	1.803	108.7	382.0	0.961	2.645	1.54	1.216	97.0	142.7	22.7	0.246
4- 900	4-1670	0.151	198.9	-1.3	1.12	0.599	87.6	0.407	1.180	176.5	809.9	0.709	1.660	1.54	1.089	112.1	84.8	27.1	0.415
4- 900	4-1680	0.412	259.4	-21.2	1.40	0.807	61.3	0.486	1.804	110.3	393.8	0.929	2.674	1.55	1.216	100.9	138.5	22.8	0.293
4- 900	4-1680	0.181	206.7	-6.4	1.40	0.594	82.9	0.411	1.171	170.5	814.0	0.667	1.675	1.58	1.086	115.9	93.9	26.9	0.443
4- 900	4-1690	0.222	215.4	-9.8	1.70	0.589	77.9	0.446	1.164	165.3	819.0	0.622	1.705	1.60	1.084	116.4	102.6	26.3	0.483
4- 900	4-1700	0.275	221.1	-11.9	2.06	0.585	76.1	0.513	1.157	161.2	825.1	0.563	1.751	1.85	1.081	119.8	110.7	25.3	0.539
4- 950	4-1120	0.271	228.9	-16.2	1.16	0.540	79.2	0.550	1.066	179.9	240.8	---	1.652	-1.10	1.015	56.7	99.7	21.5	0.578
4- 950	4-1130	0.237	231.7	-15.9	1.35	0.572	80.9	0.488	1.108	170.2	249.5	---	1.649	-1.05	1.032	61.1	105.1	20.8	0.507
4- 950	4-1140	0.208	234.1	-15.4	1.52	0.599	82.4	0.434	1.148	169.8	258.6	---	1.646	-1.03	1.047	65.1	110.2	19.9	0.443
4- 950	4-1150	0.183	236.2	-14.4	1.69	0.620	83.7	0.388	1.183	169.9	268.4	---	1.643	-1.04	1.060	68.6	115.0	18.7	0.384
4- 950	4-1160	0.162	237.8	-13.1	1.87	0.638	84.9	0.349	1.215	170.3	278.3	---	1.639	-1.08	1.071	71.8	119.3	17.3	0.330
4- 950	4-1170	0.145	239.1	-11.4	2.08	0.651	85.8	0.317	1.242	170.9	288.6	---	1.636	-1.16	1.080	74.7	122.3	15.6	0.282
4- 950	4-1180	0.132	240.2	-9.2	2.32	0.662	86.6	0.292	1.264	171.8	299.0	---	1.633	-1.29	1.088	77.4	125.6	13.5	0.240
4- 950	4-1190	0.123	241.1	-6.4	2.64	0.670	87.3	0.273	1.282	172.7	309.5	---	1.631	-1.50	1.095	79.8	126.7	10.9	0.203
4- 950	4-1200	0.117	241.9	-2.9	3.09	0.676	87.7	0.259	1.295	173.5	320.0	---	1.630	-1.87	1.101	82.1	125.9	7.1	0.172
4- 950	4-1210	0.115	243.0	7.3	3.88	0.680	88.0	0.249	1.304	174.0	330.3	---	1.629	-2.56	1.106	84.2	122.2	0.6	0.150
4- 950	4-1220	0.124	244.7	11.6	5.67	0.683	88.2	0.243	1.310	174.2	340.8	---	1.629	-4.26	1.110	86.2	115.1	-13.2	0.147
4- 950	4-1230	0.219	246.4	15.7	15.51	0.684	88.1	0.241	1.313	174.0	349.7	---	1.629	-14.01	1.113	88.0	102.0	-90.7	0.282
4- 950	4-1240	0.148	219.2	-6.9	-8.56	0.684	88.0	0.241	1.313	173.5	359.4	---	1.630	10.15	1.116	89.9	159.4	84.0	0.219
4- 950	4-1250	0.110	238.7	-34.4	-2.12	0.684	87.6	0.243	1.312	172.5	368.2	0.992	1.631	2.80	1.118	91.6	101.7	55.0	0.140
4- 950	4-1260	0.112	242.9	-25.3	-0.60	0.682	87.1	0.248	1.308	171.0	376.7	0.983	1.633	2.37	1.119	93.3	96.3	42.4	0.142
4- 950	4-1270	0.120	245.5	-21.4	0.11	0.680	86.4	0.255	1.303	169.3	385.0	0.971	1.636	1.76	1.120	95.0	94.5	36.0	0.156
4- 950	4-1280	0.130	247.8	-19.6	0.54	0.677	85.5	0.265	1.297	167.2	393.0	0.954	1.641	1.43	1.120	96.7	97.3	32.4	0.176
4- 950	4-1290	0.143	249.9	-18.7	0.84	0.675	84.4	0.277	1.291	164.9	400.8	0.934	1.648	1.24	1.120	98.5	100.9	30.0	0.199

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 950	4-1300	0.159	261.8	-18.3	1.08	0.671	83.0	0.292	1.284	162.4	408.5	0.909	1.658	1.13	1.119	100.4	105.7	28.2	0.225
4- 950	4-1310	0.147	253.7	-18.3	1.29	0.668	81.4	0.310	1.276	159.8	416.1	0.881	1.671	1.06	1.118	102.4	111.3	26.6	0.255
4- 950	4-1320	0.200	255.4	-18.4	1.67	0.664	79.5	0.332	1.268	157.2	423.7	0.847	1.690	1.03	1.116	104.5	117.4	25.0	0.288
4- 950	4-1330	0.247	256.8	-18.7	1.66	0.661	77.1	0.360	1.261	154.6	431.3	0.807	1.715	1.04	1.114	107.0	123.7	23.3	0.327
4- 950	4-1340	0.269	258.0	-19.0	1.85	0.657	74.2	0.395	1.253	152.3	439.2	0.758	1.748	1.07	1.111	109.9	130.0	21.5	0.373
4- 950	4-1460	0.262	109.7	5.7	0.59	0.955	108.4	0.569	1.085	195.3	601.1	0.468	1.703	-1.44	1.027	55.5	73.6	20.6	0.610
4- 950	4-1470	0.225	119.5	-3.8	0.83	0.535	96.6	0.543	1.060	185.7	601.0	0.484	1.636	-1.25	1.014	57.2	83.9	21.5	0.575
4- 950	4-1630	0.429	280.9	-23.8	-0.21	0.809	62.1	0.471	1.741	110.8	321.3	---	2.561	2.03	1.202	77.8	193.7	3.0	0.294
4- 950	4-1640	0.419	283.7	-22.8	0.33	0.811	63.0	0.458	1.747	109.3	329.8	---	2.549	1.58	1.205	80.6	194.1	1.9	0.257
4- 950	4-1650	0.411	284.3	-22.1	0.69	0.812	63.6	0.449	1.753	108.1	338.8	---	2.540	1.33	1.207	83.5	192.6	2.3	0.227
4- 950	4-1660	0.406	284.6	-21.6	0.96	0.813	64.0	0.443	1.757	107.3	348.1	---	2.535	1.18	1.209	86.4	188.5	3.9	0.205
4- 950	4-1670	0.404	284.8	-21.1	1.18	0.813	64.2	0.441	1.760	106.9	357.9	---	2.535	1.09	1.210	89.4	181.9	6.6	0.195
4- 950	4-1670	0.164	171.2	8.7	1.18	0.625	101.8	0.411	1.192	198.0	809.0	0.703	1.682	1.25	1.093	112.2	85.3	26.0	0.418
4- 950	4-1680	0.406	284.7	-20.8	1.38	0.814	64.0	0.443	1.761	107.0	368.2	0.980	2.542	1.04	1.211	92.5	174.0	9.4	0.202
4- 950	4-1680	0.146	194.3	-0.0	1.38	0.613	95.5	0.398	1.172	188.5	809.6	0.705	1.638	1.04	1.086	111.7	96.2	25.9	0.403
4- 950	4-1690	0.403	284.2	-20.6	1.56	0.814	63.5	0.451	1.762	107.7	379.0	0.967	2.558	1.03	1.211	95.9	167.0	11.6	0.225
4- 950	4-1690	0.158	213.2	-7.3	1.56	0.605	90.5	0.404	1.158	180.7	812.0	0.690	1.627	1.03	1.082	112.3	106.1	25.1	0.410
4- 950	4-1700	0.426	283.4	-20.4	1.75	0.814	62.5	0.466	1.762	107.0	390.6	0.940	2.584	1.05	1.211	99.6	162.3	12.6	0.266
4- 950	4-1700	0.185	226.9	-12.1	1.75	0.599	85.7	0.422	1.148	174.0	815.5	0.664	1.633	1.05	1.078	113.6	115.4	23.8	0.429
4- 950	4-1710	0.225	236.5	-15.1	1.95	0.594	80.7	0.451	1.140	168.2	819.9	0.626	1.655	1.11	1.074	115.7	124.0	22.2	0.462
4- 950	4-1720	0.275	243.1	-17.0	2.16	0.589	75.1	0.493	1.134	163.4	825.2	0.575	1.692	1.21	1.070	118.6	131.9	20.2	0.509
4-1000	4-1130	0.277	239.0	-17.8	1.60	0.521	87.2	0.574	1.002	177.9	233.8	---	1.577	-0.40	0.985	55.0	114.0	21.1	0.594
4-1000	4-1140	0.236	242.0	-17.4	1.67	0.564	87.8	0.501	1.051	177.8	243.2	---	1.577	-0.36	1.008	60.0	118.8	20.2	0.515
4-1000	4-1150	0.202	244.3	-16.6	1.75	0.596	88.5	0.437	1.097	178.1	253.0	---	1.576	-0.34	1.028	64.4	123.5	19.2	0.445
4-1000	4-1160	0.174	246.1	-15.6	1.79	0.625	89.3	0.384	1.138	178.9	263.4	---	1.576	-0.33	1.045	68.2	127.9	18.0	0.382
4-1000	4-1170	0.151	247.2	-14.3	1.84	0.647	90.0	0.340	1.175	180.1	274.1	---	---	-0.33	1.059	71.7	131.9	16.8	0.325
4-1000	4-1180	0.133	247.7	-12.7	1.90	0.664	90.7	0.306	1.207	181.6	285.3	---	---	-0.34	1.071	74.7	135.3	15.6	0.27
4-1000	4-1190	0.119	247.9	-11.0	1.96	0.677	91.3	0.279	1.233	183.3	296.6	---	---	-0.36	1.081	77.5	137.8	14.5	0.231
4-1000	4-1200	0.108	247.8	-9.2	2.03	0.687	91.7	0.259	1.253	185.0	307.9	---	---	-0.39	1.089	80.0	139.0	13.6	0.192
4-1000	4-1210	0.101	247.7	-7.5	2.12	0.693	92.0	0.245	1.268	186.3	319.0	---	---	-0.45	1.096	82.3	139.5	12.9	0.160
4-1000	4-1220	0.097	247.8	-6.0	2.25	0.696	92.2	0.236	1.278	187.3	329.8	---	---	-0.54	1.101	84.4	135.6	12.3	0.135
4-1000	4-1230	0.095	248.4	-3.9	2.44	0.701	92.3	0.230	1.284	187.7	340.0	---	---	-0.70	1.105	86.3	130.0	11.5	0.117
4-1000	4-1240	0.096	249.6	-1.3	2.84	0.702	92.2	0.227	1.287	187.5	349.7	---	---	-1.07	1.108	88.1	122.0	9.0	0.109
4-1000	4-1250	0.105	251.8	6.4	4.18	0.702	92.0	0.227	1.287	186.8	358.9	---	---	-2.38	1.111	89.8	112.6	-2.2	0.115
4-1000	4-1260	0.130	236.2	-62.8	-7.02	0.700	91.6	0.229	1.284	185.5	367.6	0.990	---	8.84	1.113	91.1	144.3	80.0	0.198
4-1000	4-1270	0.098	253.4	-20.9	0.30	0.698	91.1	0.232	1.279	183.7	375.8	0.982	---	1.56	1.114	93.0	109.7	36.1	0.127
4-1000	4-1280	0.106	256.9	-16.7	1.02	0.696	90.5	0.237	1.273	181.5	383.7	0.971	---	0.87	1.114	94.5	108.5	29.3	0.139
4-1000	4-1290	0.115	260.1	-15.7	1.30	0.693	89.6	0.244	1.267	178.9	391.3	0.958	1.576	0.61	1.113	96.0	110.3	26.5	0.156
4-1000	4-1300	0.125	263.2	-15.8	1.46	0.689	88.7	0.252	1.259	176.1	398.6	0.941	1.577	0.48	1.112	97.5	113.9	24.7	0.175
4-1000	4-1310	0.138	266.3	-16.1	1.57	0.686	87.5	0.263	1.251	173.0	405.7	0.922	1.580	0.41	1.111	99.0	118.6	23.2	0.195
4-1000	4-1320	0.153	269.3	-16.6	1.65	0.682	86.2	0.276	1.242	169.8	412.7	0.900	1.585	0.37	1.109	100.6	124.2	21.6	0.218
4-1000	4-1330	0.171	272.1	-17.2	1.72	0.677	84.6	0.292	1.234	166.5	419.6	0.874	1.593	0.34	1.106	102.4	130.2	19.9	0.242
4-1000	4-1340	0.192	274.8	-17.7	1.78	0.673	82.7	0.311	1.225	163.1	426.4	0.844	1.606	0.32	1.103	104.2	136.5	18.0	0.270
4-1000	4-1350	0.217	277.1	-18.2	1.84	0.669	80.4	0.335	1.217	159.8	433.2	0.810	1.624	0.33	1.099	106.3	142.9	15.9	0.303
4-1000	4-1360	0.247	279.2	-18.7	1.90	0.665	77.8	0.364	1.209	156.7	440.2	0.768	1.649	0.34	1.095	108.7	149.3	13.6	0.341
4-1000	4-1370	0.285	281.0	-19.2	1.96	0.661	74.5	0.402	1.201	153.8	447.5	0.718	1.684	0.36	1.091	111.5	155.5	11.2	0.388
4-1000	4-1480	0.279	194.4	-3.3	1.45	0.564	100.9	0.579	1.051	196.0	597.4	0.442	1.660	-0.50	1.009	54.6	96.2	22.7	0.612
4-1000	4-1490	0.241	216.2	-11.0	1.55	0.547	98.6	0.544	1.030	187.3	598.2	0.470	1.591	-0.42	0.999	57.0	106.1	22.0	0.566
4-1000	4-1660	0.441	307.7	-17.1	1.39	0.826	63.4	0.455	1.702	108.2	325.4	---	2.473	0.54	1.201	79.4	216.9	-12.1	0.271
4-1000	4-1670	0.431	307.7	-16.7	1.52	0.827	64.1	0.442	1.708	106.8	334.1	---	2.462	0.45	1.203	82.1	217.1	-12.3	0.238
4-1000	4-1680	0.424	308.2	-16.3	1.61	0.828	64.7	0.433	1.713	105.7	343.2	---	2.455	0.36	1.204	84.9	214.8	-11.6	0.211
4-1000	4-1690	0.419	308.5	-16.1	1.69	0.829	65.0	0.428	1.716	105.0	352.7	---	2.451	0.35	1.205	87.8	209.7	-9.8	0.193
4-1000	4-1690	0.197	185.9	3.2	1.69	0.650	106.6	0.429	1.180	205.0	812.8	0.674	1.687	0.35	1.089	113.6	105.6	23.5	0.436
4-1000	4-1700	0.419	308.5	-15.9	1.75	0.829	65.1	0.428	1.719	104.7	362.6	0.984	2.454	0.33	1.205	90.8	202.5	-7.0	0.189
4-1000	4-1700	0.158	211.1	-5.5	1.75	0.633	98.6	0.394	1.151	193.8	811.7	0.697	1.665	0.33	1.079	117.7	117.1	22.0	0.396
4-1000	4-1710	0.423	308.4	-15.9	1.81	0.830	64.8	0.432	1.720	105.0	373.1	0.977	2.463	0.33	1.204	93.9	194.5	-4.1	0.201
4-1000	4-1710	0.162	231.5	-12.0	1.81	0.624	93.3	0.391	1.136	185.2	813.3	0.692	1.580	0.33	1.073	111.8	126.9	20.0	0.391
4-1000	4-1720	0.432	307.9	-16.0	1.87	0.830	64.2	0.442	1.721	105.9	384.2	0.960	2.482	0.33	1.203	97.4	188.4	-1.8	0.230
4-1000	4-1720	0.185	246.9	-15.9	1.87	0.627	88.6	0.401	1.125	177.9	816.1	0.674	1.576	0.33	1.067	112.6	135.9	17.6	0.402
4-1000	4-1730	0.447	307.1	-16.3	1.93	0.830	63.0	0.460	1.721	107.6	396.0	0.929	2.512	0.35	1.201	101.1	184.8	-0.5	0.276
4-1000	4-1730	0.219	258.0	-18.7	1.93	0.611	83.8	0.423	1.116	171.4	819.8	0.645	1.588	0.35	1.062	114.2	144.3	15.0	0.425
4-1000	4-1740	0.264	265.7	-19.4	2.00	0.607	78.7	0.456	1.109	165.9	824.3	0.604	1.615	0.37	1.058	116.5	152.0	12.3	0.462
4-1050	4-1150	0.251	244.4	-16.8	2.20	0.569	98.0	0.585	1.001	187.4	236.9	---	---	0.64	0.984	58.4	132.6	18.7	0.533
4-1050	4-1160	0.206	245.9	-15.9	2.08	0.612	96.9	0.447	1.055	188.8	247.9	---	---	0.56	1.011	63.5	136.5	17.8	0.451
4-1050	4-1170	0.172	246.8	-14.7	1.97	0.646	96.5	0.383	1.105	190.8	259.4	---	---	0.52	1.033	67.9	140.3	16.9	0.381
4-1050	4-1180	0.146	245.8	-13.3	1.89	0.673	96.5	0.333	1.130	193.3	271.6	---	---	0.50	1.051	71.7	143.7	16.0	0.319
4-1050	4-1190	0.127	244.5	-11.9	1.80	0.693	96.6	0.295	1.187	196.2	284.1	---	---	0.49	1.066	75.8	146.6	15.4	0.288
4-1050	4-1200	0.112	242.7	-10.5	1.72	0.708	96.7	0.268	1.217	199.0	296.7	---	---	0.49	1.078	77.9	148.6	15.2	0.220
4-1050	4-1210	0.102	240.8	-9.5	1.63	0.718	96.8	0.249	1.240	201.8	309.1	---	---	0.51	1.087	80.5	149.5	15.6	0.181
4-1050	4-1220	0.095	239.4	-9.0	1.54	0.725	96.9	0.236	1.256	203.8	320.9	---	---	0.54	1.095	82.8	148.6	16.9	0.150
4-1050	4-1230	0.091	238.6	-9.1	1.42	0.730	96.9	0.227	1.266	205.1	332.0	---	---	0.61	1.100	84.9	145.7	19.3	0.126
4-1050	4-1240	0.088	238.8	-10.1	1.27	0.732	96.8	0.223	1.272	205.5	342.3	---	---	0.71	1.104	86.8	140.4	22.9	0.110
4-1050	4-1250	0.087	240.0	-12.0	1.05	0.732	96.6	0.220	1.273	205.1	351.8	---	---	0.88	1.107	88.5	133.6	27.3	0.103
4-1050	4-1260	0.086	241.9	-14.8	0.66	0.731	96.3	0.219	1.270	203.9	360.6	0.992	---	1.23	1.109	90.1	127.4	32.6	0.104
4-1050	4-1270	0.087	244.2	-24.2	-0.28	0.729	95.9	0.220	1.266	202.1	368.8	0.987	---	2.18	1.110	91.6	124.5	41.2	0.115
4-1050	4-1280	0.129	235.9	-64.5	-6.98	0.727	95.4	0.223	1.259	199.7	376.5	0.980	---	8.71	1.110	93.0	148.4	76.6	0.209
4-1050	4-1290	0.121	258.2	13.2	5.74	0.723	94.8	0.224	1.251	196.9	383.9	0.970	---	-3.98	1.109	94.3	111.8	-9.4	0.149
4-1050	4-1300	0.108	261.9	-0.4	5.36	0.719	94.0	0.228	1.242	193.8	390.9	0.958	---	-1.64	1.108	95.6	118.2	8.2	0.146
4-1050	4-1310	0.112	266.8	-6.3	2.72	0.715	93.1	0.235	1.232	190.3	397.6	0.945	---	-1.06	1.105	96.9	123.3	12.4	0.159
4-1050	4-1320	0.119	272.0	-9.4	2.42	0.710	92.1	0.240	1.224	186.6	404.1	0.930	---	-0.82	1.103	98.1	128.7	13.5	0.173

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1050	4-1330	0.129	277.2	-11.5	2.23	0.706	90.9	0.248	1.213	182.8	410.5	0.913	---	-0.66	1.100	99.4	134.7	13.2	0.189
4-1050	4-1340	0.141	282.1	-13.0	2.09	0.701	89.6	0.257	1.203	178.8	416.7	0.894	1.513	-0.57	1.096	100.7	141.0	12.1	0.207
4-1050	4-1350	0.156	286.8	-14.1	1.98	0.696	88.1	0.269	1.194	174.7	422.7	0.872	1.515	-0.52	1.092	102.0	147.5	10.5	0.226
4-1050	4-1360	0.174	291.1	-14.9	1.89	0.691	86.3	0.284	1.184	170.6	428.8	0.858	1.521	-0.50	1.087	103.5	154.1	8.5	0.247
4-1050	4-1370	0.195	295.0	-15.5	1.80	0.687	84.3	0.302	1.175	166.5	434.7	0.820	1.531	-0.45	1.082	105.1	160.7	6.1	0.272
4-1050	4-1380	0.221	298.6	-16.0	1.71	0.682	81.9	0.325	1.167	162.5	440.8	0.787	1.546	-0.49	1.077	107.0	167.3	3.6	0.301
4-1050	4-1390	0.253	301.7	-16.4	1.62	0.678	79.1	0.355	1.159	158.6	446.9	0.748	1.570	-0.51	1.072	109.2	173.8	1.0	0.336
4-1050	4-1400	0.292	304.3	-16.7	1.52	0.673	75.6	0.393	1.151	155.1	453.4	0.699	1.603	-0.55	1.067	111.9	180.1	-1.6	0.331
4-1050	4-1510	0.260	297.4	-14.1	2.28	0.577	103.7	0.537	1.011	192.5	597.1	0.468	1.554	0.69	0.989	57.5	127.4	20.1	0.550
4-1050	4-1520	0.278	262.9	-19.6	2.14	0.548	89.4	0.546	0.978	179.5	593.6	0.444	1.513	0.60	0.973	57.0	139.1	16.8	0.552
4-1050	4-1680	0.458	330.0	-8.0	2.56	0.847	64.6	0.452	1.655	106.6	318.8	---	2.402	-0.91	1.196	77.5	243.8	-24.9	0.299
4-1050	4-1690	0.444	330.8	-8.0	2.32	0.849	64.6	0.437	1.662	104.7	327.1	---	2.389	-0.72	1.197	80.1	246.3	-24.9	0.263
4-1050	4-1700	0.434	331.5	-7.9	2.16	0.850	65.3	0.426	1.668	103.2	335.7	---	2.378	-0.61	1.197	82.8	246.7	-24.9	0.231
4-1050	4-1710	0.426	332.0	-7.8	2.04	0.851	65.9	0.417	1.672	102.0	344.7	---	2.370	-0.55	1.197	85.5	244.2	-24.6	0.205
4-1050	4-1720	0.421	332.4	-7.8	1.93	0.852	66.3	0.412	1.676	101.3	354.1	---	2.367	-0.51	1.196	88.5	238.5	-23.6	0.180
4-1050	4-1720	0.178	224.1	-9.8	1.93	0.664	102.3	0.390	1.134	200.8	813.7	0.692	1.575	-0.51	1.071	111.7	136.5	15.3	0.397
4-1050	4-1730	0.420	332.6	-7.9	1.85	0.852	66.3	0.412	1.678	101.0	364.0	0.987	2.369	-0.49	1.195	91.2	230.4	-21.8	0.184
4-1050	4-1730	0.166	246.1	-14.8	1.85	0.652	96.5	0.372	1.115	191.3	814.3	0.700	1.530	-0.49	1.062	110.9	146.2	12.2	0.367
4-1050	4-1740	0.424	332.5	-8.1	1.76	0.853	66.1	0.416	1.680	101.3	374.3	0.981	2.378	-0.49	1.193	94.2	221.9	-19.3	0.195
4-1050	4-1740	0.178	263.8	-17.5	1.76	0.645	91.9	0.372	1.103	183.2	816.3	0.692	1.514	-0.49	1.055	111.1	155.0	9.0	0.367
4-1050	4-1750	0.433	332.2	-8.5	1.67	0.853	65.4	0.426	1.680	102.3	385.4	0.964	2.397	-0.50	1.191	97.5	215.3	-16.9	0.224
4-1050	4-1750	0.204	277.2	-18.6	1.67	0.639	87.5	0.384	1.094	176.0	819.1	0.673	1.515	-0.50	1.049	112.0	163.2	5.8	0.380
4-1050	4-1760	0.450	331.6	-9.1	1.58	0.853	64.2	0.445	1.681	104.1	397.2	0.933	2.428	-0.53	1.189	101.2	211.4	-15.2	0.270
4-1050	4-1760	0.239	286.9	-18.9	1.58	0.634	83.0	0.407	1.087	169.6	822.7	0.644	1.529	-0.53	1.044	113.6	170.9	2.5	0.404
4-1050	4-1770	0.285	294.0	-18.9	1.47	0.630	78.0	0.442	1.081	164.0	827.0	0.603	1.559	-0.58	1.038	115.9	178.3	-0.6	0.442
4-1060	4-1120	0.554	233.2	-17.4	4.05	0.370	128.7	0.881	0.835	186.5	202.2	---	---	2.41	0.878	29.0	123.8	20.9	0.954
4-1060	4-1130	0.429	237.4	-17.6	3.11	0.436	112.7	0.764	0.874	187.6	212.8	---	---	1.53	0.907	40.8	127.2	20.2	0.792
4-1060	4-1140	0.338	240.8	-17.3	2.67	0.504	105.0	0.651	0.926	188.4	223.1	---	---	1.14	0.942	49.7	130.8	19.5	0.664
4-1060	4-1150	0.271	243.2	-16.7	2.40	0.563	101.2	0.550	0.983	189.5	233.7	---	---	0.93	0.975	56.7	134.5	18.6	0.559
4-1060	4-1160	0.220	244.5	-15.7	2.21	0.610	99.4	0.465	1.040	191.1	244.9	---	---	0.80	1.004	62.3	138.2	17.7	0.470
4-1060	4-1170	0.182	244.7	-14.6	2.06	0.647	98.4	0.396	1.093	193.3	256.7	---	---	0.73	1.028	67.0	141.9	16.8	0.395
4-1060	4-1180	0.154	243.8	-13.2	1.95	0.676	98.1	0.342	1.140	196.2	269.1	---	---	0.68	1.048	71.0	145.2	16.1	0.330
4-1060	4-1190	0.132	242.1	-11.8	1.82	0.698	97.9	0.301	1.181	199.4	282.0	---	---	0.65	1.064	74.5	148.0	15.6	0.274
4-1060	4-1200	0.117	239.9	-10.5	1.71	0.714	98.0	0.272	1.213	202.7	294.9	---	---	0.65	1.077	77.5	150.0	15.4	0.225
4-1060	4-1210	0.107	237.7	-9.5	1.59	0.725	98.0	0.251	1.238	205.6	307.6	---	---	0.66	1.087	80.2	151.0	16.0	0.186
4-1060	4-1220	0.099	235.9	-9.1	1.47	0.733	98.0	0.238	1.256	207.9	319.7	---	---	0.70	1.094	82.6	150.3	17.4	0.153
4-1060	4-1230	0.095	234.9	-9.4	1.33	0.738	98.0	0.229	1.267	209.4	330.9	---	---	0.76	1.100	84.7	147.6	20.0	0.129
4-1060	4-1240	0.092	234.9	-10.4	1.16	0.740	97.9	0.224	1.272	209.9	341.3	---	---	0.87	1.104	86.6	142.6	23.8	0.112
4-1060	4-1250	0.090	235.9	-12.5	0.92	0.741	97.7	0.221	1.273	209.5	350.9	---	---	1.04	1.107	88.4	136.0	28.4	0.104
4-1060	4-1260	0.089	237.8	-16.0	0.54	0.740	97.4	0.220	1.271	208.3	359.7	---	---	1.35	1.109	89.9	129.8	33.4	0.105
4-1060	4-1270	0.089	240.2	-22.8	-0.20	0.737	96.9	0.220	1.266	206.5	367.9	0.988	---	2.04	1.110	91.4	126.3	40.3	0.113
4-1060	4-1280	0.097	241.1	-41.8	-2.61	0.734	96.4	0.221	1.259	204.1	375.5	0.981	---	4.39	1.110	92.8	130.0	56.8	0.141
4-1060	4-1290	0.324	259.3	38.8	23.23	0.731	95.8	0.223	1.250	201.3	383.0	0.971	---	-21.51	1.109	94.1	86.6	-54.2	0.415
4-1060	4-1300	0.116	259.8	8.0	4.83	0.726	95.1	0.226	1.241	198.0	389.8	0.960	---	-3.17	1.107	95.4	116.8	-3.0	0.154
4-1060	4-1310	0.112	264.6	-1.8	3.34	0.722	94.2	0.230	1.231	194.4	396.4	0.948	---	-1.73	1.105	96.6	123.1	7.4	0.156
4-1060	4-1320	0.115	270.2	-6.6	2.76	0.717	93.2	0.235	1.220	190.6	402.8	0.934	---	-1.22	1.102	97.8	129.0	10.4	0.168
4-1060	4-1330	0.123	275.9	-9.6	2.44	0.712	92.1	0.242	1.210	186.7	409.0	0.918	---	-0.96	1.099	99.0	135.1	11.0	0.182
4-1060	4-1340	0.133	281.5	-11.6	2.23	0.707	90.8	0.250	1.200	182.5	415.1	0.900	---	-0.82	1.095	100.2	141.5	10.4	0.198
4-1060	4-1350	0.146	286.9	-13.0	2.07	0.703	89.4	0.260	1.190	178.3	421.1	0.881	1.500	-0.73	1.091	101.4	148.1	9.1	0.215
4-1060	4-1360	0.162	291.8	-14.0	1.93	0.698	87.8	0.273	1.180	174.1	426.9	0.859	1.502	-0.68	1.086	102.8	154.7	7.2	0.234
4-1060	4-1370	0.181	296.3	-14.7	1.81	0.693	85.9	0.288	1.171	169.8	432.7	0.833	1.509	-0.65	1.081	104.2	161.4	5.0	0.256
4-1060	4-1380	0.204	300.4	-15.2	1.70	0.688	83.8	0.308	1.162	165.6	438.6	0.804	1.520	-0.65	1.076	105.9	168.1	2.5	0.281
4-1060	4-1390	0.232	304.1	-15.5	1.58	0.684	81.2	0.333	1.154	161.5	444.5	0.779	1.538	-0.67	1.070	107.8	174.7	-0.1	0.312
4-1060	4-1400	0.266	307.2	-15.7	1.46	0.679	78.2	0.365	1.146	157.6	450.5	0.728	1.564	-0.70	1.065	110.1	181.2	-2.7	0.350
4-1060	4-1410	0.309	309.9	-16.0	1.31	0.675	74.4	0.407	1.139	154.2	457.0	0.676	1.602	-0.77	1.059	113.0	187.5	-5.3	0.398
4-1060	4-1420	0.364	312.9	-16.3	1.13	0.671	69.6	0.463	1.132	151.5	464.1	0.608	1.657	-0.88	1.054	116.8	193.5	-7.7	0.463
4-1060	4-1430	0.439	313.1	-16.7	0.89	0.668	63.1	0.540	1.127	150.0	472.4	0.519	1.735	-1.06	1.050	122.1	198.9	-9.8	0.553
4-1060	4-1440	0.543	312.9	-17.5	0.51	0.666	54.1	0.646	1.123	150.7	482.9	0.398	1.848	-1.39	1.046	129.9	203.3	-11.5	0.684
4-1060	4-1490	0.509	209.1	-9.0	3.50	0.601	133.2	0.762	1.028	200.8	580.9	0.245	1.811	1.88	0.998	40.4	116.0	22.8	0.839
4-1060	4-1500	0.373	214.4	-9.9	2.87	0.597	119.6	0.638	1.023	201.1	590.8	0.370	1.677	1.31	0.995	50.3	120.8	21.9	0.672
4-1060	4-1510	0.565	288.6	-21.2	2.53	0.443	94.9	0.815	0.879	170.2	569.4	0.163	1.596	1.03	0.911	35.9	143.0	15.3	0.862
4-1060	4-1510	0.288	226.7	-12.8	2.53	0.589	108.9	0.557	1.014	196.6	595.9	0.449	1.579	1.03	0.990	56.1	128.1	20.4	0.573
4-1060	4-1520	0.453	287.7	-20.7	2.30	0.486	67.7	0.708	0.911	169.9	578.6	0.266	1.556	0.86	0.933	45.3	147.3	14.0	0.727
4-1060	4-1520	0.253	248.7	-7.3	2.30	0.574	98.4	0.522	0.996	187.9	596.7	0.476	1.515	0.86	0.982	58.6	137.5	17.8	0.528
4-1060	4-1620	0.597	328.5	-13.2	0.77	0.833	53.0	0.603	1.561	124.0	270.1	---	2.502	1.16	1.172	59.0	214.6	-11.7	0.589
4-1060	4-1630	0.570	330.1	-12.2	0.27	0.837	55.1	0.574	1.579	120.8	276.9	---	2.484	1.60	1.177	62.0	221.4	-12.2	0.541
4-1060	4-1640	0.545	332.0	-13.1	-0.91	0.841	57.0	0.546	1.594	117.7	283.9	---	2.466	2.72	1.182	64.9	228.5	-11.9	0.495
4-1060	4-1650	0.534	336.4	-22.1	-8.25	0.844	58.8	0.521	1.609	114.8	291.1	---	2.447	10.00	1.186	67.7	240.5	3.0	0.494
4-1060	4-1660	0.511	329.5	-1.2	7.44	0.847	60.4	0.498	1.621	112.0	298.5	---	2.429	-5.75	1.189	70.5	235.0	-5.8	0.417
4-1060	4-1670	0.485	332.6	-5.1	3.90	0.849	61.9	0.477	1.632	109.5	306.1	---	2.411	-2.27	1.192	73.3	243.0	-28.4	0.363
4-1060	4-1680	0.466	334.1	-5.7	3.02	0.851	63.1	0.459	1.642	107.2	314.0	---	2.395	-1.44	1.194	75.9	248.1	-27.2	0.322
4-1060	4-1690	0.451	335.1	-5.9	2.59	0.853	64.2	0.443	1.650	105.1	322.1	---	2.380	-1.08	1.195	78.6	251.8	-26.9	0.284
4-1060	4-1700	0.439	335.9	-5.8	2.33	0.855	65.1	0.429	1.657	103.3	330.5	---	2.368	-0.88	1.196	81.3	253.6	-26.8	0.249
4-1060	4-1710	0.429	336.6	-5.8	2.15	0.856	65.8	0.419	1.662	101.9	339.2	---	2.358	-0.77	1.196	83.9	253.0	-26.7	0.220
4-1060	4-1720	0.422	337.1	-5.8	2.00	0.857	66.3	0.412	1.666	100.8	348.3	---	2.352	-0.70	1.195	86.6	249.3	-26.0	0.197
4-1060	4-1720	0.211	215.6	-8.0	2.00	0.679	106.9	0.414	1.146	207.7	815.2	0.671	1.621	-0.70	1.075	115.2	135.7	15.1	0.419
4-1060	4-1720	0.355	197.1	-3.7	2.00	0.713	120.6	0.549	1.211	217.5	825.0	0.546	1.676	-0.70	1.097	121.7	131.3	-16.9	0.573
4-1060	4-1730	0.418	337.4	-5.9	1.87	0.857	66.6	0.408	1.669	100.2	357.8	---	2.350	-0.66	1.194	89.4	242.5	-25.4	0.184
4-1060	4-1730	0.170	239.8	-13.7	1.87	0.663	99.4	0.374	1.118	196.5	814.1	0.700	1.536	-0.66	1.063	111.0	146.1	11.7	0.369
4-1060	4-1730	0.475	194.0	-3.7	1.87	0.736	130.1	0.660	1.263	217.4	835.0	0.429	2.097	-0.66	1.110	129.7	136.9	15.7	0.715

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEEC
4-1060	4-1740	0.419	337.5	-6.1	1.76	0.858	66.5	0.409	1.671	100.1	367.8	0.988	2.355	-0.65	1.192	92.3	233.7	-23.6	0.185
4-1060	4-1740	0.171	259.7	-16.9	1.74	0.654	94.4	0.366	1.104	187.7	815.5	0.700	1.507	-0.65	1.055	110.7	155.2	8.4	0.360
4-1060	4-1740	0.562	193.8	-4.3	1.76	0.752	136.8	0.736	1.300	215.3	842.8	0.343	2.258	-0.65	1.118	135.8	143.4	13.8	0.821
4-1060	4-1750	0.425	337.4	-6.4	1.64	0.858	66.1	0.415	1.672	100.7	378.4	0.978	2.367	-0.65	1.190	95.4	225.5	-21.2	0.203
4-1060	4-1750	0.189	275.3	-12.2	1.64	0.647	90.1	0.371	1.093	180.1	817.8	0.687	1.499	-0.65	1.049	111.2	163.6	5.1	0.365
4-1060	4-1760	0.437	337.0	-6.9	1.53	0.858	65.3	0.428	1.673	102.0	389.7	0.956	2.390	-0.68	1.188	98.8	219.7	-19.0	0.237
4-1060	4-1760	0.218	286.9	-18.4	1.53	0.642	85.7	0.388	1.085	173.2	820.9	0.665	1.504	-0.68	1.043	112.3	171.6	1.8	0.382
4-1060	4-1770	0.457	336.3	-7.6	1.39	0.858	62.8	0.451	1.673	104.2	401.9	0.919	2.427	-0.73	1.186	102.7	216.5	-17.6	0.289
4-1060	4-1770	0.258	295.4	-16.4	1.39	0.638	81.1	0.415	1.079	167.1	824.7	0.632	1.526	-0.73	1.038	114.1	179.1	-1.4	0.412
4-1060	4-1780	0.489	335.1	-8.6	1.23	0.858	61.5	0.485	1.673	107.6	415.1	0.961	2.484	-0.82	1.184	107.3	213.3	-16.8	0.360
4-1060	4-1780	0.308	301.6	-18.2	1.23	0.634	75.9	0.455	1.074	161.8	829.2	0.585	1.562	-0.82	1.033	116.8	186.2	-4.5	0.456
4-1060	4-1790	0.539	333.2	-9.5	1.03	0.858	58.0	0.537	1.672	112.6	429.9	0.774	2.571	-0.96	1.181	118.1	215.4	-16.5	0.456
4-1060	4-1790	0.374	305.9	-18.1	1.03	0.631	69.5	0.514	1.069	157.6	834.4	0.520	1.619	-0.96	1.028	120.8	192.8	-7.3	0.522
4-1060	4-1800	0.615	330.3	-11.6	0.73	0.858	52.5	0.615	1.672	119.9	446.9	0.644	2.701	-1.19	1.178	120.7	215.7	-16.4	0.688
4-1060	4-1800	0.463	308.4	-18.3	0.73	0.629	61.3	0.598	1.066	155.3	842.3	0.428	1.703	-1.19	1.024	126.6	198.6	-9.6	0.620
4-1060	4-1800	0.445	295.5	-22.0	0.73	0.383	102.0	0.791	0.842	183.2	1230.3	0.176	1.508	-1.19	0.894	141.4	183.6	-2.5	0.811
4-1060	4-1800	0.597	322.2	-16.3	0.73	0.449	140.2	0.885	0.885	189.6	1236.6	0.098	1.668	-1.19	0.924	152.5	181.4	-1.2	0.995
4-1060	4-1810	0.587	308.7	-19.8	0.22	0.628	50.0	0.710	1.064	156.0	852.7	0.303	1.825	-1.64	1.021	135.6	202.9	-11.2	0.768
4-1060	4-1810	0.505	271.3	-23.8	0.22	0.357	74.6	0.824	0.829	176.4	1233.3	0.142	1.512	-1.64	0.881	144.5	190.9	-5.7	0.851
4-1060	4-1860	0.555	188.9	1.6	3.14	0.848	134.0	0.696	1.626	230.7	815.4	0.494	2.759	1.55	1.163	50.7	102.1	24.9	0.744
4-1060	4-1860	0.435	312.4	-9.7	3.14	0.588	125.7	0.702	1.013	200.5	945.2	0.302	1.723	1.55	0.990	45.4	118.6	22.5	0.751
4-1070	4-1130	0.494	236.1	-17.2	3.92	0.433	123.1	0.815	0.863	189.0	208.7	---	---	2.40	0.900	36.1	129.7	20.0	0.859
4-1070	4-1140	0.380	239.3	-17.1	3.11	0.498	111.2	0.692	0.913	190.3	219.6	---	---	1.66	0.932	46.7	133.0	19.3	0.709
4-1070	4-1150	0.299	241.6	-16.5	2.67	0.559	105.3	0.581	0.968	191.7	230.6	---	---	1.29	0.967	54.6	136.4	18.4	0.590
4-1070	4-1160	0.240	242.7	-15.5	2.38	0.609	102.3	0.487	1.027	193.6	242.0	---	---	1.08	0.998	60.9	133.9	17.6	0.493
4-1070	4-1170	0.196	243.7	-14.4	2.17	0.649	100.7	0.411	1.083	196.1	254.1	---	---	0.96	1.024	66.0	143.3	16.8	0.411
4-1070	4-1180	0.164	244.5	-13.6	2.00	0.680	99.9	0.352	1.133	199.3	266.8	---	---	0.85	1.045	70.3	146.5	16.1	0.342
4-1070	4-1190	0.141	239.4	-11.6	1.85	0.704	99.5	0.308	1.177	202.9	280.1	---	---	0.83	1.063	74.0	149.2	15.7	0.285
4-1070	4-1200	0.125	236.8	-10.4	1.71	0.721	99.3	0.276	1.212	206.6	293.4	---	---	0.81	1.076	77.1	151.3	15.7	0.233
4-1070	4-1210	0.114	2..	[illegible]	1.57	0.733	99.3	0.255	1.238	209.9	306.4	---	---	0.82	1.087	79.9	152.2	16.3	0.191
4-1070	4-1220	0.106	232.2	-9.2	1.43	0.742	99.2	0.241	1.[illegible]	212.4	318.7	---	---	0.84	1.095	82.3	151.6	17.9	0.157
4-1070	4-1230	0.101	231.0	-9.5	1.[illegible]	0.747	99.1	0.232	1.269	215.[illegible]	330.2	---	---	0.90	1.101	84.5	149.0	20.6	0.132
4-1070	4-1240	0.098	230.8	-10.6	1.07	0.[illegible]	[illegible]	0.226	1.275	214.6	340.[illegible]	---	---	1.00	1.105	86.5	144.2	24.5	0.114
4-1070	4-1250	0.095	231.7	-12.6	0.83	0.750	98.7	[illegible]	1.276	214.3	350.2	---	---	1.17	1.108	88.2	137.9	29.1	0.106
4-1070	4-1260	0.094	232.5	-15.9	0.46	0.748	98.4	0.221	1.273	213.1	359.0	---	---	1.45	1.110	89.8	131.6	33.9	0.106
4-1070	4-1270	0.093	236.0	-21.5	-0.16	0.746	98.0	0.221	1.268	211.2	367.1	0.988	---	1.99	1.[illegible]	91.3	127.8	39.6	0.113
4-1070	4-1280	0.096	238.2	-33.5	-1.60	0.743	97.5	0.221	1.260	208.7	374.7	0.981	---	3.37	1.110	[illegible]	128.7	49.7	0.130
4-1070	4-1290	0.170	225.1	-72.0	-10.40	0.739	96.9	0.222	1.251	205.7	381.8	0.973	---	12.09	1.109	93.9	[illegible]8	81.7	0.256
4-1070	4-1300	0.154	258.7	23.5	8.88	0.734	96.2	0.224	1.240	202.4	388.9	0.962	---	-7.26	1.107	95.2	110.[illegible]	25.2	0.192
4-1070	4-1310	0.117	241.9	4.7	4.39	0.730	95.3	0.228	1.230	198.8	395.3	0.950	---	-2.84	1.105	96.3	122.1	-0.[illegible]	0.158
4-1070	4-1320	0.115	267.6	-2.9	3.27	0.725	94.4	0.232	1.219	196.9	401.6	0.937	---	-1.80	1.102	97.5	128.8	6.3	0.[illegible]
4-1070	4-1330	0.119	273.7	-7.2	2.74	0.720	93.3	0.237	1.208	190.8	407.7	0.922	---	-1.35	1.098	98.6	135.3	8.3	0.177
4-1070	4-1340	0.127	280.0	-9.9	2.42	0.714	92.1	0.244	1.198	186.6	413.7	0.906	--	-1.11	1.094	99.7	141.8	8.4	0.191
4-1070	4-1350	0.138	286.0	-11.8	2.18	0.709	90.8	0.252	1.187	182.3	419.5	0.888	-	-0.96	1.090	100.9	148.5	7.4	0.206
4-1070	4-1360	0.151	291.6	-13.0	2.00	0.704	89.2	0.263	1.177	177.9	425.3	0.868	1.4[illegible]	-0.88	1.085	102.1	155.3	5.8	0.223
4-1070	4-1370	0.168	296.8	-1	1.84	0.699	87.5	0.276	1.168	173.4	430.9	0.845	1.490	-0.83	1.080	103.5	162.0	3.7	0.242
4-1070	4-1380	0.188	301.6	-14.3	1.70	0.694	85.5	0.293	1.158	169.0	436.6	0.819	1.498	-0.81	1.074	104.9	168.8	1.4	0.264
4-1070	4-1390	0.212	305.8	-14.7	1.56	0.690	83.2	0.314	1.150	164.7	442.2	0.789	1.511	-0.82	1.069	106.8	175.5	-1.2	0.291
4-1070	4-1400	0.242	309.6	-14.8	1.41	0.685	80.5	0.341	1.142	160.5	448.0	0.753	1.531	-0.85	1.063	108.6	182.2	-3.8	0.323
4-1070	4-1410	0.279	312.8	-15.0	1.24	0.681	77.2	0.376	1.134	156.6	454.0	0.708	1.560	-0.91	1.058	111.1	188.7	-6.4	0.364
4-1070	4-1420	0.327	315.5	-15.1	1.05	0.677	73.0	0.422	1.127	153.2	460.4	0.651	1.603	-1.02	1.052	114.2	195.0	-8.9	0.417
4-1070	4-1430	0.389	317.4	-15.4	0.80	0.673	67.6	0.486	1.121	150.8	467.7	0.577	1.665	-1.19	1.047	118.5	200.9	-11.2	0.490
4-1070	4-1440	0.475	318.3	-15.9	0.43	0.670	60.3	0.573	1.116	149.9	476.6	0.476	1.756	-1.48	1.043	124.6	206.1	-13.1	0.593
4-1070	4-1450	0.597	317.6	-16.9	-0.19	0.669	49.8	0.694	1.113	151.8	488.2	0.340	1.886	-2.02	1.040	133.7	210.0	-14.4	0.745
4-1070	4-1500	0.443	216.0	-10.6	3.46	0.605	126.2	0.696	1.020	201.8	586.1	0.310	1.731	1.97	0.994	45.9	123.5	21.8	0.744
4-1070	4-1510	0.330	224.5	-12.3	2.87	0.599	114.2	0.591	1.014	199.7	593.5	0.415	1.613	1.46	0.990	53.8	129.5	20.5	0.612
4-1070	4-1520	0.526	294.5	-20.1	2.52	0.465	59.8	0.772	0.998	169.6	572.9	0.202	1.570	1.18	0.916	39.9	150.6	12.9	0.802
4-1070	4-1520	0.267	240.8	-15.7	2.52	0.589	104.1	0.530	1.001	193.3	596.7	0.471	1.532	1.18	0.985	58.0	137.7	18.2	0.538
4-1070	4-1530	0.391	290.6	-19.7	2.28	0.516	74.9	0.639	0.926	171.0	583.9	0.334	1.519	1.02	0.944	50.6	153.9	12.0	0.645
4-1070	4-1540	0.269	269.1	-19.2	2.28	0.565	91.8	0.525	0.975	181.7	594.6	0.463	1.487	1.02	0.972	58.4	148.3	14.5	0.527
4-1070	4-1630	0.587	334.4	-10.6	0.22	0.839	54.0	0.589	1.561	121.2	272.9	---	2.479	1.66	1.174	60.3	223.4	-13.5	0.569
4-1070	4-1640	0.560	336.1	-11.1	-0.66	0.844	56.1	0.560	1.577	119.0	279.8	---	2.461	2.46	1.179	63.3	230.5	-13.4	0.522
4-1070	4-1650	0.537	338.7	-14.0	-3.37	0.847	57.9	0.534	1.593	116.0	286.8	---	2.442	5.10	1.183	66.1	238.7	-8.6	0.483
4-1070	4-1670	0.498	335.7	-1.0	5.75	0.853	61.2	0.487	1.618	110.4	301.6	---	2.408	-4.16	1.189	71.7	246.0	-33.8	0.393
4-1070	4-1680	0.476	338.0	-3.0	3.73	0.855	62.6	0.467	1.629	107.8	309.3	---	2.389	-2.22	1.192	74.4	252.1	-29.8	0.347
4-1070	4-1690	0.459	339.3	-3.5	2.98	0.85[illegible]	63.8	0.449	1.638	105.6	317.2	---	2.373	-1.55	1.193	77.1	256.7	-28.8	0.307
4-1070	4-1700	0.444	340.2	-3.7	2.57	0.859	64.8	0.434	1.645	103.6	325.3	---	2.359	-1.22	1.194	79.7	259.9	-28.4	0.270
4-1070	4-1710	0.432	341.0	-3.7	2.30	0.860	65.7	0.422	1.651	101.9	333.8	---	2.347	-1.03	1.194	82.3	261.0	-28.3	0.237
4-1070	4-1720	0.423	341.6	-3.7	2.09	0.861	66.3	0.412	1.656	100.5	342.6	---	2.339	-0.92	1.193	85.0	259.3	-28.3	0.210
4-1070	4-1730	0.418	342.1	-3.8	1.92	0.862	66.7	0.406	1.660	99.6	351.8	---	2.336	-0.85	1.192	87.6	254.4	-28.0	0.190
4-1070	4-1730	0.186	232.5	-12.4	1.92	0.675	102.6	0.384	1.124	202.3	814.5	0.692	1.556	-0.85	1.063	111.6	145.8	11.4	0.380
4-1070	4-1730	0.424	199.9	-5.7	1.92	0.731	125.3	0.608	1.233	218.3	830.5	0.484	1.983	-0.85	1.102	125.9	138.8	14.7	0.645
4-1070	4-1740	0.415	342.4	-4.0	1.77	0.862	66.9	0.404	1.662	99.2	361.5	0.990	2.335	-0.82	1.191	90.4	246.5	-27.1	0.182
4-1070	4-1740	0.170	254.1	-16.2	1.77	0.664	97.1	0.364	1.105	192.7	815.0	0.703	1.507	-0.82	1.056	110.5	155.2	7.9	0.357
4-1070	4-1740	0.523	198.8	-6.1	1.77	0.749	133.4	0.697	1.276	216.7	839.0	0.386	2.165	-0.82	1.112	132.6	145.0	13.0	0.764
4-1070	4-1750	0.418	342.4	-4.2	1.63	0.863	66.7	0.407	1.664	99.3	371.6	0.987	2.341	-0.81	1.189	93.4	237.4	-25.3	0.188
4-1070	4-1750	0.178	271.9	-18.0	1.63	0.656	92.6	0.362	1.093	184.5	816.8	0.698	1.489	-0.81	1.049	110.6	163.9	4.4	0.355
4-1070	4-1760	0.425	342.3	-4.7	1.49	0.863	66.2	0.415	1.665	100.1	382.4	0.973	2.357	-0.83	1.187	96.5	229.6	-23.1	0.212
4-1070	4-1760	0.201	285.6	-18.3	1.49	0.651	88.3	0.372	1.084	177.2	819.5	0.681	1.488	-0.83	1.043	111.3	172.0	1.0	0.365
4-1070	4-1770	0.440	341.8	-5.3	1.33	0.863	65.1	0.431	1.666	101.8	394.0	0.947	2.384	-0.87	1.184	100.1	224.6	-21.2	0.252

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEEC

DEPARTURE PLANET= MARS
ARRIVAL - PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1070	4-1770	0.233	295.9	-18.1	1.33	0.646	84.0	0.392	1.077	170.6	822.7	0.655	1.499	-0.87	1.037	112.7	179.8	-2.3	0.386
4-1070	4-1780	0.465	341.0	-6.2	1.16	0.863	63.4	0.458	1.665	104.5	406.5	0.903	2.428	-0.96	1.182	109.2	222.1	-19.9	0.311
4-1070	4-1780	0.276	303.4	-17.7	1.16	0.642	79.3	0.424	1.072	164.7	826.7	0.618	1.525	-0.96	1.032	114.8	187.2	-5.4	0.421
4-1070	4-1790	0.503	339.6	-7.3	0.94	0.863	60.7	0.498	1.665	108.5	420.3	0.839	2.495	-1.09	1.180	109.2	221.3	-19.2	0.490
4-1070	4-1790	0.332	308.9	-17.3	0.94	0.639	73.7	0.470	1.067	159.7	831.5	0.565	1.569	-1.09	1.027	117.9	194.2	-8.3	0.473
4-1070	4-1800	0.562	357.5	-8.8	-0.64	0.863	56.5	0.560	1.665	114.3	435.9	0.733	2.597	-1.30	1.177	115.5	221.5	-18.9	0.498
4-1070	4-1800	0.406	312.6	-17.2	0.64	0.636	66.8	0.538	1.063	156.1	837.7	0.491	1.635	-1.30	1.023	122.4	200.6	-10.9	0.550
4-1070	4-1810	0.508	318.4	-17.4	0.18	0.634	57.5	0.636	1.060	154.8	846.1	0.386	1.734	-1.69	1.019	129.4	205.9	-12.9	0.665
4-1070	4-1810	0.459	267.0	-23.8	0.18	0.376	86.8	0.790	0.830	179.7	1231.0	0.174	1.487	-1.69	0.882	141.1	191.9	-6.4	0.803
4-1070	4-1820	0.559	283.1	-23.8	-0.68	0.359	63.2	0.851	0.822	174.8	1235.7	0.122	1.521	-2.48	0.872	147.5	198.4	-9.2	0.889
4-1070	4-1860	0.522	215.2	-10.9	3.98	0.597	133.7	0.770	1.011	200.1	939.3	0.232	1.789	2.46	0.989	29.6	121.9	22.1	0.843
4-1070	4-1870	0.497	187.8	1.1	3.14	0.854	129.3	0.637	1.622	236.5	625.3	0.588	2.656	1.68	1.162	56.2	107.3	25.0	0.648
4-1070	4-1870	0.382	220.5	-11.8	3.14	0.595	115.7	0.644	1.008	200.6	949.4	0.359	1.658	1.68	0.988	49.9	126.5	21.1	0.676
4-1080	4-1130	0.586	234.7	-17.0	5.39	0.452	136.9	0.872	0.868	189.9	904.2	---	---	3.93	0.903	29.8	132.2	19.7	0.952
4-1080	4-1140	0.438	237.8	-16.8	3.77	0.490	119.5	0.740	0.902	192.2	216.0	---	---	2.40	0.926	42.7	135.2	19.1	0.768
4-1080	4-1150	0.337	239.8	-16.2	3.05	0.558	110.5	0.617	0.956	194.1	227.4	---	---	1.76	0.960	52.1	138.3	18.3	0.630
4-1080	4-1160	0.266	240.7	-15.3	2.62	0.611	105.9	0.512	1.016	196.4	239.2	---	---	1.42	0.993	59.2	141.5	17.5	0.520
4-1080	4-1170	0.215	240.3	-14.1	2.32	0.653	103.4	0.429	1.075	199.3	251.7	---	---	1.22	1.021	64.8	144.7	16.8	0.431
4-1080	4-1180	0.179	238.8	-12.8	2.09	0.687	102.0	0.364	1.129	202.8	264.8	---	---	1.09	1.044	69.5	147.7	16.2	0.366
4-1080	4-1190	0.153	236.4	-11.4	1.90	0.712	101.3	0.316	1.175	206.9	278.5	---	---	1.02	1.062	73.4	150.3	15.9	0.293
4-1080	4-1200	0.136	233.5	-10.2	1.73	0.730	100.9	0.283	1.213	210.9	292.2	---	---	0.98	1.077	76.7	152.2	16.0	0.241
4-1080	4-1210	0.124	230.8	-9.4	1.56	0.743	100.7	0.260	1.242	214.6	305.6	---	---	0.97	1.088	79.6	153.1	16.7	0.197
4-1080	4-1220	0.116	228.6	-9.2	1.48	0.752	100.5	0.245	1.262	217.4	318.2	---	---	0.98	1.096	82.1	152.5	18.4	0.162
4-1080	4-1230	0.110	227.3	-9.6	1.21	0.757	100.3	0.236	1.275	219.1	329.7	---	---	1.05	1.103	84.4	150.0	21.2	0.155
4-1080	4-1240	0.106	227.0	-10.1	1.01	0.759	100.1	0.230	1.281	219.8	340.3	---	---	1.12	1.107	86.3	145.3	25.1	0.117
4-1080	4-1250	0.104	227.7	-12.6	0.75	0.760	99.9	0.226	1.282	219.4	349.9	---	---	1.27	1.110	88.1	139.0	29.7	0.108
4-1080	4-1260	0.101	229.4	-15.5	0.41	0.759	99.5	0.224	1.278	218.2	358.6	---	---	1.52	1.111	89.7	132.9	34.2	0.107
4-1080	4-1270	0.100	231.8	-20.3	-0.13	0.755	99.1	0.223	1.272	216.2	366.7	0.988	---	1.96	1.111	91.2	128.8	39.0	0.113
4-1080	4-1280	0.100	234.5	-28.8	-1.16	0.752	98.6	0.223	1.263	213.6	374.2	0.982	---	2.90	1.111	92.6	128.6	46.0	0.126
4-1080	4-1290	0.115	234.6	-49.8	-4.30	0.748	98.0	0.223	1.253	210.5	381.2	0.974	---	5.95	1.110	93.8	137.5	62.7	0.166
4-1080	4-1310	0.135	259.5	14.7	6.53	0.738	96.5	0.227	1.230	203.4	394.5	0.952	---	-5.04	1.105	96.2	118.8	-13.7	0.174
4-1080	4-1320	0.119	264.3	2.0	4.07	0.733	95.6	0.230	1.219	199.4	400.6	0.935	---	-2.67	1.102	97.3	127.9	0.5	0.166
4-1080	4-1330	0.118	270.6	-4.2	3.16	0.727	94.5	0.234	1.207	195.2	406.6	0.925	---	-1.85	1.098	98.3	135.0	4.9	0.174
4-1080	4-1340	0.123	277.4	-8.0	2.67	0.722	93.4	0.239	1.196	190.9	412.5	0.910	---	-1.46	1.094	99.4	141.9	8.0	0.186
4-1080	4-1350	0.131	284.0	-10.4	2.34	0.716	92.1	0.246	1.185	186.4	418.2	0.894	---	-1.23	1.089	100.5	148.7	5.6	0.199
4-1080	4-1360	0.142	290.5	-12.0	2.09	0.711	90.6	0.255	1.175	181.9	423.8	0.875	---	-1.10	1.084	101.4	155.6	4.3	0.214
4-1080	4-1370	0.156	296.4	-13.0	1.89	0.706	89.0	0.266	1.165	177.3	429.3	0.855	1.474	-1.02	1.079	102.8	162.5	2.4	0.231
4-1080	4-1380	0.173	301.9	-13.6	1.71	0.701	87.2	0.280	1.155	172.7	434.7	0.832	1.478	-0.98	1.073	104.1	169.4	0.2	0.250
4-1080	4-1390	0.194	306.9	-13.9	1.54	0.696	85.1	0.297	1.146	168.2	440.2	0.805	1.487	-0.97	1.067	105.6	176.2	-2.3	0.273
4-1080	4-1400	0.220	311.3	-14.0	1.37	0.691	82.6	0.320	1.138	165.7	445.7	0.774	1.502	-0.99	1.062	107.3	183.0	-4.9	0.300
4-1080	4-1410	0.253	315.2	-14.1	1.19	0.687	79.7	0.349	1.130	159.5	451.3	0.735	1.524	-1.04	1.056	109.4	189.7	-7.6	0.334
4-1080	4-1420	0.293	318.5	-14.1	0.99	0.683	76.1	0.388	1.122	155.6	457.2	0.687	1.557	-1.14	1.051	112.0	196.3	-10.1	0.379
4-1080	4-1430	0.345	321.1	-14.2	0.72	0.679	71.5	0.439	1.116	152.3	463.8	0.625	1.606	-1.20	1.045	115.5	202.6	-12.5	0.438
4-1080	4-1440	0.416	322.9	-14.4	0.38	0.675	65.5	0.511	1.110	150.2	471.4	0.543	1.677	-1.54	1.041	120.3	208.4	-14.5	0.520
4-1080	4-1450	0.515	323.5	-15.0	-0.16	0.673	57.1	0.611	1.106	150.1	481.0	0.430	1.782	-1.98	1.037	127.4	213.3	-16.1	0.639
4-1080	4-1500	0.534	219.5	-12.0	4.43	0.611	134.3	0.769	1.016	200.9	579.7	0.234	1.798	3.01	0.991	39.7	127.1	21.4	0.841
4-1080	4-1510	0.388	228.4	-12.5	3.37	0.608	120.2	0.635	1.012	201.7	590.0	0.366	1.659	2.04	0.990	50.3	131.5	20.4	0.669
4-1080	4-1520	0.590	300.0	-19.3	2.82	0.447	52.7	0.826	0.964	170.1	567.9	0.150	1.578	1.58	0.901	84.9	153.5	11.9	0.871
4-1080	4-1520	0.298	236.2	-14.9	2.82	0.600	109.4	0.553	1.003	197.5	595.3	0.448	1.558	1.58	0.986	56.4	138.5	18.4	0.565
4-1080	4-1530	0.481	295.7	-18.8	2.47	0.488	65.0	0.724	0.994	169.3	576.7	0.247	1.541	1.31	0.923	84.1	157.9	10.5	0.739
4-1080	4-1530	0.258	256.9	-17.9	2.47	0.587	99.4	0.513	0.987	189.1	596.5	0.481	1.493	1.31	0.979	59.2	147.5	15.4	0.515
4-1080	4-1630	0.603	338.6	-9.0	0.19	0.842	52.9	0.604	1.542	123.7	228.9	---	2.475	1.69	1.171	58.6	225.3	-14.2	0.598
4-1080	4-1640	0.576	340.3	-9.2	-0.52	0.846	55.0	0.575	1.560	120.4	275.1	---	2.457	2.31	1.176	61.6	232.5	-14.5	0.580
4-1080	4-1650	0.550	342.4	-10.6	-2.12	0.850	57.0	0.547	1.576	117.5	282.6	---	2.438	3.82	1.180	64.5	240.0	-12.4	0.576
4-1080	4-1660	0.545	347.2	-21.1	-10.53	0.853	56.8	0.522	1.590	114.3	289.7	---	2.420	17.14	1.184	67.3	251.8	4.6	0.507
4-1080	4-1670	0.526	336.1	7.1	11.21	0.856	60.5	0.497	1.603	111.4	297.1	---	2.401	-9.68	1.187	70.2	249.1	-47.1	0.448
4-1080	4-1680	0.488	341.5	0.4	4.98	0.859	62.0	0.476	1.615	108.7	304.6	---	2.383	-3.53	1.189	72.9	255.8	-33.6	0.475
4-1080	4-1690	0.467	343.3	-0.9	3.55	0.861	63.3	0.457	1.625	106.2	312.3	---	2.367	-2.20	1.191	75.5	261.3	-30.9	0.432
4-1080	4-1700	0.451	344.5	-1.3	2.90	0.863	64.5	0.440	1.633	104.0	320.4	---	2.352	-1.62	1.192	78.1	265.5	-29.9	0.393
4-1080	4-1710	0.437	345.4	-1.5	2.50	0.864	65.4	0.426	1.640	102.1	328.3	---	2.339	-1.33	1.192	80.7	268.0	-29.5	0.358
4-1080	4-1720	0.426	346.2	-1.6	2.22	0.866	66.2	0.415	1.646	100.5	337.0	---	2.328	-1.16	1.192	83.3	268.2	-29.5	0.326
4-1080	4-1730	0.418	346.8	-1.7	1.99	0.867	66.8	0.406	1.650	99.2	345.9	---	2.321	-1.05	1.191	85.9	267.5	-29.6	0.301
4-1080	4-1730	0.225	223.4	-10.9	1.99	0.692	107.8	0.415	1.139	209.7	816.4	0.666	1.611	-1.05	1.070	113.4	144.8	11.4	0.415
4-1080	4-1730	0.352	207.8	-7.9	1.99	0.721	119.6	0.534	1.195	218.1	824.7	0.557	1.833	-1.05	1.090	120.9	141.4	13.3	0.553
4-1080	4-1740	0.413	347.2	-1.8	1.81	0.867	67.1	0.402	1.653	98.5	355.2	---	2.317	-0.99	1.189	88.6	259.4	-29.5	0.185
4-1080	4-1740	0.177	247.3	-15.4	1.81	0.675	100.0	0.368	1.109	198.2	814.9	0.701	1.516	-0.99	1.057	110.7	155.1	7.4	0.361
4-1080	4-1740	0.478	204.2	-8.0	1.81	0.746	129.5	0.651	1.248	218.1	834.9	0.435	2.062	-0.99	1.104	129.1	146.7	12.1	0.700
4-1080	4-1750	0.412	347.4	-2.1	1.63	0.868	67.2	0.401	1.656	98.2	365.0	0.992	2.320	-0.97	1.188	91.4	250.6	-28.6	0.182
4-1080	4-1750	0.173	267.0	-17.7	1.63	0.666	95.1	0.357	1.094	189.3	816.1	0.704	1.485	-0.97	1.049	110.2	164.0	3.9	0.349
4-1080	4-1750	0.567	203.9	-8.6	1.63	0.761	136.2	0.729	1.286	215.8	842.6	0.349	2.224	-0.97	1.112	135.3	153.0	10.1	0.808
4-1080	4-1760	0.416	347.5	-2.5	1.46	0.868	66.9	0.405	1.657	98.6	375.3	0.985	2.329	-0.97	1.186	94.4	241.5	-26.9	0.194
4-1080	4-1760	0.187	282.9	-18.2	1.46	0.659	90.9	0.360	1.084	181.5	818.3	0.694	1.474	-0.97	1.042	110.6	122.4	0.4	0.352
4-1080	4-1770	0.426	347.2	-3.0	1.29	0.868	66.2	0.416	1.658	99.7	386.3	0.968	2.348	-1.01	1.183	97.7	234.3	-24.9	0.223
4-1080	4-1770	0.213	295.1	-17.9	1.29	0.654	86.7	0.373	1.076	174.5	821.1	0.675	1.478	-1.01	1.036	111.5	180.3	-3.0	0.366
4-1080	4-1780	0.444	346.7	-3.7	1.10	0.868	64.9	0.435	1.658	101.7	398.2	0.936	2.380	-1.08	1.181	101.3	230.0	-23.2	0.269
4-1080	4-1780	0.248	304.2	-17.3	1.10	0.650	82.3	0.397	1.070	168.1	824.6	0.645	1.495	-1.08	1.031	113.1	188.0	-6.3	0.392
4-1080	4-1790	0.473	345.7	-4.7	0.87	0.868	62.9	0.466	1.658	104.9	411.2	0.885	2.431	-1.20	1.179	105.7	228.1	-22.1	0.334
4-1080	4-1790	0.295	311.0	-16.6	0.87	0.646	77.4	0.434	1.065	162.4	828.7	0.603	1.527	-1.20	1.026	115.5	195.3	-9.3	0.432
4-1080	4-1800	0.519	344.1	-6.0	0.57	0.868	59.7	0.514	1.658	109.8	425.6	0.806	2.510	-1.39	1.176	111.1	227.6	-21.5	0.422
4-1080	4-1800	0.357	315.9	-16.2	0.57	0.643	71.4	0.488	1.060	157.8	833.9	0.543	1.573	-1.39	1.022	119.1	202.2	-12.0	0.492

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1080	4-1810	0.589	341.7	-7.8	0.16	0.868	54.6	0.586	1.658	116.4	442.2	0.687	2.629	-1.72	1.174	118.3	227.7	-21.2	0.545
4-1080	4-1810	0.441	319.0	-16.1	0.16	0.641	63.7	0.567	1.057	154.9	840.7	0.458	1.656	-1.72	1.018	124.0	208.4	-14.3	0.582
4-1080	4-1810	0.446	258.0	-23.4	0.16	0.401	104.5	0.780	0.836	184.2	1230.0	0.184	1.488	-1.72	0.886	140.2	192.5	-6.7	0.790
4-1080	4-1810	0.597	232.7	-19.4	0.16	0.461	138.9	0.878	0.874	190.2	1236.0	0.106	1.642	-1.72	0.915	151.1	190.4	-5.3	0.959
4-1080	4-1820	0.559	320.0	-16.5	-0.54	0.639	53.1	0.679	1.055	154.8	850.2	0.338	1.771	-2.32	1.014	132.7	213.2	-15.9	0.720
4-1080	4-1820	0.492	291.4	-24.0	-0.54	0.374	77.9	0.803	0.822	177.0	1232.4	0.162	1.482	-2.32	0.872	142.3	200.0	-10.1	0.817
4-1080	4-1870	0.572	195.5	-2.3	3.83	0.859	334.3	0.701	1.616	230.9	614.2	0.454	2.749	2.45	1.161	50.2	113.3	24.7	0.750
4-1080	4-1870	0.455	221.9	-12.3	3.83	0.603	126.7	0.704	1.007	201.4	944.7	0.298	1.716	2.45	0.987	45.3	129.2	20.9	0.750
4-1080	4-1880	0.450	191.2	-20.3	3.08	0.880	125.6	0.587	1.617	241.5	634.3	0.669	2.566	1.78	1.162	60.7	112.8	25.0	0.566
4-1080	4-1880	0.339	229.8	-03.6	3.08	0.601	114.5	0.595	1.004	199.8	952.6	0.407	1.601	1.78	0.986	53.5	134.9	19.5	0.614
4-1090	4-1140	0.523	236.2	-16.5	4.66	0.516	130.5	0.799	0.907	193.9	212.1	---	---	3.59	0.930	37.3	137.4	18.9	0.851
4-1090	4-1150	0.391	238.0	-15.9	3.60	0.565	117.3	0.661	0.951	196.6	224.3	---	---	2.40	0.957	48.7	140.1	18.2	0.682
4-1090	4-1160	0.302	238.6	-15.0	2.95	0.616	110.4	0.544	1.011	199.4	236.6	---	---	1.85	0.990	57.0	143.1	17.5	0.555
4-1090	4-1170	0.241	237.9	-13.9	2.52	0.660	106.6	0.450	1.072	202.8	249.5	---	---	1.52	1.019	63.4	146.0	16.9	0.455
4-1090	4-1180	0.199	236.1	-12.6	2.22	0.695	104.5	0.379	1.129	206.8	263.2	---	---	1.34	1.044	68.5	148.8	16.4	0.373
4-1090	4-1190	0.170	234.4	-11.2	1.97	0.721	103.3	0.327	1.179	211.3	277.3	---	---	1.22	1.064	72.7	151.2	16.1	0.305
4-1090	4-1200	0.151	232.4	-10.1	1.76	0.741	102.6	0.291	1.220	215.9	291.5	---	---	1.15	1.079	76.2	152.9	16.3	0.250
4-1090	4-1210	0.138	227.5	-9.4	1.57	0.754	102.2	0.268	1.251	219.9	305.3	---	---	1.12	1.091	79.3	153.7	17.2	0.204
4-1090	4-1220	0.129	225.3	-9.3	1.37	0.763	101.9	0.252	1.272	222.9	318.1	---	---	1.12	1.099	81.9	153.8	19.0	0.167
4-1090	4-1230	0.123	224.1	-9.7	1.18	0.768	101.7	0.243	1.285	224.8	329.7	---	---	1.16	1.105	84.2	150.4	21.9	0.139
4-1090	4-1240	0.119	223.7	-10.7	0.96	0.771	101.4	0.236	1.291	225.4	340.3	---	---	1.23	1.110	86.3	145.7	25.8	0.121
4-1090	4-1250	0.115	224.4	-12.5	0.70	0.771	101.1	0.232	1.291	225.0	349.8	---	---	1.36	1.112	88.1	139.5	30.2	0.111
4-1090	4-1260	0.112	225.9	-15.2	0.37	0.769	100.7	0.229	1.287	223.7	358.5	---	---	1.57	1.113	89.7	133.4	34.4	0.109
4-1090	4-1270	0.110	228.2	-19.1	-0.11	0.766	100.3	0.227	1.279	221.6	366.4	0.988	---	1.94	1.113	91.2	120.4	38.4	0.114
4-1090	4-1280	0.108	230.9	-25.6	-0.91	0.760	99.8	0.226	1.269	218.9	373.8	0.982	---	2.63	1.113	92.5	128.6	43.6	0.125
4-1090	4-1290	0.112	233.1	-38.5	-2.70	0.757	99.2	0.226	1.258	215.7	380.7	0.974	---	4.32	1.111	93.8	133.1	55.5	0.148
4-1090	4-1300	0.192	223.1	-72.1	-11.65	0.752	98.4	0.226	1.245	212.1	387.2	0.964	---	13.17	1.109	94.9	181.0	80.8	0.278
4-1090	4-1310	0.209	259.5	30.2	13.12	0.747	97.7	0.227	1.233	208.3	393.8	0.953	---	-11.69	1.106	96.1	107.9	-37.2	0.260
4-1090	4-1320	0.130	261.1	8.9	5.47	0.741	96.8	0.229	1.220	204.2	399.8	0.941	---	-4.15	1.102	97.1	125.7	-8.4	0.174
4-1090	4-1330	0.121	266.9	-0.5	3.78	0.735	95.8	0.232	1.203	199.9	405.7	0.928	---	-2.57	1.098	98.1	134.3	0.3	0.174
4-1090	4-1340	0.122	273.9	-5.6	3.01	0.730	94.8	0.236	1.176	195.4	411.4	0.914	---	-1.90	1.093	99.1	141.7	3.2	0.183
4-1090	4-1350	0.126	281.1	-8.8	2.55	0.724	93.4	0.241	1.184	190.8	417.0	0.898	---	-1.55	1.089	100.1	148.8	3.5	0.194
4-1090	4-1360	0.135	288.2	-10.9	2.22	0.718	92.0	0.248	1.173	186.2	422.4	0.882	---	-1.34	1.083	101.2	155.8	2.6	0.207
4-1090	4-1370	0.146	295.0	-12.2	1.96	0.713	90.5	0.257	1.162	181.5	427.8	0.863	---	-1.22	1.078	102.3	162.8	1.0	0.221
4-1090	4-1380	0.160	301.3	-12.9	1.75	0.708	88.8	0.269	1.152	176.7	433.1	0.843	1.462	-1.15	1.072	103.4	169.8	-1.1	0.238
4-1090	4-1390	0.179	307.1	-13.3	1.55	0.703	86.8	0.284	1.143	172.0	438.4	0.819	1.467	-1.12	1.066	104.7	176.8	-3.5	0.257
4-1090	4-1400	0.201	312.4	-13.4	1.35	0.698	84.6	0.302	1.134	167.3	443.6	0.791	1.477	-1.12	1.060	106.2	183.7	-6.3	0.281
4-1090	4-1410	0.229	316.8	-13.3	1.15	0.693	82.0	0.326	1.126	162.7	449.0	0.758	1.493	-1.16	1.055	108.0	190.6	-8.3	0.309
4-1090	4-1420	0.263	320.8	-13.2	0.93	0.689	78.8	0.358	1.118	158.4	454.5	0.718	1.518	-1.24	1.049	110.2	197.4	-11.2	0.346
4-1090	4-1430	0.307	324.2	-13.1	0.67	0.684	74.9	0.400	1.111	154.6	460.4	0.666	1.556	-1.38	1.044	113.0	204.0	-13.6	0.389
4-1090	4-1440	0.366	326.8	-13.1	0.34	0.681	69.9	0.458	1.105	151.5	467.1	0.598	1.611	-1.59	1.039	116.9	210.4	-15.8	0.460
4-1090	4-1450	0.446	328.4	-13.3	-0.13	0.678	63.1	0.540	1.100	149.9	475.1	0.506	1.693	-1.96	1.034	122.4	216.0	-17.6	0.554
4-1090	4-1460	0.561	328.5	-14.0	-0.90	0.676	53.3	0.655	1.096	150.8	485.6	0.379	1.814	-2.63	1.031	130.7	220.5	-18.8	0.694
4-1090	4-1510	0.466	226.3	-13.3	4.15	0.615	127.3	0.703	1.009	202.2	584.9	0.300	1.719	2.90	0.988	45.3	134.4	20.0	0.749
4-1090	4-1520	0.345	234.1	-14.5	3.25	0.610	114.9	0.591	1.003	200.6	592.8	0.410	1.596	2.10	0.986	53.8	140.0	18.4	0.609
4-1090	4-1530	0.553	305.9	-17.8	2.73	0.468	57.3	0.787	0.870	169.4	571.1	0.185	1.554	1.68	0.906	38.7	161.0	9.3	0.815
4-1090	4-1530	0.276	249.5	-16.8	2.73	0.600	104.9	0.525	0.992	194.5	596.2	0.472	1.513	1.68	0.981	58.4	147.8	15.8	0.529
4-1090	4-1540	0.428	303.6	-17.6	2.37	0.514	71.0	0.665	0.906	169.7	581.0	0.303	1.508	1.43	0.932	48.8	164.9	8.1	0.669
4-1090	4-1540	0.264	275.0	-18.7	2.37	0.582	94.0	0.509	0.970	183.8	595.2	0.476	1.465	1.43	0.971	59.5	157.7	11.9	0.507
4-1090	4-1640	0.591	344.5	-7.3	-0.43	0.849	53.9	0.590	1.542	122.0	271.6	---	2.452	2.21	1.173	59.9	234.5	-15.5	0.578
4-1090	4-1650	0.564	346.4	-8.1	-1.55	0.853	56.0	0.562	1.559	118.7	278.4	---	2.434	3.22	1.177	62.8	241.9	-14.5	0.532
4-1090	4-1660	0.542	349.2	-11.7	-4.75	0.856	57.9	0.535	1.574	115.5	285.4	---	2.416	6.33	1.181	65.7	250.1	-8.2	0.496
4-1090	4-1680	0.504	343.9	5.5	7.63	0.862	61.3	0.486	1.601	109.7	300.0	---	2.379	-6.26	1.187	71.3	259.6	-40.5	0.411
4-1090	4-1690	0.477	347.1	2.2	4.47	0.865	62.4	0.466	1.611	107.0	307.5	---	2.362	-3.20	1.189	73.9	265.6	-33.6	0.358
4-1090	4-1700	0.458	348.6	1.2	3.36	0.867	64.0	0.447	1.621	104.6	315.3	---	2.346	-2.19	1.190	76.6	270.5	-31.5	0.317
4-1090	4-1710	0.442	349.8	0.9	2.77	0.869	65.1	0.431	1.628	102.5	323.3	---	2.331	-1.71	1.190	79.1	274.2	-30.6	0.280
4-1090	4-1720	0.429	350.7	0.7	2.38	0.870	66.0	0.418	1.635	100.6	331.5	---	2.319	-1.44	1.190	81.7	278.0	-30.2	0.246
4-1090	4-1730	0.418	351.4	0.6	2.09	0.871	66.7	0.408	1.640	99.1	340.1	---	2.309	-1.28	1.189	84.3	275.4	-30.3	0.217
4-1090	4-1740	0.411	352.0	0.4	1.86	0.872	67.2	0.401	1.644	98.0	349.1	---	2.303	-1.18	1.188	86.9	271.8	-30.7	0.194
4-1090	4-1740	0.197	239.6	-14.5	1.86	0.688	103.6	0.381	1.116	204.4	815.6	0.690	1.542	-1.18	1.060	111.5	154.7	7.2	0.376
4-1090	4-1740	0.423	210.4	-9.9	1.86	0.740	124.9	0.595	1.211	219.1	830.2	0.493	1.941	-1.18	1.095	125.1	148.6	10.9	0.626
4-1090	4-1750	0.408	352.4	0.2	1.65	0.873	67.5	0.397	1.647	97.3	356.5	---	2.301	-1.13	1.186	89.6	264.4	-30.7	0.182
4-1090	4-1750	0.174	260.7	-17.3	1.65	0.676	97.8	0.356	1.097	194.6	815.8	0.706	1.488	-1.13	1.050	110.2	164.0	3.4	0.349
4-1090	4-1750	0.526	209.1	-10.3	1.65	0.758	132.6	0.687	1.261	217.8	838.7	0.334	2.127	-1.13	1.105	132.0	154.6	9.2	0.748
4-1090	4-1760	0.408	352.6	-0.2	1.45	0.873	67.4	0.398	1.649	97.3	348.4	0.992	2.306	-1.12	1.184	92.4	255.0	-30.0	0.183
4-1090	4-1760	0.178	278.7	-18.3	1.45	0.668	93.4	0.352	1.085	186.3	817.4	0.703	1.466	-1.12	1.043	110.1	172.6	-0.3	0.343
4-1090	4-1770	0.414	352.5	-0.6	1.26	0.873	67.0	0.404	1.650	97.9	378.9	0.953	2.318	-1.14	1.182	95.4	246.1	-28.4	0.201
4-1090	4-1770	0.196	293.0	-18.0	1.26	0.663	89.3	0.359	1.076	178.8	819.8	0.690	1.542	-1.14	1.036	110.6	180.7	-3.8	0.350
4-1090	4-1780	0.426	352.2	-1.3	1.05	0.873	66.1	0.418	1.651	99.3	390.2	0.967	2.345	-1.20	1.180	98.8	239.6	-26.6	0.235
4-1090	4-1780	0.225	303.9	-17.1	1.05	0.658	85.2	0.376	1.069	171.9	822.8	0.667	1.470	-1.20	1.031	111.8	188.6	-7.1	0.369
4-1090	4-1790	0.448	351.6	-2.2	0.81	0.874	64.6	0.441	1.651	101.7	402.4	0.924	2.379	-1.30	1.177	102.6	234.0	-25.1	0.287
4-1090	4-1790	0.264	312.2	-16.2	0.81	0.654	80.7	0.404	1.063	165.7	826.4	0.634	1.492	-1.30	1.025	113.6	196.3	-10.2	0.372
4-1090	4-1800	0.483	350.5	-3.3	0.52	0.873	62.2	0.477	1.651	105.4	415.9	0.864	2.438	-1.47	1.175	107.3	234.5	-24.2	0.359
4-1090	4-1800	0.315	318.3	-15.4	0.52	0.651	75.5	0.446	1.058	160.3	830.8	0.586	1.530	-1.47	1.021	116.4	203.6	-13.1	0.446
4-1090	4-1810	0.537	348.7	-4.8	0.14	0.873	56.5	0.532	1.651	110.9	431.1	0.772	2.530	-1.74	1.173	113.2	234.2	-23.6	0.458
4-1090	4-1810	0.384	322.6	-14.9	0.14	0.648	69.0	0.508	1.054	156.2	836.3	0.518	1.590	-1.74	1.016	120.5	210.3	-15.5	0.515
4-1090	4-1820	0.621	345.7	-6.8	-0.44	0.874	52.5	0.616	1.651	119.0	448.8	0.634	2.669	-2.22	1.171	121.3	234.1	-23.2	0.598
4-1090	4-1820	0.480	325.1	-14.8	-0.44	0.646	66.4	0.599	1.051	154.1	843.9	0.421	1.681	-2.22	1.013	126.8	216.2	-17.4	0.621
4-1090	4-1820	0.451	278.7	-24.3	-0.44	0.394	92.2	0.773	0.824	180.6	1230.4	0.187	1.462	-2.22	0.874	139.4	201.0	-10.6	0.776
4-1090	4-1830	0.537	293.5	-23.2	-1.49	0.376	67.7	0.826	0.815	175.0	1234.3	0.142	1.488	-3.17	0.864	144.5	208.0	-13.5	0.847

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1090	4-1810	C.553	225.4	-13.5	4.98	C.611	135.5	C.781	1.C05	200.5	938.1	C.220	1.79C	3.6E	C.986	38.7	132.8	20.4	C.854
4-1090	4-1880	C.5??	1?E.5	-2.9	3.65	C.865	129.6	C.642	1.612	236.8	624.0	C.578	2.646	2.44	1.161	55.6	118.6	24.5	C.654
4-1090	4-1080	C.401	229.7	-13.8	3.65	C.610	120.8	C.245	1.C03	201.8	946.5	C.356	1.651	2.44	C.985	49.8	136.9	19.3	C.674
4-1090	4-1690	C.412	194.9	-0.8	2.97	C.865	122.6	C.544	1.612	245.8	642.5	C.735	2.49C	1.87	1.162	64.6	118.5	24.9	C.499
4-1090	4-1890	C.306	240.2	-15.5	2.97	C.607	110.1	C.554	C.599	198.5	955.C	C.446	1.653	1.87	C.984	55.4	143.4	17.3	C.564
4-1100	4-1150	C.470	236.2	-15.7	4.48	C.584	126.2	C.717	C.963	199.2	221.1	---	---	3.3E	C.964	44.2	141.9	18.1	C.756
4-1100	4-1160	C.354	236.5	-14.8	5.41	C.628	114.1	C.684	1.615	202.9	234.3	---	---	2.81	C.992	54.3	144.5	17.6	C.601
4-1100	4-1170	C.278	235.6	-13.6	2.8C	C.672	110.5	C.478	1.677	206.7	247.8	---	---	1.92	1.021	61.7	147.1	17.C	C.485
4-1100	4-1180	C.227	234.5	-12.4	2.69	C.707	107.4	C.398	1.737	211.4	262.C	---	---	1.63	1.047	67.3	149..	16.6	C.394
4-1100	4-1190	C.194	23C.6	-11.1	2.07	C.735	105.6	C.342	1.190	216.5	276.8	---	---	1.45	1.067	71.9	151.7	16.5	0.320
4-1100	4-1200	C.171	227.5	-10.1	1.82	C.754	104.6	C.303	1.234	221.5	291.4	---	---	1.34	1.083	75.7	153.3	16.8	0.260
4-1100	4-1210	C.157	224.7	-9.5	1.59	C.768	103.9	C.278	1.266	225.8	305.5	---	---	1.26	1.095	79.0	153.8	17.8	C.211
4-1100	4-1220	C.147	222.6	-9.4	1.37	C.777	103.5	C.262	1.289	229.1	318.6	---	---	1.26	1.104	81.7	152.9	19.7	C.173
4-1100	4-1230	C.140	221.4	-9.8	1.15	C.782	103.1	C.252	1.302	230.9	330.2	---	---	1.27	1.110	84.1	150.2	22.6	0.144
4-1100	4-1240	C.135	221.2	-10.9	0.92	C.784	102.8	C.245	1.307	231.5	340.7	---	---	1.33	1.114	86.2	145.4	26.5	0.125
4-1100	4-1250	C.131	221.8	-12.5	0.66	C.784	102.4	C.241	1.306	231.0	350.1	---	---	1.44	1.116	88.1	139.3	30.6	C.119
4-1100	4-1260	C.127	223.3	-14.8	0.34	C.781	102.0	C.237	1.300	229.6	358.6	---	---	1.62	1.117	89.7	133.4	34.4	0.113
4-1100	4-1270	C.123	225.4	-18.2	-0.10	C.778	101.6	C.234	1.290	227.3	566.4	0.988	---	1.72	1.116	91.2	129.4	37.8	0.117
4-1100	4-1280	C.120	228.1	-23.3	-0.75	C.773	101.0	C.232	1.278	224.5	373.7	0.982	---	2.46	1.115	92.6	128.5	41.7	C.127
4-1100	4-1290	C.120	230.8	-32.0	-1.98	C.768	100.4	C.230	1.265	221.1	380.5	C.974	---	3.56	1.113	93.8	131.5	48.1	0.143
4-1100	4-1300	C.136	231.1	-51.5	-5.40	C.762	99.7	C.229	1.251	217.4	386.8	C.965	---	6.87	1.110	94.9	145.2	63.3	0.186
4-1100	4-1320	C.162	259.1	19.3	8.54	C.750	98.0	C.230	1.223	209.2	399.2	0.942	---	-7.3C	1.103	97.0	120.3	-23.1	0.206
4-1100	4-1330	C.13C	263.3	4.5	4.8C	C.744	97.C	C.23?	1.210	204.8	4C4.9	0.930	---	-3.66	1.099	98.0	132.6	-6.1	C.179
4-1100	4-1340	C.124	269.8	-2.8	3.51	C.738	96.9	C.234	1.197	200.2	410.5	C.916	---	-2.5C	1.094	98.9	141.0	-0.5	0.182
4-1100	4-1350	C.125	277.2	-7.1	2.83	C.732	96.7	C.238	1.184	195.5	415.9	C.902	---	-1.94	1.089	99.9	148.5	1.1	0.191
4-1100	4-1360	C.13C	284.9	-9.8	2.39	C.726	96.4	C.243	1.172	190.7	421.3	C.887	---	-1.63	1.083	100.8	155.8	0.8	0.201
4-1100	4-1370	C.138	292.4	-11.4	2.06	C.720	92.0	C.251	1.161	185.9	426.5	C.87C	---	-1.44	1.077	101.8	163.0	-0.5	0.214
4-1100	4-1380	C.15C	299.6	-12.4	1.8C	C.715	90.3	C.260	1.150	181.0	431.7	C.851	---	-1.33	1.071	102.9	170.1	-2.4	0.228
4-1100	4-1390	C.165	306.2	-12.8	1.56	C.709	88.5	C.272	1.140	176.1	436.8	C.836	1.451	-1.27	1.065	104.0	177.2	-4.7	0.245
4-1100	4-1400	C.184	312.3	-12.9	1.34	C.704	86.5	C.287	1.131	171.2	441.8	0.806	1.456	-1.26	1.059	105.3	184.3	-7.2	C.264
4-1100	4-1410	C.207	317.6	-12.7	1.12	C.699	84.1	C.307	1.122	166.4	446.9	C.777	1.467	-1.28	1.053	106.8	191.3	-9.7	0.289
4-1100	4-1420	C.237	322.4	-12.5	0.89	C.695	81.3	C.333	1.114	161.8	452.1	C.743	1.486	-1.34	1.048	106.6	198.3	-12.3	C.319
4-1100	4-1430	C.274	326.5	-12.2	0.63	C.690	77.9	C.368	1.107	157.4	457.5	C.700	1.514	-1.45	1.042	111.0	205.2	-14.7	C.359
4-1100	4-1440	C.322	329.9	-11.9	0.31	C.686	73.7	C.415	1.100	153.6	463.4	C.644	1.556	-1.64	1.037	114.1	212.0	-16.9	C.412
4-1100	4-1450	C.388	332.4	-11.8	-0.12	C.683	68.1	C.480	1.094	150.8	470.3	C.569	1.619	-1.94	1.032	118.4	218.3	-18.9	C.485
4-1100	4-1460	C.48C	333.8	-12.1	-0.75	C.680	6C.3	C.572	1.090	149.8	478.9	C.466	1.719	-2.45	1.028	124.7	223.8	-20.3	C.593
4-1100	4-1510	C.569	230..	-14.6	5.48	C.620	136.3	C.785	1.C05	200.8	577.7	C.216	1.793	4.21	C.986	38.3	138.3	19.3	0.859
4-1100	4-1520	C.411	234.4	-14.7	3.88	C.618	121.3	C.645	1.C02	202.4	5C8.9	C.356	1.648	2.82	C.985	49.8	142.2	18.2	C.673
4-1100	4-1530	C.312	245.3	-16.3	3.09	C.611	11C.3	C.553	0.994	198.6	594.6	C.445	1.543	2.14	C.982	56.5	148.8	16.C	C.561
4-1100	4-1540	C.511	211.2	-16.3	2.59	C.489	62.1	C.743	C.877	168.9	574.5	C.225	1.528	1.76	C.913	42.7	168.4	6.5	C.757
4-1100	4-1540	C.264	264.4	-18.1	2.59	C.599	10C.6	C.5C6	C.980	196.7	596.3	C.484	1.475	1.76	C.976	59.7	157.3	12.7	C.505
4-1100	4-1650	C.579	350.5	-5.8	-1.22	C.855	54.9	C.577	1.541	120.2	274.2	---	2.431	2.87	1.174	61.1	243.8	-15.9	C.560
4-1100	4-1660	C.553	352.7	-7.6	-3.07	C.859	56.9	C.542	1.558	117.0	281.1	---	2.412	4.6C	1.178	64.0	251.4	-12.8	C.517
4-1100	4-1670	C.548	357.3	-17.7	-11.11	C.863	58.8	C.523	1.573	113.8	288.C	---	2.394	12.53	1.182	66.8	261.9	3.8	0.519
4-1100	4-1680	C.554	34.8	17.C	16.88	C.866	6C.6	C.497	1.586	110.8	295.5	---	2.375	-15.58	1.185	69.7	268.7	-59.3	0.509
4-1100	4-1690	C.489	350.3	6.2	6.14	C.868	62.1	C.475	1.598	108.0	302.8	---	2.357	-4.94	1.187	72.4	269.9	-37.9	C.390
4-1100	4-1700	C.466	352.6	4.2	4.06	C.871	63.4	C.456	1.608	105.4	310.3	---	2.340	-2.99	1.188	75.0	275.3	-33.4	0.343
4-1100	4-1710	C.448	354.1	3.4	3.15	C.873	64.7	C.438	1.617	103.0	318.1	---	2.325	-2.19	1.188	77.6	279.8	-31.6	C.303
4-1100	4-1720	C.432	355.2	3.1	2.60	C.874	65.7	C.423	1.624	100.9	326.2	---	2.311	-1.77	1.188	80.1	282.9	-30.7	0.267
4-1100	4-1730	C.420	356.C	2.9	2.23	C.875	66.5	C.411	1.630	99.2	334.5	---	2.3CC	-1.53	1.188	82.6	284.0	-30.5	0.235
4-1100	4-1740	C.411	356.7	2.7	1.93	C.876	67.2	C.402	1.635	97.7	343.2	---	2.291	-1.38	1.187	85.2	282.5	-30.9	0.208
4-1100	4-1740	C.253	229.5	-13.4	1.93	C.707	109.9	C.428	1.137	212.9	818.3	C.651	1.623	-1.38	1.068	114.3	153.4	7.6	0.427
4-1100	4-1740	C.335	219.9	-12.C	1.93	C.726	117.3	C.505	1.172	218.1	823.5	C.58C	1.764	-1.38	1.086	119.1	151.3	9.1	C.516
4-1100	4-1750	C.404	357.5	2.5	1.68	C.877	67.6	C.396	1.638	96.8	352.2	---	2.286	-1.3C	1.185	87.8	277.6	-31.5	C.189
4-1100	4-1750	C.186	253.5	-16.9	1.68	C.687	100.9	C.364	1.101	200.5	815.9	C.701	1.502	-1.3C	1.052	110.6	163.8	3.C	C.356
4-1100	4-1750	C.476	214.8	-12.C	1.68	C.754	128.5	C.638	1.252	219.0	834.4	C.446	2.018	-1.3C	1.097	128.3	156.3	8.1	C.680
4-1100	4-1760	C.402	357.6	2.2	1.46	C.878	67.8	C.393	1.641	96.3	361.7	C.995	2.284	-1.26	1.183	90.5	269.4	-31.7	C.190
4-1100	4-1760	C.175	272.9	-18.3	1.46	C.678	96.0	C.349	1.C86	191.5	816.9	C.707	1.465	-1.26	1.043	109.9	172.6	-C.8	C.340
4-1100	4-1760	C.57C	214.4	-12.7	1.46	C.770	135.4	C.718	1.271	216.7	842.1	C.358	2.183	-1.26	1.106	134.5	162.5	6.1	C.79C
4-1100	4-1770	C.404	357.8	1.7	1.24	C.878	67.6	C.396	1.643	96.4	371.7	C.992	2.293	-1.26	1.181	93.3	259.7	-31.1	C.186
4-1100	4-1770	C.184	289.3	-18.2	1.24	C.671	91.9	C.349	1.C76	183.5	818.8	C.701	1.451	-1.26	1.C36	11C.C	181.0	-4.4	0.340
4-1100	4-1780	C.412	357.7	1.2	1.02	C.878	67.1	C.4C4	1.644	97.3	382.4	C.979	2.3C8	-1.3C	1.179	96.4	251.2	-29.7	C.2C9
4-1100	4-1780	C.205	302.2	-17.1	1.02	C.666	87.9	C.359	1.C68	176.2	821.4	C.685	1.451	-1.3C	1.030	11C.7	189.1	-7.8	C.351
4-1100	4-1790	C.427	357.3	0.4	0.77	C.878	66.0	C.42C	1.644	99.0	394.0	C.953	2.335	-1.39	1.176	99.9	245.4	-28.1	0.249
4-1100	4-1790	C.237	312.2	-16.C	0.77	C.662	83.7	C.379	1.C62	169.5	824.5	C.659	1.464	-1.39	1.025	112.1	197.0	-11.1	C.373
4-1100	4-1800	C.453	356.6	-0.6	0.48	C.879	64.3	C.447	1.644	101.9	406.6	C.909	2.38C	-1.53	1.174	104.0	242.3	-26.8	C.307
4-1100	4-1800	C.279	319.7	-14.9	0.48	C.658	79.1	C.412	1.C56	163.5	828.2	C.621	1.491	-1.53	1.C20	114.2	204.6	-14.C	0.408
4-1100	4-1810	C.494	355.3	-1.9	0.12	C.878	61.5	C.489	1.644	106.2	420.7	C.840	2.449	-1.76	1.172	109.0	241.2	-25.9	0.387
4-1100	4-1810	C.336	325.3	-14.C	0.12	C.655	73.5	C.460	1.052	158.4	832.8	C.568	1.536	-1.76	1.015	117.3	211.9	-16.6	C.462
4-1100	4-1820	C.558	353.1	-3.6	-0.38	C.879	57.0	C.554	1.644	112.7	436.7	C.734	2.555	-2.14	1.170	115.6	240.9	-25.4	0.499
4-1100	4-1820	C.413	329.1	-13.4	-0.38	C.653	66.4	C.532	1.C48	154.8	838.9	C.491	1.666	-2.14	1.C12	122.1	218.5	-18.7	C.543
4-1100	4-1820	C.454	264.7	-24.2	-0.38	C.422	108.8	C.773	C.832	185.9	1229.9	C.189	1.475	-2.14	C.881	139.5	201.4	-10.7	C.779
4-1100	4-1820	C.587	244.4	-22.1	-0.38	C.470	136.C	C.86C	C.863	190.7	1234.8	C.120	1.606	-2.14	C.905	148.9	199.8	-9.5	C.923
4-1100	4-1830	C.523	331.C	-13.5	-1.19	C.651	56.6	C.637	1.C46	153.7	847.4	C.379	1.713	-2.84	1.009	129.6	224.0	-20.2	C.668
4-1100	4-1830	C.475	290.3	-23.6	-1.19	C.392	82.2	C.781	C.816	177.8	1231.5	C.178	1.453	-2.84	C.865	14C.C	209.4	-14.2	C.782
4-1100	4-1840	C.595	303.8	-21.9	-2.82	C.380	57.4	C.857	C.809	173.6	1236.9	C.116	1.503	-4.36	C.857	147.8	215.8	-16.C	C.893
4-1100	4-1880	C.600	206.8	-6.3	4.55	C.870	135.2	C.712	1.606	230.4	611.9	C.462	2.750	3.44	1.160	46.0	125.0	23.6	C.768
4-1100	4-1880	C.485	231.6	-14.5	4.55	C.618	126.5	C.713	1.C02	202.2	943.7	C.287	1.717	3.44	C.985	44.5	139.9	18.9	C.760
4-1100	4-1890	C.466	202.1	-3.8	3.45	C.870	125.8	C.591	1.607	241.9	632.9	C.658	2.557	2.44	1.161	60.2	124.1	24.1	C.573
4-1100	4-1890	C.358	238.5	-15.3	3.45	C.616	115.8	C.595	C.999	201.2	952.2	C.405	1.594	2.44	C.984	53.5	145.0	17.3	C.612

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1100	4-1900	0.383	199.0	-2.2	2.83	0.871	120.1	0.509	1.608	249.5	650.1	0.790	2.425	1.93	1.162	67.9	124.2	24.6	0.440
4-1100	4-1900	0.282	251.6	-16.9	2.83	0.612	106.2	0.520	0.995	196.2	996.8	0.471	1.512	1.93	0.983	58.7	152.2	14.8	0.524
4-1110	4-1150	0.592	234.7	-15.5	6.01	0.637	137.6	0.790	1.016	201.6	217.8	---	---	4.99	0.992	37.8	143.5	18.2	0.868
4-1110	4-1160	0.429	234.7	-14.6	4.11	0.655	123.3	0.636	1.040	206.5	232.2	---	---	3.20	1.004	50.5	145.4	17.7	0.668
4-1110	4-1170	0.330	233.4	-13.4	3.19	0.692	115.4	0.513	1.096	211.3	246.6	---	---	2.41	1.029	59.4	147.9	17.3	0.527
4-1110	4-1180	0.266	231.1	-12.2	2.62	0.726	111.0	0.424	1.157	216.7	261.5	---	---	1.97	1.054	65.9	150.1	17.0	0.421
4-1110	4-1190	0.225	228.2	-11.0	2.21	0.752	108.4	0.361	1.213	222.4	276.9	---	---	1.71	1.074	71.0	152.0	17.0	0.339
4-1110	4-1200	0.199	225.2	-10.1	1.90	0.772	106.8	0.320	1.258	227.9	292.0	---	---	1.54	1.090	75.2	153.2	17.4	0.273
4-1110	4-1210	0.182	222.5	-9.6	1.62	0.786	105.9	0.294	1.293	232.5	306.4	---	---	1.45	1.102	78.6	153.4	18.6	0.221
4-1110	4-1220	0.170	220.6	-9.6	1.58	0.794	105.2	0.277	1.315	235.8	319.5	---	---	1.40	1.111	81.5	152.3	20.5	0.181
4-1110	4-1230	0.162	219.6	-10.1	1.14	0.798	104.7	0.266	1.327	237.7	331.1	---	---	1.39	1.117	84.0	149.3	23.5	0.151
4-1110	4-1240	0.156	219.4	-11.1	0.89	0.800	104.3	0.259	1.331	238.2	341.5	---	---	1.43	1.120	86.2	144.4	27.1	0.131
4-1110	4-1250	0.150	220.1	-12.6	0.62	0.798	103.9	0.253	1.327	237.5	350.8	---	---	1.51	1.122	88.1	138.3	31.0	0.121
4-1110	4-1260	0.145	221.5	-14.7	0.31	0.795	103.4	0.248	1.319	235.8	359.1	---	---	1.66	1.122	89.8	132.6	34.3	0.118
4-1110	4-1270	0.140	223.5	-17.5	-0.09	0.791	102.9	0.244	1.307	233.4	366.7	0.988	---	1.91	1.121	91.3	128.9	37.1	0.122
4-1110	4-1280	0.136	226.0	-21.6	-0.65	0.785	102.3	0.240	1.292	230.4	373.8	0.982	---	2.33	1.119	92.7	128.0	40.0	0.130
4-1110	4-1290	0.133	228.8	-27.9	-1.56	0.779	101.7	0.237	1.277	226.9	380.4	0.974	---	3.11	1.116	93.9	130.4	44.4	0.142
4-1110	4-1300	0.136	231.1	-39.8	-3.51	0.773	101.0	0.235	1.261	223.0	386.7	0.965	---	4.93	1.113	95.0	137.4	53.3	0.166
4-1110	4-1310	0.202	226.7	-68.7	-11.50	0.766	100.1	0.233	1.245	218.8	392.6	0.954	---	12.80	1.109	96.0	171.0	76.8	0.278
4-1110	4-1320	0.304	262.5	34.2	20.06	0.760	99.3	0.233	1.229	214.6	398.9	0.942	---	-18.89	1.105	97.1	100.5	-46.1	0.381
4-1110	4-1330	0.150	260.2	11.5	6.67	0.753	98.3	0.233	1.214	210.0	404.3	0.931	---	-5.62	1.100	97.9	129.1	-15.8	0.195
4-1110	4-1340	0.132	265.6	0.8	4.28	0.746	97.2	0.234	1.199	205.3	409.7	0.918	---	-3.35	1.095	98.8	139.7	-5.3	0.186
4-1110	4-1350	0.128	272.8	-5.0	3.23	0.740	96.1	0.237	1.186	200.4	415.1	0.905	---	-2.44	1.089	99.7	148.0	-1.9	0.190
4-1110	4-1360	0.129	280.6	-8.5	2.62	0.733	94.8	0.240	1.173	195.5	420.3	0.891	---	-1.97	1.083	100.6	155.6	-1.3	0.198
4-1110	4-1370	0.134	288.7	-10.7	2.20	0.727	93.4	0.246	1.161	190.6	425.4	0.875	---	-1.70	1.077	101.5	163.0	-2.1	0.208
4-1110	4-1380	0.142	296.6	-11.9	1.87	0.722	91.9	0.253	1.149	185.6	430.4	0.858	---	-1.53	1.071	102.4	170.3	-3.8	0.220
4-1110	4-1390	0.153	304.2	-12.5	1.60	0.716	90.2	0.263	1.139	180.5	435.4	0.840	---	-1.44	1.065	103.4	177.5	-5.9	0.235
4-1110	4-1400	0.169	311.2	-12.6	1.35	0.711	88.3	0.275	1.129	175.4	440.3	0.818	1.440	-1.39	1.058	104.5	184.7	-8.3	0.251
4-1110	4-1410	0.188	317.5	-12.4	1.11	0.706	86.1	0.292	1.120	170.4	445.1	0.793	1.446	-1.38	1.052	105.8	191.9	-10.8	0.272
4-1110	4-1420	0.213	323.1	-12.0	0.86	0.701	83.6	0.313	1.111	165.5	450.0	0.764	1.459	-1.43	1.046	107.4	199.1	-13.3	0.297
4-1110	4-1430	0.245	328.0	-11.5	0.60	0.696	80.6	0.342	1.103	160.8	455.1	0.727	1.480	-1.52	1.041	109.3	206.3	-15.7	0.329
4-1110	4-1440	0.285	332.2	-11.0	0.28	0.692	76.9	0.379	1.096	156.4	460.4	0.681	1.511	-1.68	1.035	111.8	213.3	-18.0	0.372
4-1110	4-1450	0.339	335.6	-10.3	-0.10	0.688	72.3	0.431	1.090	152.7	466.4	0.620	1.559	-1.92	1.030	115.2	220.1	-20.0	0.431
4-1110	4-1460	0.412	338.0	-10.5	-0.64	0.684	66.0	0.504	1.084	150.2	473.5	0.538	1.631	-2.32	1.02	120.1	226.4	-21.6	0.514
4-1110	4-1470	0.518	339.1	-10.8	-1.49	0.682	57.1	0.610	1.080	150.0	482.9	0.421	1.740	-3.05	1.023	127.5	231.5	-22.8	0.639
4-1110	4-1520	0.500	236.8	-15.6	4.90	0.624	129.2	0.718	0.998	202.4	583.1	0.281	1.715	3.93	0.983	44.1	145.4	17.5	0.765
4-1110	4-1530	0.367	243.7	-16.2	3.61	0.620	116.1	0.596	0.993	201.5	591.	0.401	1.586	2.76	0.982	53.4	150.5	15.8	0.612
4-1110	4-1540	0.581	316.9	-14.9	2.89	0.468	54.6	0.804	0.854	169.3	569.1	0.167	1.540	2.17	0.896	37.2	171.4	5.2	0.853
4-1110	4-1540	0.289	257.7	-17.6	2.89	0.611	106.0	0.523	0.983	195.8	595.6	0.469	1.498	2.17	0.978	58.5	157.8	13.0	0.525
4-1110	4-1550	0.463	315.7	-14.7	2.41	0.512	67.4	0.692	0.886	168.9	578.3	0.273	1.499	1.83	0.921	46.9	175.6	3.8	0.695
4-1110	4-1550	0.264	280.7	-18.2	2.41	0.596	95.9	0.498	0.965	186.0	595.4	0.424	1.446	1.83	0.970	60.2	167.1	9.9	0.493
4-1110	4-1650	0.594	354.6	-3.7	-1.02	0.857	53.7	0.593	1.523	121.9	270.1	---	2.327	2.63	1.171	59.3	245.8	-17.0	0.589
4-1110	4-1660	0.566	356.6	-4.6	-2.27	0.861	55.9	0.564	1.541	118.5	276.8	---	2.409	3.76	1.175	62.3	253.3	-15.3	0.544
4-1110	4-1670	0.544	359.5	-8.4	-5.58	0.865	57.8	0.536	1.556	115.3	283.7	---	2.391	6.94	1.179	65.2	261.2	-8.4	0.509
4-1110	4-1690	0.510	351.7	12.9	10.02	0.871	61.3	0.486	1.583	109.1	298.1	---	2.354	-8.91	1.184	70.8	275.6	-46.7	0.437
4-1110	4-1700	0.476	356.3	7.7	5.23	0.874	62.8	0.465	1.595	106.4	305.5	---	2.336	-4.24	1.186	73.4	279.9	-36.2	0.372
4-1110	4-1710	0.454	358.2	6.3	3.70	0.876	64.1	0.446	1.604	103.8	313.1	---	2.320	-2.84	1.186	76.0	284.8	-32.8	0.329
4-1110	4-1720	0.437	359.6	5.6	2.91	0.878	65.3	0.429	1.612	101.5	320.9	---	2.305	-2.19	1.187	78.5	288.8	-31.2	0.290
4-1110	4-1730	0.422	0.6	5.3	2.41	0.879	66.3	0.415	1.619	99.5	332.0	---	2.292	-1.83	1.186	81.0	291.3	-30.5	0.256
4-1110	4-1740	0.411	1.5	5.1	2.04	0.881	67.0	0.404	1.625	98.8	337.4	---	2.281	-1.61	1.185	83.5	291.7	-30.9	0.225
4-1110	4-1750	0.402	2.4	4.8	1.74	0.881	67.6	0.396	1.629	96.5	346.1	---	2.274	-1.48	1.184	86.1	289.3	-31.1	0.201
4-1110	4-1750	0.214	245.4	-16.4	1.74	0.790	105.0	0.384	1.111	207.3	816.9	0.684	1.538	-1.48	1.056	111.8	163.2	3.0	0.379
4-1110	4-1750	0.416	221.7	-13.7	1.74	0.746	123.7	0.574	1.198	219.8	829.4	0.519	1.886	-1.48	1.086	123.8	158.3	6.7	0.599
4-1110	4-1760	0.397	2.6	4.5	1.48	0.882	68.0	0.391	1.633	95.6	355.2	---	2.270	-1.41	1.182	88.7	283.4	-32.0	0.184
4-1110	4-1760	0.181	266.8	-18.4	1.48	0.680	98.9	0.352	1.089	197.1	816.7	0.706	1.473	-1.41	1.045	110.0	172.5	-1.2	0.343
4-1110	4-1760	0.526	219.9	-14.2	1.48	0.766	131.5	0.673	1.244	218.5	838.1	0.407	2.081	-1.41	1.098	131.0	164.1	5.0	0.726
4-1110	4-1770	0.396	3.0	4.1	1.23	0.883	68.1	0.390	1.635	95.3	364.8	0.997	2.272	-1.39	1.180	91.3	274.5	-32.5	0.180
4-1110	4-1770	0.178	284.0	-18.6	1.23	0.680	94.4	0.343	1.077	188.6	818.1	0.707	1.446	-1.39	1.037	109.6	181.2	-4.9	0.334
4-1110	4-1780	0.400	3.1	3.9	0.99	0.883	67.8	0.394	1.636	95.6	375.0	0.992	2.281	-1.41	1.178	94.2	264.7	-32.0	0.191
4-1110	4-1780	0.190	299.0	-17.7	.9	0.674	90.5	0.347	1.068	180.9	820.2	0.698	1.438	-1.41	1.030	110.0	189.5	-8.5	0.338
4-1110	4-1790	0.410	3.4	2.9	0.74	0.883	67.1	0.405	1.637	96.8	385.9	0.975	2.300	-1.47	1.175	97.4	256.7	-30.8	0.219
4-1110	4-1790	0.214	210.8	-16.2	0.74	0.669	86.5	0.360	1.061	173.7	822.9	0.679	1.443	-1.47	1.024	110.9	197.6	-11.8	0.352
4-1110	4-1800	0.403	2.5	2.0	0.46	0.883	65.9	0.424	1.638	98.9	397.8	0.944	2.332	-1.59	1.173	101.0	251.6	-29.4	0.264
4-1110	4-1800	0.248	320.0	-14.7	0.46	0.666	82.3	0.384	1.055	167.2	826.1	0.650	1.460	-1.59	1.019	112.4	205.5	-16.8	0.378
4-1110	4-1810	0.458	1.6	0.9	0.11	0.883	63.8	0.455	1.638	102.3	410.9	0.893	2.383	-1.78	1.171	105.3	249.1	-28.2	0.328
4-1110	4-1810	0.295	327.0	-13.4	0.11	0.662	77.4	0.421	1.050	161.4	830.0	0.608	1.493	-1.78	1.015	114.8	213.2	-17.5	0.419
4-1110	4-1820	0.506	0.1	-0.5	-0.33	0.883	60.5	0.509	1.638	107.3	425.6	0.813	2.463	-2.09	1.169	110.8	248.1	-27.4	0.418
4-1110	4-1820	0.358	332.1	-12.4	-0.33	0.659	71.4	0.477	1.046	156.7	834.9	0.547	1.545	-2.09	1.011	118.4	220.4	-19.8	0.481
4-1110	4-1830	0.583	357.6	-2.4	-0.99	0.883	55.2	0.579	1.638	114.8	442.7	0.689	2.587	-2.61	1.168	118.2	247.8	-26.9	0.545
4-1110	4-1830	0.445	335.4	-11.9	-0.99	0.657	63.5	0.560	1.043	153.7	841.6	0.459	1.627	-2.61	1.007	124.0	226.9	-21.5	0.575
4-1110	4-1830	0.445	282.9	-24.4	-0.99	0.413	96.6	0.759	0.819	182.1	1230.0	0.198	1.441	-2.61	0.868	137.9	210.3	-14.5	0.753
4-1110	4-1840	0.574	336.5	-12.1	-2.12	0.656	52.4	0.681	1.641	153.9	851.4	0.332	1.751	-3.62	1.005	132.9	231.7	-22.6	0.723
4-1110	4-1840	0.511	302.7	-22.1	-2.12	0.393	73.1	0.799	0.809	175.6	1233.0	0.163	1.455	-3.62	0.857	141.6	217.8	-17.4	0.804
4-1110	4-1880	0.598	235.9	-15.8	6.17	0.625	136.2	0.801	0.999	200.4	936.1	0.199	1.800	5.14	0.983	36.8	143.9	17.9	0.881
4-1110	4-1890	0.540	209.9	-7.0	4.17	0.876	130.4	0.652	1.602	236.5	621.7	0.557	2.647	3.26	1.160	54.5	130.3	23.1	0.671
4-1110	4-1890	0.429	239.0	-15.6	4.17	0.624	122.5	0.653	0.998	202.0	948.1	0.346	1.651	3.26	0.984	49.2	147.4	16.9	0.682
4-1110	4-1900	0.429	205.9	-5.1	3.22	0.876	122.8	0.548	1.603	246.3	641.1	0.724	2.482	2.44	1.161	64.0	129.9	23.6	0.505
4-1110	4-1900	0.324	248.3	-16.6	3.22	0.621	111.5	0.553	0.995	200.0	954.8	0.445	1.545	2.44	0.983	36.4	153.4	14.8	0.562
4-1110	4-1910	0.360	203.3	-3.9	2.64	0.876	118.1	0.479	1.603	252.8	657.2	0.834	2.671	1.99	1.162	70.7	129.8	24.2	0.391
4-1110	4-1910	0.265	263.6	-17.8	2.64	0.617	102.7	0.494	0.990	193.7	958.1	0.501	1.478	1.99	0.982	60.4	161.0	11.8	0.493

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1120	4-1160	0.545	233.1	-14.4	5.26	0.712	132.7	0.708	1.118	210.6	230.4	---	---	4.45	1.037	45.2	146.5	18.0	0.770
4-1120	4-1170	0.404	231.7	-13.3	3.75	0.727	121.5	0.564	1.146	216.6	246.0	---	---	3.07	1.048	56.3	148.4	17.7	0.587
4-1120	4-1180	0.320	229.3	-12.1	2.94	0.753	115.3	0.460	1.200	222.8	261.8	---	---	2.40	1.069	64.0	150.2	17.5	0.460
4-1120	4-1190	0.268	226.3	-11.1	2.40	0.777	111.6	0.390	1.255	229.3	277.9	---	---	2.01	1.087	69.9	151.7	17.6	0.365
4-1120	4-1200	0.235	223.4	-10.3	2.01	0.795	109.4	0.345	1.301	235.2	293.5	---	---	1.77	1.102	74.5	152.6	18.2	0.291
4-1120	4-1210	0.214	221.0	-9.9	1.68	0.808	108.1	0.317	1.336	240.0	308.0	---	---	1.63	1.114	78.2	152.5	19.4	0.235
4-1120	4-1220	0.200	219.3	-10.0	1.40	0.815	107.1	0.299	1.357	243.3	321.0	---	---	1.54	1.121	81.3	151.0	21.5	0.191
4-1120	4-1230	0.189	218.5	-10.5	1.14	0.818	106.5	0.287	1.367	245.0	332.6	---	---	1.51	1.126	84.0	147.7	24.4	0.150
4-1120	4-1240	0.181	218.4	-11.5	0.88	0.818	105.9	0.278	1.367	245.3	342.7	---	---	1.52	1.129	86.3	142.7	27.8	0.139
4-1120	4-1250	0.175	219.2	-12.8	0.60	0.816	105.4	0.270	1.360	244.3	351.7	---	---	1.58	1.130	88.2	136.7	31.2	0.128
4-1120	4-1260	0.168	220.5	-14.7	0.29	0.812	104.9	0.264	1.347	242.5	359.8	---	---	1.70	1.129	90.0	131.3	34.1	0.126
4-1120	4-1270	0.162	222.5	-17.1	-0.06	0.806	104.4	0.256	1.331	239.8	367.2	0.988	---	1.90	1.127	91.5	128.0	36.3	0.128
4-1120	4-1280	0.156	224.9	-20.4	-0.57	0.800	103.8	0.252	1.313	236.6	374.1	0.981	---	2.23	1.124	92.8	127.3	38.5	0.135
4-1120	4-1290	0.151	227.5	-25.2	-1.30	0.793	103.1	0.248	1.294	232.9	380.5	0.973	---	2.81	1.121	94.0	129.4	41.5	0.145
4-1120	4-1300	0.148	230.5	-33.1	-2.61	0.785	102.3	0.244	1.278	228.9	386.6	0.964	---	3.98	1.117	95.1	134.2	47.1	0.161
4-1120	4-1310	0.161	231.8	-49.7	-5.96	0.778	101.5	0.240	1.256	224.6	392.5	0.954	---	7.19	1.112	96.1	147.3	60.1	0.201
4-1120	4-1320	0.545	268.9	-83.2	-38.26	0.770	100.5	0.237	1.237	219.9	397.5	0.944	---	39.36	1.107	96.9	317.2	75.3	0.729
4-1120	4-1330	0.204	259.8	22.5	11.27	0.763	99.7	0.237	1.220	215.4	403.9	0.931	---	-10.27	1.102	98.0	120.6	-31.4	0.252
4-1120	4-1340	0.148	262.2	5.5	5.56	0.755	98.6	0.237	1.204	210.6	409.2	0.919	---	-4.73	1.096	98.8	137.2	-12.1	0.196
4-1120	4-1350	0.136	268.3	-2.6	3.82	0.748	97.4	0.237	1.189	205.6	414.4	0.907	---	-3.14	1.090	99.6	145.9	-5.6	0.193
4-1120	4-1360	0.132	275.9	-7.2	2.94	0.742	96.2	0.240	1.175	200.6	419.5	0.893	---	-2.46	1.084	100.4	155.2	-3.7	0.198
4-1120	4-1370	0.133	284.1	-10.0	2.39	0.735	94.9	0.243	1.162	195.5	424.5	0.879	---	-2.00	1.078	101.2	162.9	-3.9	0.205
4-1120	4-1380	0.137	292.6	-11.6	1.98	0.729	93.4	0.248	1.149	190.4	429.3	0.864	---	-1.76	1.071	102.1	170.4	-5.2	0.215
4-1120	4-1390	0.145	300.9	-12.5	1.65	0.723	91.8	0.256	1.138	185.2	434.2	0.847	---	-1.61	1.065	103.0	177.7	-7.1	0.227
4-1120	4-1400	0.157	308.8	-12.6	1.37	0.717	90.0	0.266	1.128	180.0	438.9	0.828	1.427	-1.54	1.058	103.9	185.1	-9.3	0.241
4-1120	4-1410	0.172	316.1	-12.4	1.10	0.712	88.0	0.279	1.118	174.8	443.6	0.806	1.430	-1.51	1.052	105.0	192.4	-11.8	0.258
4-1120	4-1420	0.193	322.7	-11.8	0.84	0.707	85.7	0.296	1.109	169.6	448.3	0.781	1.437	-1.52	1.045	106.3	199.7	-14.3	0.279
4-1120	4-1430	0.219	328.5	-11.1	0.57	0.702	83.0	0.319	1.101	164.6	453.0	0.750	1.451	-1.59	1.040	107.9	207.1	-16.7	0.306
4-1120	4-1440	0.253	333.6	-10.4	0.27	0.697	79.8	0.349	1.093	159.8	457.9	0.711	1.475	-1.71	1.034	110.0	214.4	-18.9	0.340
4-1120	4-1450	0.297	337.9	-9.7	-0.10	0.693	75.9	0.391	1.086	155.4	463.2	0.662	1.510	-1.91	1.029	112.7	221.6	-21.0	0.387
4-1120	4-1460	0.356	341.3	-9.2	-0.57	0.689	70.7	0.449	1.080	151.9	469.3	0.595	1.564	-2.23	1.024	116.4	228.5	-22.7	0.452
4-1120	4-1470	0.440	343.6	-9.0	-1.25	0.686	63.7	0.532	1.075	149.9	476.9	0.503	1.647	-2.77	1.021	122.0	234.5	-24.0	0.548
4-1120	4-1480	0.563	344.2	-9.5	-2.40	0.684	53.3	0.654	1.072	150.7	487.2	0.371	1.772	-3.79	1.018	130.7	239.3	-24.8	0.694
4-1120	4-1530	0.442	244.6	-16.8	4.41	0.620	123.1	0.659	0.991	202.9	587.2	0.336	1.645	3.66	0.981	48.8	152.9	15.4	0.687
4-1120	4-1540	0.333	254.2	-17.4	3.32	0.621	111.6	0.557	0.984	199.7	593.6	0.436	1.533	2.70	0.978	56.2	159.0	13.0	0.564
4-1120	4-1550	0.540	322.3	-13.0	2.66	0.488	59.2	0.764	0.860	168.7	572.2	0.203	1.517	2.19	0.962	40.9	178.8	2.3	0.779
4-1120	4-1550	0.274	271.4	-18.2	2.66	0.610	101.9	0.503	0.972	192.3	595.8	0.483	1.461	2.19	0.974	59.9	167.1	9.5	0.500
4-1120	4-1560	0.399	312.1	-13.5	2.20	0.540	74.4	0.624	0.901	170.0	583.2	0.339	1.463	1.88	0.933	51.9	182.2	1.5	0.618
4-1120	4-1560	0.283	299.3	-16.6	2.20	0.586	89.8	0.510	0.945	179.8	593.0	0.463	1.427	1.88	0.961	59.6	177.5	4.5	0.501
4-1120	4-1660	0.580	0.7	-2.1	-1.81	0.863	54.7	0.580	1.523	320.2	272.6	---	2.406	3.26	1.172	60.6	255.3	-16.9	0.572
4-1120	4-1670	0.554	3.0	-4.0	-3.73	0.867	56.8	0.551	1.540	116.8	279.4	---	2.388	5.03	1.176	63.5	262.8	-13.2	0.529
4-1120	4-1680	0.546	7.2	-12.9	-10.69	0.871	58.7	0.524	1.555	113.6	286.3	---	2.370	11.86	1.179	66.3	271.6	1.7	0.523
4-1120	4-1700	0.489	359.0	-12.6	7.48	0.877	62.1	0.476	1.581	107.5	300.8	---	2.333	16.58	1.183	71.8	285.1	-41.2	0.408
4-1120	4-1710	0.462	2.2	-9.5	4.56	0.879	63.5	0.455	1.592	104.8	308.2	---	2.316	-3.80	1.184	74.4	289.7	-34.6	0.356
4-1120	4-1720	0.442	3.9	-8.4	3.35	0.881	64.8	0.437	1.601	102.2	315.8	---	2.300	-2.73	1.185	76.9	294.2	-31.8	0.315
4-1120	4-1730	0.425	5.2	-7.8	2.65	0.883	65.9	0.421	1.608	100.0	323.6	---	2.286	-2.18	1.184	79.4	297.7	-30.4	0.278
4-1120	4-1740	0.412	6.2	-7.5	2.18	0.884	66.8	0.408	1.615	98.0	331.7	---	2.273	-1.87	1.183	81.9	299.6	-29.8	0.245
4-1120	4-1750	0.401	7.0	-7.2	1.82	0.885	67.5	0.397	1.620	96.4	340.1	---	2.264	-1.68	1.182	84.4	299.2	-30.1	0.216
4-1120	4-1760	0.393	7.7	-6.9	1.51	0.886	68.1	0.390	1.624	95.2	348.9	---	2.257	-1.57	1.180	86.9	295.8	-31.1	0.194
4-1120	4-1760	0.200	258.4	-18.4	1.51	0.699	102.3	0.364	1.096	203.4	817.1	0.697	1.495	-1.57	1.047	110.7	172.2	-1.4	0.356
4-1120	4-1760	0.473	226.1	-15.8	1.51	0.760	127.0	0.618	1.214	219.8	833.5	0.463	1.964	-1.57	1.089	127.0	165.9	3.8	0.653
4-1120	4-1770	0.389	8.1	6.5	1.24	0.887	68.3	0.386	1.627	94.5	358.1	---	2.256	-1.52	1.178	89.5	289.0	-32.3	0.181
4-1120	4-1770	0.180	277.4	-19.1	1.24	0.689	97.2	0.343	1.079	194.1	817.7	0.709	1.450	-1.52	1.038	109.6	181.2	-5.3	0.334
4-1120	4-1770	0.569	225.5	-16.3	1.24	0.777	134.1	0.703	1.254	217.7	841.3	0.372	2.135	-1.52	1.098	133.5	172.0	1.8	0.767
4-1120	4-1780	0.389	8.8	6.0	0.98	0.887	68.3	0.387	1.629	94.4	367.9	0.999	2.259	-1.51	1.176	92.2	279.6	-33.0	0.181
4-1120	4-1780	0.182	294.1	-18.4	0.98	0.682	93.0	0.339	1.069	186.0	819.4	0.706	1.431	-1.51	1.031	109.5	189.7	-9.0	0.330
4-1120	4-1790	0.395	8.5	6.4	0.72	0.888	67.9	0.393	1.630	95.0	378.2	0.990	2.271	-1.55	1.174	95.1	270.0	-32.7	0.197
4-1120	4-1790	0.197	308.0	-16.8	0.72	0.677	89.2	0.346	1.061	178.4	821.7	0.694	1.428	-1.55	1.024	110.0	198.0	-12.4	0.337
4-1120	4-1800	0.407	8.3	4.6	0.43	0.868	67.1	0.406	1.631	96.4	389.4	0.969	2.293	-1.64	1.172	98.4	262.6	-31.6	0.230
4-1120	4-1800	0.223	318.9	-14.9	0.43	0.673	85.2	0.363	1.054	171.4	824.5	0.672	1.436	-1.64	1.019	111.1	206.2	-15.5	0.355
4-1120	4-1810	0.429	7.7	3.6	0.11	0.888	65.6	0.428	1.631	99.0	401.7	0.933	2.330	-1.79	1.170	102.2	258.2	-30.3	0.281
4-1120	4-1810	0.260	327.5	-13.2	0.11	0.669	80.8	0.390	1.049	165.1	827.8	0.639	1.458	-1.79	1.014	112.9	214.2	-18.3	0.386
4-1120	4-1820	0.465	6.6	2.4	-0.30	0.888	63.2	0.465	1.632	102.9	415.3	0.873	2.390	-2.04	1.168	106.8	256.1	-29.3	0.352
4-1120	4-1820	0.311	334.0	-11.7	-0.30	0.666	75.7	0.433	1.044	159.5	831.8	0.592	1.497	-2.04	1.010	115.6	221.9	-20.7	0.433
4-1120	4-1830	0.522	4.8	0.8	-0.85	0.888	59.3	0.522	1.632	108.8	430.7	0.781	2.483	-2.45	1.167	112.8	255.3	-28.6	0.453
4-1120	4-1830	0.381	338.7	-10.7	-0.85	0.664	69.2	0.497	1.041	155.2	837.1	0.524	1.558	-2.45	1.006	119.8	229.1	-22.6	0.504
4-1120	4-1830	0.485	267.8	-24.7	-0.85	0.448	117.3	0.782	0.833	188.6	1230.5	0.181	1.485	-2.45	0.879	140.4	210.4	-14.2	0.792
4-1120	4-1830	0.551	259.0	-24.2	-0.85	0.470	129.3	0.826	0.847	190.8	1232.7	0.148	1.547	-2.45	0.891	144.9	209.6	-13.7	0.861
4-1120	4-1840	0.613	1.8	-1.3	-1.71	0.888	53.0	0.610	1.632	117.5	449.1	0.637	2.628	-3.16	1.165	121.1	254.6	-28.9	0.597
4-1120	4-1840	0.481	341.5	-10.3	-1.71	0.662	60.4	0.592	1.038	153.0	844.6	0.423	1.653	-3.16	1.004	126.3	235.3	-23.9	0.615
4-1120	4-1840	0.459	297.6	-23.1	-1.71	0.410	87.4	0.761	0.811	179.2	1230.7	0.194	1.428	-3.16	0.859	137.9	219.1	-17.8	0.752
4-1120	4-1850	0.558	313.4	-20.1	-3.33	0.395	64.0	0.825	0.803	173.9	1234.9	0.141	1.466	-4.65	0.851	144.1	226.2	-20.3	0.841
4-1120	4-1890	0.626	241.9	-16.5	5.37	0.631	131.0	0.732	0.997	202.6	941.9	0.267	1.727	4.56	0.983	42.9	150.7	16.1	0.783
4-1120	4-1900	0.492	213.5	-8.0	3.81	0.880	126.5	0.601	1.598	241.7	630.0	0.637	2.558	3.12	1.160	59.1	135.9	22.3	0.589
4-1120	4-1900	0.384	247.4	-16.7	3.81	0.629	117.5	0.602	0.995	202.6	951.5	0.396	1.593	3.12	0.983	53.0	155.2	14.6	0.619
4-1120	4-1910	0.400	210.1	-6.6	2.97	0.881	120.3	0.513	1.598	250.1	648.5	0.778	2.418	2.42	1.162	67.3	135.7	22.9	0.448
4-1120	4-1910	0.298	258.8	-17.6	2.97	0.626	107.7	0.519	0.991	198.2	956.7	0.477	1.504	2.42	0.983	58.8	161.9	11.9	0.521
4-1120	4-1920	0.342	207.9	-5.8	2.43	0.881	116.4	0.456	1.598	255.7	663.8	0.870	2.326	2.03	1.163	73.2	135.4	23.7	0.349
4-1120	4-1920	0.254	276.1	-18.0	2.43	0.621	99.4	0.473	0.984	190.8	958.9	0.518	1.450	2.03	0.981	61.8	169.9	8.4	0.469
4-1130	4-1170	0.518	230.3	-13.2	4.64	0.791	129.3	0.639	1.275	222.9	246.3	---	---	4.06	1.090	51.8	148.5	18.2	0.682

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APPEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1130	4-1180	0.397	227.8	-12.1	3.39	0.798	120.5	0.516	1.292	230.2	263.1	---	---	2.96	1.096	61.4	149.9	18.2	0.516
4-1130	4-1190	0.326	224.9	-11.2	2.66	0.814	115.4	0.433	1.336	237.2	279.8	---	---	2.38	1.109	68.3	151.0	18.4	0.401
4-1130	4-1200	0.282	222.2	-10.5	2.16	0.827	112.4	0.382	1.377	243.6	295.7	---	---	2.04	1.121	73.5	151.4	19.1	0.317
4-1130	4-1210	0.255	220.0	-10.2	1.77	0.837	110.5	0.351	1.407	248.3	310.3	---	---	1.82	1.131	77.7	150.9	20.4	0.253
4-1130	4-1220	0.236	218.6	-10.4	1.44	0.842	109.3	0.330	1.423	251.4	323.1	---	---	1.70	1.137	81.1	149.0	22.5	0.206
4-1130	4-1230	0.223	218.0	-11.0	1.15	0.843	108.4	0.316	1.428	252.8	334.4	---	---	1.63	1.140	83.9	145.5	25.2	0.172
4-1130	4-1240	0.213	218.1	-11.9	0.87	0.841	107.7	0.305	1.421	252.7	344.2	---	---	1.61	1.141	86.3	140.4	28.4	0.150
4-1130	4-1250	0.204	219.0	-13.2	0.59	0.837	107.1	0.295	1.408	251.5	352.9	---	---	1.64	1.141	88.4	134.6	31.5	0.139
4-1130	4-1260	0.196	220.4	-14.9	0.28	0.831	106.6	0.286	1.388	249.4	360.7	0.992	---	1.73	1.139	90.2	129.7	33.7	0.136
4-1130	4-1270	0.188	222.3	-17.0	-0.07	0.824	106.0	0.277	1.366	246.5	367.9	0.987	---	1.89	1.136	91.7	126.7	35.4	0.138
4-1130	4-1280	0.180	224.6	-19.7	-0.52	0.816	105.3	0.269	1.342	243.1	374.6	0.981	---	2.15	1.132	93.1	126.3	37.0	0.143
4-1130	4-1290	0.173	227.3	-23.4	-1.12	0.807	104.6	0.262	1.318	239.2	380.8	0.972	---	2.59	1.127	94.3	128.5	35.0	0.151
4-1130	4-1300	0.167	230.2	-29.0	-2.09	0.799	103.8	0.256	1.294	235.0	386.8	0.963	---	3.41	1.122	95.4	133.3	32.6	0.163
4-1130	4-1310	0.167	232.8	-39.1	-4.03	0.790	103.0	0.251	1.272	230.5	392.4	0.953	---	5.19	1.117	96.3	141.7	30.1	0.184
4-1130	4-1320	0.212	232.7	-62.8	-10.65	0.782	102.0	0.246	1.250	225.8	397.8	0.943	---	11.67	1.111	97.2	164.8	69.8	0.270
4-1130	4-1330	0.511	270.2	34.8	35.14	0.773	101.2	0.245	1.230	221.2	404.1	0.929	---	-34.27	1.105	98.2	83.7	-49.5	0.645
4-1130	4-1340	0.179	260.4	12.7	8.11	0.765	100.0	0.242	1.212	216.1	408.8	0.919	---	-7.38	1.099	98.9	132.2	-22.4	0.224
4-1130	4-1350	0.150	264.6	0.6	4.75	0.757	98.9	0.241	1.195	211.1	413.8	0.907	---	-4.17	1.092	99.7	145.1	-10.5	0.200
4-1130	4-1360	0.140	271.5	-5.6	3.40	0.750	97.7	0.241	1.179	205.9	418.8	0.895	---	-2.97	1.085	100.4	154.3	-6.6	0.200
4-1130	4-1370	0.137	279.2	-9.3	2.64	0.743	96.3	0.243	1.164	200.7	423.7	0.882	---	-2.36	1.078	101.1	162.5	-5.9	0.205
4-1130	4-1380	0.137	287.7	-11.4	2.12	0.736	94.9	0.246	1.151	195.4	428.4	0.868	---	-2.02	1.072	101.9	170.3	-6.7	0.213
4-1130	4-1390	0.141	296.5	-12.6	1.73	0.730	93.4	0.251	1.139	190.1	433.1	0.852	---	-1.81	1.065	102.6	177.8	-8.3	0.222
4-1130	4-1400	0.148	305.2	-12.9	1.40	0.724	91.7	0.259	1.127	184.8	437.7	0.836	---	-1.69	1.058	103.5	185.3	-10.4	0.234
4-1130	4-1410	0.160	313.5	-12.7	1.11	0.718	89.8	0.269	1.117	179.5	442.3	0.816	1.418	-1.64	1.051	104.4	192.8	-12.7	0.248
4-1130	4-1420	0.176	321.1	-12.1	0.84	0.713	87.7	0.283	1.107	174.1	446.7	0.794	1.421	-1.61	1.045	105.5	200.3	-15.2	0.265
4-1130	4-1430	0.197	327.9	-11.2	0.56	0.707	85.3	0.301	1.099	168.8	451.2	0.768	1.429	-1.65	1.039	106.9	207.8	-17.6	0.287
4-1130	4-1440	0.225	334.0	-10.2	0.25	0.703	82.4	0.325	1.090	165.7	455.8	0.736	1.445	-1.74	1.033	108.5	215.4	-19.8	0.315
4-1130	4-1450	0.261	339.3	-9.2	-0.09	0.698	79.0	0.359	1.083	158.8	460.6	0.695	1.471	-1.90	1.028	110.7	222.9	-21.9	0.352
4-1130	4-1460	0.309	343.7	-8.3	-0.51	0.694	74.7	0.404	1.076	154.5	465.9	0.641	1.511	-2.15	1.023	113.6	230.2	-23.6	0.404
4-1130	4-1470	0.375	347.1	-7.7	-1.08	0.690	69.0	0.470	1.070	151.2	472.2	0.568	1.573	-2.56	1.019	117.9	237.1	-25.0	0.477
4-1130	4-1480	0.471	349.1	-7.5	-1.95	0.687	60.9	0.565	1.066	149.8	480.3	0.464	1.668	-3.28	1.016	124.3	243.0	-25.9	0.587
4-1130	4-1530	0.546	247.9	-17.4	5.76	0.631	132.0	0.743	0.987	202.2	580.6	0.253	1.721	5.11	0.979	42.0	156.4	14.4	0.795
4-1130	4-1540	0.396	253.4	-17.5	3.95	0.628	117.9	0.609	0.983	202.3	590.2	0.384	1.583	3.44	0.978	52.5	160.9	12.7	0.625
4-1130	4-1550	0.307	265.8	-18.1	3.01	0.630	107.4	0.527	0.974	197.2	594.7	0.461	1.488	2.64	0.975	58.3	167.8	9.7	0.528
4-1130	4-1560	0.495	327.1	-11.2	2.40	0.508	64.1	0.718	0.868	168.4	575.6	0.244	1.491	2.20	0.910	44.8	186.2	-0.5	0.722
4-1130	4-1560	0.269	286.4	-17.7	2.40	0.607	97.7	0.493	0.959	188.1	595.3	0.486	1.431	2.20	0.969	60.6	176.6	5.6	0.485
4-1130	4-1660	0.594	4.9	0.2	-1.52	0.864	53.5	0.597	1.505	122.0	268.4	---	2.403	2.91	1.169	58.8	257.3	-18.1	0.601
4-1130	4-1670	0.565	6.9	-0.8	-2.81	0.868	55.7	0.567	1.523	118.5	275.1	---	2.386	4.05	1.173	61.8	264.8	-15.8	0.556
4-1130	4-1680	0.543	9.8	-4.5	-5.93	0.872	57.7	0.538	1.539	115.2	281.9	---	2.366	7.03	1.176	64.6	272.2	-9.0	0.520
4-1130	4-1700	0.522	358.5	21.4	13.46	0.879	61.3	0.487	1.567	108.8	296.2	---	2.330	-32.65	1.181	70.2	295.1	-52.6	0.477
4-1130	4-1710	0.472	5.7	13.6	6.04	0.882	62.8	0.465	1.578	105.9	303.4	---	2.313	-5.38	1.182	72.8	294.7	-37.4	0.388
4-1130	4-1720	0.448	8.2	11.4	4.00	0.884	64.2	0.445	1.588	103.2	310.8	---	2.296	-3.48	1.183	75.4	299.2	-32.3	0.341
4-1130	4-1730	0.429	9.7	10.5	3.00	0.886	65.4	0.428	1.597	100.7	318.4	---	2.281	-2.64	1.182	77.9	303.2	-30.3	0.302
4-1130	4-1740	0.413	10.9	9.9	2.37	0.887	66.5	0.413	1.604	98.6	326.3	---	2.267	-2.18	1.182	80.3	306.2	-29.1	0.266
4-1130	4-1750	0.400	11.9	9.5	1.93	0.889	67.3	0.401	1.610	96.7	334.4	---	2.255	-1.90	1.181	82.3	307.4	-28.8	0.235
4-1130	4-1760	0.390	12.7	9.2	1.57	0.890	68.0	0.391	1.615	95.2	342.9	---	2.247	-1.74	1.179	85.2	306.3	-29.4	0.208
4-1130	4-1760	0.244	250.0	-18.3	1.57	0.714	107.3	0.398	1.111	211.1	818.8	0.669	1.552	-1.74	1.053	112.7	171.5	-1.0	0.393
4-1130	4-1760	0.398	234.1	-17.2	1.57	0.748	120.7	0.541	1.175	220.1	827.8	0.539	1.810	-1.74	1.076	121.7	168.1	2.0	0.557
4-1130	4-1770	0.384	13.3	8.8	1.26	0.891	68.4	0.385	1.619	94.1	351.7	---	2.242	-1.65	1.177	87.7	302.0	-30.8	0.189
4-1130	4-1770	0.193	270.1	-19.5	1.26	0.699	100.3	0.351	1.084	200.2	817.8	0.703	1.465	-1.65	1.040	110.1	181.0	-5.6	0.342
4-1130	4-1770	0.521	231.4	-17.7	1.26	0.771	130.0	0.654	1.225	219.4	837.0	0.424	2.026	-1.65	1.090	129.6	173.1	0.6	0.698
4-1130	4-1780	0.381	13.7	8.4	0.98	0.891	68.6	0.383	1.621	93.5	361.0	1.001	2.242	-1.61	1.175	90.3	294.4	-32.3	0.179
4-1130	4-1780	0.181	287.8	-19.2	0.98	0.690	95.7	0.338	1.071	191.5	818.9	0.709	1.432	-1.61	1.031	109.4	189.8	-9.4	0.328
4-1130	4-1790	0.383	14.0	7.8	0.70	0.891	68.5	0.385	1.623	93.6	370.9	0.999	2.248	-1.62	1.173	93.0	284.7	-33.2	0.184
4-1130	4-1790	0.186	303.4	-17.7	0.70	0.684	91.8	0.337	1.061	183.5	820.8	0.703	1.419	-1.62	1.022	109.5	198.3	-12.9	0.328
4-1130	4-1800	0.390	14.0	7.1	0.42	0.892	68.0	0.392	1.624	94.5	381.5	0.987	2.262	-1.68	1.171	96.0	275.5	-33.0	0.205
4-1130	4-1800	0.203	316.3	-15.6	0.42	0.680	88.0	0.347	1.054	176.1	823.2	0.689	1.419	-1.68	1.019	110.1	206.7	-16.1	0.319
4-1130	4-1810	0.405	13.7	6.2	0.10	0.892	67.0	0.408	1.625	96.3	393.0	0.962	2.288	-1.80	1.169	99.4	268.8	-32.0	0.243
4-1130	4-1810	0.232	326.6	-13.4	0.10	0.676	83.9	0.366	1.048	169.3	826.0	0.664	1.432	-1.80	1.014	111.4	215.0	-19.0	0.360
4-1130	4-1820	0.431	13.0	5.1	-0.28	0.892	65.3	0.434	1.625	99.2	405.6	0.919	2.331	-2.00	1.167	103.4	265.0	-31.0	0.299
4-1130	4-1820	0.272	334.7	-11.5	-0.28	0.672	79.4	0.398	1.043	163.0	829.4	0.628	1.458	-2.00	1.009	113.4	223.1	-21.4	0.395
4-1130	4-1830	0.473	11.7	3.8	-0.76	0.892	62.4	0.476	1.625	103.8	419.8	0.851	2.400	-2.32	1.166	108.4	263.3	-30.1	0.379
4-1130	4-1830	0.328	340.8	-9.9	-0.76	0.670	73.9	0.447	1.039	157.7	833.7	0.475	1.503	-2.32	1.006	116.5	230.9	-23.4	0.449
4-1130	4-1840	0.541	9.5	2.0	-1.44	0.892	57.9	0.543	1.626	110.6	436.2	0.743	2.508	-2.85	1.164	115.0	262.5	-29.4	0.492
4-1130	4-1840	0.407	345.1	-8.9	-1.44	0.667	66.7	0.520	1.036	153.9	839.4	0.497	1.575	-2.85	1.003	121.3	238.0	-24.9	0.532
4-1130	4-1840	0.448	288.1	-24.3	-1.44	0.431	102.5	0.751	0.817	184.3	1229.8	0.204	1.429	-2.85	0.864	137.1	219.7	-17.9	0.741
4-1130	4-1850	0.523	347.3	-8.6	-2.56	0.666	56.7	0.631	1.033	152.8	847.9	0.382	1.685	-3.83	1.001	129.1	243.7	-25.8	0.662
4-1130	4-1850	0.484	310.3	-20.9	-2.56	0.409	79.1	0.773	0.804	176.7	1231.8	0.183	1.425	-3.83	0.851	138.9	228.0	-20.8	0.766
4-1130	4-1900	0.578	222.0	-10.9	4.72	0.885	131.8	0.672	1.592	235.2	618.1	0.522	2.662	4.14	1.159	52.6	142.4	20.6	0.701
4-1130	4-1900	0.467	248.9	-17.2	4.72	0.636	124.9	0.671	0.993	203.6	946.5	0.327	1.660	4.14	0.982	47.9	157.9	13.9	0.702
4-1130	4-1910	0.454	217.5	-9.2	3.44	0.885	123.4	0.558	1.593	246.1	638.6	0.704	2.483	3.00	1.161	63.0	141.6	21.4	0.521
4-1130	4-1910	0.348	256.5	-17.6	3.44	0.633	113.2	0.559	0.991	201.6	954.1	0.437	1.544	3.00	0.983	56.0	163.3	11.8	0.567
4-1130	4-1920	0.378	214.6	-8.3	2.69	0.885	118.3	0.484	1.594	253.3	655.4	0.822	2.365	2.40	1.162	70.1	141.4	22.1	0.399
4-1130	4-1920	0.278	269.9	-18.1	2.69	0.630	104.3	0.491	0.986	195.9	958.0	0.501	1.470	2.40	0.982	60.6	170.5	8.7	0.490
4-1130	4-1930	0.330	212.7	-7.9	2.18	0.885	115.1	0.436	1.593	258.1	669.9	0.899	2.288	2.05	1.164	75.3	140.8	23.1	0.313
4-1130	4-1930	0.579	335.3	-8.7	2.18	0.554	52.6	0.755	0.906	163.9	935.6	0.222	1.590	2.05	0.938	41.3	189.8	-2.4	0.785
4-1130	4-1930	0.249	288.9	-17.4	2.18	0.624	96.3	0.459	0.979	187.6	959.3	0.529	1.428	2.05	0.981	62.7	178.9	4.8	0.453
4-1140	4-1180	0.512	226.8	-12.2	4.08	0.874	127.0	0.605	1.626	238.8	265.7	---	---	3.75	1.149	57.7	148.9	19.0	0.607
4-1140	4-1190	0.407	224.1	-11.5	3.03	0.863	120.0	0.504	1.505	246.3	282.8	---	---	2.85	1.147	66.2	149.6	19.4	0.457
4-1140	4-1200	0.346	221.5	-10.8	2.36	0.872	115.9	0.442	1.519	252.6	298.8	---	---	2.35	1.151	72.3	149.7	20.1	0.354

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APPEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1140	4-1210	0.308	219.6	-10.7	1.88	0.876	113.4	0.403	1.532	257.2	313.1	---	---	2.05	1.156	77.0	148.8	21.5	0.280
4-1140	4-1220	0.283	218.5	-10.9	1.50	0.876	111.7	0.378	1.534	259.9	325.6	---	---	1.86	1.159	80.7	146.5	23.4	0.227
4-1140	4-1230	0.265	218.1	-11.5	1.17	0.874	110.6	0.359	1.525	260.9	336.4	---	---	1.75	1.159	83.8	142.7	26.0	0.190
4-1140	4-1240	0.251	218.4	-12.5	0.87	0.869	109.7	0.343	1.506	260.5	345.8	---	---	1.70	1.158	86.4	137.7	28.8	0.166
4-1140	4-1250	0.240	219.4	-13.7	0.58	0.862	109.0	0.329	1.480	258.9	354.2	---	---	1.71	1.156	89.6	132.3	31.2	0.154
4-1140	4-1260	0.229	220.9	-15.2	0.27	0.854	108.3	0.316	1.449	256.5	361.8	0.992	---	1.76	1.152	90.4	127.8	33.1	0.149
4-1140	4-1270	0.219	222.8	-17.1	-0.07	0.845	107.7	0.304	1.417	253.4	368.7	0.987	---	1.88	1.147	92.0	125.4	34.4	0.150
4-1140	4-1280	0.209	225.1	-19.4	-0.47	0.835	107.0	0.292	1.384	249.7	375.2	0.980	---	2.08	1.142	93.4	125.4	35.5	0.154
4-1140	4-1290	0.200	227.7	-22.3	-1.00	0.825	106.2	0.282	1.353	245.7	381.2	0.971	---	2.42	1.136	94.6	127.6	36.8	0.161
4-1140	4-1300	0.191	230.6	-26.5	-1.76	0.815	105.4	0.272	1.323	241.3	387.0	0.961	---	3.01	1.130	95.7	132.1	39.0	0.176
4-1140	4-1310	0.185	233.5	-33.0	-3.06	0.804	104.5	0.265	1.295	236.7	392.5	0.951	---	4.15	1.123	96.6	139.0	43.5	0.183
4-1140	4-1320	0.192	235.9	-46.3	-6.10	0.795	103.6	0.258	1.269	231.8	397.8	0.941	---	7.04	1.116	97.5	150.8	54.2	0.215
4-1140	4-1330	0.375	245.9	-79.1	-23.87	0.785	102.5	0.252	1.245	226.8	402.7	0.931	---	24.66	1.109	98.2	226.6	82.9	0.484
4-1140	4-1340	0.267	262.7	25.1	15.36	0.776	101.6	0.250	1.223	221.9	408.6	0.918	---	-14.72	1.102	99.1	118.5	-38.9	0.326
4-1140	4-1350	0.174	262.3	5.2	6.40	0.767	100.4	0.246	1.203	216.7	413.4	0.907	---	-5.91	1.095	99.8	141.9	-17.5	0.218
4-1140	4-1360	0.154	267.5	-3.6	4.10	0.759	99.2	0.245	1.186	211.4	418.2	0.895	---	-3.77	1.087	100.5	153.0	-10.2	0.206
4-1140	4-1370	0.146	274.6	-8.4	3.00	0.751	97.9	0.245	1.169	206.1	423.0	0.883	---	-2.83	1.080	101.1	161.9	-8.1	0.208
4-1140	4-1380	0.142	282.7	-11.2	2.32	0.744	96.5	0.246	1.154	200.7	427.7	0.870	---	-2.32	1.073	101.8	170.0	-8.3	0.213
4-1140	4-1390	0.141	291.4	-12.8	1.84	0.737	95.0	0.249	1.141	195.3	432.2	0.856	---	-2.03	1.065	102.5	177.8	-9.4	0.220
4-1140	4-1400	0.145	300.5	-13.4	1.46	0.730	93.3	0.255	1.128	189.9	436.7	0.841	---	-1.85	1.058	103.2	185.4	-11.4	0.229
4-1140	4-1410	0.152	309.5	-13.3	1.13	0.724	91.6	0.262	1.117	184.4	441.1	0.824	---	-1.74	1.051	104.0	193.1	-13.7	0.240
4-1140	4-1420	0.163	318.1	-12.7	0.84	0.718	89.6	0.273	1.107	178.9	445.5	0.805	1.409	-1.70	1.045	104.9	200.7	-16.0	0.254
4-1140	4-1430	0.180	326.1	-11.6	0.55	0.713	87.4	0.287	1.097	173.4	449.8	0.782	1.413	-1.71	1.038	106.0	208.4	-18.3	0.272
4-1140	4-1440	0.202	333.2	-10.4	0.25	0.708	84.8	0.307	1.089	168.0	454.1	0.755	1.422	-1.77	1.032	107.4	216.1	-20.6	0.295
4-1140	4-1450	0.231	339.5	-9.1	-0.08	0.705	81.8	0.333	1.081	162.8	458.5	0.721	1.440	-1.88	1.027	109.1	223.9	-22.6	0.325
4-1140	4-1460	0.270	345.0	-7.9	-0.47	0.698	78.1	0.369	1.073	157.9	463.2	0.677	1.470	-2.08	1.022	111.4	231.6	-24.4	0.366
4-1140	4-1470	0.323	349.5	-6.8	-0.96	0.694	73.3	0.420	1.067	153.6	468.6	0.619	1.515	-2.40	1.017	114.7	239.1	-25.8	0.423
4-1140	4-1480	0.397	352.8	-6.1	-1.65	0.691	67.0	0.494	1.061	150.6	475.1	0.537	1.586	-2.92	1.014	119.5	245.9	-26.8	0.506
4-1140	4-1490	0.508	354.5	-5.9	-2.75	0.688	57.8	0.603	1.058	150.0	484.0	0.420	1.695	-3.88	1.011	127.0	251.5	-27.3	0.633
4-1140	4-1540	0.485	255.2	-18.0	4.97	0.632	125.7	0.683	0.981	203.0	584.9	0.311	1.650	4.56	0.977	47.0	163.7	11.9	0.714
4-1140	4-1550	0.360	263.3	-18.2	3.51	0.627	113.3	0.569	0.975	200.7	592.2	0.420	1.530	3.25	0.975	55.4	169.2	9.6	0.576
4-1140	4-1560	0.566	332.9	-9.4	2.68	0.684	56.3	0.787	0.844	168.8	570.0	0.180	1.507	2.58	0.892	39.0	189.2	-2.0	0.804
4-1140	4-1560	0.290	278.5	-18.2	2.68	0.618	103.5	0.506	0.964	194.0	595.1	0.476	1.451	2.58	0.971	59.7	176.9	6.1	0.502
4-1140	4-1570	0.439	330.5	-9.8	2.12	0.531	70.0	0.662	0.879	168.9	579.7	0.297	1.461	2.19	0.921	49.3	193.2	-3.1	0.657
4-1140	4-1570	0.276	302.9	-15.8	2.12	0.599	92.8	0.496	0.943	182.8	593.6	0.475	1.410	2.19	0.962	60.5	186.5	1.3	0.486
4-1140	4-1670	0.578	11.1	1.9	-2.27	0.869	54.5	0.583	1.505	120.4	270.9	---	2.383	3.45	1.170	60.0	266.8	-17.4	0.584
4-1140	4-1680	0.551	13.4	-0.1	-4.11	0.873	56.6	0.554	1.522	116.9	277.6	---	2.366	5.14	1.173	62.9	274.1	-13.4	0.541
4-1140	4-1690	0.539	17.0	-7.4	-9.79	0.877	58.6	0.526	1.538	113.6	284.4	---	2.348	10.66	1.176	65.7	281.5	-0.8	0.525
4-1140	4-1710	0.489	7.8	19.6	9.17	0.884	62.1	0.476	1.565	107.2	298.7	---	2.310	-8.60	1.180	71.2	301.5	-43.7	0.431
4-1140	4-1720	0.456	12.1	14.9	5.05	0.886	63.6	0.455	1.576	104.4	305.9	---	2.293	-4.63	1.180	73.8	304.1	-34.5	0.370
4-1140	4-1730	0.434	14.2	13.3	3.50	0.888	64.9	0.436	1.585	101.7	313.3	---	2.277	-3.24	1.180	76.3	308.2	-30.6	0.327
4-1140	4-1740	0.416	15.6	12.5	2.64	0.890	66.1	0.419	1.594	99.3	321.0	---	2.262	-2.55	1.180	78.7	311.9	-28.6	0.289
4-1140	4-1750	0.401	16.8	11.9	2.08	0.891	67.0	0.405	1.600	97.2	328.9	---	2.249	-2.16	1.179	81.2	314.3	-27.6	0.255
4-1140	4-1760	0.388	17.7	11.5	1.65	0.893	67.8	0.394	1.606	95.4	337.0	---	2.238	-1.93	1.177	83.6	314.9	-27.6	0.225
4-1140	4-1770	0.379	18.5	11.1	1.30	0.894	68.4	0.385	1.610	94.0	345.6	---	2.231	-1.79	1.176	86.0	312.9	-28.6	0.201
4-1140	4-1770	0.224	262.5	-19.8	1.30	0.711	104.3	0.372	1.094	207.2	818.7	0.686	1.501	-1.79	1.044	111.3	180.6	-5.5	0.365
4-1140	4-1770	0.458	238.3	-18.9	1.30	0.762	124.8	0.590	1.191	220.5	832.1	0.489	1.894	-1.79	1.079	125.1	175.6	-0.9	0.615
4-1140	4-1780	0.374	19.1	10.7	0.99	0.894	68.8	0.380	1.614	93.1	354.5	---	2.227	-1.72	1.174	88.5	307.8	-30.3	0.184
4-1140	4-1780	0.190	280.7	-20.0	0.99	0.699	98.7	0.343	1.075	197.4	818.9	0.706	1.443	-1.72	1.033	109.7	189.7	-9.6	0.333
4-1140	4-1780	0.564	237.3	-19.5	0.99	0.781	132.5	0.684	1.234	218.7	840.1	0.391	2.078	-1.72	1.090	132.0	181.5	-2.7	0.738
4-1140	4-1790	0.372	19.5	10.1	0.70	0.895	68.9	0.379	1.616	92.7	363.9	1.003	2.229	-1.70	1.172	91.1	299.5	-32.1	0.179
4-1140	4-1790	0.183	297.4	-18.9	0.70	0.692	94.5	0.334	1.063	189.0	820.2	0.708	1.418	-1.70	1.025	109.2	198.4	-13.3	0.324
4-1140	4-1800	0.376	19.6	9.5	0.41	0.895	68.7	0.383	1.618	93.0	373.9	0.999	2.237	-1.73	1.170	93.8	289.8	-33.1	0.188
4-1140	4-1800	0.190	312.1	-16.8	0.41	0.686	90.6	0.336	1.054	181.2	822.2	0.700	1.409	-1.73	1.019	109.5	207.0	-16.6	0.328
4-1140	4-1810	0.385	19.6	8.7	0.09	0.895	68.0	0.393	1.619	94.1	384.8	0.983	2.254	-1.81	1.168	96.9	281.2	-33.0	0.214
4-1140	4-1810	0.210	324.2	-14.2	0.09	0.682	86.8	0.349	1.048	174.0	824.6	0.683	1.413	-1.81	1.014	110.3	215.6	-19.5	0.342
4-1140	4-1820	0.404	19.1	7.7	-0.26	0.896	66.8	0.411	1.619	96.3	396.6	0.953	2.285	-1.97	1.166	100.4	275.3	-32.2	0.257
4-1140	4-1820	0.241	334.0	-11.8	-0.26	0.678	82.7	0.372	1.042	167.2	827.5	0.655	1.429	-1.97	1.009	111.7	224.0	-22.0	0.367
4-1140	4-1830	0.434	18.3	6.6	-0.69	0.896	64.8	0.442	1.619	99.8	409.7	0.904	2.335	-2.21	1.165	104.7	272.1	-31.2	0.320
4-1140	4-1830	0.285	341.7	-9.7	-0.69	0.675	77.9	0.408	1.038	161.1	831.0	0.614	1.461	-2.21	1.005	114.0	232.3	-24.1	0.407
4-1140	4-1840	0.484	16.7	5.1	-1.25	0.896	61.5	0.491	1.620	105.1	424.5	0.826	2.415	-2.61	1.163	110.1	270.6	-30.4	0.409
4-1140	4-1840	0.347	347.5	-8.0	-1.25	0.673	71.9	0.464	1.034	156.1	835.6	0.555	1.513	-2.61	1.002	117.6	240.1	-25.7	0.469
4-1140	4-1850	0.564	14.2	3.2	-2.10	0.896	56.1	0.568	1.620	112.9	442.0	0.699	2.541	-3.30	1.162	117.5	269.7	-29.8	0.538
4-1140	4-1850	0.436	351.4	-7.0	-2.10	0.671	64.0	0.548	1.031	152.9	842.0	0.466	1.596	-3.30	0.999	123.2	247.0	-26.7	0.565
4-1140	4-1850	0.449	303.1	-22.5	-2.10	0.425	93.6	0.746	0.807	181.2	1230.2	0.205	1.410	-3.30	0.854	136.4	229.0	-20.9	0.732
4-1140	4-1860	0.571	352.8	-6.8	-3.59	0.669	52.5	0.675	1.029	153.2	851.7	0.334	1.724	-4.65	0.998	132.5	252.1	-27.2	0.719
4-1140	4-1860	0.520	321.4	-18.3	-3.59	0.409	71.0	0.793	0.798	174.8	1233.3	0.165	1.431	-4.65	0.845	140.7	237.0	-23.2	0.793
4-1140	4-1900	0.582	253.0	-18.0	6.34	0.641	134.5	0.763	0.991	202.3	939.2	0.235	1.747	5.86	0.981	40.3	161.6	12.7	0.823
4-1140	4-1910	0.528	225.7	-11.9	4.15	0.889	127.8	0.619	1.588	240.5	626.9	0.605	2.572	3.82	1.160	57.4	147.8	19.4	0.618
4-1140	4-1910	0.419	256.7	-17.9	4.15	0.640	119.8	0.618	0.990	203.7	950.2	0.378	1.601	3.82	0.982	51.8	165.4	11.3	0.636
4-1140	4-1920	0.425	221.9	-10.8	3.07	0.889	120.9	0.522	1.589	249.8	645.9	0.759	2.419	2.89	1.162	66.3	147.4	20.2	0.464
4-1140	4-1920	0.320	266.3	-18.2	3.07	0.637	109.5	0.524	0.986	200.1	956.1	0.470	1.503	2.89	0.982	58.4	171.6	8.6	0.526
4-1140	4-1930	0.361	219.4	-10.2	2.39	0.889	116.7	0.460	1.583	256.0	661.7	0.858	2.320	2.37	1.164	72.5	147.2	21.1	0.358
4-1140	4-1930	0.265	281.5	-17.9	2.39	0.633	101.3	0.470	0.981	193.3	959.0	0.520	1.442	2.37	0.982	62.0	179.2	5.2	0.465
4-1140	4-1940	0.321	217.7	-10.1	1.91	0.889	114.1	0.420	1.589	260.2	675.6	0.921	2.257	2.06	1.166	77.3	146.0	22.4	0.293
4-1140	4-1940	0.540	340.6	-6.6	1.91	0.566	56.5	0.717	0.910	163.2	938.6	0.257	1.562	2.06	0.943	44.5	197.5	-5.4	0.737
4-1140	4-1940	0.249	301.8	-15.8	1.91	0.626	93.2	0.451	0.972	183.9	959.3	0.533	1.412	2.06	0.980	63.2	188.0	1.0	0.443
4-1150	4-1190	0.528	223.6	-11.6	3.56	0.959	125.6	0.627	1.967	256.3	286.7	---	---	3.45	1.215	63.0	147.7	20.4	0.549
4-1150	4-1200	0.434	221.3	-11.1	2.65	0.939	120.0	0.540	1.834	262.3	302.3	---	---	2.75	1.199	70.5	147.4	21.2	0.413
4-1150	4-1210	0.378	219.6	-11.1	2.04	0.930	116.6	0.486	1.777	266.3	316.1	---	---	2.31	1.194	76.0	146.1	22.4	0.322

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1150	4-1220	0.342	218.8	-11.5	1.59	0.922	114.4	0.449	1.734	268.5	328.1	---	---	2.05	1.191	80.2	143.6	24.3	0.259
4-1150	4-1230	0.318	218.6	-12.1	1.21	0.914	113.0	0.421	1.691	269.1	338.4	---	---	1.89	1.187	83.7	139.7	26.5	0.216
4-1150	4-1240	0.299	219.2	-13.1	0.88	0.905	111.9	0.397	1.644	268.2	347.5	---	---	1.80	1.182	86.4	134.9	28.9	0.189
4-1150	4-1250	0.283	220.3	-14.2	0.57	0.894	111.1	0.376	1.593	266.4	355.9	---	---	1.77	1.176	88.8	129.9	30.8	0.174
4-1150	4-1260	0.269	221.9	-15.7	0.26	0.883	110.3	0.357	1.543	263.6	362.8	0.991	---	1.79	1.170	90.7	126.1	32.3	0.168
4-1150	4-1270	0.256	223.9	-17.4	-0.07	0.871	109.6	0.340	1.493	260.3	369.5	0.986	---	1.87	1.163	92.4	124.2	33.2	0.167
4-1150	4-1280	0.244	226.2	-19.3	-0.44	0.858	108.8	0.324	1.446	256.5	375.7	0.978	---	2.03	1.155	93.8	124.5	33.9	0.170
4-1150	4-1290	0.232	228.7	-21.7	-0.90	0.845	108.0	0.309	1.403	252.2	381.6	0.969	---	2.29	1.147	95.1	126.9	34.8	0.174
4-1150	4-1300	0.221	231.6	-24.9	-1.53	0.833	107.2	0.296	1.363	247.7	387.2	0.959	---	2.72	1.139	96.1	131.2	36.1	0.180
4-1150	4-1310	0.211	234.5	-29.9	-2.48	0.821	106.2	0.285	1.327	242.9	392.6	0.949	---	3.51	1.131	97.1	137.3	38.7	0.189
4-1150	4-1320	0.206	237.5	-37.4	-4.28	0.809	105.3	0.275	1.295	238.0	397.9	0.939	---	5.14	1.123	97.9	146.1	44.6	0.205
4-1150	4-1330	0.231	240.0	-55.6	-9.53	0.798	104.2	0.266	1.266	232.9	402.9	0.928	---	10.23	1.115	98.6	163.*	60.3	0.260
4-1150	4-1350	0.219	262.2	13.3	9.99	0.778	102.0	0.256	1.216	222.5	413.1	0.905	---	-9.61	1.099	100.1	134.8	-28.7	0.263
4-1150	4-1360	0.175	265.0	-0.8	5.23	0.769	100.8	0.252	1.195	217.1	417.8	0.894	---	-5.00	1.091	100.6	150.8	-15.1	0.219
4-1150	4-1370	0.160	270.8	-7.3	3.52	0.760	99.5	0.250	1.177	211.7	422.5	0.883	---	-3.45	1.083	101.2	161.0	-10.8	0.214
4-1150	4-1380	0.152	278.1	-10.9	2.60	0.752	98.1	0.249	1.160	206.2	427.0	0.871	---	-2.70	1.075	101.8	169.6	-10.0	0.215
4-1150	4-1390	0.147	286.3	-13.0	1.99	0.744	96.6	0.250	1.145	200.7	431.5	0.858	---	-2.28	1.067	102.4	177.7	-10.8	0.220
4-1150	4-1400	0.146	295.3	-14.0	1.54	0.737	95.0	0.253	1.131	195.2	435.9	0.845	---	-2.03	1.059	103.0	185.5	-12.5	0.227
4-1150	4-1410	0.149	304.6	-14.2	1.17	0.730	93.3	0.258	1.119	189.6	440.2	0.830	---	-1.87	1.052	103.7	193.3	-14.5	0.236
4-1150	4-1420	0.155	313.9	-13.7	0.85	0.724	91.4	0.266	1.107	184.0	444.4	0.813	---	-1.79	1.045	104.5	201.0	-16.8	0.247
4-1150	4-1430	0.167	322.8	-12.6	0.54	0.718	89.4	0.277	1.097	178.3	448.5	0.793	1.401	-1.77	1.038	105.4	208.9	-19.0	0.262
4-1150	4-1440	0.183	331.1	-11.1	0.24	0.713	87.0	0.292	1.088	172.7	452.6	0.770	1.406	-1.79	1.032	106.5	216.8	-21.2	0.280
4-1150	4-1450	0.206	338.8	-9.5	-0.08	0.708	84.3	0.313	1.079	167.2	456.8	0.741	1.417	-1.88	1.026	107.9	224.8	-23.3	0.304
4-1150	4-1460	0.237	345.1	-7.9	-0.44	0.703	81.0	0.342	1.071	161.9	461.1	0.705	1.437	-2.02	1.021	109.7	232.7	-25.0	0.337
4-1150	4-1470	0.280	350.7	-6.4	-0.87	0.698	77.0	0.382	1.064	156.9	465.8	0.658	1.470	-2.27	1.016	112.3	240.6	-26.4	0.381
4-1150	4-1480	0.338	355.3	-5.2	-1.44	0.694	71.8	0.439	1.058	152.8	471.2	0.594	1.522	-2.66	1.012	115.9	248.1	-27.4	0.445
4-1150	4-1490	0.423	358.5	-4.3	-2.27	0.691	64.6	0.522	1.053	150.3	478.2	0.503	1.603	-3.33	1.009	121.4	254.8	-28.1	0.539
4-1150	4-1500	0.551	359.7	-4.2	-3.70	0.689	54.0	0.647	1.050	150.7	488.1	0.371	1.729	-4.60	1.007	130.3	259.8	-28.3	0.688
4-1150	4-1550	0.435	263.6	-18.5	4.28	0.632	120.3	0.632	0.973	202.7	588.1	0.358	1.588	4.18	0.974	50.9	171.4	9.0	0.649
4-1150	4-1560	0.332	274.2	-18.4	3.07	0.626	109.2	0.538	0.965	198.4	593.4	0.446	1.485	3.08	0.972	57.5	177.8	6.1	0.538
4-1150	4-1570	0.522	337.7	-7.5	2.34	0.502	61.1	0.745	0.851	168.4	573.1	0.217	1.484	2.51	0.900	42.8	196.7	-4.9	0.751
4-1150	4-1570	0.280	292.4	-17.2	2.34	0.614	99.5	0.494	0.952	190.0	594.7	0.481	1.422	2.51	0.967	60.6	186.2	2.1	0.486
4-1150	4-1670	0.591	15.4	4.3	-1.92	0.869	53.2	0.601	1.487	122.4	266.8	---	2.381	3.03	1.166	58.2	268.9	-18.5	0.614
4-1150	4-1680	0.562	17.4	3.2	-3.17	0.874	55.4	0.570	1.505	118.8	273.4	---	2.364	4.11	1.170	61.2	276.2	-15.9	0.568
4-1150	4-1690	0.537	20.0	-0.2	-5.93	0.878	57.5	0.541	1.522	115.4	280.1	---	2.346	6.71	1.173	64.0	283.2	-9.4	0.530
4-1150	4-1700	0.571	24.6	-17.0	-18.83	0.881	59.4	0.515	1.537	112.1	286.8	---	2.328	19.45	1.176	66.8	291.8	16.1	0.590
4-1150	4-1710	0.553	2.6	31.8	19.39	0.885	61.3	0.488	1.551	108.7	294.2	---	2.307	-18.92	1.177	69.6	322.1	-58.2	0.550
4-1150	4-1720	0.466	15.4	19.6	6.97	0.887	62.8	0.466	1.563	105.8	301.2	---	2.291	-6.66	1.178	72.2	309.6	-37.9	0.405
4-1150	4-1730	0.439	18.5	16.5	4.26	0.890	64.3	0.445	1.575	102.9	308.4	---	2.274	-4.11	1.178	74.7	313.0	-31.4	0.354
4-1150	4-1740	0.419	20.3	15.1	3.02	0.892	65.5	0.427	1.582	100.3	315.9	---	2.258	-3.04	1.178	77.2	316.9	-28.2	0.314
4-1150	4-1750	0.402	21.7	14.4	2.28	0.894	66.6	0.411	1.590	98.0	323.5	---	2.244	-2.48	1.177	79.6	320.1	-26.5	0.277
4-1150	4-1760	0.387	22.8	13.8	1.76	0.895	67.6	0.398	1.596	95.9	331.4	---	2.232	-2.14	1.176	82.0	321.9	-25.8	0.244
4-1150	4-1770	0.376	23.7	13.4	1.36	0.896	68.3	0.388	1.602	94.2	339.6	---	2.222	-1.94	1.174	84.4	321.8	-26.1	0.216
4-1150	4-1780	0.368	24.4	12.9	1.01	0.897	68.8	0.380	1.606	92.9	348.2	---	2.216	-1.83	1.173	86.8	319.1	-27.5	0.194
4-1150	4-1780	0.214	273.4	-20.7	1.01	0.709	102.2	0.358	1.082	204.0	819.3	0.695	1.469	-1.83	1.036	110.6	189.5	-9.6	0.350
4-1150	4-1780	0.508	243.7	-20.5	1.01	0.772	127.8	0.626	1.203	220.2	835.5	0.450	1.957	-1.83	1.080	127.7	183.3	-4.0	0.661
4-1150	4-1790	0.364	25.0	12.4	0.70	0.898	69.1	0.376	1.609	92.2	357.2	---	2.214	-1.77	1.171	89.2	313.1	-29.6	0.181
4-1150	4-1790	0.190	290.4	-20.0	0.70	0.700	97.3	0.337	1.066	194.9	820.0	0.707	1.425	-1.77	1.027	109.4	198.5	-13.5	0.327
4-1150	4-1800	0.364	25.3	11.8	0.40	0.898	69.1	0.376	1.611	92.0	366.8	1.005	2.217	-1.77	1.169	91.9	304.4	-31.6	0.180
4-1150	4-1800	0.185	306.3	-18.2	0.40	0.693	93.3	0.331	1.056	186.7	821.6	0.706	1.406	-1.77	1.020	109.2	207.3	-16.9	0.323
4-1150	4-1810	0.369	25.4	11.0	0.09	0.898	68.8	0.302	1.612	92.5	377.0	0.997	2.228	-1.82	1.167	94.7	294.9	-32.7	0.194
4-1150	4-1810	0.195	320.2	-15.6	0.09	0.688	89.5	0.337	1.048	179.1	823.6	0.695	1.401	-1.82	1.014	109.6	216.0	-19.9	0.209
4-1150	4-1820	0.341	25.2	10.2	-0.24	0.899	68.0	0.394	1.613	94.0	388.1	0.978	2.249	-1.94	1.165	97.9	287.0	+32.6	0.224
4-1150	4-1820	0.217	331.8	-12.7	-0.24	0.684	85.7	0.352	1.042	171.9	826.1	0.675	1.409	-1.94	1.009	110.5	224.7	-22.5	0.346
4-1150	4-1830	0.403	24.7	9.1	-0.63	0.899	66.6	0.416	1.614	96.5	400.3	0.943	2.285	-2.13	1.164	101.5	281.9	-31.9	0.273
4-1150	4-1830	0.250	341.2	-10.0	-0.63	0.680	81.4	0.378	1.037	165.2	829.0	0.645	1.429	-2.13	1.005	112.2	233.4	-24.6	0.376
4-1150	4-1840	0.439	23.6	7.9	-1.12	0.899	64.2	0.452	1.614	100.6	413.9	0.885	2.343	-2.43	1.162	106.1	279.2	-31.1	0.344
4-1150	4-1840	0.299	348.5	-7.7	-1.12	0.678	76.3	0.420	1.033	159.3	832.7	0.599	1.466	-2.43	1.001	114.8	241.7	-26.2	0.422
4-1150	4-1850	0.497	21.8	6.3	-1.79	0.899	60.3	0.509	1.614	106.7	429.6	0.793	2.435	-2.93	1.162	112.1	277.9	-30.4	0.444
4-1150	4-1850	0.368	354.0	-6.0	-1.79	0.675	69.8	0.484	1.029	154.7	837.6	0.531	1.527	-2.93	0.998	118.9	249.5	-27.4	0.493
4-1150	4-1850	0.472	290.8	-24.2	-1.79	0.452	111.1	0.757	0.817	187.3	1230.2	0.198	1.436	-2.93	0.863	137.7	229.4	-20.6	0.752
4-1150	4-1860	0.593	18.6	4.3	-2.84	0.899	53.9	0.599	1.615	115.9	448.3	0.647	2.582	-3.82	1.161	120.5	276.8	-29.8	0.590
4-1150	4-1860	0.470	357.4	-5.0	-2.84	0.673	60.9	0.581	1.027	152.3	844.8	0.430	1.623	-3.82	0.997	125.5	256.1	-28.0	0.605
4-1150	4-1860	0.463	316.1	-19.8	-2.84	0.422	85.8	0.752	0.800	178.6	1231.0	0.198	1.402	-3.82	0.847	136.8	238.3	-23.3	0.738
4-1150	4-1870	0.565	331.1	-15.5	-4.87	0.409	62.7	0.821	0.794	173.3	1235.2	0.142	1.445	-5.70	0.841	143.5	246.0	-25.1	0.834
4-1150	4-1910	0.518	259.4	-18.4	5.33	0.645	128.2	0.700	0.988	203.8	944.2	0.297	1.680	5.09	0.981	45.6	168.5	10.2	0.739
4-1150	4-1920	0.488	229.9	-13.1	3.62	0.892	124.5	0.575	1.584	245.0	634.9	0.673	2.494	3.54	1.161	61.4	153.5	18.0	0.548
4-1150	4-1920	0.381	265.3	-18.4	3.62	0.643	115.4	0.574	0.986	203.0	953.0	0.420	1.552	3.54	0.982	55.0	173.3	8.2	0.583
4-1150	4-1930	0.402	226.6	-12.5	2.69	0.892	118.8	0.493	1.584	253.0	652.6	0.803	2.365	2.77	1.163	69.1	153.3	18.8	0.415
4-1150	4-1930	0.298	276.6	-18.3	2.69	0.639	106.2	0.496	0.982	198.0	957.6	0.495	1.469	2.77	0.982	60.3	180.1	5.2	0.494
4-1150	4-1940	0.349	224.4	-12.3	2.07	0.892	115.4	0.441	1.584	258.4	667.6	0.886	2.282	2.33	1.165	74.6	152.8	19.9	0.323
4-1150	4-1940	0.256	293.3	-17.1	2.07	0.634	98.3	0.455	0.976	190.2	959.5	0.532	1.420	2.33	0.982	63.0	188.1	1.4	0.448
4-1150	4-1950	0.316	222.9	-12.5	1.61	0.892	113.2	0.408	1.584	261.9	681.0	0.938	2.230	2.06	1.167	79.0	151.0	21.7	0.258
4-1150	4-1950	0.494	345.3	-4.7	1.61	0.578	60.8	0.674	0.915	162.8	941.8	0.298	1.531	2.06	0.949	47.9	205.2	-8.2	0.686
4-1150	4-1950	0.256	314.9	-13.4	1.61	0.626	89.8	0.451	0.965	179.8	958.8	0.530	1.401	2.06	0.979	63.3	197.5	-3.0	0.445
4-1160	4-1200	0.564	221.4	-11.5	3.06	1.044	124.8	0.713	2.910	272.1	305.9	---	---	3.26	1.281	67.8	144.7	22.1	0.511
4-1160	4-1210	0.475	220.0	-11.6	2.26	1.009	120.3	0.620	2.400	275.4	319.0	---	---	2.63	1.254	74.5	143.2	23.2	0.388
4-1160	4-122.	.421	219.4	-12.0	1.71	0.986	117.4	0.559	2.166	277.0	330.4	---	---	2.26	1.238	79.5	140.6	24.8	0.307
4-1160	4-1230	0.384	219.5	-12.8	1.27	0.968	115.6	0.513	2.012	277.1	340.2	---	---	2.03	1.226	83.3	136.9	26.7	0.244
4-1160	4-1240	0.357	220.3	-13.7	0.91	0.951	114.3	0.475	1.889	275.9	348.9	---	---	1.90	1.215	86.4	132.4	28.6	0.221

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1160	4-1250	0.336	221.6	-14.9	0.58	0.935	113.3	0.443	1.785	273.7	356.7	---	---	1.83	1.205	89.0	128.0	30.2	0.202
4-1160	4-1260	0.317	223.4	-16.3	0.26	0.918	112.4	0.414	1.693	270.7	363.7	0.991	---	1.82	1.194	91.1	124.8	31.3	0.193
4-1160	4-1270	0.300	225.4	-17.8	-0.06	0.902	111.6	0.389	1.611	267.2	370.2	0.985	---	1.86	1.184	92.8	123.3	31.9	0.189
4-1160	4-1280	0.285	227.8	-19.5	-0.42	0.886	110.8	0.366	1.539	263.2	376.2	0.977	---	1.97	1.173	94.3	123.9	32.4	0.190
4-1160	4-1290	0.270	230.3	-21.5	-0.83	0.870	109.9	0.345	1.477	258.8	382.0	0.967	---	2.17	1.163	95.6	126.4	32.8	0.192
4-1160	4-1300	0.256	233.1	-24.0	-1.36	0.855	109.0	0.327	1.421	254.1	387.5	0.957	---	2.50	1.153	96.7	130.6	33.5	0.196
4-1160	4-1310	0.243	236.1	-27.4	-2.10	0.840	108.1	0.311	1.373	249.2	392.7	0.947	---	3.06	1.143	97.6	136.3	35.0	0.201
4-1160	4-1320	0.232	239.2	-32.5	-3.32	0.827	107.1	0.297	1.331	244.2	397.9	0.936	---	4.10	1.133	98.4	145.7	38.2	0.210
4-1160	4-1330	0.231	242.3	-42.4	-5.93	0.814	106.0	0.285	1.295	239.0	402.8	0.925	---	6.54	1.123	99.1	154.5	46.3	0.232
4-1160	4-1340	0.314	248.9	-68.6	-16.79	0.801	104.8	0.275	1.263	233.6	407.5	0.915	---	17.24	1.114	99.7	182.0	70.5	0.374
4-1160	4-1350	0.382	269.2	28.4	23.22	0.790	103.8	0.269	1.235	228.4	413.0	0.902	---	-22.93	1.104	100.5	111.2	-44.8	0.465
4-1160	4-1360	0.208	264.1	4.1	7.38	0.779	102.5	0.262	1.210	222.9	417.4	0.893	---	-7.25	1.095	101.0	146.7	-22.5	0.246
4-1160	4-1370	0.181	268.4	-5.6	4.33	0.770	101.1	0.258	1.188	217.4	422.0	0.887	---	-4.37	1.085	101.5	159.5	-14.3	0.225
4-1160	4-1380	0.167	274.5	-10.4	2.99	0.761	99.7	0.255	1.168	211.9	426.5	0.871	---	-3.20	1.078	102.0	169.0	-12.0	0.222
4-1160	4-1390	0.159	281.9	-13.1	2.20	0.752	98.3	0.254	1.151	206.2	430.8	0.859	---	-2.59	1.069	102.5	177.4	-12.2	0.223
4-1160	4-1400	0.153	290.2	-14.6	1.65	0.744	96.7	0.255	1.136	200.6	435.1	0.847	---	-2.23	1.061	103.0	185.5	-13.4	0.228
4-1160	4-1410	0.151	299.2	-15.2	1.22	0.737	95.1	0.258	1.122	194.9	439.4	0.833	---	-2.01	1.053	103.6	193.4	-15.3	0.235
4-1160	4-1420	0.153	308.8	-14.9	0.87	0.730	93.3	0.263	1.109	189.2	443.5	0.818	---	-1.89	1.046	104.2	201.3	-17.4	0.243
4-1160	4-1430	0.159	318.3	-13.9	0.55	0.724	91.3	0.271	1.098	183.5	447.5	0.801	---	-1.83	1.038	105.0	209.3	-19.7	0.255
4-1160	4-1440	0.170	327.6	-12.4	0.24	0.718	89.1	0.282	1.088	177.7	451.4	0.781	1.395	-1.82	1.032	105.9	217.3	-21.8	0.270
4-1160	4-1450	0.187	336.2	-10.5	-0.08	0.712	86.6	0.299	1.078	172.0	455.4	0.756	1.400	-1.87	1.026	107.0	225.5	-23.8	0.289
4-1160	4-1460	0.211	344.0	-8.5	-0.42	0.707	83.7	0.321	1.070	166.3	459.4	0.727	1.413	-1.97	1.020	108.5	233.7	-25.5	0.315
4-1160	4-1470	0.244	350.8	-6.6	-0.81	0.702	80.2	0.352	1.062	160.9	463.5	0.688	1.436	-2.16	1.015	110.5	241.9	-26.9	0.350
4-1160	4-1480	0.290	356.6	-4.8	-1.29	0.698	75.9	0.396	1.055	156.0	468.2	0.637	1.473	-2.45	1.011	113.2	249.9	-27.9	0.399
4-1160	4-1490	0.356	1.1	-3.4	-1.95	0.694	70.1	0.460	1.049	152.1	473.9	0.567	1.532	-2.93	1.007	117.3	257.3	-28.5	0.470
4-1160	4-1500	0.452	4.1	-2.5	-2.95	0.691	61.9	0.556	1.045	150.2	481.4	0.464	1.625	-3.77	1.005	123.7	263.7	-28.8	0.579
4-1160	4-1550	0.540	266.6	-18.9	5.58	0.635	129.3	0.718	0.970	202.5	581.7	0.273	1.666	5.53	0.972	44.1	174.6	7.7	0.758
4-1160	4-1560	0.395	272.9	-18.7	3.66	0.631	115.6	0.590	0.965	201.5	590.3	0.396	1.534	3.77	0.972	53.9	179.5	5.6	0.598
4-1160	4-1570	0.591	343.1	-5.5	2.64	0.476	53.6	0.809	0.828	169.3	567.7	0.158	1.498	2.92	0.982	37.0	199.7	-6.3	0.831
4-1160	4-1570	0.311	286.0	-18.0	2.64	0.622	105.3	0.516	0.955	195.4	593.9	0.462	1.448	2.92	0.969	59.1	186.7	2.3	0.512
4-1160	4-1580	0.469	341.5	-5.8	1.98	0.521	66.8	0.694	0.860	168.6	576.8	0.264	1.457	2.44	0.953	46.9	204.1	-7.5	0.691
4-1160	4-1580	0.280	307.6	-15.0	1.98	0.606	95.0	0.494	0.937	185.1	593.3	0.474	1.400	2.44	0.961	60.6	196.0	-2.2	0.483
4-1160	4-1680	0.573	21.7	5.9	-2.59	0.873	54.2	0.587	1.488	120.8	269.2	---	2.362	3.46	1.167	59.4	278.4	-17.4	0.596
4-1160	4-1690	0.545	23.9	4.0	-4.27	0.878	56.4	0.557	1.506	117.3	275.8	---	2.344	4.96	1.170	62.3	285.4	-13.3	0.553
4-1160	4-1700	0.528	27.0	-2.0	-8.72	0.882	58.4	0.529	1.522	113.8	282.5	---	2.326	9.26	1.173	65.1	291.8	-2.8	0.527
4-1160	4-1720	0.491	18.2	27.4	11.54	0.888	62.0	0.477	1.549	107.3	296.6	---	2.289	-11.33	1.176	70.6	319.0	-45.6	0.461
4-1160	4-1730	0.447	22.5	20.4	5.55	0.891	63.6	0.455	1.561	104.3	303.6	---	2.272	-5.50	1.176	73.2	318.0	-33.3	0.385
4-1160	4-1740	0.423	25.0	18.0	3.59	0.893	64.9	0.436	1.571	101.6	310.9	---	2.255	-3.71	1.176	75.6	321.5	-28.3	0.339
4-1160	4-1750	0.403	26.6	16.9	2.57	0.895	66.1	0.418	1.580	99.0	318.4	---	2.240	-2.86	1.175	78.0	325.1	-25.6	0.300
4-1160	4-1760	0.387	27.9	16.2	1.92	0.897	67.2	0.403	1.587	96.7	326.0	---	2.227	-2.39	1.174	80.4	327.8	-24.2	0.265
4-1160	4-1770	0.374	29.0	15.6	1.44	0.898	68.1	0.391	1.593	94.8	334.0	---	2.215	-2.11	1.173	82.8	329.1	-23.8	0.234
4-1160	4-1780	0.364	29.8	15.1	1.05	0.899	68.7	0.381	1.597	93.2	342.3	---	2.207	-1.94	1.171	85.1	328.2	-24.5	0.208
4-1160	4-1780	0.266	265.7	-21.2	1.05	0.724	107.6	0.397	1.098	212.0	821.1	0.662	1.534	-1.94	1.043	112.9	188.8	-9.0	0.392
4-1160	4-1780	0.426	251.7	-21.3	1.05	0.758	121.1	0.544	1.162	220.6	829.7	0.530	1.795	-1.94	1.067	122.1	185.5	-5.8	0.559
4-1160	4-1790	0.357	30.5	14.5	0.71	0.900	69.2	0.375	1.601	92.0	350.9	---	2.202	-1.85	1.169	87.5	324.7	-26.3	0.188
4-1160	4-1790	0.209	283.4	-21.0	0.71	0.708	100.7	0.349	1.072	201.4	820.2	0.698	1.446	-1.85	1.029	110.1	198.4	-13.5	0.340
4-1160	4-1790	0.551	249.7	-21.9	0.71	0.781	130.3	0.657	1.213	219.7	838.5	0.416	2.009	-1.85	1.080	130.1	191.2	-7.2	0.701
4-1160	4-1800	0.3	31.0	13.9	0.40	0.900	65.4	0.372	1.604	91.4	360.0	1.007	2.201	-1.82	1.168	90.0	318.0	-28.7	0.178
4-1160	4-1800	0.1	5	-19.7	0.40	0.700	96.2	0.333	1.059	192.6	821.3	0.706	1.411	-1.82	1.021	109.3	207.4	-17.1	0.324
4-1160	4-1810	0	31.2	13.2	0.09	0.901	69.3	0.374	1.606	91.5	369.8	1.005	2.206	-1.83	1.166	92.7	309.0	-30.9	0.182
4-1160	4-1810	0.188	314.6	-17.2	0.09	0.694	92.3	0.331	1.049	184.6	822.9	0.702	1.397	-1.83	1.014	109.2	216.3	-20.2	0.323
4-1160	4-1820	0.362	31.3	12.4	-0.23	0.901	66.8	0.381	1.607	92.3	380.2	0.994	2.220	-1.91	1.164	95.5	299.9	-31.9	0.201
4-1160	4-1820	0.200	327.9	-14.2	-0.23	0.689	88.5	0.339	1.042	177.0	825.0	0.689	1.395	-1.91	1.009	109.7	225.3	-22.8	0.332
4-1160	4-1830	0.377	31.0	11.5	-0.59	0.901	67.9	0.396	1.608	94.1	391.6	0.971	2.245	-2.05	1.163	98.8	292.8	-31.9	0.237
4-1160	4-1830	0.223	339.1	-11.0	-0.59	0.685	84.5	0.357	1.037	169.9	827.5	0.667	1.406	-2.05	1.004	110.9	234.2	-25.0	0.353
4-1160	4-1840	0.403	30.2	10.4	-1.02	0.901	66.2	0.422	1.608	97.1	404.2	0.929	2.287	-2.28	1.161	102.7	288.5	-31.3	0.292
4-1160	4-1840	0.260	348.2	-8.1	-1.02	0.682	80.0	0.387	1.032	163.4	830.5	0.632	1.431	-2.28	1.001	112.8	243.0	-26.7	0.387
4-1160	4-1850	0.446	28.9	9.1	-1.57	0.901	63.4	0.464	1.608	101.8	418.5	0.862	2.354	-2.65	1.161	107.7	286.3	-30.6	0.371
4-1160	4-1850	0.313	355.3	-5.7	-1.57	0.679	74.6	0.435	1.028	157.7	834.4	0.581	1.475	-2.65	0.998	115.8	251.4	-27.8	0.439
4-1160	4-1860	0.515	26.7	7.5	-2.36	0.901	58.8	0.531	1.609	108.8	435.0	0.755	2.462	-3.27	1.160	114.3	285.1	-29.9	0.484
4-1160	4-1860	0.391	0.4	-3.9	-2.36	0.677	67.4	0.508	1.025	153.6	839.8	0.504	1.545	-3.27	0.996	120.5	259.0	-28.4	0.522
4-1160	4-1860	0.453	306.7	-22.0	-2.36	0.440	101.0	0.741	0.806	183.9	1230.1	0.208	1.404	-3.27	0.853	136.0	239.1	-23.1	0.726
4-1160	4-1870	0.509	3.2	-3.0	-3.68	0.675	57.3	0.621	1.022	152.2	848.0	0.388	1.657	-4.42	0.995	128.4	265.0	-28.6	0.654
4-1160	4-1870	0.487	327.6	-16.7	-3.68	0.419	78.4	0.766	0.795	176.4	1232.1	0.186	1.404	-4.42	0.842	138.0	247.9	-25.2	0.756
4-1160	4-1920	0.576	238.8	-15.4	4.49	0.895	129.8	0.647	1.578	238.1	621.8	0.557	2.599	4.52	1.160	54.8	160.0	15.4	0.661
4-1160	4-1920	0.465	266.8	-18.7	4.49	0.647	122.8	0.645	0.985	204.4	948.1	0.350	1.620	4.52	0.982	49.9	175.7	7.4	0.668
4-1160	4-1930	0.457	234.4	-14.6	3.11	0.895	121.9	0.538	1.579	248.7	642.1	0.729	2.429	3.30	1.162	64.7	159.3	16.3	0.490
4-1160	4-1930	0.350	274.4	-18.6	3.11	0.645	111.7	0.537	0.982	201.7	955.1	0.454	1.509	3.30	0.982	57.5	181.4	4.9	0.541
4-1160	4-1940	0.386	231.6	-14.3	2.30	0.895	117.2	0.469	1.579	255.6	658.7	0.839	2.320	2.66	1.164	71.5	159.1	17.3	0.374
4-1160	4-1940	0.282	287.4	-17.9	2.30	0.641	103.2	0.474	0.977	195.5	958.6	0.514	1.440	2.66	0.982	61.7	188.7	1.6	0.470
4-1160	4-1950	0.341	229.7	-14.4	1.73	0.895	114.3	0.425	1.579	260.3	673.1	0.908	2.251	2.28	1.167	76.5	158.3	18.6	0.294
4-1160	4-1950	0.571	351.3	-2.3	1.73	0.567	53.0	0.746	0.898	163.2	936.1	0.228	1.569	2.28	0.939	42.1	208.1	-9.6	0.774
4-1160	4-1950	0.252	305.5	-15.4	1.73	0.635	95.4	0.446	0.970	186.8	959.6	0.537	1.402	2.28	0.981	63.6	197.3	-2.4	0.438
4-1160	4-1960	0.313	228.4	-14.8	1.29	0.895	112.5	0.398	1.580	263.3	686.0	0.951	2.208	2.04	1.169	80.5	155.8	20.8	0.237
4-1160	4-1960	0.437	309.0	-3.1	1.29	0.591	66.1	0.620	0.922	163.1	945.8	0.351	1.493	2.04	0.956	52.0	212.8	-10.6	0.624
4-1160	4-1960	0.274	328.9	-9.8	1.29	0.623	88.5	0.464	0.956	174.8	957.4	0.513	1.399	2.04	0.977	62.5	207.4	-7.1	0.456
4-1170	4-1210	0.616	220.5	-12.0	2.57	1.131	124.5	0.854	6.198	284.0	321.3	---	---	3.04	1.352	72.2	140.5	23.7	0.497
4-1170	4-1220	0.527	220.2	-12.6	1.87	1.078	120.8	0.735	3.598	285.1	332.2	---	---	2.52	1.310	78.2	138.0	25.0	0.383
4-1170	4-1230	0.470	220.7	-13.4	1.36	1.042	116.4	0.652	2.819	284.7	341.6	---	---	2.20	1.283	82.8	134.6	26.6	0.312
4-1170	4-1240	0.431	221.7	-14.4	0.95	1.013	116.8	0.589	2.414	283.2	350.0	---	---	2.01	1.262	86.3	130.6	28.1	0.267

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1170	4-1250	0.430	223.2	-15.0	0.59	0.887	115.6	0.538	2.150	280.7	357.5	---	---	1.89	1.244	89.1	126.8	29.3	0.241
4-1170	4-1260	0.375	225.1	-16.9	0.26	0.964	114.7	0.494	1.957	277.6	364.3	0.991	---	1.85	1.227	91.4	124.0	30.1	0.226
4-1170	4-1270	0.353	227.4	-18.2	-0.06	0.941	113.8	0.455	1.807	273.9	370.6	0.984	---	1.86	1.212	93.3	123.0	30.6	0.219
4-1170	4-1280	0.333	229.7	-19.8	-0.40	0.920	112.9	0.422	1.687	269.7	376.6	0.975	---	1.93	1.197	94.9	123.7	30.8	0.216
4-1170	4-1290	0.315	232.3	-21.5	-0.78	0.900	112.0	0.393	1.589	265.2	382.2	0.965	---	2.07	1.183	96.2	126.2	31.0	0.215
4-1170	4-1300	0.297	235.1	-23.6	-1.24	0.881	111.1	0.367	1.508	260.5	387.6	0.954	---	2.31	1.170	97.3	130.3	31.2	0.216
4-1170	4-1310	0.281	238.1	-26.1	-1.84	0.863	110.1	0.345	1.441	255.5	392.8	0.943	---	2.72	1.157	98.2	135.7	31.9	0.218
4-1170	4-1320	0.266	241.2	-29.7	-2.74	0.847	109.0	0.326	1.384	250.3	397.8	0.933	---	3.43	1.145	99.0	142.4	33.5	0.222
4-1170	4-1330	0.255	244.5	-35.6	-4.33	0.831	107.9	0.310	1.336	245.1	402.7	0.922	---	4.85	1.134	99.7	151.8	37.6	0.232
4-1170	4-1340	0.262	248.2	-48.5	-8.74	0.817	106.7	0.298	1.295	239.7	407.4	0.912	---	8.71	1.122	100.3	164.3	49.3	0.268
4-1170	4-1360	0.275	266.1	14.1	12.78	0.782	104.3	0.277	1.230	228.8	417.1	0.889	---	-12.76	1.101	101.4	136.2	-34.7	0.319
4-1170	4-1370	0.209	267.3	-2.7	5.72	0.780	102.9	0.269	1.204	223.2	421.5	0.879	---	-5.86	1.091	101.9	156.9	-19.2	0.243
4-1170	4-1380	0.189	272.2	-9.5	3.57	0.770	101.5	0.264	1.181	217.6	425.9	0.869	---	-3.88	1.082	102.3	168.0	-14.4	0.232
4-1170	4-1390	0.176	278.6	-13.1	2.49	0.760	100.0	0.261	1.161	211.9	430.3	0.858	---	-2.97	1.072	102.7	177.1	-13.6	0.230
4-1170	4-1400	0.166	286.0	-15.0	1.80	0.751	98.5	0.259	1.143	206.2	434.5	0.847	---	-2.47	1.064	103.1	185.4	-14.4	0.232
4-1170	4-1410	0.160	294.3	-16.0	1.30	0.743	96.9	0.260	1.127	200.5	438.6	0.836	---	-2.17	1.055	103.6	193.5	-16.1	0.236
4-1170	4-1420	0.157	303.4	-16.1	0.90	0.736	95.1	0.262	1.113	194.7	442.6	0.821	---	-1.99	1.047	104.1	201.5	-18.0	0.243
4-1170	4-1430	0.158	313.0	-15.4	0.56	0.729	93.2	0.268	1.100	188.8	446.6	0.804	---	-1.89	1.039	104.7	209.6	-20.2	0.251
4-1170	4-1440	0.163	322.8	-13.9	0.28	0.722	91.1	0.276	1.089	182.9	450.4	0.788	---	-1.85	1.032	105.5	217.8	-22.3	0.263
4-1170	4-1450	0.174	332.4	-12.0	-0.08	0.716	88.8	0.288	1.079	177.1	454.2	0.768	1.390	-1.86	1.026	106.4	226.1	-24.2	0.278
4-1170	4-1460	0.191	341.4	-9.7	-0.40	0.710	86.2	0.306	1.070	171.2	458.0	0.743	1.396	-1.93	1.020	107.5	234.4	-25.9	0.29
4-1170	4-1470	0.216	349.5	-7.3	-0.76	0.705	83.1	0.330	1.061	165.5	461.8	0.711	1.411	-2.06	1.015	109.1	242.9	-27.3	0.326
4-1170	4-1480	0.252	356.5	-5.1	-1.18	0.700	79.3	0.364	1.054	160.0	465.9	0.678	1.427	-2.28	1.010	111.2	251.2	-28.3	0.364
4-1170	4-1490	0.303	2.4	-3.1	-1.72	0.696	74.5	0.413	1.047	155.2	470.7	0.614	1.479	-2.63	1.006	114.3	259.3	-28.9	0.419
4-1170	4-1500	0.376	13.0	-1.5	-2.48	0.692	68.0	0.486	1.041	151.6	476.6	0.536	1.547	-3.21	1.003	119.0	266.6	-29.1	0.500
4-1170	4-1510	0.488	9.6	-0.6	-3.71	0.690	58.7	0.595	1.037	150.5	485.0	0.420	1.654	-4.28	1.002	126.5	272.5	-28.9	0.627
4-1170	4-1560	0.485	274.4	-18.9	4.67	0.633	122.6	0.665	0.962	202.7	585.2	0.322	1.602	4.87	0.971	58.4	182.0	4.7	0.688
4-1170	4-1570	0.364	283.1	-18.5	3.08	0.627	111.3	0.558	0.956	199.4	591.6	0.422	1.488	3.06	0.969	56.2	187.9	2.0	0.559
4-1170	4-1580	0.545	347.8	-3.5	2.21	0.492	58.6	0.770	0.815	166.8	670.8	0.192	1.477	2.76	0.891	40.7	207.3	-9.1	0.780
4-1170	4-1580	0.297	299.0	-16.7	2.21	0.616	101.3	0.504	0.943	191.6	593.3	0.468	1.418	2.76	0.965	60.0	196.0	-1.8	0.496
4-1170	4-1590	0.395	342.3	-5.4	1.41	0.548	74.9	0.620	0.870	170.3	582.0	0.333	1.422	2.35	0.926	52.4	210.8	-9.5	0.610
4-1170	4-1590	0.300	326.1	-10.6	1.61	0.589	88.3	0.519	0.915	178.8	590.1	0.440	1.390	2.35	0.951	59.2	206.8	-7.0	0.506
4-1170	4-1680	0.585	26.1	8.2	-2.22	0.872	52.9	0.605	1.470	122.9	265.1	---	2.360	3.00	1.164	57.5	280.5	-18.4	0.626
4-1170	4-1690	0.555	28.1	7.5	-3.56	0.870	55.2	0.574	1.489	119.3	271.3	---	2.343	3.97	1.167	60.6	287.6	-15.4	0.579
4-1170	4-1700	0.529	30.5	4.2	-5.68	0.881	57.3	0.544	1.506	115.8	278.2	---	2.326	6.12	1.170	63.5	294.1	-9.5	0.539
4-1170	4-1710	0.534	34.2	-1.3	-13.95	0.885	59.3	0.517	1.522	112.4	284.9	---	2.308	14.22	1.172	66.2	300.0	8.8	0.548
4-1170	4-1730	0.460	25.4	26.0	8.11	0.891	62.8	0.486	1.548	105.9	299.0	---	2.270	-8.16	1.174	71.6	324.3	-37.4	0.424
4-1170	4-1740	0.428	29.4	21.4	4.48	0.893	64.3	0.445	1.559	103.0	306.1	---	2.253	-4.70	1.174	74.1	326.0	-29.1	0.367
4-1170	4-1750	0.406	31.5	19.5	2.98	0.896	65.6	0.426	1.569	100.3	313.4	---	2.237	-3.38	1.174	76.5	329.6	-25.1	0.325
4-1170	4-1760	0.388	33.4	18.5	2.13	0.897	66.7	0.410	1.577	97.8	320.9	---	2.223	-2.70	1.173	78.9	332.8	-22.8	0.287
4-1170	4-1770	0.372	35.3	17.7	1.55	0.899	67.7	0.396	1.584	95.6	328.6	---	2.210	-2.31	1.171	81.2	335.0	-21.7	0.254
4-1170	4-1780	0.360	75.3	17.1	1.10	0.900	68.5	0.384	1.589	93.7	336.6	---	2.200	-2.07	1.170	83.6	335.7	-21.7	0.224
4-1170	4-1790	0.351	36.1	16.5	0.73	0.901	69.1	0.376	1.593	92.3	344.9	---	2.192	-1.93	1.168	85.9	334.1	-22.9	0.200
4-1170	4-1790	0.249	276.5	-21.8	0.73	0.719	105.1	0.377	1.084	208.7	821.3	0.675	1.492	-1.93	1.034	111.8	197.9	-13.0	0.370
4-1170	4-1790	0.481	256.8	-22.5	0.73	0.768	124.6	0.587	1.177	220.7	833.3	0.485	1.068	-1.93	1.069	125.1	193.2	-8.7	0.611
4-1170	4-1800	0.345	36.7	15.9	0.40	0.902	69.5	0.371	1.597	91.3	353.7	---	2.189	-1.86	1.166	88.3	329.7	-25.1	0.183
4-1170	4-1800	0.207	292.6	-21.0	0.40	0.707	99.4	0.343	1.064	199.0	821.3	0.699	1.428	-1.86	1.023	109.8	207.4	-17.0	0.335
4-1170	4-1800	0.590	256.1	-23.0	0.40	0.788	132.5	0.684	1.220	218.9	841.2	0.386	2.055	-1.86	1.080	132.2	199.2	-10.3	0.736
4-1170	4-1810	0.343	37.1	15.3	0.09	0.902	69.6	0.369	1.599	90.9	362.9	1.009	2.190	-1.84	1.165	90.8	322.3	-27.7	0.177
4-1170	4-1810	0.191	307.9	-19.0	0.09	0.699	95.1	0.331	1.052	190.5	822.5	0.704	1.401	-1.84	1.016	109.2	216.5	-20.3	0.323
4-1170	4-1820	0.347	37.3	14.5	-0.23	0.903	69.4	0.373	1.601	91.7	372.9	1.005	2.197	-1.88	1.163	93.5	313.2	-29.9	0.185
4-1170	4-1820	0.191	322.4	-16.0	-0.23	0.694	91.3	0.332	1.044	182.6	824.3	0.697	1.390	-1.88	1.010	109.3	225.7	-23.0	0.325
4-1170	4-1830	0.356	37.2	13.6	-0.56	0.903	68.8	0.382	1.602	92.3	383.6	0.993	2.214	-1.93	1.162	96.5	304.8	-30.9	0.210
4-1170	4-1830	0.204	335.4	-12.6	-0.56	0.689	87.4	0.342	1.037	175.1	826.4	0.682	1.392	-1.98	1.005	110.0	234.6	-25.2	0.338
4-1170	4-1840	0.374	36.8	12.7	-0.95	0.903	67.6	0.400	1.603	94.4	395.3	0.961	2.234	-2.15	1.161	99.9	298.7	-30.8	0.252
4-1170	4-1840	0.230	346.3	-9.1	-0.95	0.686	83.3	0.363	1.032	168.0	828.9	0.657	1.406	-2.15	1.001	111.3	243.9	-26.9	0.362
4-1170	4-1850	0.405	35.8	11.5	-1.42	0.903	65.6	0.430	1.603	98.0	408.4	0.918	2.293	-2.42	1.160	104.1	295.1	-30.3	0.314
4-1170	4-1850	0.271	355.1	-6.0	-1.42	0.683	78.6	0.398	1.027	161.6	832.1	0.618	1.436	-2.42	0.997	113.5	252.8	-28.1	0.400
4-1170	4-1860	0.456	34.2	10.2	-2.04	0.903	62.3	0.479	1.603	103.4	423.4	0.835	2.371	-2.87	1.159	109.4	297.2	-29.6	0.402
4-1170	4-1860	0.330	2.0	-3.5	-2.04	0.680	72.7	0.453	1.023	186.2	836.2	0.560	1.487	-2.87	0.995	116.9	261.1	-28.7	0.461
4-1170	4-1870	0.537	31.4	8.6	-2.98	0.903	58.9	0.557	1.604	111.5	441.6	0.710	2.497	-3.63	1.159	116.9	292.1	-29.1	0.530
4-1170	4-1870	0.419	6.7	-1.8	-2.98	0.678	64.7	0.538	1.620	152.7	842.2	0.472	1.569	-3.63	0.994	122.5	268.4	-28.9	0.557
4-1170	4-1870	0.454	319.9	-19.0	-2.98	0.433	93.3	0.742	0.798	181.2	842.6	0.207	1.390	-3.63	0.845	135.7	248.9	-25.0	0.724
4-1170	4-1880	0.557	8.8	-1.1	-4.66	0.677	53.0	0.668	1.019	152.8	851.8	0.338	1.699	-5.15	0.993	131.9	273.6	-28.7	0.714
4-1170	4-1880	0.520	337.8	-13.3	-4.66	0.416	70.9	0.789	0.790	174.6	843.6	0.167	1.412	-5.15	0.838	140.1	257.5	-26.5	0.787
4-1170	4-1920	0.582	271.0	-19.0	6.01	0.650	132.5	0.741	0.983	203.2	940.7	0.254	1.711	6.14	0.980	42.2	179.3	5.9	0.791
4-1170	4-1930	0.533	243.1	-16.5	3.75	0.897	126.4	0.600	1.574	242.7	629.8	0.629	2.519	4.04	1.161	59.0	165.6	13.6	0.588
4-1170	4-1930	0.423	274.8	-18.8	3.75	0.648	118.2	0.598	0.981	204.0	951.1	0.394	1.568	4.04	0.982	53.3	183.3	4.2	0.612
4-1170	4-1940	0.434	239.3	-16.1	2.62	0.897	119.8	0.508	1.575	251.8	648.6	0.775	2.374	3.08	1.163	67.5	165.2	14.5	0.440
4-1170	4-1940	0.325	284.1	-18.4	2.62	0.645	108.3	0.508	0.977	199.8	956.7	0.480	1.474	3.08	0.983	59.5	189.7	1.4	0.508
4-1170	4-1950	0.373	236.8	-16.2	1.90	0.897	115.9	0.449	1.575	257.8	664.4	0.868	2.282	2.54	1.166	73.5	164.9	15.5	0.340
4-1170	4-1950	0.270	298.5	-16.8	1.90	0.641	100.3	0.459	0.972	192.6	959.2	0.526	1.418	2.54	0.982	62.8	197.6	-2.2	0.452
4-1170	4-1960	0.336	235.2	-16.6	1.38	0.897	113.4	0.412	1.575	261.8	678.2	0.926	2.223	2.21	1.168	78.1	163.6	17.2	0.269
4-1170	4-1960	0.526	356.2	-0.3	1.38	0.576	57.1	0.707	0.903	162.7	939.1	0.264	1.541	2.21	0.944	45.3	216.1	-12.2	0.726
4-1170	4-1960	0.252	318.0	-12.9	1.38	0.634	92.3	0.444	0.963	182.9	959.3	0.536	1.391	2.21	0.981	63.7	206.7	-6.2	0.436
4-1170	4-1970	0.313	234.1	-17.2	0.96	0.897	112.0	0.390	1.575	264.4	690.6	0.961	2.189	2.01	1.171	81.9	160.4	19.8	0.219
4-1180	4-1220	0.682	221.2	-13.1	2.69	1.217	124.5	1.035	26.897	292.3	333.7	---	---	2.83	1.425	76.3	136.1	24.8	0.507
4-1180	4-1230	0.588	221.9	-14.0	1.47	1.147	121.5	0.874	7.749	291.7	342.3	---	---	2.39	1.368	81.8	133.1	26.0	0.400
4-1180	4-1240	0.526	223.2	-15.0	1.00	1.096	119.6	0.761	4.140	290.0	350.5	---	---	2.12	1.328	85.9	129.7	27.2	0.334
4-1180	4-1250	0.482	225.0	-16.2	0.61	1.057	118.2	0.675	3.054	287.4	357.8	---	---	1.96	1.298	89.1	126.4	28.2	0.295

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1180	4-1260	0.447	227.1	-17.5	0.24	0.822	117.1	0.605	2.500	284.1	364.6	0.991	---	-1.88	1.272	91.7	124.1	28.0	0.271
4-1180	4-1270	0.417	229.4	-18.8	-0.06	0.992	116.1	0.547	2.172	280.3	370.8	0.983	---	1.85	1.244	93.8	123.3	29.1	0.257
4-1180	4-1280	0.392	232.0	-20.2	-0.39	0.964	115.2	0.498	1.941	276.1	376.7	0.974	---	1.88	1.229	95.5	124.1	29.2	0.250
4-1180	4-1290	0.368	234.7	-21.7	-0.75	0.938	114.2	0.457	1.772	271.5	382.2	0.963	---	1.98	1.216	96.9	125.5	29.2	0.245
4-1180	4-1300	0.346	237.5	-23.4	-1.15	0.911	113.3	0.421	1.643	266.7	387.5	0.951	---	2.15	1.193	98.1	130.4	29.2	0.243
4-1180	4-1310	0.326	240.5	-25.2	-1.66	0.879	112.3	0.390	1.542	261.7	392.7	0.940	---	-2.35	1.177	100.0	135.8	29.3	0.242
4-1180	4-1320	0.307	243.6	-28.1	-2.35	0.871	111.2	0.364	1.451	256.5	397.6	0.929	---	2.95	1.162	99.8	141.7	29.9	0.242
4-1180	4-1330	0.290	246.9	-31.9	-3.84	0.853	110.0	0.342	1.395	251.1	402.5	0.918	---	3.86	1.148	100.5	149.2	31.8	0.245
4-1180	4-1340	0.280	250.4	-38.9	-5.58	0.836	108.5	0.325	1.341	245.7	407.2	0.907	---	5.83	1.134	101.0	158.9	37.3	0.255
4-1180	4-1350	0.310	256.3	-56.9	-12.58	0.820	107.5	0.308	1.296	240.2	411.7	0.897	---	12.67	1.122	101.5	175.9	56.0	0.278
4-1180	4-1370	0.253	267.9	-3.0	8.41	0.792	104.9	0.286	1.226	229.0	421.1	0.876	---	-8.85	1.098	102.4	151.4	-27.1	0.282
4-1180	4-1380	0.216	271.3	-7.9	4.52	0.780	103.4	0.277	1.198	223.3	425.4	0.866	---	-4.92	1.087	102.7	166.5	-17.7	0.248
4-1180	4-1390	0.198	274.6	-12.7	2.91	0.769	101.9	0.271	1.174	217.6	429.7	0.856	---	-3.49	1.077	103.1	176.5	-15.3	0.240
4-1180	4-1400	0.185	282.9	-15.3	2.01	0.759	100.3	0.267	1.153	211.9	433.9	0.845	---	-2.77	1.067	103.4	185.3	-15.5	0.239
4-1180	4-1410	0.175	290.3	-16.6	1.48	0.750	98.7	0.265	1.135	206.1	437.9	0.834	---	-2.35	1.058	103.8	193.6	-16.7	0.241
4-1180	4-1420	0.167	298.6	-17.1	0.95	0.742	97.0	0.265	1.119	200.2	441.9	0.822	---	-2.10	1.049	104.2	201.7	-18.6	0.245
4-1180	4-1430	0.162	307.7	-16.7	0.57	0.734	95.1	0.268	1.105	194.3	445.8	0.809	---	-1.95	1.041	104.7	209.9	-20.6	0.251
4-1180	4-1440	0.163	317.5	-15.6	0.24	0.727	93.1	0.274	1.092	188.4	449.5	0.795	---	-1.87	1.034	105.3	218.2	-22.6	0.260
4-1180	4-1450	0.167	327.5	-13.8	-0.08	0.720	90.9	0.282	1.081	182.4	453.2	0.776	---	-1.85	1.027	106.0	226.6	-24.5	0.272
4-1180	4-1460	0.178	337.4	-11.4	-0.39	0.714	88.5	0.295	1.070	176.4	456.8	0.754	1.386	-1.88	1.020	106.9	235.1	-26.1	0.288
4-1180	4-1470	0.195	346.7	-8.7	-0.72	0.708	85.7	0.314	1.061	170.4	460.4	0.728	1.394	-1.97	1.015	108.1	243.7	-27.5	0.310
4-1180	4-1480	0.222	355.1	-5.0	-1.10	0.703	82.5	0.340	1.053	164.6	464.2	0.694	1.411	-2.13	1.010	109.8	252.5	-28.5	0.339
4-1180	4-1490	0.261	2.4	-3.4	-1.56	0.698	78.2	0.378	1.045	159.1	468.3	0.650	1.440	-2.39	1.006	112.2	260.7	-29.0	0.382
4-1180	4-1500	0.317	8.4	-1.2	-2.15	0.694	72.9	0.435	1.039	154.4	473.1	0.589	1.489	-2.80	1.002	115.7	268.7	-29.2	0.443
4-1180	4-1510	0.401	12.8	0.5	-3.03	0.690	65.9	0.516	1.033	151.3	479.5	0.500	1.567	-3.51	1.000	121.1	275.8	-29.0	0.536
4-1180	4-1520	0.531	15.0	1.3	-4.57	0.688	54.8	0.642	1.030	151.2	489.0	0.369	1.693	-4.88	0.999	126.9	281.0	-28.5	0.685
4-1180	4-1570	0.440	283.2	-18.7	3.76	0.629	118.5	0.621	0.954	201.7	587.7	0.361	1.547	4.22	0.968	91.7	189.8	1.3	0.634
4-1180	4-1580	0.339	294.3	-17.6	2.53	0.621	107.3	0.535	0.945	196.5	592.1	0.439	1.451	3.17	0.966	57.8	196.8	-1.8	0.531
4-1180	4-1590	0.490	351.6	-1.9	1.77	0.509	64.5	0.722	0.844	168.8	574.3	0.235	1.453	2.60	0.901	44.8	214.9	-11.5	0.722
4-1180	4-1590	0.292	313.4	-14.1	1.77	0.606	96.9	0.502	0.929	186.9	592.4	0.462	1.395	2.60	0.959	60.1	205.8	-6.0	0.492
4-1180	4-1680	0.598	30.6	10.4	-1.95	0.669	51.5	0.624	1.452	125.2	261.0	---	2.358	2.65	1.160	55.7	282.5	-19.1	0.656
4-1180	4-1690	0.565	32.6	9.7	-2.79	0.874	53.9	0.591	1.472	121.5	267.5	---	2.341	3.31	1.164	56.8	289.8	-16.7	0.608
4-1180	4-1700	0.536	34.7	8.1	-4.24	0.879	56.2	0.560	1.490	117.9	274.0	---	2.324	4.58	1.167	58.1	296.5	-12.7	0.563
4-1180	4-1710	0.515	37.3	5.3	-7.65	0.883	58.2	0.531	1.506	114.4	280.7	---	2.306	7.82	1.169	64.1	302.4	-4.0	0.530
4-1180	4-1730	0.502	23.4	36.6	15.39	0.890	62.0	0.478	1.535	107.7	294.6	---	2.268	-15.55	1.172	70.1	338.9	-47.6	0.509
4-1180	4-1740	0.436	33.4	25.7	6.08	0.893	63.5	0.456	1.547	104.6	301.5	---	2.252	-6.40	1.172	72.6	331.1	-31.3	0.399
4-1180	4-1750	0.409	36.4	22.4	3.61	0.895	64.9	0.435	1.557	101.8	308.6	---	2.235	-4.10	1.172	75.0	333.8	-25.2	0.350
4-1180	4-1760	0.389	38.2	20.8	2.43	0.897	66.2	0.417	1.566	99.1	315.9	---	2.220	-3.04	1.171	77.4	337.2	-21.9	0.310
4-1180	4-1770	0.372	39.6	19.8	1.70	0.899	67.3	0.402	1.574	96.7	323.4	---	2.206	-2.59	1.170	79.7	340.1	-20.0	0.274
4-1180	4-1780	0.357	40.8	19.1	1.17	0.901	68.2	0.388	1.580	94.6	331.1	---	2.194	-2.22	1.168	82.0	341.8	-19.2	0.242
4-1180	4-1790	0.346	41.7	18.4	0.76	0.902	68.9	0.378	1.586	92.9	339.2	---	2.185	-2.02	1.167	84.3	341.7	-19.6	0.214
4-1180	4-1800	0.338	42.4	17.8	0.41	0.903	69.5	0.371	1.590	91.6	347.6	---	2.177	-1.91	1.165	86.7	339.3	-21.2	0.195
4-1180	4-1800	0.241	286.1	-22.0	0.41	0.716	103.4	0.366	1.073	206.0	822.0	0.681	1.316	-1.91	1.027	111.2	207.1	-16.6	0.359
4-1180	4-1800	0.526	262.8	-23.3	0.41	0.775	127.3	0.621	1.187	220.3	836.4	0.450	1.923	-1.91	1.070	127.5	201.2	-11.6	0.653
4-1180	4-1810	0.334	43.0	17.1	0.09	0.905	69.8	0.367	1.593	90.7	356.5	---	2.176	-1.85	1.164	89.1	334.0	-23.8	0.179
4-1180	4-1810	0.206	301.2	-20.5	0.09	0.705	98.2	0.339	1.057	196.8	822.5	0.478	1.415	-1.85	1.018	109.7	216.6	-20.1	0.332
4-1180	4-1820	0.334	43.3	16.4	-0.22	0.904	69.8	0.367	1.595	90.5	366.0	1.010	2.180	-1.86	1.162	91.6	326.1	-26.6	0.178
4-1180	4-1820	0.193	316.0	-18.0	-0.22	0.698	94.1	0.331	1.046	188.4	823.8	0.700	1.393	-1.86	1.011	109.3	225.9	-23.0	0.325
4-1180	4-1830	0.339	43.4	15.6	-0.54	0.904	69.5	0.372	1.596	91.1	376.1	1.003	2.190	-1.91	1.161	94.3	317.2	-28.6	0.191
4-1180	4-1830	0.195	330.0	-14.6	-0.54	0.693	90.3	0.334	1.038	180.6	825.6	0.691	1.385	-1.91	1.005	109.5	235.3	-25.3	0.329
4-1180	4-1840	0.351	43.2	14.7	-0.90	0.904	68.7	0.384	1.597	92.5	387.1	0.984	2.210	-2.03	1.160	97.4	309.6	-29.5	0.221
4-1180	4-1840	0.210	342.6	-10.8	-0.90	0.689	86.4	0.347	1.032	173.2	827.6	0.673	1.390	-2.03	1.001	120.3	244.6	-27.0	0.345
4-1180	4-1850	0.373	42.5	13.7	-1.30	0.904	67.3	0.406	1.598	93.1	399.3	0.950	2.240	-2.23	1.159	101.1	304.4	-29.4	0.269
4-1180	4-1850	0.238	353.3	-7.0	-1.30	0.685	82.1	0.372	1.027	166.2	830.3	0.645	1.409	-2.23	0.997	111.8	253.9	-28.2	0.373
4-1180	4-1860	0.410	41.4	12.6	-1.82	0.904	64.9	0.441	1.599	99.3	412.9	0.893	2.303	-2.56	1.158	105.5	301.5	-28.9	0.339
4-1180	4-1860	0.282	2.0	-3.8	-1.82	0.682	77.0	0.412	1.022	159.9	833.6	0.601	1.444	-2.56	0.995	114.4	262.7	-28.8	0.417
4-1180	4-1870	0.469	39.4	11.3	-2.52	0.904	64.0	0.498	1.598	105.5	428.7	0.802	2.395	-3.09	1.158	111.5	300.0	-28.4	0.438
4-1180	4-1870	0.349	8.6	-1.3	-2.52	0.680	70.5	0.475	1.019	154.9	838.2	0.535	1.503	-3.09	0.993	118.4	270.9	-29.0	0.488
4-1180	4-1870	0.487	307.6	-21.7	-2.52	0.456	111.7	0.757	0.909	187.5	1230.7	0.196	1.422	-3.09	0.855	137.5	249.3	-24.5	0.751
4-1180	4-1880	0.566	36.0	9.6	-3.64	0.905	54.6	0.590	1.599	114.8	447.5	0.655	2.542	-4.04	1.159	119.9	298.7	-27.9	0.589
4-1180	4-1880	0.451	12.9	0.4	-3.64	0.678	61.6	0.573	1.016	152.3	845.0	0.434	1.599	-4.04	0.992	125.0	277.6	-28.7	0.600
4-1180	4-1880	0.466	331.8	-15.4	-3.64	0.424	86.2	0.750	0.792	178.7	1231.5	0.198	1.386	-4.04	0.840	136.4	258.8	-26.2	0.735
4-1180	4-1890	0.563	347.0	-9.9	-5.83	0.413	62.8	0.819	0.785	173.3	1235.5	0.143	1.428	-6.07	0.834	143.1	266.9	-27.1	0.832
4-1180	4-1930	0.523	277.7	-19.0	4.81	0.650	126.7	0.684	0.979	204.2	945.1	0.310	1.649	5.20	0.981	46.9	186.2	3.0	0.715
4-1180	4-1940	0.499	247.7	-17.7	3.09	0.898	123.6	0.561	1.569	246.5	637.0	0.688	2.451	3.64	1.163	62.5	171.3	11.1	0.521
4-1180	4-1940	0.388	283.4	-18.7	3.09	0.648	114.3	0.560	0.977	202.9	953.4	0.429	1.524	3.64	0.982	55.9	191.3	0.8	0.567
4-1180	4-1950	0.416	244.5	-17.8	2.13	0.898	118.1	0.482	1.570	254.3	654.5	0.815	2.327	2.86	1.165	69.9	171.1	12.4	0.399
4-1180	4-1950	0.306	294.1	-17.7	2.13	0.645	105.2	0.486	0.973	197.4	957.7	0.500	1.445	2.86	0.983	61.0	198.3	-2.3	0.483
4-1180	4-1960	0.365	242.4	-18.1	1.50	0.898	114.8	0.433	1.570	259.5	669.6	0.891	2.249	2.41	1.167	75.4	170.6	13.6	0.310
4-1180	4-1960	0.594	1.8	2.0	1.50	0.564	50.0	0.772	0.888	163.7	933.8	0.202	1.574	2.41	0.935	39.8	218.8	-13.3	0.809
4-1180	4-1970	0.262	310.0	-15.1	1.50	0.639	97.4	0.449	0.966	189.3	959.4	0.532	1.400	2.41	0.982	63.4	206.8	-5.3	0.442
4-1180	4-1970	0.334	241.0	-18.7	1.02	0.898	112.7	0.402	1.570	262.9	682.9	0.940	2.200	2.14	1.170	79.6	168.9	15.6	0.248
4-1180	4-1970	0.473	0.4	1.4	1.02	0.586	61.9	0.660	0.909	162.6	942.6	0.309	1.508	2.14	0.951	49.0	224.1	-14.4	0.671
4-1180	4-1970	0.260	331.3	-9.4	1.02	0.630	88.6	0.451	0.955	178.3	958.3	0.525	1.386	2.14	0.979	63.3	216.6	-10.1	0.443
4-1180	4-1980	0.316	240.0	-19.4	0.63	0.898	111.5	0.383	1.570	265.1	695.0	0.969	2.[illegible]	1.97	1.172	83.1	164.9	18.7	0.205
4-1190	4-1230	0.759	223.1	-14.5	1.63	1.305	124.9	1.250	-3.892	297.8	342.1	---	---	2.62	1.502	80.1	132.7	25.2	0.541
4-1190	4-1240	0.656	224.7	-15.6	1.07	1.215	122.5	1.029	34.014	296.1	350.3	---	---	2.26	1.427	85.1	129.9	20.1	0.434
4-1190	4-1250	0.587	226.8	-16.8	0.64	1.151	120.8	0.879	8.211	293.5	357.6	---	---	2.04	1.375	88.9	127.1	26.9	0.371
4-1190	4-1260	0.537	229.1	-18.1	0.27	1.100	119.6	0.766	4.225	290.2	364.3	0.991	---	1.91	1.334	91.9	125.1	27.4	0.333
4-1190	4-1270	0.496	231.7	-19.4	-0.06	1.057	118.6	0.676	3.033	286.4	370.6	0.983	---	1.84	1.301	94.3	124.3	27.7	0.309

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1190	4-1280	0.462	234.4	-20.7	-0.39	1.019	117.6	0.003	0.450	282.2	376.4	0.972	---	1.84	0.272	96.2	125.1	27.7	0.394
4-1190	4-1290	0.431	237.3	-22.0	-0.72	0.985	116.7	0.543	2.101	277.6	381.9	0.961	---	1.89	0.246	97.7	127.3	27.5	0.389
4-1190	4-1300	0.404	240.2	-23.5	-1.09	0.955	115.7	0.492	1.868	272.7	387.2	0.948	---	2.01	0.223	98.9	131.0	27.3	0.383
4-1190	4-1310	0.378	245.2	-25	-1.52	0.927	114.6	0.450	1.702	267.7	392.3	0.936	---	2.23	0.202	99.9	135.7	27.0	0.372
4-1190	4-1320	0.355	246.3	-27.1	-2.08	0.901	113.5	0.414	1.579	263.8	397.2	0.929	---	2.59	0.183	100.7	141.6	27.0	0.368
4-1190	4-1330	0.334	248.5	-29.7	-2.87	0.879	112.3	0.384	1.482	257.1	402.1	0.913	---	3.20	1.166	101.3	148.4	27.6	0.366
4-1190	4-1340	0.316	252.0	-33.9	-4.22	0.858	111.0	0.359	1.407	251.6	406.8	0.902	---	4.37	1.150	101.9	156.5	29.9	0.368
4-1190	4-1350	0.308	257.1	-42.4	-6.20	0.838	109.7	0.338	1.347	246.1	411.4	0.892	---	7.28	1.134	102.3	167.4	37.6	0.385
4-1190	4-1360	0.424	276.0	-69.6	-22.56	0.822	108.2	0.317	1.297	240.5	415.6	0.883	---	22.20	1.120	102.6	190.6	66.9	0.477
4-1190	4-1370	0.359	272.6	-16.8	17.70	0.807	107.0	0.307	1.256	234.8	420.7	0.871	---	-18.05	1.107	103.1	134.6	-40.8	0.411
4-1190	4-1380	0.252	271.6	-4.8	6.25	0.793	105.4	0.295	1.222	229.1	425.9	0.862	---	-6.75	1.095	103.4	163.6	-22.7	0.274
4-1190	4-1390	0.226	275.8	-11.9	3.55	0.780	103.9	0.286	1.193	223.4	429.1	0.852	---	-4.22	1.083	103.6	175.7	-17.5	0.255
4-1190	4-1400	0.209	281.3	-15.2	2.30	0.768	102.3	0.279	1.168	217.6	432.2	0.842	---	-3.18	1.072	103.9	185.1	-16.4	0.250
4-1190	4-1410	0.195	287.6	-17.0	1.55	0.756	100.7	0.272	1.146	211.8	437.3	0.832	---	-2.57	1.062	104.2	193.6	-17.4	0.249
4-1190	4-1420	0.184	294.9	-17.8	1.01	0.748	98.9	0.272	1.128	205.9	441.2	0.821	---	-2.23	1.053	104.5	202.0	-19.0	0.251
4-1190	4-1430	0.179	303.1	-17.9	0.60	0.739	97.1	0.272	1.111	199.9	445.0	0.809	---	-2.02	1.044	104.8	210.2	-20.9	0.254
4-1190	4-1440	0.178	312.2	-17.1	0.24	0.731	95.1	0.275	1.097	193.9	448.7	0.796	---	-1.88	1.036	105.3	218.6	-22.8	0.260
4-1190	4-1450	0.168	322.1	-15.6	-0.08	0.724	92.8	0.280	1.084	187.8	452.3	0.780	---	-1.84	1.028	105.8	227.0	-24.7	0.269
4-1190	4-1460	0.172	332.3	-13.4	-0.38	0.717	90.7	0.289	1.072	181.7	455.9	0.762	---	-1.84	1.021	106.5	235.7	-26.3	0.281
4-1190	4-1470	0.182	342.5	-10.0	-0.70	0.711	88.1	0.303	1.063	175.6	459.5	0.740	1.384	-1.89	1.015	107.5	244.4	-27.6	0.298
4-1190	4-1480	0.200	352.1	-7.5	-1.04	0.705	85.1	0.324	1.053	169.5	462.8	0.712	1.394	-2.00	1.010	108.8	253.2	-28.5	0.322
4-1190	4-1490	0.229	0.8	-4.4	-1.44	0.699	81.5	0.353	1.045	163.6	466.5	0.676	1.413	-2.18	1.005	110.6	261.9	-29.0	0.355
4-1190	4-1500	0.272	8.3	-1.6	-1.92	0.694	77.0	0.395	1.037	158.2	470.6	0.628	1.447	-2.48	1.002	113.2	270.3	-29.1	0.402
4-1190	4-1510	0.335	14.4	0.8	-2.59	0.690	71.1	0.458	1.031	153.8	475.7	0.559	1.503	-2.97	0.999	117.2	278.1	-28.9	0.471
4-1190	4-1520	0.431	18.6	2.7	-3.62	0.687	62.8	0.552	1.026	151.3	482.7	0.459	1.593	-3.83	0.997	123.5	284.7	-28.3	0.579
4-1190	4-1530	0.583	20.1	3.4	-5.56	0.695	60.1	0.696	1.024	152.7	493.6	0.311	1.736	-5.62	0.997	134.1	289.0	-27.7	0.755
4-1190	4-1540	0.545	286.1	-18.7	4.89	0.628	117.8	0.710	0.950	201.8	581.4	0.275	1.625	5.46	0.966	44.8	192.8	-0.1	0.743
4-1190	4-1550	0.493	292.8	-18.0	3.01	0.623	119.0	0.687	0.984	199.8	589.2	0.290	1.499	3.74	0.966	54.2	198.2	-2.4	0.591
4-1190	4-1590	0.561	357.4	0.4	2.00	0.477	105.8	0.793	0.820	169.5	568.7	0.170	1.471	2.90	0.882	38.7	218.1	-12.9	0.808
4-1190	4-1590	0.321	306.6	-15.8	2.00	0.572	103.2	0.522	0.933	192.7	591.9	0.446	1.420	2.90	0.962	58.8	206.1	-5.8	0.515
4-1190	4-1600	0.420	353.0	-1.3	1.34	0.532	72.2	0.655	0.859	170.1	579.0	0.296	1.422	2.43	0.916	50.0	222.1	-13.5	0.647
4-1190	4-1600	0.301	330.7	-9.5	1.34	0.588	90.7	0.522	0.909	180.7	589.6	0.434	1.383	2.43	0.950	59.0	216.6	-10.4	0.510
4-1190	4-1690	0.576	27.1	12.0	-2.47	0.071	52.6	0.609	1.454	123.7	263.4	---	2.339	2.83	1.160	57.0	291.9	-17.5	0.637
4-1190	4-1700	0.554	39.1	10.9	-3.41	0.876	54.9	0.577	1.473	120.1	269.9	---	2.323	3.65	1.164	60.0	298.8	-14.4	0.590
4-1190	4-1710	0.517	41.3	8.4	-3.29	0.881	57.1	0.546	1.491	116.5	276.5	---	2.305	5.36	1.166	62.9	305.1	-9.0	0.547
4-1190	4-1720	0.507	44.2	0.2	-10.77	0.885	59.1	0.518	1.507	113.0	283.1	---	2.288	10.67	1.168	65.7	309.9	4.2	0.530
4-1190	4-1740	0.453	35.8	32.6	9.62	0.892	62.7	0.467	1.534	106.4	297.0	---	2.251	-10.04	1.170	71.1	338.8	-36.7	0.445
4-1190	4-1750	0.414	41.1	25.8	4.65	0.894	64.2	0.445	1.546	103.4	305.9	---	2.234	-5.24	1.169	73.5	338.2	-26.1	0.378
4-1190	4-1760	0.391	43.4	23.3	2.87	0.897	65.6	0.426	1.556	100.6	311.1	---	2.218	-3.62	1.169	75.9	341.2	-21.3	0.334
4-1190	4-1770	0.372	45.0	21.9	1.91	0.898	66.8	0.408	1.564	98.1	318.4	---	2.203	-2.83	1.168	78.3	344.4	-18.6	0.296
4-1190	4-1780	0.354	46.3	21.0	1.28	0.900	67.8	0.390	1.571	95.8	326.0	---	2.190	-2.39	1.167	80.6	346.8	-17.1	0.262
4-1190	4-1790	0.343	47.4	20.2	0.81	0.901	68.7	0.382	1.577	93.8	333.8	---	2.179	-2.12	1.165	82.8	348.0	-16.7	0.231
4-1190	4-1800	0.333	48.2	19.5	0.42	0.902	69.3	0.372	1.582	92.2	341.9	---	2.171	-1.95	1.164	85.1	347.2	-17.6	0.205
4-1190	4-1800	0.323	278.7	-22.8	0.42	0.733	110.9	0.430	1.099	215.1	824.8	0.626	1.573	-1.95	1.038	115.1	206.0	-15.3	0.429
4-1190	4-1800	0.417	272.1	-23.3	0.42	0.752	118.6	0.515	1.136	219.7	829.4	0.550	1.721	-1.95	1.052	120.4	204.1	-13.7	0.525
4-1190	4-1810	0.326	48.9	18.8	0.09	0.903	69.8	0.366	1.586	91.0	350.5	---	2.166	-1.86	1.162	87.5	343.9	-19.6	0.186
4-1190	4-1810	0.237	295.0	-21.7	0.09	0.712	102.1	0.359	1.605	203.6	823.0	0.683	1.447	-1.86	1.021	110.8	216.4	-19.8	0.353
4-1190	4-1810	0.566	269.3	-23.9	0.09	0.781	129.6	0.649	1.195	219.6	839.1	0.419	1.970	-1.86	1.070	129.7	209.5	-14.4	0.690
4-1190	4-1820	0.323	49.4	18.0	-0.22	0.904	70.0	0.363	1.599	90.4	359.5	---	2.166	-1.83	1.161	89.9	337.7	-22.4	0.176
4-1190	4-1820	0.207	309.3	-19.8	-0.22	0.703	97.3	0.338	1.050	194.7	823.8	0.695	1.406	-1.83	1.013	109.7	226.0	-21.8	0.332
4-1190	4-1830	0.324	45.6	17.3	-0.53	0.904	69.9	0.365	1.590	90.5	369.2	1.010	2.171	-1.85	1.160	92.4	329.5	-25.2	0.180
4-1190	4-1830	0.195	323.7	-16.8	-0.53	0.697	93.2	0.333	1.041	186.5	825.2	0.694	1.387	-1.85	1.006	109.4	235.6	-25.2	0.322
4-1190	4-1840	0.332	49.5	16.4	-0.86	0.905	69.4	0.372	1.592	91.3	379.6	0.999	2.184	-1.93	1.159	95.3	321.0	-27.1	0.199
4-1190	4-1840	0.198	337.4	-12.9	-0.86	0.692	89.3	0.339	1.033	178.7	827.0	0.683	1.383	-1.93	1.001	109.8	245.2	-27.0	0.335
4-1190	4-1850	0.347	49.2	15.5	-1.22	0.905	68.4	0.387	1.592	93.1	390.9	0.976	2.209	-2.07	1.158	98.5	314.3	-27.5	0.235
4-1190	4-1850	0.215	349.8	-8.8	-1.22	0.688	85.3	0.355	1.027	171.3	829.1	0.663	1.391	-2.07	0.998	110.8	254.6	-28.2	0.354
4-1190	4-1860	0.374	48.3	14.6	-1.65	0.905	66.7	0.413	1.593	95.2	403.6	0.935	2.251	-2.31	1.157	102.4	310.1	-27.7	0.289
4-1190	4-1860	0.2[illegible]	0.3	-4.8	-1.65	0.684	80.7	0.383	1.022	164.4	831.8	0.630	1.414	-2.31	0.995	112.6	263.9	-28.8	0.387
4-1190	4-1870	0.417	46.8	13.5	-2.21	0.905	63.9	0.455	1.593	101.0	417.8	0.868	2.318	-2.68	1.157	107.2	307.8	-27.3	0.368
4-1190	4-1870	0.296	8.8	-1.5	-2.21	0.681	75.2	0.430	1.018	158.4	835.3	0.580	1.456	-2.68	0.992	115.5	272.6	-28.9	0.438
4-1190	4-1880	0.487	44.4	12.2	-3.01	0.905	59.3	0.522	1.593	108.1	434.5	0.761	2.426	-3.31	1.158	113.8	306.5	-26.7	0.481
4-1190	4-1880	0.372	15.1	1.1	-3.01	0.679	68.1	0.503	1.015	153.9	840.3	0.505	1.525	-3.31	0.991	120.2	280.4	-28.6	0.420
4-1190	4-1880	0.466	321.9	-18.3	-3.01	0.442	102.4	0.745	0.799	194.3	830.8	0.204	1.394	-3.31	0.846	136.1	259.5	-25.8	0.732
4-1190	4-1890	0.491	18.8	2.6	-4.36	0.678	57.8	0.616	1.013	152.3	848.3	0.389	1.637	-4.50	0.991	128.0	286.5	-28.0	0.653
4-1190	4-1890	0.487	342.5	-11.6	-4.36	0.420	79.1	0.766	0.787	176.6	832.6	0.184	1.390	-4.50	0.836	137.8	268.8	-26.8	0.758
4-1190	4-1940	0.308	257.2	-18.9	3.82	0.898	129.0	0.635	1.564	239.2	623.4	0.570	2.559	4.47	1.162	55.7	177.7	8.3	0.644
4-1190	4-1940	0.474	285.2	-18.8	3.82	0.649	121.7	0.634	0.975	204.2	948.5	0.357	1.694	4.47	0.982	50.7	193.6	-0.2	0.654
4-1190	4-1950	0.473	252.8	-19.0	2.47	0.899	121.3	0.529	1.565	249.5	643.5	0.737	2.392	3.28	1.164	65.4	177.2	9.2	0.476
4-1190	4-1950	0.660	292.5	-19.1	2.47	0.647	116.7	0.530	0.972	201.2	955.1	0.247	1.488	3.28	0.983	58.0	199.6	-2.7	0.532
4-1190	4-1960	0.403	250.1	-19.4	1.66	0.899	116.7	0.461	1.565	256.3	660.1	0.843	2.287	2.65	1.166	72.0	177.1	10.1	0.364
4-1190	4-1960	0.290	304.7	-16.4	1.66	0.642	102.2	0.470	0.967	194.6	958.4	0.513	1.422	2.65	0.983	62.0	207.3	-6.0	0.466
4-1190	4-1970	0.360	248.8	-19.9	1.10	0.899	113.9	0.419	1.565	260.8	674.5	0.909	2.220	2.28	1.169	77.0	176.3	11.6	0.285
4-1190	4-1970	0.548	6.7	4.0	1.10	0.571	54.2	0.735	0.892	163.1	936.8	0.236	1.549	2.28	0.941	43.0	227.1	-15.6	0.763
4-1190	4-1970	0.258	322.1	-12.4	1.10	0.636	94.3	0.446	0.960	185.4	959.1	0.532	1.388	2.28	0.982	63.6	216.4	-9.6	0.459
4-1190	4-1980	0.334	247.1	-20.6	0.66	0.899	112.2	0.393	1.565	263.7	687.3	0.950	2.180	2.05	1.171	80.9	173.9	13.9	0.230
4-1190	4-1980	0.401	2.5	2.1	0.66	0.598	68.9	0.594	0.918	163.8	947.3	0.373	1.463	2.05	0.960	53.8	231.7	-16.1	0.598
4-1190	4-1980	0.285	346.9	-4.2	0.66	0.622	83.1	0.478	0.943	178.3	955.9	0.493	1.394	2.05	0.975	61.6	227.5	-13.9	0.472
4-1190	4-1990	0.318	246.3	-21.4	0.29	0.899	111.2	0.378	1.565	265.5	699.1	0.974	2.157	1.91	1.174	84.3	169.2	17.3	0.193
4-1200	4-1240	0.845	226.1	-16.1	1.17	1.394	125.5	1.490	2.013	301.5	349.3	---	---	2.42	1.582	83.6	131.1	24.8	0.594
4-1200	4-1250	0.730	228.5	-17.4	0.68	1.284	123.6	1.200	4.968	299.0	356.8	---	---	2.12	1.488	88.2	128.8	25.4	0.484

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1200	4-1260	0.652	231.2	-18.7	0.28	1.205	122.2	1.00431.179		295.8	363.6	0.991	---	1.94	1.422	91.8	127.0	25.9	0.419
4-1200	4-1270	0.594	234.0	-19.9	-0.06	1.141	121.1	0.861	7.077	292.1	369.9	0.983	---	1.84	1.371	95.4	126.9	26.1	0.378
4-1200	4-1280	0.547	237.0	-21.1	-0.39	1.091	120.1	0.750	3.879	287.9	375.8	0.971	---	1.79	1.330	96.7	126.8	26.1	0.352
4-1200	4-1290	0.508	240.2	-22.4	-0.71	1.046	119.1	0.660	2.824	283.3	381.3	0.959	---	1.81	1.294	98.5	128.7	25.9	0.334
4-1200	4-1300	0.472	243.0	-23.8	-1.04	1.006	118.1	0.588	2.295	278.5	386.7	0.946	---	1.89	1.263	99.8	132.0	25.5	0.321
4-1200	4-1310	0.441	246.1	-25.0	-1.42	0.971	117.1	0.528	1.978	273.5	391.8	0.933	---	2.04	1.236	100.9	136.4	25.0	0.310
4-1200	4-1320	0.412	249.2	-26.5	-1.88	0.939	115.9	0.479	1.767	268.2	396.7	0.920	---	2.29	1.212	101.7	141.9	24.5	0.302
4-1200	4-1330	0.385	252.5	-28.4	-2.50	0.911	114.7	0.438	1.617	262.9	401.6	0.908	---	2.72	1.190	102.3	148.1	24.3	0.295
4-1200	4-1340	0.361	255.9	-31.1	-3.42	0.885	113.4	0.404	1.506	257.4	406.2	0.897	---	3.47	1.170	102.9	155.4	25.0	0.291
4-1200	4-1350	0.342	259.6	-35.7	-5.13	0.862	112.0	0.376	1.420	251.8	410.8	0.886	---	5.01	1.151	103.3	164.0	28.1	0.292
4-1200	4-1360	0.342	264.8	-47.0	-9.77	0.842	110.6	0.352	1.353	246.2	415.3	0.877	---	9.49	1.134	103.6	176.5	39.5	0.322
4-1200	4-1380	0.309	273.5	2.6	10.32	0.807	107.6	0.318	1.255	234.8	424.3	0.856	---	-10.92	1.105	104.1	156.4	-31.7	0.329
4-1200	4-1390	0.260	276.2	-10.2	4.64	0.792	106.1	0.305	1.219	229.1	428.5	0.847	---	-5.40	1.091	104.3	174.2	-20.6	0.277
4-1200	4-1400	0.238	280.9	-14.9	2.74	0.779	104.4	0.295	1.188	223.3	432.6	0.838	---	-3.66	1.079	104.5	184.8	-18.0	0.265
4-1200	4-1410	0.220	286.3	-17.1	1.75	0.766	102.7	0.287	1.162	217.4	436.6	0.828	---	-2.84	1.068	104.7	193.7	-18.1	0.261
4-1200	4-1420	0.205	292.6	-18.3	1.11	0.755	101.0	0.282	1.140	211.5	440.5	0.818	---	-2.38	1.057	104.9	202.2	-19.4	0.260
4-1200	4-1430	0.193	299.8	-18.6	0.63	0.745	99.1	0.279	1.121	205.5	444.3	0.808	---	-2.10	1.047	105.1	210.5	-21.1	0.261
4-1200	4-1440	0.183	307.9	-18.3	0.25	0.736	97.2	0.279	1.104	199.5	448.0	0.796	---	-1.93	1.038	105.4	219.0	-22.9	0.264
4-1200	4-1450	0.176	317.0	-17.2	-0.08	0.728	95.1	0.282	1.089	193.4	451.6	0.782	---	-1.83	1.030	105.8	227.5	-24.7	0.270
4-1200	4-1460	0.174	326.9	-15.4	-0.38	0.720	92.9	0.288	1.076	187.2	455.0	0.767	---	-1.79	1.023	106.4	236.2	-26.3	0.279
4-1200	4-1470	0.177	337.3	-12.7	-0.69	0.713	90.4	0.298	1.065	181.0	458.4	0.748	---	-1.81	1.016	107.1	245.0	-27.6	0.292
4-1200	4-1480	0.187	347.7	-9.3	-1.00	0.707	87.6	0.313	1.054	174.8	461.7	0.724	1.384	-1.88	1.010	108.1	253.9	-28.5	0.311
4-1200	4-1490	0.206	357.7	-6.0	-1.35	0.701	84.4	0.335	1.045	168.6	465.1	0.695	1.395	-2.00	1.005	109.5	262.8	-28.9	0.336
4-1200	4-1500	0.237	6.7	-2.6	-1.76	0.695	80.9	0.368	1.037	162.7	468.7	0.656	1.418	-2.22	1.001	111.5	271.5	-29.0	0.372
4-1200	4-1510	0.284	14.4	0.5	-2.28	0.690	75.5	0.415	1.029	157.4	472.9	0.602	1.457	-2.56	0.998	114.5	279.8	-28.6	0.425
4-1200	4-1520	0.356	20.5	3.0	-3.02	0.686	68.9	0.486	1.023	153.3	478.4	0.526	1.521	-3.13	0.996	119.1	287.3	-27.9	0.505
4-1200	4-1530	0.467	24.4	4.7	-4.24	0.683	59.3	0.595	1.019	151.6	486.2	0.412	1.626	-4.19	0.995	126.5	293.3	-27.1	0.631
4-1200	4-1580	0.493	294.3	-18.0	3.77	0.621	122.2	0.664	0.942	201.2	584.3	0.317	1.567	4.59	0.964	48.6	200.5	-3.4	0.682
4-1200	4-1590	0.374	303.5	-16.7	2.33	0.614	109.7	0.563	0.934	197.0	589.8	0.408	1.459	3.31	0.962	55.9	207.1	-6.1	0.562
4-1200	4-1600	0.504	1.0	1.9	1.50	0.493	63.1	0.746	0.830	169.6	572.2	0.211	1.449	2.65	0.893	42.9	225.9	-15.1	0.750
4-1200	4-1600	0.310	320.5	-12.8	1.50	0.599	98.6	0.521	0.918	188.1	590.7	0.440	1.396	2.65	0.956	59.0	216.1	-9.9	0.511
4-1200	4-1690	0.587	41.8	13.9	-2.15	0.867	51.2	0.628	1.436	126.1	259.5	---	2.33	2.47	1.157	55.1	293.9	-18.1	0.668
4-1200	4-1700	0.554	43.8	13.3	-2.88	0.872	53.6	0.594	1.456	122.4	265.9	---	2.321	3.02	1.160	58.2	301.0	-15.5	0.618
4-1200	4-1710	0.523	45.8	11.8	-4.08	0.877	55.9	0.563	1.475	118.7	272.4	---	2.304	4.05	1.163	61.2	307.5	-11.5	0.571
4-1200	4-1720	0.499	48.1	7.9	-6.63	0.882	58.0	0.533	1.492	115.2	279.0	---	2.287	6.43	1.165	64.7	313.1	-4.3	0.533
4-1200	4-1730	0.523	50.6	-7.4	-17.01	0.886	60.0	0.506	1.507	111.8	285.5	---	2.270	16.65	1.167	66.8	316.7	18.2	0.563
4-1200	4-1740	0.550	25.5	48.2	23.33	0.889	61.9	0.479	1.521	108.3	292.8	---	2.249	-23.85	1.167	69.6	5.2	-49.8	0.610
4-1200	4-1750	0.423	45.1	30.7	6.66	0.892	63.5	0.450	1.534	105.3	299.5	---	2.233	-7.33	1.167	72.1	343.5	-28.9	0.412
4-1200	4-1760	0.394	48.5	26.1	3.56	0.895	64.9	0.435	1.545	102.4	306.5	---	2.216	-4.39	1.167	75.5	345.1	-21.4	0.359
4-1200	4-1770	0.372	50.5	24.0	2.21	0.897	66.2	0.416	1.554	99.6	313.7	---	2.201	-3.21	1.166	76.8	348.3	-17.6	0.318
4-1200	4-1780	0.355	51.9	22.7	1.41	0.899	67.3	0.400	1.562	97.2	321.0	---	2.187	-2.59	1.165	79.1	351.2	-15.3	0.282
4-1200	4-1790	0.340	53.1	21.8	0.87	0.900	68.3	0.386	1.569	95.0	328.6	---	2.175	-2.23	1.164	81.4	353.1	-14.2	0.249
4-1200	4-1800	0.328	54.1	21.0	0.45	0.901	69.1	0.375	1.574	93.1	336.5	---	2.165	-2.01	1.163	83.7	353.6	-14.3	0.220
4-1200	4-1810	0.319	54.8	20.2	0.09	0.902	69.7	0.367	1.579	91.7	344.8	---	2.158	-1.87	1.161	85.9	352.0	-15.6	0.196
4-1200	4-1810	0.298	289.0	-22.6	0.09	0.724	107.9	0.404	1.083	211.6	824.7	0.645	1.520	-1.87	1.029	113.5	215.7	-18.9	0.401
4-1200	4-1810	0.478	277.0	-23.7	0.09	0.762	122.6	0.565	1.152	220.1	833.2	0.501	1.803	-1.87	1.055	123.7	212.0	-15.9	0.584
4-1200	4-1820	0.314	55.4	19.5	-0.22	0.903	70.0	0.362	1.502	90.7	353.5	---	2.154	-1.81	1.160	88.3	347.7	-18.0	0.180
4-1200	4-1820	0.235	303.3	-21.1	-0.22	0.709	100.9	0.356	1.058	201.3	824.7	0.682	1.434	-1.81	1.016	110.7	225.9	-22.4	0.350
4-1200	4-1830	0.312	55.8	18.7	-0.53	0.904	70.1	0.361	1.584	90.3	362.7	1.013	2.156	-1.80	1.159	90.7	340.8	-21.0	0.175
4-1200	4-1830	0.208	317.2	-18.7	-0.53	0.700	96.3	0.339	1.044	192.7	825.0	0.690	1.399	-1.80	1.008	109.8	235.7	-25.0	0.334
4-1200	4-1840	0.316	55.9	17.9	-0.83	0.904	69.9	0.364	1.586	90.7	372.6	1.008	2.164	-1.83	1.158	93.4	332.4	-23.8	0.184
4-1200	4-1840	0.198	331.1	-15.2	-0.83	0.698	92.3	0.336	1.035	184.5	826.5	0.687	1.384	-1.83	1.002	109.6	245.5	-26.8	0.333
4-1200	4-1850	0.326	55.7	17.1	-1.16	0.904	69.3	0.374	1.587	91.8	383.3	0.993	2.181	-1.93	1.157	96.3	324.6	-25.4	0.209
4-1200	4-1850	0.202	344.6	-11.0	-1.16	0.689	88.3	0.345	1.028	176.8	828.3	0.674	1.383	-1.93	0.998	110.1	255.2	-28.0	0.344
4-1200	4-1860	0.345	55.1	16.2	-1.53	0.904	68.1	0.392	1.588	94.1	395.1	0.965	2.211	-2.09	1.157	99.7	319.0	-25.9	0.251
4-1200	4-1860	0.221	356.9	-6.6	-1.53	0.685	84.1	0.364	1.023	169.5	830.4	0.650	1.395	-2.09	0.995	111.3	264.7	-28.7	0.366
4-1200	4-1870	0.376	34.0	15.3	-1.99	0.904	66.0	0.423	1.588	97.7	408.2	0.916	2.260	-2.36	1.156	103.8	315.6	-25.7	0.313
4-1200	4-1870	0.257	7.3	-2.4	-1.99	0.682	79.2	0.398	1.018	162.7	833.3	0.613	1.423	-2.36	0.992	113.4	273.9	-28.7	0.404
4-1200	4-1880	0.428	52.2	14.3	-2.60	0.904	62.7	0.473	1.588	103.1	423.2	0.837	2.339	-2.80	1.157	109.3	313.9	-25.3	0.402
4-1200	4-1880	0.313	15.6	1.0	-2.60	0.679	73.2	0.451	1.014	157.0	837.1	0.556	1.472	-2.80	0.991	116.8	282.1	-28.3	0.464
4-1200	4-1890	0.511	49.2	13.2	-3.51	0.905	57.2	0.552	1.589	111.3	440.9	0.711	2.466	-3.55	1.158	116.6	312.7	-24.9	0.531
4-1200	4-1890	0.400	21.6	3.5	-3.51	0.677	65.2	0.536	1.011	153.2	842.8	0.469	1.553	-3.55	0.990	122.4	289.7	-27.6	0.559
4-1200	4-1890	0.464	334.2	-14.5	-3.51	0.430	95.0	0.747	0.792	181.7	831.3	0.201	1.383	-3.55	0.841	136.1	269.7	-26.3	0.733
4-1200	4-1900	0.539	24.5	4.8	-5.17	0.676	53.3	0.667	1.009	153.0	852.2	0.336	1.683	-5.04	0.990	131.9	294.8	-26.7	0.718
4-1200	4-1900	0.518	352.4	-7.6	-5.17	0.412	71.7	0.791	0.783	174.9	824.1	0.163	1.402	-5.04	0.833	140.2	278.5	-26.6	0.793
4-1200	4-1940	0.592	289.7	-18.5	5.11	0.648	131.6	0.734	0.973	203.1	941.0	0.259	1.688	5.84	0.980	42.8	197.1	-1.9	0.781
4-1200	4-1950	0.550	261.9	-19.8	2.97	0.898	125.9	0.593	1.559	243.1	630.7	0.634	2.484	3.87	1.163	59.5	183.3	5.9	0.578
4-1200	4-1950	0.434	293.3	-18.2	2.97	0.647	117.4	0.594	0.977	203.4	951.1	0.395	1.548	3.87	0.982	53.6	201.5	-3.6	0.606
4-1200	4-1960	0.453	258.2	-20.3	1.89	0.898	119.5	0.502	1.560	252.0	649.4	0.777	2.342	2.95	1.166	67.9	183.2	6.7	0.432
4-1200	4-1960	0.336	302.0	-17.1	1.89	0.643	107.5	0.507	0.967	198.9	956.3	0.477	1.658	2.95	0.983	59.6	200.3	-6.3	0.506
4-1200	4-1970	0.394	255.9	-20.9	1.20	0.898	115.6	0.444	1.560	257.8	665.2	0.867	2.252	2.44	1.168	73.9	183.0	7.7	0.333
4-1200	4-1970	0.279	315.7	-14.4	1.20	0.638	99.3	0.460	0.961	191.2	958.6	0.519	1.404	2.44	0.983	62.7	216.4	-9.6	0.455
4-1200	4-1980	0.357	254.4	-21.6	0.70	0.898	113.2	0.408	1.560	261.7	679.8	0.924	2.195	2.13	1.170	78.4	181.9	9.3	0.264
4-1200	4-1980	0.495	11.0	5.6	0.70	0.578	59.1	0.691	0.898	162.9	940.1	0.278	1.518	2.13	0.947	46.6	235.4	-17.5	0.710
4-1200	4-1980	0.260	335.2	-8.8	0.70	0.630	90.8	0.452	0.952	180.9	958.2	0.522	1.382	2.13	0.980	63.3	226.5	-13.1	0.446
4-1200	4-1990	0.335	253.4	-22.3	0.30	0.898	111.8	0.386	1.560	264.2	691.5	0.918	2.161	1.95	1.173	80.2	178.9	12.0	0.215
4-1200	4-2000	0.323	252.7	-23.1	-0.05	0.898	111.0	0.373	1.560	265.7	703.0	0.979	2.143	1.84	1.175	85.4	173.4	15.7	0.183
4-1210	4-1260	0.809	233.2	-19.2	0.30	1.353	124.8	1.381-2.604		300.8	362.2	0.991	---	1.97	1.549	91.3	129.8	24	0.545
4-1210	4-1270	0.721	236.3	-20.4	-0.07	1.260	123.6	1.137-2.200		297.3	368.7	0.983	---	1.83	1.470	94.6	128.9	24	0.475
4-1210	4-1280	0.655	239.5	-21.6	-0.39	1.186	122.6	0.96024.256		293.2	374.7	0.971	---	1.75	1.409	97.2	129.2	24.5	0.430

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	CECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	CECL	SPEED
4-1210	4-1290	0.601	242.8	-22.7	-0.70	1.125	121.7	0.825	5.470	288.7	380.4	0.958	---	1.73	1.359	99.2	150.7	24.2	0.399
4-1210	4-1300	0.555	246.0	-23.8	-1.01	1.072	120.7	0.719	3.355	284.0	385.8	0.943	---	1.77	1.317	100.7	133.6	23.8	0.376
4-1210	4-1310	0.515	249.2	-24.9	-1.35	1.026	119.7	0.634	2.539	279.0	391.0	0.929	---	1.87	1.280	101.9	1[illegible].6	23.1	0.359
4-1210	4-1320	0.478	252.4	-26.2	-1.74	0.986	118.5	0.565	2.106	273.8	395.9	0.916	---	2.05	1.249	102.8	142.6	22.4	0.345
4-1210	4-1330	0.445	255.7	-27.6	-2.23	0.951	117.3	0.509	1.839	268.4	400.8	0.903	---	2.34	1.221	103.5	148.4	21.7	0.332
4-1210	4-1340	0.415	259.0	-29.4	-2.91	0.919	116.0	0.463	1.659	263.0	405.5	0.891	---	2.85	1.196	104.0	155.0	21.4	0.323
4-1210	4-1350	0.389	262.5	-32.0	-4.00	0.891	114.6	0.423	1.531	257.4	410.1	0.880	---	3.78	1.173	104.4	162.6	22.2	0.316
4-1210	4-1360	0.369	266.6	-37.5	-6.24	0.866	113.1	0.397	1.434	251.8	414.6	0.870	---	5.86	1.153	104.6	171.8	26.5	0.318
4-1210	4-1370	0.393	275.4	-53.7	-14.37	0.844	111.5	0.387	1.360	246.2	418.9	0.861	---	13.83	1.134	104.8	186.7	44.9	0.385
4-1210	4-1380	0.524	283.5	23.4	29.43	0.824	110.1	0.388	1.302	240.4	423.8	0.849	---	-30.12	1.118	105.2	124.2	-45.2	0.613
4-1210	4-1390	0.305	277.6	-6.4	6.82	0.806	108.4	0.330	1.255	234.7	427.8	0.841	---	-7.67	1.102	105.2	171.0	-25.8	0.311
4-1210	4-1400	0.272	281.5	-13.9	3.44	0.791	106.7	0.315	1.216	228.9	431.9	0.832	---	-4.44	1.088	105.3	184.1	-19.9	0.285
4-1210	4-1410	0.251	286.2	-17.0	2.04	0.776	105.0	0.304	1.184	223.0	435.9	0.824	---	-3.19	1.075	105.4	193.7	-19.0	0.276
4-1210	4-1420	0.232	291.7	-18.5	1.23	0.764	103.2	0.296	1.157	217.1	439.8	0.814	---	-2.56	1.063	105.5	202.4	-19.8	0.272
4-1210	4-1430	0.216	297.9	-19.1	0.68	0.752	101.3	0.290	1.134	211.1	443.6	0.805	---	-2.19	1.052	105.6	210.9	-21.3	0.271
4-1210	4-1440	0.202	304.9	-19.1	0.27	0.742	99.4	0.287	1.114	205.1	447.2	0.794	---	-1.96	1.042	105.8	219.4	-23.0	0.272
4-1210	4-1450	0.191	312.9	-18.4	-0.08	0.732	97.3	0.287	1.097	199.0	450.9	0.782		-1.82	1.033	106.1	227.9	-24.7	0.275
4-1210	4-1460	0.183	321.9	-16.9	-0.39	0.723	95.1	0.290	1.082	192.8	454.2	0.768		-1.75	1.025	106.5	236.6	-26.2	0.281
4-1210	4-1470	0.180	331.9	-14.7	-0.68	0.715	92.7	0.296	1.069	186.5	457.5	0.752	---	-1.73	1.018	107.0	245.5	-27.4	0.291
4-1210	4-1480	0.182	342.5	-11.7	-0.97	0.708	90.1	0.307	1.057	180.2	460.8	0.732	---	-1.76	1.012	107.8	254.5	-28.3	0.305
4-1210	4-1490	0.192	353.2	-8.1	-1.28	0.701	87.1	0.324	1.047	173.8	464.0	0.708	1.324	-1.85	1.006	108.8	263.5	-28.7	0.324
4-1210	4-1500	0.213	3.5	-4.3	-1.64	0.695	83.5	0.349	1.037	167.6	467.3	0.671	1.399	-1.99	1.002	110.4	272.4	-28.7	0.352
4-1210	4-1510	0.246	12.8	-0.6	-2.06	0.690	79.2	0.385	1.029	161.8	471.0	0.635	1.425	-2.24	0.998	112.6	281.0	-28.3	0.393
4-1210	4-1520	0.299	20.7	2.7	-2.62	0.685	73.7	0.439	1.022	156.6	475.4	0.573	1.470	-2.53	0.995	116.0	289.1	-27.5	0.453
4-1210	4-1530	0.381	26.7	5.2	-3.45	0.681	66.2	0.521	1.016	153.0	481.3	0.487	1.545	-2.30	0.993	121.4	296.1	-26.5	0.545
4-1210	4-1540	0.512	29.9	6.8	-4.91	0.678	55.0	0.647	1.012	152.5	490.4	0.358	1.667	-4.60	0.993	130.3	301.3	-25.5	0.694
4-1210	4-1590	0.449	303.5	-16.8	2.84	0.612	117.2	0.627	0.932	199.6	586.1	0.348	1.516	3.89	0.961	51.4	208.9	-6.9	0.636
4-1210	4-1600	0.570	6.5	4.1	1.71	0.458	55.8	0.813	0.808	170.5	566.8	0.151	1.465	2.93	0.875	36.8	229.1	-16.2	0.825
4-1210	4-1600	0.350	315.3	-14.4	1.71	0.601	105.2	0.549	0.921	193.3	589.6	0.415	1.427	2.93	0.958	57.0	21616	-10.0	0.544
4-1210	4-1610	0.430	1.9	2.1	1.01	0.514	71.7	0.679	0.845	170.8	577.0	0.271	1.420	2.40	0.909	48.2	233.2	-16.7	0.674
4-1210	4-1610	0.314	337.7	-7.6	1.01	0.577	92.1	0.540	0.898	181.8	588.0	0.413	1.383	2.40	0.946	57.8	227.3	-13.9	0.529
4-1210	4-1690	0.599	46.6	15.7	-1.95	0.861	45.7	0.647	1.418	128.6	255.6	---	2.335	2.17	1.153	53.2	295.9	-18.4	0.698
4-1210	4-1700	0.563	48.5	15.3	-2.52	0.867	52.3	0.612	1.439	124.8	261.9	---	2.320	2.55	1.157	56.4	303.1	-16.1	0.647
4-1210	4-1710	0.531	50.5	14.3	-3.35	0.873	54.7	0.579	1.458	121.1	268.4	---	2.303	3.21	1.160	59.5	309.8	-12.9	0.598
4-1210	4-1720	0.502	52.5	12.1	-4.83	0.878	56.9	0.548	1.476	117.4	274.9	---	2.286	4.52	1.162	62.4	315.9	-8.0	0.553
4-1210	4-1730	0.484	54.8	6.2	-8.50	0.882	59.0	0.519	1.493	114.0	281.5	---	2.269	8.04	1.164	65.2	320.5	1.9	0.522
4-1210	4-1750	0.450	46.2	40.0	11.90	0.889	62.6	0.467	1.522	107.3	295.2	---	2.232	-12.66	1.165	70.6	353.7	-36.4	0.473
4-1210	4-1760	0.398	53.4	29.6	4.76	0.892	64.2	0.445	1.534	104.3	302.1	---	2.215	-5.68	1.165	73.0	349.3	-22.6	0.387
4-1210	4-1770	0.374	55.9	26.2	2.66	0.894	65.6	0.425	1.544	101.4	309.1	---	2.199	-3.73	1.164	75.4	351.9	-17.0	0.341
4-1210	4-1780	0.354	57.6	24.4	1.61	0.896	66.8	0.407	1.553	98.8	316.3	---	2.185	-2.85	1.163	77.8	355.0	-13.9	0.302
4-1210	4-1790	0.338	58.9	23.2	0.95	0.898	67.9	0.392	1.560	96.4	323.7	---	2.171	-2.36	1.162	80.0	357.5	-12.1	0.267
4-1210	4-1800	0.324	59.9	22.3	0.47	0.899	68.7	0.379	1.567	94.4	331.4	---	2.160	-2.06	1.161	82.3	359.0	-11.5	0.236
4-1210	4-1810	0.314	60.8	21.5	0.10	0.901	69.4	0.369	1.572	92.7	339.4	---	[illegible]	-1.89	1.160	84.5	358.7	-12.0	0.209
4-1210	4-1820	0.306	61.5	20.7	-0.23	0.901	69.9	0.362	1.575	91.4	347.8	---	[illegible]	-1.78	1.159	86.8	356.1	-13.7	0.188
4-1210	4-1820	0.287	298.0	-22.0	-0.23	0.717	106.1	0.392	1.072	208.9	825.3	0.651	1.193	-1.78	1.022	112.9	225.4	-21.7	0.390
4-1210	4-1820	0.522	283.1	-23.7	-0.23	0.766	125.4	0.600	1.163	219.7	836.1	0.465	1.860	-1.78	1.057	126.2	220.4	-18.3	0.628
4-1210	4-1830	0.302	61.9	19.9	-0.53	0.902	70.2	0.358	1.578	90.7	356.7	---	2.144	-1.74	1.158	89.1	350.8	-16.5	0.176
4-1210	4-1830	0.234	311.3	-20.1	-0.53	0.704	100.0	0.355	1.051	199.2	825.2	0.678	1.424	-1.74	1.011	110.7	235.7	-24.5	0.551
4-1210	4-1840	0.303	62.2	19.1	-0.82	0.903	70.2	0.359	1.581	90.5	366.1	1.013	2.148	-1.74	1.157	97.6	343.2	-19.6	0.176
4-1210	4-1840	0.209	324.7	-17.3	-0.82	0.696	95.4	0.342	1.039	190.7	826.3	0.684	1.394	-1.74	1.004	109.9	245.7	-26.5	0.339
4-1210	4-1850	0.309	62.1	18.3	-1.12	0.903	69.8	0.365	1.582	91.2	376.3	1.005	2.159	-1.79	1.156	94.3	335.0	-22.1	0.191
4-1210	4-1850	0.201	338.5	-13.4	-1.12	0.691	91.4	0.342	1.030	182.6	827.8	0.678	1.382	-1.79	0.999	110.0	255.6	-27.8	0.341
4-1210	4-1860	0.322	61.8	17.5	-1.44	0.903	69.0	0.377	1.583	92.7	387.4	0.985	2.180	-1.91	1.156	97.4	328.2	-23.4	0.222
4-1210	4-1860	0.207	351.9	-8.8	-1.44	0.686	87.2	0.353	1.024	174.9	829.6	0.663	1.385	-1.91	0.995	110.7	265.3	-28.4	0.354
4-1210	4-1870	0.345	61.0	16.7	-1.83	0.903	67.5	0.400	1.583	95.4	399.6	0.950	2.216	-2.10	1.156	101.0	323.5	-23.8	0.271
4-1210	4-1870	0.229	4.0	-4.1	-1.83	0.682	82.8	0.376	1.018	167.7	831.9	0.635	1.401	-2.10	0.992	112.1	274.8	-28.4	0.381
4-1210	4-1880	0.382	59.6	15.9	-2.31	0.903	65.1	0.436	1.583	99.6	413.3	0.892	2.274	-2.40	1.156	105.5	321.0	-23.5	0.341
4-1210	4-1880	0.268	14.4	0.1	-2.31	0.679	77.5	0.415	1.014	161.1	834.9	0.593	1.434	-2.40	0.991	114.5	283.8	-28.0	0.424
4-1210	4-1890	0.443	57.3	15.1	-2.97	0.903	61.1	0.495	1.583	105.8	429.1	0.799	2.368	-2.90	1.157	111.5	319.7	-23.1	0.442
4-1210	4-1890	0.[illegible]73	22.5	5.5	-2.97	0.676	70.9	0.478	1.010	155.8	839.1	0.528	1.492	-2.90	0.990	118.5	291.9	-27.1	0.494
4-1210	4-1890	0.536	320.0	-18.3	-2.97	0.459	118.5	0.785	0.808	188.9	1232.2	0.174	1.443	-2.90	0.856	140.1	269.7	-25.4	0.794
4-1210	4-1900	0.503	53.7	14.1	-4.03	0.903	54.6	0.589	1.584	115.3	448.1	0.651	2.517	-3.79	1.158	120.0	318.6	-22.8	0.591
4-1210	4-1900	0.434	27.9	5.9	-4.03	0.674	61.7	0.576	1.007	152.9	845.7	0.427	1.587	-3.79	0.989	125.2	298.5	-26.0	0.608
4-1210	4-1900	0.473	345.4	-10.3	-4.03	0.419	87.9	0.758	0.786	179.3	1232.2	0.190	1.382	-3.79	0.837	137.0	279.8	-26.0	0.748
4-1210	4-1910	0.598	29.7	7.0	-6.11	0.673	47.8	0.727	1.006	154.6	857.0	0.275	1.737	-5.73	0.990	136.6	302.5	-25.1	0.797
4-1210	4-1910	0.559	1.4	-3.7	-6.11	0.404	63.4	0.824	0.779	173.7	1236.1	0.137	1.421	-5.73	0.831	143.6	287.9	-25.8	0.843
4-1210	4-1950	0.534	296.6	-17.9	3.90	0.645	126.0	0.681	0.969	203.6	945.0	0.309	1.630	4.77	0.981	47.1	204.3	-5.0	0.712
4-1210	4-1960	0.519	267.1	-20.7	2.22	0.897	123.3	0.557	1.554	246.2	637.3	0.688	2.420	3.35	1.165	62.7	189.2	3.3	0.522
4-1210	4-1960	0.400	301.9	-17.3	2.22	0.643	113.6	0.561	0.967	201.9	953.0	0.424	1.509	3.35	0.982	55.9	209.8	-7.0	0.568
4-1210	4-1970	0.438	263.9	-21.4	1.35	0.897	118.0	0.479	1.554	253.9	654.8	0.810	2.299	2.64	1.167	70.1	189.2	4.0	0.395
4-1210	4-1970	0.317	312.1	-15.5	1.35	0.639	104.3	0.490	0.962	196.0	957.0	0.491	1.433	2.64	0.984	60.7	217.4	-9.8	0.488
4-1210	4-1980	0.387	262.0	-22.2	0.76	0.897	114.7	0.429	1.554	258.9	669.8	0.887	2.221	2.23	1.170	75.5	189.0	5.1	0.307
4-1210	4-1980	0.561	16.9	8.0	0.76	0.561	52.1	0.759	0.883	163.8	934.8	0.213	1.554	2.23	0.937	41.0	238.3	-18.5	0.795
4-1210	4-1980	0.271	327.5	-11.6	0.76	0.633	96.1	0.457	0.955	187.3	958.3	0.518	1.391	2.23	0.982	62.9	226.5	-13.0	0.453
4-1210	4-1990	0.356	260.7	-23.0	0.32	0.897	112.6	0.398	1.554	262.3	683.2	0.936	2.173	1.98	1.172	79.7	187.4	7.0	0.245
4-1210	4-1990	0.427	13.7	6.4	0.32	0.586	65.6	0.632	0.906	163.6	944.4	0.334	1.479	1.98	0.956	51.1	243.5	-18.9	0.642
4-1210	4-1990	0.273	350.3	-3.5	0.32	0.620	85.8	0.[illegible]72	0.941	175.3	956.2	0.497	1.386	1.98	0.977	62.0	237.5	-16.4	0.469
4-1210	4-2000	0.338	259.9	-23.8	-0.05	0.897	111.4	0.[illegible]79	1.554	264.4	695.3	0.965	2.144	1.83	1.174	83.3	183.8	10.0	0.202
4-1210	4-2010	0.328	259.4	-24.6	-0.37	0.897	110.8	0.[illegible]80	1.555	265.6	706.6	0.980	2.131	1.75	1.176	86.4	177.6	13.9	0.176
4-1220	4-1280	0.793	242.0	-22.0	-0.40	1.314	125.1	1.275	3.557	298.0	373.2	0.973	---	1.71	1.519	97.4	132.3	22.8	0.536

DEPART	ARRIVE	SPEEC	R A	CECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1220	4-1290	0.717	245.5	-23.1	-0.70	1.228	124.2	1.061	15.817	293.7	379.0	0.958	---	1.66	1.447	59.8	133.5	22.5	0.485
4-1220	4-1300	0.656	249.0	-24.0	-0.99	1.158	123.3	0.901	9.552	289.1	384.6	0.942	---	1.66	1.388	101.6	135.8	22.1	0.448
4-1220	4-1310	0.603	252.4	-25.0	-1.30	1.098	122.4	0.778	4.170	284.2	389.8	0.927	---	1.71	1.339	103.0	139.3	21.4	0.421
4-1220	4-1320	0.558	255.7	-26.0	-1.64	1.046	121.2	0.680	2.851	279.1	394.9	0.912	---	1.83	1.297	104.0	143.8	20.5	0.398
4-1220	4-1330	0.517	259.0	-27.0	-2.04	1.001	120.0	0.602	2.257	273.8	399.8	0.898	---	2.00	1.261	104.8	149.2	19.5	0.380
4-1220	4-1340	0.480	262.4	-28.3	-2.56	0.962	118.7	0.539	1.921	268.4	404.6	0.885	---	2.38	1.229	105.3	155.3	18.6	0.364
4-1220	4-1350	0.446	265.8	-30.1	-3.32	0.927	117.3	0.488	1.706	262.9	409.2	0.873	---	2.98	1.201	105.6	162.1	18.3	0.351
4-1220	4-1360	0.417	269.4	-33.0	-4.43	0.896	115.8	0.446	1.557	257.3	413.7	0.863	---	4.13	1.176	105.9	169.9	19.4	0.342
4-1220	4-1370	0.399	274.1	-36.5	-7.73	0.869	114.2	0.411	1.450	251.6	418.1	0.853	---	7.09	1.154	106.0	179.9	25.5	0.347
4-1220	4-1380	0.526	301.0	-64.5	-27.03	0.845	112.5	0.382	1.368	246.0	422.2	0.845	---	26.24	1.134	106.0	196.9	59.5	0.568
4-1220	4-1390	0.380	280.6	3.7	13.05	0.824	110.9	0.361	1.305	240.1	427.0	0.834	---	-13.98	1.116	106.2	160.4	-36.7	0.395
4-1220	4-1400	0.313	282.9	-12.0	4.69	0.805	109.1	0.342	1.255	234.4	431.0	0.826	---	-5.76	1.100	106.2	182.8	-22.9	0.313
4-1220	4-1410	0.284	287.1	-16.9	2.47	0.788	107.3	0.327	1.214	228.5	435.0	0.817	---	-3.70	1.085	106.2	193.6	-20.0	0.297
4-1220	4-1420	0.264	291.9	-18.4	1.41	0.773	105.5	0.315	1.180	222.6	439.0	0.809	---	-2.79	1.071	106.2	202.7	-20.2	0.289
4-1220	4-1430	0.244	297.2	-19.3	0.75	0.760	103.6	0.306	1.152	216.7	442.8	0.800	---	-2.29	1.059	106.3	211.5	-21.4	0.285
4-1220	4-1440	0.227	303.3	-19.5	0.29	0.748	101.6	0.300	1.128	210.-	446.5	0.790	---	-2.00	1.048	106.4	219.8	-23.0	0.283
4-1220	4-1450	0.212	310.2	-19.1	-0.08	0.737	99.6	0.296	1.108	204.5	450.0	0.779	---	-1.81	1.038	106.5	228.4	-24.6	0.284
4-1220	4-1460	0.199	318.1	-18.0	-0.40	0.727	97.4	0.296	1.090	198.3	453.4	0.767	---	-1.71	1.029	106.8	237.1	-26.0	0.287
4-1220	4-1470	0.190	327.1	-16.3	-0.68	0.718	95.0	0.299	1.075	192.0	456.7	0.753	---	-1.66	1.021	107.1	246.0	-27.2	0.293
4-1220	4-1480	0.185	337.1	-13.8	-0.96	0.710	92.5	0.306	1.061	185.7	459.9	0.736	---	-1.66	1.014	107.7	255.0	-28.0	0.303
4-1220	4-1490	0.187	347.9	-10.4	-1.24	0.702	89.7	0.318	1.050	179.3	463.1	0.715	1.384	-1.70	1.008	108.5	264.1	-28.4	0.318
4-1220	4-1500	0.198	358.9	-6.4	-1.55	0.695	86.4	0.337	1.039	172.9	466.2	0.689	1.389	-1.80	1.002	109.6	273.1	-28.4	0.340
4-1220	4-1510	0.220	9.5	-2.2	-1.90	0.689	82.6	0.364	1.030	166.6	469.5	0.654	1.405	-1.97	0.998	111.4	281.9	-27.9	0.371
4-1220	4-1520	0.258	19.1	1.7	-2.34	0.683	77.8	0.406	1.021	160.8	473.2	0.607	1.436	-2.24	0.995	113.9	290.3	-27.1	0.417
4-1220	4-1530	0.318	27.1	5.0	-2.95	0.678	71.6	0.467	1.014	156.0	477.9	0.540	1.489	-2.68	0.992	117.9	298.0	-25.9	0.485
4-1220	4-1540	0.413	32.8	7.5	-3.88	0.674	62.9	0.562	1.009	153.1	484.6	0.442	1.576	-3.46	0.991	124.2	304.5	-24.6	0.593
4-1220	4-1550	0.567	35.2	8.9	-5.67	0.672	49.8	0.706	1.006	154.1	495.2	0.296	1.717	-5.10	0.992	134.9	308.8	-23.5	0.771
4-1220	4-1590	0.552	306.4	-16.4	3.67	0.607	126.7	0.715	0.928	199.9	580.1	0.264	1.592	4.80	0.959	44.5	211.7	-8.2	0.746
4-1220	4-1600	0.413	313.7	-15.0	2.03	0.599	112.3	0.600	0.921	196.9	586.9	0.368	1.473	2.31	0.957	53.4	217.9	-10.5	0.604
4-1220	4-1610	0.508	9.6	5.3	1.14	0.472	63.0	0.765	0.818	170.6	570.5	0.192	1.444	2.58	0.887	41.3	257.0	-18.0	0.774
4-1220	4-1610	0.335	329.0	-10.8	1.14	0.584	100.1	0.549	0.905	188.5	588.4	0.409	1.402	2.58	0.951	57.2	227.0	-13.6	0.541
4-1220	4-1700	0.574	53.4	16.9	-2.26	0.861	50.9	0.631	1.421	127.2	258.1	---	2.318	2.18	1.153	54.6	305.1	-16.4	0.677
4-1220	4-1710	0.539	55.3	16.3	-2.88	0.867	53.4	0.597	1.442	123.5	264.5	---	2.302	2.62	1.156	57.8	312.0	-13.6	0.626
4-1220	4-1720	0.508	57.2	14.9	-3.83	0.872	55.8	0.564	1.461	119.8	270.9	---	2.285	3.42	1.159	60.8	318.3	-9.8	0.578
4-1220	4-1730	0.481	59.2	11.9	-5.70	0.877	57.9	0.534	1.478	116.2	277.5	---	2.268	5.14	1.161	63.7	323.7	-3.0	0.536
4-1220	4-1740	0.476	61.2	2.2	-11.59	0.881	59.9	0.506	1.494	112.8	284.0	---	2.250	10.87	1.162	66.4	327.0	10.9	0.521
4-1220	4-1760	0.409	57.5	35.2	7.31	0.888	63.4	0.455	1.522	106.3	297.8	---	2.214	-8.32	1.163	71.6	355.2	-26.3	0.424
4-1220	4-1770	0.376	61.3	28.8	3.39	0.891	64.9	0.434	1.533	103.4	304.7	---	2.198	-4.54	1.162	74.0	355.5	-17.2	0.365
4-1220	4-1780	0.355	63.3	26.1	1.89	0.893	66.2	0.415	1.543	100.6	311.8	---	2.183	-3.19	1.162	76.4	359.4	-12.9	0.323
4-1220	4-1790	0.337	64.7	24.6	1.07	0.895	67.4	0.398	1.551	98.1	319.1	---	2.169	-2.52	1.161	78.7	1.3	-10.4	0.286
4-1220	4-1800	0.322	65.8	23.4	0.51	0.897	68.3	0.384	1.558	95.9	326.6	---	2.156	-2.13	1.160	80.9	3.4	-9.1	0.253
4-1220	4-1810	0.309	66.8	22.5	0.10	0.898	69.1	0.372	1.564	94.0	334.4	---	2.146	-1.90	1.159	83.1	4.2	-8.9	0.223
4-1220	4-1820	0.300	67.5	21.7	-0.24	0.899	69.8	0.363	1.569	92.5	342.5	---	2.138	-1.76	1.158	85.4	3.0	-9.9	0.199
4-1220	4-1830	0.294	68.1	20.9	-0.53	0.900	70.2	0.357	1.572	91.4	351.1	---	2.134	-1.68	1.157	87.7	359.4	-12.0	0.181
4-1220	4-1830	0.280	306.4	-21.1	-0.53	0.711	104.8	0.387	1.064	206.5	826.1	0.652	1.475	-1.68	1.017	112.6	235.3	-23.8	0.385
4-1220	4-1830	0.560	289.5	-23.3	-0.53	0.769	127.8	0.629	1.170	219.0	838.7	0.434	1.907	-1.68	1.058	128.3	229.1	-20.3	0.665
4-1220	4-1840	0.292	68.4	20.1	-0.81	0.900	70.3	0.356	1.575	90.9	360.1	1.015	2.135	-1.69	1.156	90.0	353.1	-15.0	0.173
4-1220	4-1840	0.234	319.0	-18.8	-0.81	0.699	99.0	0.356	1.045	197.2	826.4	0.673	1.417	-1.69	1.007	110.8	245.7	-26.0	0.354
4-1220	4-1850	0.295	68.5	19.3	-1.09	0.901	70.2	0.358	1.577	91.0	369.8	1.012	2.141	-1.67	1.155	92.6	345.2	-18.1	0.179
4-1220	4-1850	0.211	332.2	-15.6	-1.09	0.692	94.6	0.346	1.034	138.7	827.5	0.676	1.392	-1.67	1.001	110.2	255.7	-27.4	0.345
4-1220	4-1860	0.303	68.3	18.6	-1.38	0.901	69.6	0.366	1.578	92.0	380.3	1.000	2.156	-1.74	1.155	95.4	337.5	-20.2	0.200
4-1220	4-1880	0.204	345.8	-11.3	-1.38	0.686	90.4	0.349	1.026	180.7	829.0	0.668	1.384	-1.74	0.996	110.4	265.7	-28.0	0.350
4-1220	4-1870	0.319	67.8	17.8	-1.71	0.901	68.6	0.383	1.578	93.9	391.8	0.975	2.182	-1.87	1.155	98.6	331.7	-21.2	0.238
4-1220	4-1870	0.212	359.2	-6.4	-1.71	0.682	86.1	0.363	1.019	173.1	830.9	0.649	1.389	-1.87	0.993	111.3	275.4	-28.1	0.367
4-1220	4-1880	0.347	66.7	17.2	-2.10	0.901	66.8	0.410	1.579	97.1	404.5	0.932	2.225	-2.08	1.155	102.5	328.1	-21.4	0.294
4-1220	4-1880	0.237	11.3	-1.5	-2.10	0.678	81.3	0.391	1.014	165.9	833.3	0.618	1.410	-2.08	0.991	113.0	284.7	-27.5	0.393
4-1220	4-1890	0.392	65.0	16.5	-2.60	0.901	63.9	0.454	1.579	101.9	418.9	0.863	2.295	-2.42	1.156	107.5	326.3	-21.1	0.375
4-1220	4-1890	0.283	21.6	2.8	-2.60	0.675	75.6	0.437	1.010	159.7	836.6	0.569	1.450	-2.42	0.989	115.9	293.3	-23.6	0.450
4-1220	4-1900	0.465	62.3	13.8	-3.33	0.901	59.2	0.523	1.579	109.1	435.6	0.752	2.405	-2.99	1.157	114.2	325.3	-20.7	0.490
4-1220	4-1900	0.357	29.4	6.1	-3.33	0.672	68.1	0.510	1.006	154.9	841.4	0.493	1.519	-2.99	0.989	120.6	300.9	-25.3	0.532
4-1220	4-1900	0.493	334.7	-13.8	-3.33	0.434	106.5	0.764	0.795	185.3	1231.8	0.188	1.403	-2.99	0.845	137.8	280.2	-25.3	0.761
4-1220	4-1910	0.585	57.9	15.0	-4.56	0.901	51.2	0.634	1.580	120.0	456.1	0.578	2.581	-4.07	1.158	124.1	324.0	-29.5	0.664
4-1220	4-1910	0.476	34.1	8.3	-4.56	0.670	57.6	0.624	1.004	153.2	849.3	0.377	1.630	-4.07	0.989	128.6	306.3	-24.0	0.667
4-1220	4-1910	0.492	355.9	-5.9	-4.56	0.407	80.6	0.778	0.781	177.3	1233.4	0.174	1.389	-4.07	0.834	138.8	289.6	-25.1	0.774
4-1220	4-1960	0.486	304.1	-17.0	2.74	0.640	121.2	0.637	0.965	203.2	948.0	0.351	1.579	3.94	0.982	50.5	212.1	-8.2	0.657
4-1220	4-1970	0.495	272.5	-21.6	1.55	0.894	121.3	0.527	1.549	248.7	643.3	0.732	2.365	2.90	1.166	65.4	195.3	0.5	0.475
4-1220	4-1970	0.372	311.0	-16.0	1.55	0.637	110.0	0.536	0.961	199.7	954.3	0.446	1.477	2.90	0.983	57.7	218.6	-10.4	0.539
4-1220	4-1980	0.426	269.9	-22.4	0.84	0.894	116.7	0.459	1.540	255.3	659.8	0.837	2.260	2.35	1.169	72.0	195.4	1.2	0.363
4-1220	4-1980	0.301	322.8	-13.2	0.84	0.632	101.1	0.480	0.956	192.6	957.2	0.497	1.414	2.35	0.982	61.4	227.0	-13.2	0.477
4-1220	4-1990	0.383	288.3	-23.3	0.34	0.894	113.9	0.417	1.549	259.6	674.2	0.904	2.194	2.03	1.171	77.0	194.9	2.4	0.285
4-1220	4-1990	0.505	21.2	9.5	0.34	0.566	57.3	0.715	0.889	163.6	938.2	0.253	1.524	2.03	0.944	44.7	246.9	-19.9	0.741
4-1220	4-1990	0.268	340.5	-7.6	0.34	0.624	92.4	0.463	0.947	182.8	957.3	0.509	1.385	2.03	0.980	62.6	236.9	-16.0	0.459
4-1220	4-2000	0.357	267.2	-24.1	-0.05	0.894	112.2	0.390	1.549	262.5	687.1	0.945	2.152	1.83	1.173	80.9	192.9	4.5	0.229
4-1220	4-2010	0.341	266.6	-24.9	-0.38	0.894	111.1	0.374	1.549	264.3	699.0	0.970	2.128	1.71	1.175	84.3	188.6	7.7	0.191
4-1220	4-2020	0.334	266.2	-25.7	-0.69	0.895	110.6	0.367	1.550	265.3	710.1	0.982	2.118	1.66	1.176	87.3	181.8	11.8	0.170
4-1230	4-1300	0.781	251.9	-24.2	-0.99	1.271	125.9	1.164	-5.759	293.8	383.0	0.942	---	1.55	1.485	102.4	138.6	20.3	0.543
4-1230	4-1310	0.712	255.5	-25.1	-1.27	1.191	125.0	0.979	43.436	289.1	388.4	0.925	---	1.57	1.418	104.0	141.5	19.6	0.500
4-1230	4-1320	0.653	259.1	-25.8	-1.56	1.124	124.0	0.837	5.572	284.1	393.6	0.909	---	1.64	1.362	105.3	145.5	18.7	0.467
4-1230	4-1330	0.601	262.5	-26.6	-1.90	1.066	122.8	0.727	3.267	278.9	398.6	0.893	---	1.78	1.314	106.1	150.4	17.6	0.439
4-1230	4-1340	0.555	265.8	-27.5	-2.31	1.016	121.5	0.639	2.438	273.5	403.4	0.879	---	2.02	1.274	106.7	156.0	16.4	0.416

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1230	4-1350	0.514	269.2	-26.7	-2.86	0.972	120.1	0.569	2.013	268.1	408.3	0.867	---	2.41	1.238	107.1	162.3	15.3	0.396
4-1230	4-1360	0.477	272.7	-30.4	-3.71	0.934	118.6	0.513	1.757	262.5	412.7	0.855	---	3.11	1.207	107.3	169.3	14.9	0.379
4-1230	4-1370	0.446	276.5	-33.5	-5.32	0.901	117.0	0.467	1.587	256.9	417.2	0.845	---	4.68	1.180	107.4	177.4	16.6	0.369
4-1230	4-1380	0.432	282.4	-42.1	-10.03	0.872	115.3	0.430	1.466	251.3	421.5	0.836	---	9.14	1.155	107.4	188.4	26.2	0.383
4-1230	4-1400	0.366	285.0	-7.4	7.47	0.823	111.8	0.375	1.309	239.7	430.1	0.818	---	-8.62	1.114	107.4	179.1	-28.7	0.357
4-1230	4-1410	0.327	288.7	-15.4	3.20	0.793	109.9	0.355	1.255	233.9	434.1	0.810	---	-4.48	1.097	107.3	193.3	-21.7	0.323
4-1230	4-1420	0.301	293.0	-18.1	1.67	0.786	108.0	0.338	1.212	228.0	438.1	0.802	---	-3.10	1.081	107.2	202.9	-20.7	0.310
4-1230	4-1430	0.278	297.7	-19.2	0.85	0.770	106.1	0.326	1.176	222.1	441.9	0.795	---	-2.42	1.067	107.1	211.7	-21.5	0.303
4-1230	4-1440	0.257	303.0	-19.6	0.31	0.755	104.3	0.316	1.147	216.1	445.6	0.784	---	-2.04	1.055	107.1	220.3	-22.9	0.298
4-1230	4-1450	0.238	308.9	-19.4	-0.09	0.743	101.9	0.310	1.122	210.0	449.2	0.775	---	-1.80	1.043	107.1	228.9	-24.4	0.296
4-1230	4-1460	0.221	315.7	-18.7	-0.41	0.731	99.8	0.306	1.102	203.8	452.6	0.764	---	-1.66	1.033	107.2	237.6	-25.8	0.297
4-1230	4-1470	0.207	323.5	-17.4	-0.69	0.721	97.4	0.306	1.094	197.6	456.0	0.752	---	-1.58	1.024	107.5	246.5	-26.9	0.300
4-1230	4-1480	0.197	332.5	-15.3	-0.96	0.711	94.9	0.310	1.088	191.2	459.1	0.737	---	-1.55	1.016	107.8	255.5	-27.7	0.306
4-1230	4-1490	0.191	342.6	-12.4	-1.22	0.703	92.2	0.317	1.084	184.7	462.2	0.720	---	-1.56	1.010	108.4	264.6	-28.1	0.317
4-1230	4-1500	0.193	353.6	-8.7	-1.49	0.695	89.1	0.331	1.082	178.2	465.3	0.697	1.387	-1.62	1.004	109.3	273.6	-28.0	0.334
4-1230	4-1510	0.204	4.9	-4.4	-1.79	0.688	85.6	0.352	1.082	171.8	468.4	0.669	1.394	-1.73	0.999	110.6	282.6	-27.5	0.358
4-1230	4-1520	0.229	15.9	0.1	-2.15	0.681	81.4	0.383	1.082	165.6	471.7	0.631	1.414	-1.92	0.995	112.5	291.2	-26.6	0.393
4-1230	4-1530	0.272	25.7	4.2	-2.60	0.675	75.1	0.430	1.084	159.9	475.6	0.578	1.450	-2.22	0.992	115.5	299.3	-25.3	0.445
4-1230	4-1540	0.341	33.6	7.5	-3.24	0.670	66.1	0.501	1.087	155.5	480.7	0.502	1.512	-2.72	0.990	120.1	306.6	-23.8	0.524
4-1230	4-1550	0.453	38.8	9.9	-4.31	0.667	59.0	0.611	1.092	153.5	488.4	0.390	1.615	-3.64	0.990	127.7	312.5	-22.3	0.659
4-1230	4-1600	0.499	315.0	-14.8	2.53	0.594	120.9	0.675	0.918	398.6	582.3	0.298	1.537	3.86	0.956	47.8	220.1	-11.5	0.693
4-1230	4-1610	0.572	15.1	7.5	1.32	0.633	56.0	0.830	0.797	171.6	565.2	0.135	1.459	2.80	0.868	35.1	240.3	-19.0	0.858
4-1230	4-1610	0.383	325.3	-12.2	1.32	0.583	107.2	0.586	0.907	203.2	586.7	0.376	1.438	2.80	0.952	54.5	227.8	-13.9	0.584
4-1230	4-1620	0.428	9.2	4.8	0.62	0.496	73.4	0.693	0.836	172.2	575.7	0.257	1.415	2.25	0.904	47.2	244.3	-19.1	0.691
4-1230	4-1630	0.335	347.2	-4.9	0.62	0.555	92.3	0.575	0.882	181.7	585.2	0.376	1.387	2.25	0.938	55.7	238.8	-17.2	0.565
4-1230	4-1700	0.584	58.3	18.4	-2.08	0.854	49.5	0.650	1.403	129.7	254.3	---	2.315	1.88	1.149	52.8	307.0	-16.6	0.707
4-1230	4-1710	0.548	60.3	17.9	-2.55	0.860	52.1	0.615	1.425	125.9	260.5	---	2.300	2.18	1.153	56.0	314.0	-14.0	0.655
4-1230	4-1720	0.515	62.1	17.0	-3.21	0.866	54.5	0.587	1.445	122.2	267.1	---	2.284	2.69	1.156	59.1	320.5	-10.8	0.605
4-1230	4-1730	0.485	64.0	15.2	-4.33	0.871	56.8	0.549	1.463	118.6	273.6	---	2.267	3.55	1.158	62.1	326.4	-6.4	0.558
4-1230	4-1740	0.462	65.9	10.9	-6.79	0.876	58.9	0.520	1.480	115.1	280.1	---	2.250	5.98	1.159	64.9	331.1	1.2	0.519
4-1230	4-1750	0.500	66.3	-7.3	-18.45	0.880	60.8	0.495	1.496	111.8	286.6	---	2.233	17.50	1.160	67.5	332.3	26.5	0.561
4-1230	4-1760	0.460	55.5	49.0	15.98	0.883	62.6	0.466	1.510	108.5	293.7	---	2.213	-17.06	1.161	70.2	10.4	-37.5	0.521
4-1230	4-1770	0.381	66.5	32.3	4.76	0.886	64.1	0.443	1.522	105.4	300.5	---	2.197	-5.97	1.160	72.7	359.6	-18.8	0.393
4-1230	4-1780	0.356	69.0	27.9	2.33	0.889	65.6	0.423	1.533	102.6	307.5	---	2.181	-3.68	1.160	75.1	1.7	-12.4	0.345
4-1230	4-1790	0.336	70.5	25.8	1.23	0.891	66.8	0.405	1.542	100.0	314.6	---	2.166	-2.72	1.159	77.4	4.7	-9.0	0.306
4-1230	4-1800	0.320	71.8	24.4	0.57	0.893	67.9	0.389	1.550	97.6	322.0	---	2.153	-2.21	1.158	79.6	7.3	-7.0	0.271
4-1230	4-1810	0.306	72.8	23.3	0.11	0.894	68.8	0.376	1.556	95.5	329.6	---	2.142	-1.91	1.157	81.8	8.9	-6.2	0.239
4-1230	4-1820	0.295	73.6	22.4	-0.25	0.896	69.5	0.365	1.562	93.8	337.5	---	2.133	-1.73	1.156	84.0	8.8	-6.5	0.211
4-1230	4-1830	0.287	74.2	21.6	-0.55	0.897	70.0	0.358	1.566	92.5	345.8	---	2.126	-1.62	1.155	86.3	6.6	-7.9	0.189
4-1230	4-1840	0.283	74.7	20.8	-0.82	0.897	70.3	0.354	1.569	91.7	354.6	---	2.124	-1.56	1.155	88.6	1.8	-10.5	0.175
4-1230	4-1840	0.276	314.3	-19.8	-0.82	0.704	103.6	0.385	1.056	204.2	827.1	0.650	1.463	-1.56	1.012	112.5	245.3	-25.4	0.384
4-1230	4-1848	0.594	296.0	-22.6	-0.82	0.770	129.8	0.655	1.177	218.1	841.0	0.406	1.948	-1.56	1.059	130.3	238.1	-22.1	0.700
4-1230	4-1850	0.283	74.9	20.0	-1.08	0.898	70.4	0.354	1.571	91.4	363.9	1.015	2.127	-1.55	1.154	91.0	354.7	-13.6	0.173
4-1230	4-1850	0.234	326.6	-17.1	-1.08	0.693	98.2	0.359	1.040	195.1	827.6	0.666	1.413	-1.55	1.004	111.0	255.7	-26.9	0.359
4-1230	4-1860	0.288	74.8	19.3	-1.34	0.898	70.1	0.359	1.573	91.9	373.9	1.009	2.137	-1.58	1.154	93.7	346.8	-16.4	0.185
4-1230	4-1860	0.213	339.6	-13.5	-1.34	0.686	93.6	0.352	1.029	186.7	828.8	0.667	1.392	-1.58	0.998	110.6	265.9	-27.6	0.354
4-1230	4-1870	0.299	74.4	18.6	-1.62	0.898	69.3	0.370	1.574	93.2	384.7	0.992	2.156	-1.66	1.154	96.6	339.9	-18.2	0.213
4-1230	4-1870	0.207	353.2	-8.9	-1.62	0.681	89.3	0.358	1.021	178.8	830.3	0.656	1.387	-1.66	0.994	111.0	275.8	-27.6	0.362
4-1230	4-1880	0.320	73.6	18.0	-1.95	0.898	68.0	0.390	1.578	95.5	396.6	0.960	2.188	-1.81	1.154	100.0	335.3	-18.9	0.258
4-1230	4-1880	0.218	6.6	-3.7	-1.95	0.676	84.8	0.376	1.015	171.2	832.3	0.633	1.396	-1.81	0.991	112.1	285.3	-27.1	0.383
4-1230	4-1890	0.353	72.3	17.5	-2.34	0.898	65.9	0.423	1.574	99.2	409.9	0.908	2.240	-2.04	1.155	104.3	332.7	-18.9	0.322
4-1230	4-1890	0.248	18.8	1.4	-2.34	0.672	79.6	0.409	1.010	164.2	834.9	0.597	1.423	-2.04	0.989	114.1	294.3	-26.0	0.420
4-1230	4-1900	0.407	70.3	17.0	-2.87	0.898	62.4	0.475	1.574	104.8	425.0	0.826	2.322	-2.42	1.156	109.7	331.4	-18.5	0.414
4-1230	4-1900	0.301	28.8	5.6	-2.87	0.669	73.3	0.463	1.006	158.3	838.5	0.540	1.471	-2.42	0.989	117.6	302.5	-24.6	0.480
4-1230	4-1910	0.493	67.0	16.6	-3.67	0.898	56.7	0.556	1.574	113.1	442.8	0.695	2.454	-3.08	1.157	117.4	330.7	-18.2	0.547
4-1230	4-1910	0.387	36.2	8.7	-3.67	0.667	64.9	0.548	1.002	154.4	844.2	0.453	1.552	-3.08	0.989	123.3	309.5	-23.1	0.578
4-1230	4-1910	0.484	346.8	-9.2	-3.67	0.416	98.4	0.766	0.788	182.6	1232.4	0.184	1.391	-3.08	0.840	137.9	290.3	-24.4	0.764
4-1230	4-1920	0.528	40.0	10.5	-5.13	0.665	52.5	0.681	1.001	154.2	853.6	0.319	1.682	-4.40	0.990	133.0	314.3	-21.7	0.739
4-1230	4-1920	0.521	5.7	-1.5	-5.13	0.394	72.7	0.806	0.777	175.6	1235.0	0.151	1.403	-4.40	0.832	141.6	299.0	-23.6	0.818
4-1230	4-1970	0.571	281.8	-21.2	1.86	0.891	126.0	0.593	1.543	242.0	630.3	0.628	2.458	3.26	1.165	59.4	201.4	-2.9	0.579
4-1230	4-1970	0.445	312.2	-15.8	1.86	0.633	116.8	0.600	0.960	201.9	950.2	0.384	1.537	3.26	0.982	53.2	220.5	-11 3	0.614
4-1230	4-1980	0.476	278.3	-22.2	0.95	0.891	119.2	0.501	1.543	250.6	648.8	0.770	2.317	2.50	1.168	67.8	201.5	-2.3	0.435
4-1230	4-1980	0.347	320.7	-14.0	0.95	0.629	106.5	0.517	0.956	196.8	955.1	0.461	1.450	2.50	0.982	58.9	227.9	-13.6	0.519
4-1230	4-1990	0.417	276.1	-23.2	0.37	0.891	115.7	0.443	1.543	256.2	664.5	0.860	2.226	2.08	1.170	73.7	201.7	-1.6	0.336
4-1230	4-1990	0.565	26.9	11.7	0.37	0.547	50.7	0.779	0.875	164.8	933.1	0.194	1.557	2.08	0.935	39.3	249.8	-20.6	0.822
4-1230	4-1990	0.389	334.4	10.0	0.37	0.623	97.7	0.476	0.949	188.6	956.8	0.497	1.401	2.08	0.981	61.7	237.1	-16.1	0.475
4-1230	4-2000	0.380	274.8	-24.0	-0.05	0.891	113.3	0.406	1.543	260.0	678.3	0.917	2.168	1.82	1.172	78.3	200.9	-0.3	0.265
4-1230	4-2000	0.435	23.7	10.1	-0.05	0.573	64.2	0.656	0.897	164.2	942.5	0.308	1.486	1.82	0.952	49.3	255.1	-20.8	0.673
4-1230	4-2000	0.276	356.0	-1.9	-0.05	0.611	87.2	0.483	0.936	177.0	950.3	0.483	1.388	1.82	0.976	61.3	248.3	-18.7	0.483
4-1230	4-2010	0.358	273.9	-24.9	-0.40	0.891	111.8	0.382	1.543	262.5	690.8	0.953	2.133	1.67	1.174	82.0	198.4	2.0	0.215
4-1230	4-2020	0.345	273.4	-25.6	-0.70	0.891	110.9	0.369	1.543	264.0	702.4	0.973	2.113	1.58	1.175	85.3	193.4	5.3	0.182
4-1230	4-2030	0.340	273.2	-26.4	-0.98	0.892	110.5	0.364	1.544	264.7	713.3	0.983	2.108	1.55	1.177	88.2	186.1	9.4	0.166
4-1240	4-1320	0.769	262.3	-25.7	-1.51	1.224	126.7	1.055	16.345	288.8	392.0	0.907	---	1.47	1.448	106.4	147.7	17.0	0.554
4-1240	4-1330	0.703	265.9	-26.3	-1.79	1.149	125.7	0.896	8.541	283.7	397.1	0.889	---	1.56	1.384	107.5	152.0	15.8	0.514
4-1240	4-1340	0.645	269.4	-26.9	-2.13	1.085	124.5	0.773	3.845	278.4	402.1	0.874	---	1.72	1.331	108.2	157.1	14.4	0.481
4-1240	4-1350	0.594	272.8	-27.7	-2.54	1.030	123.1	0.676	2.656	273.1	406.8	0.860	---	1.98	1.286	108.6	162.9	13.0	0.453
4-1240	4-1360	0.549	276.1	-28.7	-3.13	0.983	121.6	0.600	2.118	267.6	411.5	0.848	---	2.42	1.247	108.9	169.3	11.9	0.429
4-1240	4-1370	0.508	279.6	-30.3	-4.10	0.941	120.0	0.538	1.813	262.0	416.0	0.837	---	3.24	1.213	108.9	176.5	11.5	0.409
4-1240	4-1380	0.475	283.7	-33.8	-6.16	0.905	118.2	0.489	1.618	256.4	420.4	0.827	---	5.19	1.183	108.9	184.9	14.0	0.397
4-1240	4-1390	0.480	293.2	-46.9	-14.62	0.874	116.4	0.448	1.484	250.7	424.6	0.818	---	13.52	1.157	108.8	197.6	31.2	0.443

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1240	4-1400	0.479	289.3	8.1	18.48	0.846	114.6	0.417	1.386	244.9	429.1	0.808	---	-19.71	1.133	108.7	160.6	-42.9	0.502
4-1240	4-1410	0.375	290.8	-13.2	4.59	0.822	112.7	0.390	1.313	239.2	433.1	0.801	---	-5.94	1.113	108.5	192.1	-24.6	0.357
4-1240	4-1420	0.342	294.8	-17.4	2.07	0.801	110.7	0.368	1.255	233.3	437.1	0.793	---	-3.55	1.095	108.3	203.1	-21.5	0.337
4-1240	4-1430	0.316	299.1	-18.9	0.98	0.782	108.7	0.351	1.210	227.4	440.9	0.786	---	-2.59	1.078	108.2	212.2	-21.7	0.325
4-1240	4-1440	0.291	303.7	-19.4	0.34	0.765	106.6	0.337	1.173	221.5	444.7	0.777	---	-2.09	1.064	108.0	220.8	-22.8	0.318
4-1240	4-1450	0.269	308.8	-19.4	-0.09	0.750	104.5	0.327	1.143	215.4	448.3	0.769	---	-1.79	1.051	107.9	229.4	-24.2	0.313
4-1240	4-1460	0.248	314.6	-18.9	-0.43	0.736	102.3	0.320	1.117	209.3	451.8	0.759	---	-1.61	1.039	107.9	238.1	-25.5	0.310
4-1240	4-1470	0.230	321.3	-17.9	-0.77	0.724	99.9	0.317	1.095	203.0	455.1	0.748	---	-1.50	1.029	108.0	247.0	-26.6	0.310
4-1240	4-1480	0.215	329.1	-16.3	-0.97	0.714	97.4	0.317	1.077	196.7	458.4	0.736	---	-1.44	1.020	108.2	256.0	-27.3	0.314
4-1240	4-1490	0.204	338.0	-13.9	-1.21	0.704	94.8	0.321	1.061	190.2	461.4	0.720	---	-1.43	1.013	108.6	265.0	-27.6	0.321
4-1240	4-1500	0.197	348.3	-10.7	-1.45	0.695	91.8	0.330	1.047	183.7	464.5	0.701	---	-1.45	1.006	109.2	274.1	-27.5	0.333
4-1240	4-1510	0.199	359.5	-6.6	-1.70	0.686	88.5	0.345	1.035	177.1	467.4	0.678	1.392	-1.52	1.000	110.2	283.1	-27.0	0.351
4-1240	4-1520	0.212	11.3	-2.0	-1.99	0.679	84.6	0.369	1.024	170.7	470.5	0.646	1.402	-1.65	0.996	111.6	291.8	-26.0	0.378
4-1240	4-1530	0.240	22.5	2.7	-2.35	0.672	80.0	0.405	1.015	164.5	473.9	0.604	1.425	-1.85	0.992	113.9	300.2	-24.6	0.417
4-1240	4-1540	0.289	32.5	6.8	-2.82	0.666	74.0	0.459	1.007	159.1	478.1	0.545	1.469	-2.18	0.990	117.3	308.0	-23.0	0.477
4-1240	4-1550	0.371	40.2	10.0	-3.51	0.662	66.0	0.542	1.000	155.3	483.8	0.458	1.542	-2.74	0.988	122.8	314.8	-21.3	0.571
4-1240	4-1560	0.502	44.7	12.1	-4.75	0.659	54.1	0.668	0.996	154.6	492.8	0.330	1.662	-3.85	0.989	131.9	319.8	-19.7	0.723
4-1240	4-1610	0.455	324.9	-12.4	1.60	0.577	115.2	0.646	0.905	196.1	583.3	0.321	1.490	3.12	0.951	50.1	229.4	-14.6	0.655
4-1240	4-1620	0.504	17.3	8.2	0.71	0.548	64.7	0.779	0.809	172.0	569.2	0.179	1.439	2.36	0.882	40.1	248.2	-20.2	0.732
4-1240	4-1620	0.362	339.2	-7.8	0.71	0.560	101.1	0.586	0.889	188.1	585.3	0.368	1.411	2.36	0.943	54.7	238.6	-17.1	0.582
4-1240	4-1700	0.594	63.3	19.6	-1.94	0.846	48.0	0.666	1.385	132.3	250.6	---	2.312	3.64	1.145	50.9	308.9	-16.6	0.738
4-1240	4-1710	0.557	65.2	19.2	-2.31	0.853	50.7	0.633	1.407	128.5	256.9	---	2.298	1.82	1.[illegible]9	54.3	315.9	-14.2	0.684
4-1240	4-1720	0.522	67.1	18.6	-2.79	0.859	53.3	0.598	1.428	124.7	263.3	---	2.282	2.16	1.152	57.4	322.6	-11.3	0.632
4-1240	4-1730	0.490	69.0	17.4	-3.52	0.864	55.7	0.565	1.448	121.1	269.7	---	2.268	2.75	1.155	60.5	328.8	-7.6	0.583
4-1240	4-1740	0.462	70.7	15.0	-4.85	0.869	57.8	0.534	1.466	117.5	276.2	---	2.249	3.94	1.157	63.4	334.2	-2.5	0.537
4-1240	4-1750	0.445	72.3	8.6	-8.35	0.874	59.8	0.505	1.483	114.1	282.8	---	2.232	7.32	1.158	66.1	337.9	7.5	0.504
4-1240	4-1770	0.395	70.7	39.2	8.09	0.881	63.4	0.454	1.511	107.6	296.4	---	2.195	-9.37	1.158	71.3	6.2	-23.9	0.434
4-1240	4-1780	0.358	74.6	30.1	3.07	0.884	64.9	0.432	1.522	104.7	303.3	---	2.180	-4.48	1.158	73.7	5.0	-12.7	0.368
4-1240	4-1790	0.336	76.4	26.9	1.47	0.886	66.2	0.412	1.533	102.0	310.4	---	2.165	-3.01	1.157	76.1	7.8	-8.0	0.326
4-1240	4-1800	0.318	77.7	25.2	0.65	0.888	67.4	0.395	1.541	99.5	317.6	---	2.150	-2.31	1.157	78.3	10.7	-5.3	0.289
4-1240	4-1810	0.303	78.7	23.9	0.12	0.890	68.4	0.381	1.549	97.3	325.1	---	2.138	-1.93	1.156	80.6	12.9	-3.9	0.255
4-1240	4-1820	0.291	79.6	22.9	-0.26	0.891	69.2	0.369	1.555	95.4	332.8	---	2.128	-1.69	1.155	82.8	13.7	-3.5	0.225
4-1240	4-1830	0.282	80.3	22.0	-0.57	0.892	69.8	0.360	1.559	93.8	340.9	---	2.120	-1.55	1.154	85.0	12.8	-4.3	0.199
4-1240	4-1840	0.276	80.8	21.2	-0.84	0.893	70.2	0.354	1.563	92.7	349.4	---	2.116	-1.47	1.154	87.2	9.4	-6.2	0.181
4-1240	4-1840	0.372	309.2	-20.6	-0.84	0.719	112.2	0.459	1.085	213.2	829.8	0.587	1.584	-1.47	1.024	117.1	243.9	-24.2	0.465
4-1240	4-1840	0.473	304.3	-21.3	-0.84	0.740	120.4	0.546	1.123	217.5	834.1	0.510	1.736	-1.47	1.039	122.7	241.6	-23.2	0.565
4-1240	4-1850	0.273	81.1	20.4	-1.08	0.894	70.4	0.351	1.566	92.2	358.4	---	2.116	-1.43	1.153	89.6	3.4	-9.1	0.172
4-1240	4-1850	0.274	322.0	-18.1	-1.08	0.697	102.6	0.385	1.050	201.9	828.1	0.645	1.454	-1.43	1.008	112.6	255.4	-26.2	0.387
4-1240	4-1860	0.275	81.2	19.7	-1.32	0.894	70.3	0.353	1.568	92.2	368.0	1.014	2.121	-1.44	1.153	92.1	355.8	-12.2	0.175
4-1240	4-1860	0.234	334.0	-15.1	-1.32	0.686	97.3	0.364	1.035	193.0	828.8	0.658	1.412	-1.44	1.000	111.3	265.9	-27.0	0.366
4-1240	4-1870	0.282	80.9	19.1	-1.57	0.895	69.8	0.361	1.569	93.0	378.3	1.003	2.134	-1.48	1.153	94.8	348.3	-14.6	0.194
4-1240	4-1870	0.215	347.0	-11.1	-1.57	0.679	92.6	0.360	1.025	184.7	830.0	0.655	1.394	-1.48	0.996	111.1	275.9	-27.1	0.364
4-1240	4-1880	0.297	80.4	18.5	-1.84	0.895	68.9	0.375	1.569	94.7	389.5	0.980	2.158	-1.57	1.154	97.9	342.5	-15.9	0.229
4-1240	4-1880	0.211	0.7	-6.1	-1.84	0.674	88.1	0.369	1.017	176.8	831.6	0.641	1.392	-1.57	0.992	111.7	285.7	-26.5	0.376
4-1240	4-1890	0.322	79.4	18.1	-2.15	0.895	67.3	0.400	1.570	97.5	401.9	0.941	2.198	-1.73	1.154	101.6	339.0	-16.4	0.282
4-1240	4-1890	0.226	14.2	-0.7	-2.15	0.669	83.3	0.392	1.011	169.4	833.7	0.615	1.407	-1.73	0.990	113.1	294.9	-25.5	0.402
4-1240	4-1900	0.363	77.8	17.8	-2.55	0.895	64.7	0.440	1.569	101.8	415.7	0.879	2.260	-1.98	1.155	106.3	337.2	-16.2	0.356
4-1240	4-1900	0.261	26.4	4.3	-2.55	0.666	77.7	0.431	1.006	162.6	836.6	0.572	1.439	-1.98	0.989	115.5	303.6	-23.9	0.446
4-1240	4-1910	0.427	75.3	17.6	-3.11	0.895	60.5	0.503	1.570	108.2	431.7	0.780	2.359	-2.40	1.157	112.4	336.5	-15.8	0.461
4-1240	4-1910	0.323	36.2	8.4	-3.11	0.67[illegible]	70.6	0.495	1.002	157.2	840.7	0.506	1.497	-2.40	0.988	119.6	311.3	-22.2	0.517
4-1240	4-1920	0.531	71.3	17.4	-3.99	0.895	53.5	0.602	1.570	117.7	450.8	0.625	2.515	-3.16	1.158	121.3	335.7	-15.6	0.616
4-1240	4-1920	0.425	42.9	11.2	-3.99	0.661	60.9	0.595	0.999	154.3	847.4	0.405	1.593	-3.16	0.989	126.5	317.5	-20.5	0.634
4-1240	4-1920	0.488	357.9	-4.5	-3.99	0.398	90.7	0.780	0.782	180.2	1233.3	0.172	1.391	-3.16	0.837	139.1	300.0	-22.8	0.782
4-1240	4-1930	0.592	45.4	12.7	-5.79	0.660	46.3	0.747	0.998	156.1	858.9	0.252	1.743	-4.83	0.991	138.3	321.3	-19.2	0.827
4-1240	4-1930	0.563	14.8	2.7	-5.79	0.380	63.7	0.842	0.773	174.5	1237.3	0.122	1.425	-4.83	0.831	145.5	307.8	-21.6	0.874
4-1240	4-1970	0.542	315.7	-14.9	2.35	0.627	125.4	0.687	0.958	202.1	944.2	0.300	1.616	3.81	0.981	46.7	223.3	-12.6	0.719
4-1240	4-1980	0.540	287.1	-21.5	1.11	0.887	123.5	0.558	1.537	244.6	636.6	0.679	2.395	2.70	1.166	62.5	207.6	-5.7	0.526
4-1240	4-1980	0.410	321.0	-14.0	1.11	0.625	112.7	0.572	0.955	199.8	951.8	0.409	1.501	2.70	0.982	55.2	229.5	-14.4	0.582
4-1240	4-1990	0.460	284.2	-22.6	0.41	0.887	118.2	0.479	1.537	251.9	653.9	0.801	2.274	2.14	1.169	69.8	208.0	-5.2	0.400
4-1240	4-1990	0.327	331.2	-11.3	0.41	0.620	103.0	0.506	0.949	193.3	955.3	0.469	1.430	2.14	0.981	59.7	237.8	-16.5	0.508
4-1240	4-2000	0.410	282.4	-23.6	-0.06	0.887	114.8	0.428	1.537	256.8	668.8	0.879	2.195	1.81	1.171	75.2	208.1	-4.5	0.312
4-1240	4-2000	0.505	30.9	12.8	-0.06	0.550	56.5	0.733	0.881	164.7	936.7	0.235	1.527	1.81	0.942	43.2	258.4	-21.5	0.766
4-1240	4-2000	0.281	347.6	-5.6	-0.06	0.612	93.5	0.483	0.940	183.8	955.8	0.486	1.394	1.81	0.979	61.3	248.0	-18.6	0.483
4-1240	4-2010	0.378	281.3	-24.5	-0.42	0.887	112.7	0.396	1.537	260.0	682.1	0.928	2.145	1.62	1.173	79.5	207.0	-3.1	0.248
4-1240	4-2020	0.359	280.7	-25.3	-0.72	0.887	111.4	0.376	1.537	262.1	694.3	0.959	2.114	1.50	1.174	83.1	203.9	-0.7	0.203
4-1240	4-2030	0.349	280.3	-26.0	-0.98	0.887	110.7	0.365	1.537	263.4	705.7	0.976	2.098	1.44	1.175	86.2	198.2	2.8	0.175
4-1240	4-2040	0.592	55.1	18.8	-1.24	0.768	46.8	0.697	1.179	144.1	596.6	0.357	2.000	1.43	1.089	46.6	289.4	-20.8	0.778
4-1240	4-2040	0.345	280.2	-26.6	-1.24	0.880	110.5	0.361	1.539	263.9	716.5	0.983	2.094	1.43	1.176	89.1	190.6	6.8	0.163
4-1250	4-1340	0.753	272.9	-26.4	-1.99	1.174	127.4	0.954	19.071	283.1	400.5	0.869	---	1.46	1.407	109.7	158.7	12.6	0.563
4-1250	4-1350	0.689	276.4	-26.9	-2.32	1.104	126.1	0.818	4.699	277.8	405.3	0.854	---	1.63	1.348	110.3	164.0	11.1	0.523
4-1250	4-1360	0.633	279.7	-27.4	-2.74	1.044	124.7	0.713	2.925	272.4	410.1	0.840	---	1.92	1.298	110.6	169.9	9.5	0.490
4-1250	4-1370	0.583	283.[illegible]	-28.3	-3.37	0.992	123.1	0.630	2.237	266.9	414.7	0.828	---	2.42	1.255	110.6	176.5	8.3	0.462
4-1250	4-1380	0.539	286.6	-29.9	-4.49	0.948	121.3	0.564	1.874	261.3	419.1	0.818	---	3.42	1.218	110.6	183.8	8.1	0.439
4-1250	4-1390	0.505	291.1	-31.1	-7.29	0.909	119.5	0.510	1.651	255.7	423.6	0.808	---	6.10	1.186	110.4	192.7	12.0	0.426
4-1250	4-1410	0.437	293.3	-7.6	8.21	0.846	115.7	0.433	1.396	244.2	432.0	0.791	---	-9.66	1.133	110.0	187.8	-31.3	0.414
4-1250	4-1420	0.390	297.1	-16.2	2.77	0.820	113.6	0.405	1.317	238.5	436.0	0.784	---	-4.30	1.111	109.7	203.1	-22.8	0.369
4-1250	4-1430	0.359	301.1	-18.4	1.18	0.797	111.6	0.382	1.256	232.6	439.9	0.777	---	-2.82	1.092	109.4	218.7	-21.9	0.353
4-1250	4-1440	0.330	305.2	-19.1	0.39	0.777	109.4	0.364	1.208	226.7	443.7	0.769	---	-2.15	1.075	109.2	221.4	-22.7	0.341
4-1250	4-1450	0.304	309.7	-19.2	-0.10	0.759	107.2	0.349	1.170	220.7	447.3	0.761	---	-1.78	1.060	109.0	230.0	-23.9	0.333
4-1250	4-1460	0.280	314.7	-18.8	-0.46	0.744	104.9	0.339	1.138	214.6	450.9	0.752	---	-1.55	1.047	108.8	238.7	-25.1	0.328

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1250	4-1470	0.258	320.4	-18.0	-0.74	0.72	102.6	0.332	1.112	208.4	454.3	0.743	---	-1.42	1.036	108.7	287.5	-26.2	0.325
4-1250	4-1480	0.239	327.0	-16.7	-0.99	0.717	99.1	0.328	1.089	202.1	457.5	0.732	---	-1.34	1.025	108.8	256.5	-26.9	0.325
4-1250	4-1490	0.222	334.8	-14.8	-1.21	0.705	95.4	0.329	1.070	195.7	460.7	0.718	---	-1.30	1.017	109.0	265.5	-27.2	0.329
4-1250	4-1500	0.209	343.8	-12.2	-1.43	0.695	94.2	0.334	1.054	189.1	463.7	0.702	---	-1.30	1.009	109.4	274.5	-27.0	0.337
4-1250	4-1510	0.203	354.3	-8.8	-1.65	0.686	91.3	0.344	1.040	182.6	466.6	0.682	---	-1.33	1.003	110.1	283.5	-26.5	0.350
4-1250	4-1520	0.205	5.9	-4.2	-1.89	0.677	87.7	0.364	1.027	176.0	469.6	0.656	1.399	-1.41	0.998	111.2	292.3	-25.4	0.370
4-1250	4-1530	0.220	18.0	0.7	-2.17	0.669	83.5	0.389	1.017	169.5	472.7	0.621	1.412	-1.54	0.993	112.9	300.9	-24.0	0.401
4-1250	4-1540	0.253	29.6	5.5	-2.52	0.662	78.3	0.430	1.008	163.5	476.2	0.574	1.440	-1.76	0.990	115.5	308.9	-22.3	0.446
4-1250	4-1550	0.311	39.5	9.5	-3.00	0.656	71.5	0.493	0.999	159.5	480.8	0.507	1.492	-2.11	0.988	119.5	316.3	-20.4	0.516
4-1250	4-1560	0.407	46.8	12.4	-3.75	0.652	62.2	0.589	0.993	155.4	487.4	0.408	1.579	-2.75	0.987	126.1	322.5	-18.5	0.627
4-1250	4-1570	0.563	50.2	14.2	-5.22	0.649	48.1	0.734	0.999	156.5	498.1	0.282	1.717	-4.11	0.988	137.2	326.5	-17.1	0.810
4-1250	4-1610	0.550	327.3	-11.7	2.04	0.567	124.8	0.728	0.901	196.8	577.9	0.245	1.554	3.60	0.948	43.6	232.1	-15.7	0.759
4-1250	4-1620	0.566	22.8	10.3	0.83	0.404	57.9	0.843	0.788	173.0	564.0	0.124	1.453	2.51	0.863	53.9	251.5	-21.0	0.877
4-1250	4-1620	0.417	336.5	-9.0	0.83	0.555	109.1	0.630	0.890	192.2	583.2	0.330	1.451	2.51	0.944	51.4	239.6	-17.5	0.634
4-1250	4-1650	0.407	12.4	5.7	0.16	0.484	78.6	0.687	0.835	175.1	576.1	0.262	1.408	1.97	0.906	47.7	254.6	-20.7	0.686
4-1250	4-1630	0.366	1.3	0.8	0.16	0.515	89.5	0.629	0.857	179.7	580.7	0.218	1.397	1.97	0.923	51.9	251.8	-20.1	0.625
4-1250	4-1710	0.566	70.3	20.3	-2.14	0.844	49.3	0.652	1.390	131.0	253.2	---	2.295	1.53	1.145	52.5	317.7	-14.2	0.713
4-1250	4-1720	0.530	72.2	19.8	-2.50	0.850	52.0	0.616	1.411	127.2	259.6	---	2.280	1.75	1.149	55.7	324.5	-11.5	0.660
4-1250	4-1730	0.497	74.0	18.9	-3.01	0.856	54.5	0.581	1.432	125.6	266.0	---	2.264	2.32	1.151	58.9	330.9	-8.3	0.609
4-1250	4-1740	0.466	75.8	17.4	-3.81	0.862	56.8	0.549	1.451	120.0	272.5	---	2.248	2.80	1.154	61.8	336.7	-4.3	0.561
4-1250	4-1750	0.440	77.4	14.2	-5.43	0.866	58.9	0.519	1.469	116.5	279.0	---	2.231	4.31	1.155	64.7	341.7	1.7	0.517
4-1250	4-1760	0.435	78.3	3.8	-11.09	0.871	60.8	0.491	1.485	113.2	285.6	---	2.213	9.86	1.156	67.3	343.8	18.4	0.498
4-1250	4-1770	0.535	56.1	61.6	26.42	0.874	62.6	0.464	1.499	109.9	292.7	---	2.194	-27.77	1.156	70.0	35.5	-40.9	0.654
4-1250	4-1780	0.363	80.1	33.7	4.57	0.878	64.2	0.441	1.512	106.9	299.3	---	2.179	-6.04	1.156	72.4	9.1	-14.7	0.395
4-1250	4-1790	0.337	82.2	28.2	7.85	0.880	65.6	0.420	1.523	104.1	306.3	---	2.163	-3.43	1.156	74.8	10.7	-7.5	0.346
4-1250	4-1800	0.318	83.5	25.8	0.75	0.883	66.8	0.402	1.532	101.5	313.4	---	2.148	-2.45	1.155	77.1	13.7	-3.9	0.307
4-1250	4-1810	0.301	84.6	24.3	0.13	0.885	67.9	0.386	1.540	99.2	320.8	---	2.135	-1.95	1.154	79.4	16.3	-1.9	0.271
4-1250	4-1820	0.288	85.6	23.1	-0.29	0.886	68.8	0.373	1.547	97.1	328.4	---	2.124	-1.66	1.154	81.6	17.9	-1.0	0.239
4-1250	4-1830	0.277	86.3	22.1	-0.60	0.887	69.5	0.362	1.553	95.4	336.3	---	2.115	-1.48	1.153	83.8	18.0	-1.1	0.211
4-1250	4-1840	0.269	86.9	21.3	-0.86	0.888	70.1	0.354	1.557	94.1	344.5	---	2.108	-1.37	1.153	86.0	15.9	-2.3	0.189
4-1250	4-1850	0.265	87.3	20.5	-1.10	0.889	70.4	0.350	1.560	93.3	353.3	---	2.106	-1.31	1.152	88.3	11.2	-4.7	0.174
4-1250	4-1850	0.350	317.8	-19.8	-1.10	0.706	109.7	0.442	1.672	210.9	830.0	0.598	1.546	-1.31	1.018	116.1	254.4	-25.4	0.449
4-1250	4-1850	0.522	309.7	-20.2	-1.10	0.743	123.8	0.589	1.136	217.2	837.2	0.467	1.805	-1.31	1.043	125.6	250.4	-24.0	0.618
4-1250	4-1860	0.265	87.4	19.8	-1.31	0.890	70.4	0.349	1.562	93.0	362.5	1.016	2.108	-1.25	1.152	90.6	4.2	-7.7	0.171
4-1250	4-1860	0.272	329.5	-16.2	-1.31	0.688	101.6	0.388	1.044	109.7	829.2	0.639	1.449	-1.29	1.005	112.8	265.6	-26.4	0.392
4-1250	4-1870	0.269	87.3	19.2	-1.53	0.890	70.2	0.354	1.564	93.3	372.4	1.011	2.117	-1.31	1.152	93.2	356.5	-10.6	0.181
4-1250	4-1870	0.235	341.5	-12.8	-1.53	0.679	96.3	0.371	1.630	190.9	830.0	0.648	1.412	-1.31	0.998	111.8	275.9	-26.6	0.376
4-1250	4-1880	0.279	86.9	18.7	-1.76	0.890	69.5	0.364	1.565	94.5	383.1	0.995	2.135	-1.36	1.153	96.1	349.8	-12.6	0.207
4-1250	4-1880	0.217	354.5	-8.4	-1.76	0.672	91.6	0.371	1.020	182.7	831.3	0.642	1.398	-1.36	0.994	111.8	285.8	-26.0	0.377
4-1250	4-1890	0.298	86.1	18.3	-2.01	0.890	68.3	0.383	1.565	96.6	394.7	0.966	2.165	-1.47	1.153	99.4	345.3	-13.5	0.249
4-1250	4-1890	0.216	8.5	-3.0	-2.01	0.666	86.8	0.383	1.012	174.8	833.0	0.624	1.400	-1.47	0.991	112.5	295.3	-24.9	0.393
4-1250	4-1900	0.328	84.9	18.1	-2.32	0.890	66.3	0.414	1.565	99.9	407.6	0.918	2.213	-1.63	1.154	103.4	342.8	-13.7	0.310
4-1250	4-1900	0.235	22.1	2.5	-2.32	0.662	81.6	0.411	1.007	167.6	835.2	0.593	1.420	-1.63	0.989	114.2	304.2	-23.3	0.424
4-1250	4-1910	0.377	83.0	18.1	-2.72	0.890	63.1	0.462	1.565	104.9	422.2	0.842	2.288	-1.90	1.156	108.6	341.8	-13.4	0.396
4-1250	4-1910	0.277	30.2	7.4	-2.72	0.658	75.4	0.458	1.002	161.2	838.4	0.543	1.460	-1.90	0.988	117.2	312.4	-21.4	0.476
4-1250	4-1920	0.454	80.0	18.1	-3.31	0.890	58.0	0.537	1.565	112.2	439.1	0.724	2.406	-2.37	1.158	115.6	341.4	-13.1	0.517
4-1250	4-1920	0.351	43.7	11.1	-3.31	0.655	67.4	0.533	0.998	156.5	843.3	0.466	1.530	-2.37	0.988	122.2	319.6	-19.4	0.562
4-1250	4-1920	0.553	344.7	-9.1	-3.31	0.422	116.6	0.808	0.797	187.1	1234.0	0.153	1.442	-2.37	0.851	142.3	299.9	-22.1	0.831
4-1250	4-1930	0.580	75.2	18.2	-4.31	0.891	49.5	0.654	1.566	123.2	459.2	0.542	2.590	-3.25	1.160	125.9	340.5	-13.0	0.699
4-1250	4-1930	0.472	49.4	13.5	-4.31	0.654	56.1	0.650	0.995	154.9	851.4	0.348	1.643	-3.25	0.989	130.6	325.0	-17.7	0.702
4-1250	4-1930	0.505	8.5	0.3	-4.31	0.380	62.7	0.802	0.777	178.2	1234.7	0.154	1.400	-3.25	0.834	141.3	309.2	-20.7	0.816
4-1250	4-1980	0.493	323.3	-13.3	1.36	0.618	120.4	0.646	0.953	201.1	946.9	0.337	1.568	2.98	0.981	49.8	231.8	-15.4	0.669
4-1250	4-1990	0.515	292.7	-21.6	0.47	0.882	121.5	0.528	1.531	246.6	642.3	0.722	2.340	2.21	1.168	65.1	214.0	-8.5	0.481
4-1250	4-1990	0.380	330.4	-11.6	0.47	0.614	108.8	0.551	0.949	196.9	952.7	0.426	1.471	2.21	0.981	56.6	239.1	-17.1	0.559
4-1250	4-2000	0.447	290.3	-22.8	-0.06	0.882	117.0	0.460	1.531	252.8	658.6	0.827	2.245	1.80	1.170	71.7	214.6	-8.1	0.370
4-1250	4-2000	0.562	36.6	14.8	-0.06	0.529	50.1	0.793	0.868	166.0	931.7	0.179	1.557	1.80	0.933	37.9	261.3	-22.0	0.845
4-1250	4-2000	0.309	342.8	-7.6	-0.06	0.608	99.0	0.503	0.942	189.1	954.9	0.468	1.415	1.80	0.979	59.9	248.4	-18.9	0.505
4-1250	4-2010	0.404	288.9	-23.7	-0.45	0.882	114.1	0.415	1.530	257.0	672.8	0.895	2.166	1.56	1.171	76.6	214.6	-7.3	0.291
4-1250	4-2010	0.430	32.6	12.9	-0.45	0.556	64.3	0.671	0.891	165.5	941.3	0.293	1.488	1.56	0.950	48.2	266.6	-21.8	0.693
4-1250	4-2010	0.285	4.1	0.8	-0.45	0.595	87.6	0.506	0.928	177.7	953.5	0.458	1.398	1.56	0.974	59.8	259.9	-20.5	0.509
4-1250	4-2020	0.377	288.0	-24.6	-0.75	0.882	112.2	0.387	1.530	259.8	685.7	0.938	2.122	1.42	1.173	80.6	213.1	-5.9	0.233
4-1250	4-2030	0.361	287.5	-25.3	-1.00	0.882	111.1	0.370	1.530	261.5	697.7	0.965	2.096	1.33	1.174	84.0	209.4	-3.4	0.193
4-1250	4-2040	0.352	287.2	-26.0	-1.24	0.882	110.6	0.361	1.531	262.6	708.9	0.979	2.083	1.30	1.175	87.1	208.1	0.1	0.169
4-1250	4-2050	0.558	61.7	19.9	-1.47	0.765	48.8	0.673	1.182	142.9	599.4	0.386	1.978	1.30	1.090	48.6	298.7	-19.4	0.748
4-1250	4-2050	0.350	287.1	-26.5	-1.47	0.883	110.4	0.358	1.533	263.0	719.5	0.983	2.082	1.30	1.175	89.9	195.2	3.9	0.160
4-1260	4-1360	0.733	283.3	-26.4	-2.47	1.123	127.8	0.863	6.081	277.0	408.5	0.833	---	1.53	1.364	112.3	171.0	7.6	0.567
4-1260	4-1370	0.671	286.6	-26.8	-2.90	1.057	126.2	0.749	3.261	271.6	413.2	0.820	---	1.84	1.310	112.5	177.0	5.9	0.528
4-1260	4-1380	0.617	289.9	-27.5	-3.57	1.001	124.6	0.659	2.372	266.1	417.7	0.808	---	2.40	1.263	112.4	183.7	4.6	0.495
4-1260	4-1390	0.569	293.5	-29.2	-4.89	0.953	122.7	0.589	1.940	260.5	422.1	0.798	---	3.62	1.223	112.2	191.2	4.7	0.469
4-1260	4-1400	0.536	299.0	-34.9	-9.13	0.912	120.8	0.532	1.686	254.9	426.4	0.789	---	7.76	1.189	111.9	200.8	11.6	0.461
4-1260	4-1420	0.445	299.7	-33.8	4.24	0.844	116.7	0.450	1.406	243.4	434.8	0.773	---	-5.81	1.133	111.2	202.3	-25.6	0.411
4-1260	4-1430	0.407	303.5	-17.5	1.51	0.817	114.6	0.420	1.321	237.6	438.7	0.766	---	-3.17	1.110	110.8	213.1	-22.4	0.386
4-1260	4-1440	0.374	307.3	-18.5	0.46	0.793	112.4	0.396	1.257	231.7	442.6	0.759	---	-2.23	1.090	110.5	222.0	-22.6	0.370
4-1260	4-1450	0.345	311.3	-18.7	-0.12	0.772	110.1	0.377	1.206	225.8	446.3	0.752	---	-1.76	1.073	110.2	230.6	-23.7	0.358
4-1260	4-1460	0.317	315.7	-18.4	-0.50	0.753	107.8	0.362	1.166	219.8	449.9	0.744	---	-1.49	1.057	109.9	239.3	-24.8	0.350
4-1260	4-1470	0.291	320.6	-17.8	-0.79	0.736	105.4	0.351	1.133	213.6	453.3	0.735	---	-1.32	1.044	109.7	248.1	-25.7	0.344
4-1260	4-1480	0.268	326.3	-16.7	-1.02	0.721	102.8	0.344	1.106	207.8	456.6	0.726	---	-1.22	1.032	109.6	257.0	-26.4	0.341
4-1260	4-1490	0.247	332.9	-15.2	-1.23	0.708	100.2	0.341	1.083	201.0	459.8	0.714	---	-1.16	1.022	109.6	265.9	-26.7	0.341
4-1260	4-1500	0.229	340.6	-13.1	-1.42	0.696	97.3	0.342	1.064	194.5	462.9	0.700	---	-1.14	1.013	109.8	274.9	-26.5	0.345
4-1260	4-1510	0.215	349.8	-10.1	-1.62	0.685	94.2	0.348	1.047	187.9	465.8	0.683	---	-1.15	1.006	110.3	283.9	-25.9	0.354

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1260	4-1520	0.208	C.6	-6.2	-1.81	C.675	9C.7	C.36C	1.C32	181.3	468.7	C.661	---	-1.2C	1.CCC	111.1	292.7	-24.9	0.369
4-1260	4-1530	0.212	12.6	-1.4	-2.04	C.666	86.8	C.380	1.020	174.7	471.7	C.632	1.408	-1.2E	C.995	112.3	301.3	-23.4	0.392
4-1260	4-1540	0.23C	25.1	3.7	-2.30	C.658	82.1	C.412	1.CC9	168.3	474.9	C.594	1.424	-1.42	0.991	114.3	309.6	-21.6	0.427
4-1260	4-1550	0.269	36.9	8.4	-2.64	C.651	76.2	C.46C	1.CC0	162.5	478.7	C.540	1.459	-1.65	0.988	117.4	317.3	-19.5	0.48
4-1260	4-1560	0.338	46.7	12.1	-3.14	C.645	68.5	C.533	0.992	158.0	483.8	C.463	1.521	-2.03	C.986	122.2	324.2	-17.4	0.562
4-1260	4-1570	0.452	53.3	14.8	-3.96	0.641	57.5	C.645	0.987	156.1	491.6	C.350	1.623	-2.75	0.986	130.2	329.7	-15.5	0.695
4-1260	4-1620	0.495	337.0	-8.8	1.02	C.546	116.0	C.696	0.888	194.4	579.2	0.270	1.505	2.72	0.942	46.3	241.6	-18.2	0.715
4-1260	4-1630	0.491	23.3	10.1	0.19	C.424	89.2	C.784	0.803	173.9	568.7	C.173	1.433	2.CC	C.88C	39.6	259.2	-21.7	0.801
4-1260	4-1630	0.39C	351.5	-3.5	0.19	C.523	101.2	C.634	0.869	186.6	581.4	0.318	1.42C	2.CC	C.932	51.3	251.2	-20.0	0.645
4-1260	4-1710	0.576	75.3	21.1	-2.01	C.834	47.9	C.671	1.372	133.6	249.6	---	2.291	1.27	1.141	50.6	319.5	-14.2	0.743
4-1260	4-1720	0.538	77.2	20.7	-2.29	C.841	5C.7	C.633	1.394	129.8	256.0	---	2.278	1.42	1.145	54.0	326.3	-11.5	0.688
4-1260	4-1730	0.503	79.1	20.C	-2.65	C.847	53.3	C.598	1.416	126.1	262.4	---	2.262	1.65	1.148	57.2	332.8	-8.5	0.636
4-1260	4-1740	C.471	8C.9	19.C	-3.17	0.853	55.7	C.564	1.436	122.5	268.8	---	2.246	2.CC	1.150	6C.3	338.9	-5.1	0.585
4-1260	4-1750	0.442	82.5	17.1	-4.07	C.858	57.9	C.533	1.455	119.0	275.3	---	2.229	2.85	1.152	63.2	344.5	-0.7	0.538
4-1260	4-1760	0.418	83.9	12.8	-6.15	C.863	59.9	C.503	1.472	115.6	281.9	---	2.212	4.83	1.153	66.0	348.8	6.4	0.496
4-1260	4-1770	0.465	81.7	-7.7	-18.50	C.867	61.7	C.477	1.487	112.4	288.5	---	2.196	17.02	1.154	68.6	347.6	34.C	0.541
4-1260	4-1780	0.381	84.4	42.6	9.05	C.871	63.4	C.451	1.501	109.2	295.5	---	2.177	-1C.56	1.154	71.2	17.5	-22.C	0.444
4-1260	4-1790	0.339	88.0	29.9	2.54	C.874	64.9	C.429	1.513	106.4	302.3	---	2.162	-4.15	1.154	73.6	13.8	-7.8	0.368
4-1260	4-1800	0.317	89.4	26.3	0.92	C.876	66.2	C.409	1.523	103.7	309.4	---	2.144	-2.63	1.153	75.9	16.5	-2.8	0.325
4-1260	4-1810	0.300	9C.5	24.4	0.15	C.878	67.4	C.392	1.532	101.2	316.6	---	2.132	-1.97	1.153	78.2	19.4	-0.2	0.288
4-1260	4-1820	0.285	91.4	23.1	-0.31	C.880	68.4	C.377	1.540	99.1	324.1	---	2.120	-1.61	1.152	8C.4	21.6	1.3	0.254
4-1260	4-1830	0.273	92.2	22.C	-0.65	C.882	69.2	C.365	1.546	97.2	330.9	---	2.11C	-1.4C	1.152	82.6	22.5	1.7	0.224
4-1260	4-1840	0.264	92.8	21.1	-0.90	C.885	69.8	C.356	1.551	95.7	340.0	---	2.102	-1.27	1.151	84.8	21.5	1.1	0.198
4-1260	4-1850	0.258	93.3	20.3	-1.12	C.884	7C.3	C.350	1.554	94.7	348.5	---	2.098	-1.19	1.151	87.0	18.0	-0.6	0.179
4-1260	4-1860	0.256	93.5	19.6	-1.32	C.884	7C.4	C.347	1.557	94.1	357.4	---	2.098	-1.15	1.151	89.3	12.1	-3.3	0.170
4-1260	4-1860	0.338	325.7	-16.8	-1.32	0.695	108.1	C.436	1.C62	207.3	830.7	0.599	1.525	-1.15	1.013	115.7	264.7	-25.7	0.444
4-1260	4-1860	0.560	315.7	-18.7	-1.32	C.742	126.5	C.622	1.145	216.5	839.8	0.433	1.857	-1.15	1.046	128.0	259.6	-24.5	0.661
4-1260	4-1870	0.258	93.5	19.C	-1.51	C.885	7C.3	C.349	1.559	94.1	367.0	1.015	2.103	-1.14	1.161	91.8	4.5	-6.4	0.173
4-1260	4-1870	0.269	337.C	-13.9	-1.51	C.679	10C.7	C.393	1.C38	197.5	830.3	C.630	1.446	-1.14	1.CC2	113.1	275.6	-26.0	0.399
4-1260	4-1880	0.265	93.3	18.6	-1.71	C.885	69.9	C.356	1.560	94.8	377.2	1.C05	2.116	-1.12	1.152	94.5	357.2	-8.9	0.151
4-1260	4-1880	0.235	348.9	-10.2	-1.71	C.670	95.3	C.380	1.C25	188.8	831.2	C.636	1.414	-1.17	C.996	112.3	285.8	-25.5	0.387
4-1260	4-1890	0.278	92.7	18.3	-1.92	C.885	69.C	C.370	1.561	96.3	388.3	0.983	2.138	-1.23	1.153	97.5	351.7	-10.4	0.224
4-1260	4-1890	0.219	2.3	-5.3	-1.92	C.663	9C.4	C.383	1.C15	180.6	832.5	C.627	1.404	-1.23	0.992	112.5	295.4	-24.3	0.392
4-1260	4-1900	0.302	91.7	18.1	-2.16	C.885	67.5	C.394	1.561	98.9	400.4	0.946	2.175	-1.34	1.154	101.1	348.3	-11.C	0.274
4-1260	4-1900	0.222	16.5	C.3	-2.16	C.658	85.3	C.40C	1.C08	172.9	834.4	0.605	1.411	-1.34	0.990	113.6	304.6	-22.7	0.412
4-1260	4-1910	0.339	9C.2	18.2	-2.45	C.885	65.1	C.431	1.561	102.8	413.9	0.888	2.234	-1.52	1.155	105.5	346.8	-11.0	0.345
4-1260	4-1910	0.246	3C.4	5.8	-2.45	C.653	79.6	C.433	1.C02	165.8	836.9	0.568	1.437	-1.52	0.989	115.7	313.1	-20.7	0.450
4-1260	4-1920	0.397	88.0	18.4	-2.85	C.885	61.2	C.489	1.560	108.5	429.2	0.797	2.324	-1.81	1.157	111.3	346.4	-10.6	0.443
4-1260	4-1920	0.297	42.3	10.4	-2.85	C.650	72.7	C.489	0.998	159.9	840.6	0.509	1.486	-1.81	C.988	119.3	320.8	-18.5	0.513
4-1260	4-1930	0.490	84.4	18.7	-3.47	C.885	55.0	C.58C	1.561	116.9	447.3	0.656	2.465	-2.31	1.159	119.4	346.1	-10.3	0.585
4-1260	4-1930	0.386	51.1	13.7	-3.47	C.647	63.5	C.578	0.994	156.1	846.5	0.419	1.569	-2.31	0.989	125.3	327.3	-16.4	0.616
4-1260	4-1930	0.519	358.1	-3.6	-3.47	C.390	104.7	C.801	0.786	183.7	1234.1	C.156	1.416	-2.31	C.843	141.4	309.7	-20.0	0.820
4-1260	4-1940	0.531	55.5	15.7	-4.61	C.646	5C.3	C.715	0.992	156.3	856.4	0.283	1.701	-2.36	C.990	135.6	331.8	-14.8	0.785
4-1260	4-1940	0.534	38.6	4.8	-4.61	C.360	73.6	C.834	0.772	176.6	1236.7	C.129	1.416	-2.36	C.833	144.6	317.9	-18.2	0.864
4-1260	4-1980	0.598	327.8	-11.9	1.76	C.610	13C.0	C.74C	0.950	200.3	939.9	0.247	1.652	-3.41	0.979	42.3	235.2	-16.7	0.789
4-1260	4-1990	0.586	301.5	-20.1	0.56	C.877	126.2	C.594	1.525	240.0	629.5	0.619	2.43C	2.32	1.166	59.2	220.2	-11.5	0.584
4-1260	4-1990	0.449	331.7	-11.2	0.56	C.607	115.6	C.613	0.947	199.2	948.7	0.366	1.528	2.32	C.980	52.2	241.0	-17.9	0.631
4-1260	4-2000	0.494	298.4	-21.5	-0.07	C.877	119.9	C.503	1.525	248.0	647.6	0.758	2.291	1.79	1.169	67.4	220.8	-11.2	0.442
4-1260	4-2010	0.353	340.7	-8.5	-0.07	C.602	104.6	C.539	0.941	193.4	952.9	0.434	1.448	1.79	0.979	57.5	249.3	-19.3	0.546
4-1260	4-2010	0.436	296.5	-22.6	-0.48	C.877	115.9	C.443	1.524	253.3	663.0	0.849	2.199	1.5C	1.170	73.3	221.5	-10.9	0.343
4-1260	4-2010	0.496	4C.1	15.5	-0.48	C.531	56.8	C.745	0.875	165.9	935.6	0.223	1.527	1.5C	C.940	42.2	269.9	-22.2	0.784
4-1260	4-2010	0.297	356.4	-2.7	-0.48	C.593	94.2	C.511	0.932	184.0	953.7	0.456	1.408	1.5C	0.976	59.5	259.7	-20.7	0.515
4-1260	4-2020	0.399	295.3	-23.5	-0.79	C.876	113.4	C.404	1.524	256.9	676.7	0.908	2.139	1.32	1.172	77.9	221.3	-10.1	0.272
4-1260	4-2030	0.376	294.6	-24.3	-1.04	C.876	111.8	C.379	1.523	259.2	689.2	0.946	2.100	1.22	1.173	81.7	219.4	-8.6	0.220
4-1260	4-2040	0.362	294.2	-25.C	-1.26	C.876	110.9	C.364	1.524	260.7	700.9	0.969	2.078	1.16	1.173	84.9	215.0	-6.1	0.184
4-1260	4-2050	0.577	66.7	20.8	-1.46	C.755	46.6	C.702	1.171	145.3	595.6	0.348	1.993	1.14	1.086	46.1	300.6	-19.3	0.788
4-1260	4-2050	0.355	294.0	-25.5	-1.46	C.877	110.4	C.357	1.524	261.6	711.9	0.981	2.068	1.14	1.174	87.9	208.0	-2.7	0.164
4-1260	4-2060	0.522	68.3	20.6	-1.67	C.763	5C.8	C.648	1.186	141.9	602.4	0.418	1.955	1.16	1.091	50.6	307.7	-17.5	0.716
4-1260	4-2060	0.354	294.C	-26.2	-1.67	C.877	11C.3	C.356	1.526	261.8	722.3	0.983	2.069	1.16	1.174	9C.6	199.9	0.9	0.159
4-1270	4-1380	0.709	293.5	-25.8	-3.00	1.070	127.8	C.784	3.690	270.6	416.2	0.799	---	1.73	1.321	114.4	184.2	2.2	0.566
4-1270	4-1390	0.650	296.7	-26.4	-3.72	1.010	126.1	0.688	2.526	265.1	420.6	0.788	---	2.37	1.271	114.2	190.9	0.9	0.529
4-1270	4-1400	0.599	30C.4	-28.2	-5.35	0.959	124.1	C.613	2.011	259.6	425.0	0.778	---	3.91	1.228	113.8	198.7	1.6	0.500
4-1270	4-1410	0.578	308.7	-38.C	-13.48	0.914	122.1	C.553	1.723	253.9	429.2	0.770	---	11.95	1.192	113.4	209.6	15.9	0.514
4-1270	4-1420	0.518	302.1	-6.9	9.11	C.876	12C.C	C.506	1.541	248.2	433.5	0.762	---	-1C.72	1.160	113.0	197.1	-33.7	0.482
4-1270	4-1430	C.462	306.3	-16.2	2.10	C.843	117.8	C.467	1.416	242.5	437.5	0.755	---	-3.79	1.133	112.5	213.4	-23.4	0.426
4-1270	4-1440	0.424	309.9	-17.8	0.56	C.813	115.6	C.435	1.325	236.6	441.3	0.748	---	-2.35	1.109	112.0	222.7	-22.6	0.405
4-1270	4-1450	0.390	313.6	-18.1	-0.13	C.788	113.2	C.410	1.257	230.8	445.1	0.742	---	-1.74	1.088	111.6	231.3	-23.4	0.389
4-1270	4-1460	0.358	317.5	-17.9	-0.55	C.765	11C.8	C.390	1.204	224.8	448.8	0.734	---	-1.41	1.070	111.2	239.9	-24.4	0.376
4-1270	4-1470	0.329	321.7	-17.3	-0.84	C.746	108.3	C.375	1.162	218.7	452.3	C.727	---	-1.22	1.054	110.8	248.6	-25.3	0.367
4-1270	4-1480	0.301	326.6	-16.4	-1.07	C.728	105.8	C.364	1.128	212.5	455.7	C.718	---	-1.1C	1.041	110.6	257.5	-25.9	0.360
4-1270	4-1490	0.276	332.2	-15.1	-1.26	C.712	103.1	C.357	1.100	206.2	458.9	0.708	---	-1.03	1.029	110.5	266.4	-26.2	0.357
4-1270	4-1500	0.254	338.8	-13.4	-1.43	C.698	100.2	C.354	1.077	199.8	462.0	0.695	---	-C.99	1.019	110.5	275.3	-26.0	0.358
4-1270	4-1510	0.235	346.6	-10.9	-1.60	C.685	97.1	C.356	1.057	193.3	465.0	0.680	---	-C.98	1.010	110.8	284.3	-25.4	0.362
4-1270	4-1520	0.220	356.1	-7.6	-1.76	C.674	93.8	C.363	1.040	186.6	467.9	0.662	---	-1.00	1.003	111.3	293.1	-24.3	0.372
4-1270	4-1530	0.214	7.2	-3.4	-1.94	C.664	90.0	C.378	1.025	180.0	470.8	0.638	1.412	-1.05	0.997	112.2	301.7	-22.8	0.389
4-1270	4-1540	0.220	19.7	1.6	-2.15	C.654	86.6	C.401	1.012	173.4	473.8	0.606	1.419	-1.14	0.993	113.7	310.0	-20.9	0.416
4-1270	4-1550	0.242	32.7	6.8	-2.39	C.646	8C.3	C.438	1.CC1	167.1	477.2	0.563	1.44C	-1.2E	0.989	116.0	318.0	-18.8	0.456
4-1270	4-1560	0.290	44.6	11.3	-2.73	C.639	73.7	C.494	0.992	161.7	481.4	0.502	1.482	-1.	C.986	119.6	325.3	-16.5	0.519
4-1270	4-1570	0.372	54.0	14.7	-3.23	C.633	64.7	C.580	0.985	157.9	487.3	0.413	1.556	-1.9	C. 85	125.4	331.7	-14.3	0.617
4-1270	4-1580	0.509	59.5	16.9	-4.14	C.629	51.7	C.71C	0.980	157.5	496.6	0.285	1.676	-2.75	0.986	135.2	336.3	-12.5	0.777

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1270	4-1620	0.596	340.2	-7.6	1.33	0.531	128.7	0.782	0.882	194.4	573.1	0.192	1.572	3.06	0.938	38.9	244.8	-19.2	0.829
4-1270	4-1630	0.553	29.2	12.4	0.22	0.372	62.6	0.850	0.783	174.6	563.3	0.118	1.448	2.04	0.861	33.2	262.7	-22.2	0.889
4-1270	4-1630	0.449	349.1	-4.6	0.22	0.516	110.3	0.680	0.870	190.4	579.1	0.278	1.461	2.04	0.932	47.8	252.3	-20.4	0.691
4-1270	4-1710	0.565	80.3	21.7	-1.92	0.823	46.4	0.690	1.353	136.2	246.1	---	2.287	1.04	1.137	48.8	321.2	-14.0	0.773
4-1270	4-1720	0.547	82.3	27.3	-2.14	0.831	49.4	0.652	1.377	132.4	252.4	---	2.274	1.13	1.141	52.3	328.0	-11.4	0.737
4-1270	4-1730	0.511	84.2	20.8	-2.40	0.838	52.0	0.615	1.399	128.6	258.8	---	2.260	1.28	1.144	55.6	334.6	-8.6	0.663
4-1270	4-1740	0.477	86.0	20.0	-2.76	0.844	54.5	0.580	1.420	125.0	265.2	---	2.244	1.53	1.147	58.7	340.9	-5.4	0.610
4-1270	4-1750	0.446	87.7	18.7	-3.29	0.850	56.8	0.547	1.440	121.5	271.7	---	2.228	1.98	1.149	61.7	346.7	-1.8	0.561
4-1270	4-1760	0.418	89.1	16.4	-4.30	0.855	59.0	0.516	1.458	118.0	278.3	---	2.211	2.90	1.150	64.6	352.0	2.9	0.514
4-1270	4-1770	0.399	90.0	10.3	-7.21	0.859	60.9	0.488	1.475	114.8	284.9	---	2.194	5.73	1.151	67.3	355.4	12.0	0.477
4-1270	4-1790	0.343	93.7	33.2	4.07	0.866	64.2	0.438	1.502	108.7	298.6	---	2.160	-5.73	1.152	72.4	17.7	-10.0	0.393
4-1270	4-1800	0.318	95.1	26.9	1.19	0.869	65.6	0.417	1.514	105.9	305.5	---	2.145	-2.92	1.152	74.7	19.1	-2.2	0.344
4-1270	4-1810	0.299	96.2	24.3	0.18	0.872	66.9	0.396	1.523	103.4	312.7	---	2.130	-2.01	1.151	77.0	22.1	1.3	0.304
4-1270	4-1820	0.284	97.2	22.8	-0.35	0.874	68.0	0.382	1.532	101.1	320.1	---	2.117	-1.56	1.151	79.3	24.8	3.2	0.269
4-1270	4-1830	0.271	98.0	21.7	-0.70	0.875	68.9	0.369	1.539	99.2	327.7	---	2.106	-1.31	1.151	81.5	26.4	4.2	0.237
4-1270	4-1840	0.260	98.6	20.7	-0.96	0.877	69.6	0.358	1.544	97.5	335.7	---	2.097	-1.16	1.150	83.7	26.3	4.1	0.209
4-1270	4-1850	0.253	99.1	19.9	-1.17	0.878	70.1	0.350	1.548	96.3	344.0	---	2.091	-1.06	1.150	85.9	24.0	3.0	0.186
4-1270	4-1860	0.249	99.4	19.2	-1.35	0.878	70.4	0.346	1.552	95.5	352.7	---	2.089	-1.01	1.150	88.1	19.2	0.8	0.172
4-1270	4-1870	0.248	99.5	18.6	-1.51	0.879	70.4	0.346	1.554	95.2	361.9	1.017	2.091	-0.98	1.150	90.5	12.2	-2.1	0.168
4-1270	4-1870	0.328	333.3	-14.5	-1.51	0.684	106.7	0.434	1.054	204.7	831.5	0.596	1.511	-0.98	1.009	115.7	274.9	-25.4	0.444
4-1270	4-1870	0.593	321.6	-17.0	-1.51	0.740	128.9	0.651	1.152	215.5	842.3	0.402	1.903	-0.98	1.048	130.2	268.8	-24.6	0.701
4-1270	4-1880	0.253	99.4	18.2	-1.68	0.879	70.2	0.350	1.555	95.5	371.8	1.011	2.100	-0.99	1.151	93.1	4.6	-5.0	0.179
4-1270	4-1880	0.267	344.4	-11.3	-1.68	0.669	99.6	0.399	1.033	195.2	831.5	0.620	1.445	-0.99	1.000	113.5	285.5	-24.9	0.408
4-1270	4-1890	0.263	99.0	17.9	-1.85	0.880	69.5	0.360	1.556	96.6	382.4	0.995	2.117	-1.02	1.152	95.9	358.1	-7.1	0.204
4-1270	4-1890	0.235	356.6	-7.2	-1.85	0.660	94.2	0.390	1.020	186.6	832.4	0.622	1.418	-1.02	0.994	113.0	295.4	-23.8	0.401
4-1270	4-1900	0.280	98.3	17.8	-2.03	0.880	68.4	0.379	1.556	98.5	393.9	0.967	2.146	-1.09	1.153	99.1	353.9	-8.1	0.246
4-1270	4-1900	0.222	10.4	-2.0	-2.03	0.653	89.0	0.397	1.011	178.5	833.9	0.609	1.413	-1.09	0.991	113.4	304.8	-22.1	0.410
4-1270	4-1910	0.269	97.1	17.9	-2.26	0.880	66.5	0.408	1.556	101.5	406.5	0.921	2.191	-1.20	1.154	103.0	351.7	-8.4	0.304
4-1270	4-1910	0.229	25.0	3.8	-2.26	0.648	83.5	0.420	1.004	170.9	835.9	0.583	1.425	-1.20	0.989	114.8	313.5	-20.0	0.436
4-1270	4-1920	0.353	93.4	18.2	-2.54	0.879	63.5	0.454	1.556	106.0	420.6	0.850	2.262	-1.38	1.156	107.9	351.0	-8.2	0.386
4-1270	4-1920	0.261	38.9	9.2	-2.54	0.644	77.3	0.461	0.998	164.2	838.8	0.538	1.458	-1.38	0.988	117.4	321.6	-17.7	0.482
4-1270	4-1930	0.424	92.7	18.7	-2.93	0.879	58.8	0.524	1.556	112.5	436.8	0.741	2.317	-1.68	1.158	114.5	351.0	-7.8	0.499
4-1270	4-1930	0.324	50.5	13.3	-2.93	0.640	69.5	0.528	0.994	158.9	843.2	0.470	1.518	-1.68	0.989	121.8	328.8	-15.3	0.557
4-1270	4-1940	0.336	88.4	19.4	-3.58	0.880	51.2	0.631	1.556	122.3	456.3	0.574	2.538	-2.24	1.160	124.0	350.6	-7.5	0.666
4-1270	4-1940	0.430	58.3	16.1	-3.58	0.636	58.9	0.633	0.991	153.3	850.3	0.364	1.617	-2.24	0.990	129.2	334.6	-13.2	0.682
4-1270	4-1940	0.516	9.7	1.6	-3.58	0.364	95.3	0.815	0.779	181.2	1235.2	0.144	1.416	-2.24	0.840	142.7	318.7	-17.4	0.839
4-1270	4-1950	0.578	27.9	9.0	-4.94	0.340	63.2	0.872	0.769	175.7	1239.4	0.098	1.440	-3.51	0.833	149.1	326.0	-15.4	0.928
4-1270	4-1990	0.537	334.9	-10.0	0.70	0.598	124.0	0.694	0.944	199.7	943.1	0.289	1.600	2.47	0.979	46.1	243.7	-18.8	0.730
4-1270	4-2000	0.554	306.7	-19.7	-0.08	0.870	123.8	0.559	1.518	242.2	635.7	0.670	2.366	1.78	1.167	82.2	226.9	-14.7	0.533
4-1270	4-2000	0.411	340.8	-8.4	-0.08	0.594	111.0	0.590	0.980	196.4	949.9	0.387	1.495	1.78	0.979	54.0	250.8	-19	0.604
4-1270	4-2010	0.477	304.2	-21.1	-0.54	0.870	118.4	0.480	1.518	248.9	652.5	0.790	2.246	1.42	1.169	69.5	227.8	-13.9	0.408
4-1270	4-2010	0.550	46.0	17.3	-0.54	0.507	50.6	0.803	0.863	167.2	930.8	0.169	1.556	1.42	0.931	27.0	272.7	-22.5	0.861
4-1270	4-2010	0.330	352.5	-4.4	-0.54	0.587	100.0	0.535	0.933	188.9	952.5	0.434	1.432	1.42	0.977	57.8	260.3	-21.0	0.543
4-1270	4-2020	0.427	302.6	-22.1	-0.85	0.870	115.0	0.428	1.517	253.4	667.1	0.869	2.166	1.22	1.170	74.8	228.5	-13.5	0.320
4-1270	4-2020	0.412	40.1	14.9	-0.85	0.537	66.5	0.674	0.887	167.2	940.9	0.289	1.485	1.22	0.949	48.0	277.8	-22.0	0.699
4-1270	4-2020	0.300	14.9	4.8	-0.85	0.571	86.7	0.541	0.918	177.2	950.9	0.421	1.414	1.22	0.969	57.5	272.1	-21.6	0.549
4-1270	4-2030	0.395	301.7	-23.0	-1.09	0.870	112.8	0.393	1.516	256.4	680.3	0.920	2.113	1.09	1.171	79.1	228.1	-12.8	0.255
4-1270	4-2040	0.374	301.1	-23.7	-1.29	0.870	111.4	0.371	1.516	258.5	692.5	0.953	2.079	1.02	1.172	82.6	225.7	-11.3	0.208
4-1270	4-2050	0.596	71.5	21.6	-1.47	0.744	44.3	0.731	1.160	147.7	591.9	0.312	2.008	0.99	1.082	43.6	302.5	-19.2	0.828
4-1270	4-2050	0.362	300.8	-24.3	-1.47	0.870	110.6	0.358	1.517	259.7	703.9	0.973	2.060	0.99	1.172	85.8	220.6	-8.9	0.176
4-1270	4-2060	0.540	73.2	21.3	-1.64	0.752	48.7	0.677	1.175	144.2	598.6	0.380	1.970	0.98	1.087	48.3	309.5	-17.4	0.755
4-1270	4-2060	0.357	300.7	-24.8	-1.64	0.870	110.3	0.353	1.518	260.4	714.8	0.982	2.053	0.98	1.172	88.6	213.1	-5.6	0.160
4-1270	4-2070	0.487	74.8	21.0	-1.82	0.759	52.9	0.621	1.191	140.9	605.5	0.451	1.931	1.01	1.092	52.7	316.4	-15.3	0.684
4-1270	4-2070	0.358	300.7	-25.2	-1.82	0.871	110.3	0.353	1.520	260.5	725.1	0.983	2.056	1.01	1.172	91.3	204.9	-2.3	0.159
4-1280	4-1400	0.682	303.3	-25.0	-3.92	1.018	127.6	0.716	2.700	264.0	423.5	0.767	---	2.31	1.279	115.9	198.3	-2.6	0.563
4-1280	4-1410	0.628	307.2	-27.2	-5.96	0.963	125.6	0.637	2.087	258.5	427.8	0.758	---	4.37	1.233	115.4	206.3	-1.0	0.531
4-1280	4-1430	0.526	309.1	-13.9	3.48	0.875	121.2	0.524	1.560	247.1	436.1	0.743	---	-5.21	1.161	114.3	213.1	-25.7	0.476
4-1280	4-1440	0.480	312.8	-16.9	0.74	0.840	118.9	0.483	1.425	241.4	440.1	0.736	---	-2.53	1.132	113.7	223.4	-22.7	0.446
4-1280	4-1450	0.441	316.2	-17.4	-0.16	0.809	116.5	0.451	1.329	235.6	443.9	0.730	---	-1.71	1.108	113.2	232.1	-23.1	0.425
4-1280	4-1460	0.404	319.7	-17.2	-0.62	0.782	114.1	0.425	1.257	229.6	447.6	0.725	---	-1.32	1.086	112.6	240.6	-24.0	0.408
4-1280	4-1470	0.371	323.5	-16.7	-0.92	0.758	111.5	0.404	1.202	223.6	451.2	0.716	---	-1.10	1.068	112.2	249.3	-24.9	0.395
4-1280	4-1480	0.339	327.7	-15.9	-1.14	0.737	108.9	0.389	1.158	217.5	454.7	0.708	---	-0.97	1.052	111.8	258.0	-25.4	0.385
4-1280	4-1490	0.310	332.5	-14.7	-1.31	0.719	106.1	0.377	1.120	211.3	458.0	0.699	---	-0.88	1.038	111.5	266.9	-25.7	0.378
4-1280	4-1500	0.284	338.1	-13.2	-1.46	0.702	103.2	0.371	1.094	204.9	461.2	0.699	---	-0.83	1.026	111.4	275.8	-25.5	0.375
4-1280	4-1510	0.260	344.8	-11.2	-1.60	0.687	100.2	0.368	1.070	198.5	464.2	0.676	---	-0.81	1.016	111.4	284.6	-24.8	0.376
4-1280	4-1520	0.240	352.8	-8.5	-1.74	0.674	96.8	0.371	1.050	191.9	467.2	0.660	---	-0.81	1.008	111.7	293.4	-23.7	0.381
4-1280	4-1530	0.225	2.6	-4.9	-1.88	0.662	93.2	0.381	1.032	185.2	470.0	0.639	---	-0.84	1.001	112.4	302.0	-22.2	0.393
4-1280	4-1540	0.220	14.3	-0.3	-2.03	0.651	89.0	0.398	1.017	178.5	473.0	0.613	1.422	-0.89	0.995	113.4	310.3	-20.3	0.412
4-1280	4-1550	0.228	27.3	4.9	-2.21	0.641	84.2	0.425	1.004	172.0	476.1	0.577	1.432	-0.98	0.991	115.2	318.4	-18.1	0.443
4-1280	4-1560	0.257	40.7	10.0	-2.44	0.633	78.3	0.468	0.993	166.0	479.7	0.528	1.469	-1.12	0.987	117.9	326.0	-15.7	0.491
4-1280	4-1570	0.315	52.5	14.1	-2.75	0.625	70.6	0.534	0.984	161.0	484.4	0.458	1.510	-1.36	0.985	122.3	332.9	-13.3	0.565
4-1280	4-1580	0.415	61.2	17.0	-3.26	0.620	60.1	0.635	0.978	158.2	491.3	0.357	1.598	-1.79	0.984	129.4	338.7	-11.1	0.683
4-1280	4-1590	0.578	65.1	18.7	-4.30	0.617	44.6	0.781	0.975	159.7	502.6	0.213	1.736	-2.76	0.985	141.4	342.4	-9.5	0.875
4-1280	4-1630	0.530	350.1	-4.1	0.28	0.503	120.2	0.748	0.866	192.0	574.7	0.218	1.514	2.10	0.930	42.1	254.7	-21.0	0.779
4-1280	4-1640	0.464	25.1	10.3	-0.40	0.407	79.7	0.773	0.806	176.9	569.7	0.183	1.428	1.50	0.885	40.7	269.4	-22.3	0.790
4-1280	4-1640	0.420	8.1	3.1	-0.40	0.465	97.6	0.699	0.840	185.3	576.1	0.253	1.427	1.50	0.913	46.6	265.2	-22.0	0.707
4-1280	4-1710	0.595	85.2	22.1	-1.86	0.811	45.0	0.709	1.335	138.7	242.6	---	2.282	0.84	1.132	46.9	322.8	-13.8	0.803
4-1280	4-1720	0.555	87.3	21.7	-2.02	0.819	48.0	0.670	1.359	134.9	249.0	---	2.270	0.89	1.137	50.5	329.7	-11.2	0.745
4-1280	4-1730	0.518	89.2	21.2	-2.21	0.827	50.8	0.632	1.383	131.2	255.3	---	2.257	0.96	1.141	53.9	336.3	-8.5	0.690
4-1280	4-1740	0.483	91.1	20.6	-2.45	0.834	53.4	0.596	1.405	127.5	261.7	---	2.242	1.13	1.144	57.2	342.7	-5.5	0.636

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1280	4-1750	0.450	92.8	19.7	-2.79	0.840	55.8	0.562	1.425	124.0	268.2	---	2.226	1.35	1.146	60.2	348.7	-2.3	0.585
4-1280	4-1760	0.421	94.3	18.2	-3.34	0.845	58.0	0.530	1.444	120.5	274.7	---	2.209	1.86	1.148	63.2	354.4	1.5	0.535
4-1280	4-1770	0.395	95.6	15.6	-4.51	0.850	60.0	0.500	1.462	117.2	281.3	---	2.193	2.96	1.149	65.9	359.3	6.6	0.490
4-1280	4-1780	0.387	95.4	5.5	-9.33	0.855	61.9	0.473	1.477	114.1	288.0	---	2.176	3.71	1.149	68.6	1.0	20.2	0.463
4-1280	4-1790	0.370	98.7	45.7	10.36	0.858	83.6	0.447	1.492	111.0	294.9	---	2.158	-12.05	1.150	71.2	27.6	-20.9	0.454
4-1280	4-1800	0.319	100.9	27.8	1.70	0.861	65.0	0.425	1.504	108.2	301.8	---	2.143	-3.46	1.150	73.6	21.8	-2.2	0.363
4-1280	4-1810	0.299	101.9	24.1	0.22	0.864	66.4	0.405	1.514	105.7	308.9	---	2.128	-2.05	1.150	75.9	24.6	2.6	0.321
4-1280	4-1820	0.283	102.8	22.3	-0.41	0.866	67.5	0.388	1.524	103.3	316.2	---	2.114	-1.49	1.149	78.2	27.6	5.0	0.284
4-1280	4-1830	0.269	103.6	21.0	-0.78	0.868	68.5	0.373	1.531	101.2	323.8	---	2.102	-1.20	1.149	80.4	29.8	6.4	0.250
4-1280	4-1840	0.257	104.3	20.0	-1.03	0.870	69.3	0.361	1.537	99.5	331.6	---	2.092	-1.03	1.149	82.6	30.5	6.8	0.220
4-1280	4-1850	0.248	104.8	19.2	-1.23	0.871	69.9	0.352	1.542	98.1	339.7	---	2.085	-0.92	1.149	84.8	29.3	6.2	0.195
4-1280	4-1860	0.243	105.2	18.5	-1.39	0.872	70.3	0.346	1.546	97.1	348.3	---	2.081	-0.86	1.149	87.0	25.5	4.6	0.176
4-1280	4-1870	0.241	105.4	18.0	-1.53	0.873	70.4	0.344	1.549	96.5	357.3	---	2.081	-0.82	1.150	89.3	19.3	2.1	0.167
4-1280	4-1880	0.243	105.4	17.5	-1.67	0.873	70.3	0.346	1.551	96.6	366.8	1.015	2.086	-0.81	1.150	91.8	11.8	-0.9	0.171
4-1280	4-1880	0.320	340.8	-12.0	-1.67	0.672	105.4	0.436	1.046	202.1	832.4	0.591	1.502	-0.81	1.006	115.8	284.9	-24.4	0.448
4-1280	4-1890	0.250	105.1	17.3	-1.80	0.873	69.9	0.353	1.552	97.2	377.0	1.004	2.099	-0.82	1.151	94.4	4.7	-3.4	0.189
4-1280	4-1890	0.264	351.9	-8.4	-1.80	0.658	98.5	0.408	1.027	192.8	832.6	0.608	1.446	-0.82	0.998	114.1	295.2	-23.2	0.419
4-1280	4-1900	0.263	104.6	17.2	-1.95	0.873	69.0	0.367	1.552	98.7	388.0	0.982	2.122	-0.86	1.152	97.4	359.5	-5.0	0.223
4-1280	4-1900	0.235	4.5	-3.9	-1.95	0.649	92.9	0.403	1.015	184.3	833.7	0.606	1.424	-0.86	0.993	113.8	304.7	-21.5	0.416
4-1280	4-1910	0.285	103.7	17.4	-2.11	0.873	67.5	0.390	1.552	101.0	400.0	0.946	2.157	-0.93	1.154	100.9	356.6	-5.7	0.272
4-1280	4-1910	0.226	18.8	1.7	-2.11	0.643	87.4	0.415	1.006	176.3	835.3	0.589	1.424	-0.93	0.991	114.5	313.7	-19.4	0.430
4-1280	4-1920	0.320	102.3	17.7	-2.31	0.873	65.2	0.426	1.552	104.5	413.1	0.890	2.213	-1.04	1.155	105.2	355.4	-5.7	0.340
4-1280	4-1920	0.239	33.9	7.4	-2.31	0.637	81.5	0.443	0.999	169.0	837.6	0.557	1.442	-1.04	0.989	116.3	322.1	-17.0	0.463
4-1280	4-1930	0.374	100.2	18.3	-2.57	0.873	61.6	0.482	1.551	109.7	427.9	0.804	2.299	-1.22	1.157	110.7	355.3	-5.3	0.434
4-1280	4-1930	0.280	47.8	12.4	-2.57	0.633	74.5	0.493	0.994	162.7	841.0	0.504	1.484	-1.22	0.989	119.5	329.8	-14.5	0.519
4-1280	4-1940	0.459	97.0	19.2	-2.96	0.873	55.8	0.566	1.551	117.2	445.2	0.673	2.429	-1.53	1.159	118.3	355.5	-4.9	0.566
4-1280	4-1940	0.357	58.7	15.9	-2.96	0.630	65.6	0.573	0.990	158.3	846.2	0.423	1.557	-1.53	0.989	124.9	336.4	-12.0	0.611
4-1280	4-1950	0.595	91.9	20.1	-3.64	0.873	46.4	0.692	1.552	128.5	466.3	0.478	2.626	-2.14	1.162	129.5	354.9	-4.9	0.763
4-1280	4-1950	0.485	65.1	18.1	-3.64	0.628	53.1	0.695	0.987	157.3	855.0	0.301	1.674	-2.14	0.991	134.1	341.4	-10.1	0.761
4-1290	4-1950	0.530	20.8	6.5	-3.64	0.338	85.6	0.839	0.773	179.2	1236.9	0.124	1.422	-2.14	0.837	145.3	327.3	-14.4	0.876
4-1280	4-2000	0.485	342.9	-7.6	-0.10	0.584	118.4	0.657	0.938	198.0	945.4	0.322	1.554	1.76	0.977	49.0	253.1	-20.6	0.685
4-1280	4-2010	0.527	312.1	-19.2	-0.61	0.863	121.7	0.528	1.511	243.8	641.3	0.713	2.309	1.33	1.168	64.8	234.0	-16.4	0.488
4-1280	4-2010	0.598	51.1	18.7	-0.61	0.482	44.8	0.852	0.852	168.8	926.3	0.126	1.577	1.33	0.923	32.0	275.4	-22.7	0.932
4-1280	4-2010	0.377	351.2	-4.9	-0.61	0.578	106.1	0.575	0.932	192.7	950.2	0.396	1.468	1.33	0.976	55.0	261.4	-21.4	0.588
4-1280	4-2020	0.461	310.0	-20.4	-0.92	0.863	117.2	0.459	1.510	249.4	657.0	0.816	2.205	1.10	1.169	71.3	235.2	-16.3	0.378
4-1280	4-2020	0.479	48.5	17.5	-0.92	0.508	58.6	0.750	0.871	167.4	935.1	0.217	1.524	1.10	0.938	41.8	281.1	-22.2	0.793
4-1280	4-2020	0.314	7.1	1.3	-0.92	0.568	94.1	0.545	0.922	183.4	951.0	0.419	1.424	1.10	0.972	57.2	272.0	-21.8	0.535
4-1280	4-2030	0.418	308.7	-21.4	-1.15	0.863	114.2	0.414	1.510	253.2	671.0	0.885	2.134	0.96	1.170	76.2	235.8	-16.0	0.299
4-1280	4-2040	0.390	308.0	-22.2	-1.33	0.863	112.3	0.383	1.509	255.8	683.7	0.931	2.087	0.87	1.171	80.2	235.1	-15.3	0.240
4-1280	4-2050	0.372	307.5	-22.8	-1.49	0.863	111.1	0.364	1.509	257.5	695.6	0.960	2.058	0.83	1.171	83.6	232.1	-13.8	0.197
4-1280	4-2060	0.558	78.2	21.9	-1.64	0.740	46.6	0.705	1.164	146.6	594.9	0.343	1.985	0.81	1.084	45.8	311.4	-17.2	0.795
4-1280	4-2060	0.362	307.3	-23.3	-1.64	0.863	110.4	0.353	1.509	258.5	706.9	0.977	2.041	0.81	1.171	86.6	226.3	-11.6	0.169
4-1280	4-2070	0.503	79.8	21.6	-1.78	0.748	51.0	0.650	1.180	143.2	601.8	0.413	1.946	0.82	1.088	50.4	318.2	-15.1	0.721
4-1280	4-2070	0.558	307.2	-23.7	-1.78	0.863	110.1	0.348	1.510	259.0	717.5	0.984	2.037	0.82	1.170	89.4	218.3	-8.6	0.156
4-1280	4-2080	0.450	81.2	21.1	-1.94	0.755	55.0	0.594	1.195	140.1	608.8	0.486	1.905	0.86	1.092	54.8	324.8	-12.8	0.649
4-1280	4-2080	0.360	307.3	-24.0	-1.94	0.864	110.2	0.350	1.513	259.1	727.8	0.983	2.042	0.86	1.170	92.0	210.1	-5.5	0.159
4-1290	4-1410	0.713	309.8	-23.4	-3.86	1.026	129.1	0.743	2.899	262.9	426.2	0.746	---	2.22	1.287	117.6	205.8	-6.1	0.598
4-1290	4-1420	0.657	314.0	-26.4	-7.05	0.967	127.0	0.660	2.168	257.3	430.5	0.737	---	5.35	1.238	117.0	214.3	-2.6	0.564
4-1290	4-1430	0.611	311.2	-5.3	10.26	0.917	124.8	0.595	1.799	251.6	434.7	0.730	---	-12.01	1.197	116.4	206.8	-36.1	0.565
4-1290	4-1440	0.544	315.9	-15.7	1.07	0.874	122.4	0.542	1.580	246.0	438.7	0.723	---	-2.88	1.162	115.7	224.0	-23.1	0.495
4-1290	4-1450	0.498	319.2	-16.5	-0.20	0.837	120.0	0.500	1.434	240.2	442.6	0.717	---	-1.66	1.132	115.0	232.8	-22.8	0.468
4-1290	4-1460	0.456	322.4	-16.4	-0.72	0.804	117.5	0.466	1.332	234.3	446.4	0.711	---	-1.20	1.107	114.3	241.3	-23.6	0.446
4-1290	4-1470	0.418	325.8	-15.9	-1.02	0.775	114.9	0.439	1.257	228.4	450.0	0.705	---	-0.95	1.085	113.7	249.9	-24.4	0.428
4-1290	4-1480	0.382	329.5	-15.1	-1.23	0.750	112.2	0.418	1.199	222.4	453.6	0.697	---	-0.81	1.066	113.2	258.6	-25.0	0.414
4-1290	4-1490	0.349	333.6	-14.1	-1.38	0.728	109.4	0.402	1.154	216.2	457.0	0.689	---	-0.73	1.049	112.8	267.4	-25.2	0.403
4-1290	4-1500	0.318	338.4	-12.8	-1.51	0.709	106.5	0.391	1.117	210.0	460.2	0.680	---	-0.67	1.035	112.5	276.2	-25.0	0.396
4-1290	4-1510	0.290	344.1	-11.1	-1.62	0.691	103.4	0.385	1.088	203.5	463.3	0.669	---	-0.64	1.024	112.4	285.0	-24.3	0.393
4-1290	4-1520	0.265	350.9	-8.8	-1.73	0.675	100.1	0.384	1.063	197.0	466.4	0.655	---	-0.63	1.014	112.4	293.7	-23.2	0.394
4-1290	4-1530	0.244	359.2	-5.8	-1.84	0.661	96.5	0.388	1.042	190.4	469.3	0.637	---	-0.64	1.005	112.8	302.3	-21.7	0.401
4-1290	4-1540	0.230	9.5	-1.8	-1.95	0.649	92.5	0.400	1.024	183.7	472.2	0.615	---	-0.67	0.999	113.5	310.6	-19.7	0.415
4-1290	4-1550	0.226	21.8	3.1	-2.08	0.637	87.9	0.420	1.009	177.1	475.1	0.585	1.433	-0.72	0.993	114.8	318.7	-17.5	0.438
4-1290	4-1560	0.239	35.5	8.3	-2.23	0.627	82.5	0.453	0.996	170.7	478.4	0.545	1.447	-0.80	0.989	116.9	326.5	-15.0	0.474
4-1290	4-1570	0.277	49.1	13.1	-2.43	0.618	75.7	0.503	0.985	165.0	482.4	0.489	1.481	-0.94	0.986	120.2	333.8	-12.5	0.530
4-1290	4-1580	0.348	60.4	16.7	-2.72	0.611	66.9	0.581	0.977	160.6	487.8	0.409	1.544	-1.17	0.984	125.5	340.3	-10.0	0.619
4-1290	4-1590	0.469	68.1	19.0	-3.23	0.606	54.4	0.698	0.971	159.1	496.1	0.293	1.648	-1.62	0.983	134.2	345.4	-7.9	0.762
4-1290	4-1640	0.532	33.1	13.3	-0.48	0.344	72.5	0.848	0.782	176.7	563.5	0.119	1.445	1.41	0.863	33.4	273.4	-22.7	0.889
4-1290	4-1640	0.475	4.0	1.3	-0.48	0.460	109.4	0.736	0.844	187.4	574.2	0.223	1.465	1.41	0.916	43.4	266.1	-22.2	0.758
4-1290	4-1720	0.564	92.2	21.9	-1.94	0.807	48.6	0.689	1.342	137.5	245.5	---	2.266	0.67	1.133	48.7	331.3	-11.0	0.774
4-1290	4-1730	0.526	94.2	21.5	-2.08	0.815	49.3	0.650	1.366	133.7	251.9	---	2.253	0.72	1.137	52.3	337.9	-8.3	0.717
4-1290	4-1740	0.490	96.1	20.9	-2.24	0.823	52.3	0.613	1.389	130.0	258.3	---	2.239	0.81	1.140	55.6	344.4	-5.4	0.662
4-1290	4-1750	0.456	97.8	20.1	-2.45	0.829	54.8	0.577	1.410	126.5	264.8	---	2.224	0.95	1.143	58.8	350.6	-2.4	0.609
4-1290	4-1760	0.425	99.5	19.1	-2.76	0.835	57.1	0.544	1.430	123.0	271.3	---	2.208	1.21	1.145	61.8	356.5	0.9	0.558
4-1290	4-1770	0.396	100.9	17.5	-3.32	0.841	59.2	0.512	1.449	119.7	277.9	---	2.191	1.71	1.146	64.6	2.0	4.6	0.510
4-1290	4-1780	0.373	101.9	14.1	-4.73	0.845	61.1	0.484	1.465	116.5	284.5	---	2.174	3.06	1.147	67.3	6.5	10.4	0.466
4-1290	4-1790	0.426	96.4	-9.7	-18.17	0.849	62.8	0.457	1.480	113.5	291.2	---	2.158	16.44	1.147	69.9	2.9	41.7	0.513
4-1290	4-1800	0.322	106.8	30.3	3.00	0.853	64.4	0.433	1.494	110.6	298.2	---	2.141	-4.78	1.148	72.4	25.2	-4.2	0.386
4-1290	4-1810	0.300	107.4	23.8	0.30	0.856	65.8	0.412	1.505	108.0	305.3	---	2.126	-2.13	1.148	74.8	26.9	3.6	0.338
4-1290	4-1820	0.282	108.2	21.5	-0.49	0.859	67.0	0.394	1.515	105.6	312.5	---	2.111	-1.40	1.148	77.1	30.1	6.7	0.299
4-1290	4-1830	0.267	109.1	20.1	-0.88	0.861	68.1	0.378	1.523	103.4	320.0	---	2.099	-1.06	1.148	79.3	32.7	8.4	0.264
4-1290	4-1840	0.255	109.8	19.1	-1.13	0.862	68.9	0.364	1.530	101.5	327.7	---	2.088	-0.88	1.148	81.5	34.2	9.2	0.232

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1290	4-1850	0.245	110.3	18.3	-1.31	0.864	69.6	0.354	1.536	100.0	335.7	---	2.079	-0.77	1.148	83.7	33.9	9.1	0.205
4-1290	4-1860	0.238	110.8	17.6	-1.45	0.865	70.1	0.346	1.540	98.8	344.1	---	2.074	-0.70	1.148	85.9	31.3	8.0	0.183
4-1290	4-1870	0.234	111.0	17.0	-1.57	0.866	70.4	0.343	1.543	98.1	352.9	---	2.072	-0.66	1.149	88.2	26.0	6.0	0.169
4-1290	4-1880	0.234	111.1	16.6	-1.67	0.866	70.4	0.342	1.546	97.9	362.2	1.016	2.075	-0.64	1.149	90.6	18.7	3.2	0.167
4-1290	4-1890	0.239	111.0	16.4	-1.78	0.866	70.1	0.347	1.547	98.2	372.1	1.010	2.084	-0.64	1.150	93.1	11.2	0.4	0.178
4-1290	4-1890	0.312	348.2	-9.2	-1.78	0.659	104.1	0.439	1.039	199.5	833.4	0.583	1.496	-0.64	1.004	116.0	294.6	-22.8	0.454
4-1290	4-1900	0.249	110.6	16.4	-1.89	0.867	69.5	0.358	1.548	99.2	382.7	0.994	2.101	-0.65	1.151	95.9	5.2	-1.7	0.204
4-1290	4-1900	0.261	359.6	-5.3	-1.89	0.647	97.3	0.418	1.022	190.4	833.8	0.595	1.448	-0.65	0.996	114.7	304.5	-21.1	0.432
4-1290	4-1910	0.266	109.9	16.6	-2.01	0.867	68.3	0.376	1.548	101.0	394.1	0.965	2.130	-0.69	1.153	99.1	1.4	-2.9	0.246
4-1290	4-1910	0.235	12.8	-0.3	-2.01	0.638	91.4	0.418	1.010	182.0	835.0	0.588	1.432	-0.69	0.992	114.7	313.7	-18.9	0.434
4-1290	4-1920	0.294	108.8	17.0	-2.14	0.866	66.4	0.405	1.547	103.8	406.5	0.920	2.175	-0.75	1.154	102.9	359.7	-3.2	0.304
4-1290	4-1920	0.231	27.8	5.5	-2.14	0.631	85.6	0.435	1.002	174.2	836.9	0.566	1.437	-0.75	0.990	115.8	322.3	-16.4	0.454
4-1290	4-1930	0.336	107.3	17.6	-2.32	0.866	63.6	0.450	1.547	107.9	420.2	0.851	2.242	-0.86	1.156	107.7	359.4	-3.0	0.382
4-1290	4-1930	0.252	43.2	11.0	-2.32	0.626	79.1	0.471	0.995	167.2	839.5	0.527	1.463	-0.86	0.989	118.1	330.4	-13.7	0.495
4-1290	4-1940	0.401	104.8	18.5	-2.55	0.866	59.1	0.517	1.546	113.8	435.8	0.747	2.346	-1.03	1.158	114.0	359.8	-2.5	0.491
4-1290	4-1940	0.305	56.8	15.4	-2.55	0.622	71.3	0.531	0.990	161.5	843.5	0.464	1.515	-1.03	0.989	122.1	337.6	-11.0	0.563
4-1290	4-1950	0.504	101.0	19.6	-2.92	0.866	52.1	0.618	1.546	122.5	454.3	0.591	2.501	-1.34	1.161	122.9	360.0	-2.2	0.647
4-1290	4-1950	0.399	66.6	18.2	-2.92	0.619	60.9	0.626	0.986	158.2	850.0	0.369	1.603	-1.34	0.990	128.7	343.6	-8.7	0.675
4-1290	4-1960	0.553	71.3	19.9	-3.65	0.617	46.2	0.766	0.984	159.2	860.8	0.230	1.738	-2.01	0.992	140.0	347.5	-7.0	0.857
4-1290	4-1960	0.560	31.3	10.9	-3.65	0.310	74.9	0.872	0.769	177.7	1239.3	0.098	1.439	-2.01	0.836	149.1	335.3	-11.3	0.931
4-1290	4-2000	0.576	346.8	-5.9	-0.13	0.572	127.5	0.740	0.935	197.8	939.3	0.243	1.627	1.73	0.976	42.3	256.3	-21.4	0.792
4-1290	4-2010	0.590	320.2	-16.8	-0.71	0.856	126.1	0.590	1.504	237.7	629.3	0.616	2.392	1.21	1.167	59.3	240.1	-18.5	0.586
4-1290	4-2010	0.438	352.0	-4.5	-0.71	0.568	112.8	0.630	0.931	195.2	946.8	0.345	1.517	1.21	0.975	51.1	263.2	-21.9	0.653
4-1290	4-2020	0.503	317.5	-18.3	-1.03	0.856	120.0	0.501	1.504	244.8	646.5	0.750	2.257	0.95	1.168	67.2	241.4	-18.5	0.449
4-1290	4-2020	0.531	54.7	19.2	-1.03	0.481	52.3	0.808	0.858	168.6	930.3	0.164	1.552	0.95	0.929	36.5	284.0	-22.2	0.870
4-1290	4-2020	0.348	3.5	-0.2	-1.03	0.560	100.4	0.572	0.923	188.0	949.7	0.395	1.450	0.95	0.972	55.3	272.7	-22.1	0.586
4-1290	4-2030	0.447	315.8	-19.5	-1.24	0.855	116.0	0.441	1.503	249.5	661.3	0.840	2.166	0.81	1.169	73.0	242.8	-18.5	0.352
4-1290	4-2030	0.372	42.9	15.1	-1.24	0.521	73.1	0.659	0.888	170.5	942.3	0.308	1.469	0.81	0.952	49.6	287.8	-21.6	0.677
4-1290	4-2030	0.528	31.6	11.0	-1.24	0.536	82.0	0.599	0.901	174.6	946.4	0.361	1.441	0.81	0.960	53.5	285.5	-21.7	0.615
4-1290	4-2040	0.409	314.8	-20.3	-1.40	0.855	113.5	0.401	1.502	252.7	674.7	0.900	2.104	0.72	1.169	77.8	243.3	-18.2	0.280
4-1290	4-2050	0.385	314.1	-21.0	-1.53	0.855	111.8	0.374	1.501	254.8	687.1	0.940	2.062	0.67	1.170	81.2	242.2	-17.5	0.227
4-1290	4-2060	0.576	83.1	22.4	-1.65	0.728	44.5	0.734	1.153	148.9	591.3	0.307	1.998	0.64	1.080	83.4	313.2	-17.0	0.834
4-1290	4-2060	0.369	313.8	-21.5	-1.65	0.855	110.7	0.357	1.501	256.2	698.6	0.966	2.036	0.64	1.169	84.4	238.6	-16.3	0.188
4-1290	4-2070	0.520	84.8	22.0	-1.77	0.736	49.0	0.678	1.169	145.5	598.1	0.377	1.961	0.63	1.085	48.1	320.0	-14.9	0.759
4-1290	4-2070	0.361	313.6	-22.0	-1.77	0.855	110.1	0.347	1.501	257.1	709.7	0.980	2.023	0.63	1.169	87.3	232.1	-14.2	0.163
4-1290	4-2080	0.465	86.2	21.5	-1.88	0.744	53.3	0.621	1.185	142.3	605.1	0.449	1.920	0.65	1.089	52.7	326.6	-12.6	0.685
4-1290	4-2080	0.359	313.5	-22.3	-1.88	0.855	110.0	0.344	1.503	257.5	720.2	0.985	2.020	0.65	1.168	90.1	223.7	-11.5	0.154
4-1290	4-2090	0.414	87.4	20.9	-2.01	0.751	57.3	0.565	1.200	139.4	612.3	0.523	1.878	0.69	1.092	57.0	332.9	-10.1	0.613
4-1290	4-2090	0.361	313.6	-22.5	-2.01	0.856	110.1	0.347	1.505	257.5	730.4	0.983	2.028	0.69	1.167	92.7	215.5	-8.8	0.159
4-1300	4-1520	0.295	350.1	-8.6	-1.74	0.679	103.4	0.400	1.080	202.0	465.5	0.648	---	-0.46	1.021	113.4	294.0	-22.7	0.412
4-1300	4-1530	0.269	357.1	-6.1	-1.82	0.662	99.9	0.400	1.055	195.5	468.5	0.633	---	-0.45	1.011	113.5	302.5	-21.1	0.415
4-1300	4-1540	0.248	5.9	-2.8	-1.89	0.648	95.9	0.406	1.034	188.8	471.4	0.614	---	-0.46	1.003	114.0	310.9	-19.2	0.423
4-1300	4-1550	0.234	16.8	1.5	-1.98	0.634	91.5	0.420	1.016	182.1	474.3	0.589	---	-0.49	0.996	114.9	319.0	-16.9	0.439
4-1300	4-1560	0.234	29.9	6.6	-2.08	0.622	86.5	0.445	1.001	175.6	477.4	0.556	1.446	-0.53	0.991	116.4	326.8	-14.4	0.466
4-1300	4-1570	0.253	44.2	11.8	-2.20	0.612	80.3	0.484	0.980	169.4	480.9	0.510	1.466	-0.61	0.987	118.9	334.3	-11.7	0.509
4-1300	4-1820	0.282	113.5	20.5	-0.62	0.850	66.6	0.400	1.506	107.9	309.0	---	2.109	-1.26	1.146	76.0	32.3	8.3	0.315
4-1300	4-1830	0.266	114.3	19.0	-1.03	0.852	67.7	0.383	1.516	105.6	316.3	---	2.095	-0.89	1.146	78.3	35.4	10.3	0.278
4-1300	4-1840	0.253	115.0	17.9	-1.26	0.854	68.6	0.368	1.523	103.7	324.0	---	2.084	-0.70	1.146	80.5	37.5	11.4	0.245
4-1300	4-1850	0.242	115.7	17.1	-1.41	0.856	69.4	0.356	1.529	102.0	331.9	---	2.074	-0.59	1.147	82.7	33.0	11.6	0.214
4-1300	4-1860	0.234	116.1	16.4	-1.53	0.857	69.9	0.348	1.534	100.8	340.1	---	2.068	-0.53	1.147	84.9	36.3	11.1	0.190
4-1300	4-1870	0.229	116.5	15.9	-1.62	0.858	70.3	0.342	1.538	99.9	348.8	---	2.064	-0.49	1.148	87.1	32.1	9.5	0.173
4-1300	4-1880	0.228	116.6	15.5	-1.70	0.859	70.4	0.340	1.541	99.4	357.9	---	2.065	-0.46	1.148	89.5	25.4	7.1	0.165
4-1300	4-1890	0.230	116.6	15.3	-1.78	0.859	70.3	0.343	1.542	99.5	367.5	1.013	2.071	-0.45	1.149	91.9	17.7	4.2	0.170
4-1300	4-1900	0.237	116.4	15.3	-1.85	0.859	69.8	0.351	1.543	100.2	377.7	1.002	2.084	-0.46	1.151	94.6	11.0	1.7	0.190
4-1300	4-1910	0.251	115.9	15.5	-1.93	0.859	68.9	0.365	1.543	101.5	388.7	0.980	2.107	-0.47	1.152	97.6	6.3	0.1	0.224
4-1300	4-1910	0.258	7.6	-1.8	-1.93	0.634	95.9	0.430	1.016	187.9	835.1	0.579	1.453	-0.47	0.995	115.5	313.5	-18.4	0.448
4-1300	4-1920	0.273	115.1	16.0	-2.02	0.859	67.4	0.389	1.543	103.7	400.5	0.943	2.143	-0.51	1.154	101.0	3.9	-0.6	0.274
4-1300	4-1920	0.236	21.6	3.5	-2.02	0.626	89.8	0.435	1.005	179.7	836.5	0.568	1.443	-0.51	0.992	115.8	322.4	-15.9	0.455
4-1300	4-1930	0.239	37.4	9.3	-2.13	0.619	83.4	0.459	0.997	172.1	838.6	0.540	1.454	-0.56	0.990	117.3	330.7	-13.1	0.482
4-1300	4-1940	0.270	53.0	14.4	-2.27	0.614	76.2	0.503	0.990	165.5	841.7	0.492	1.489	-0.65	0.989	120.2	338.3	-10.3	0.532
4-1300	4-2050	0.401	320.7	-19.0	-1.60	0.847	112.8	0.388	1.494	251.9	678.2	0.913	2.074	0.49	1.168	78.7	251.0	-20.1	0.263
4-1300	4-2060	0.379	320.2	-19.6	-1.69	0.847	111.3	0.364	1.493	253.7	690.2	0.949	2.037	0.47	1.168	82.2	249.5	-19.6	0.214
4-1300	4-2070	0.366	319.9	-20.0	-1.77	0.846	110.4	0.349	1.493	254.8	701.5	0.971	2.014	0.45	1.167	85.2	245.3	-18.5	0.179
4-1300	4-2080	0.359	319.7	-20.4	-1.85	0.847	109.9	0.342	1.493	255.5	712.4	0.983	2.003	0.46	1.166	88.1	238.1	-16.8	0.158
4-1300	4-2090	0.358	319.7	-20.6	-1.93	0.847	109.8	0.340	1.495	255.8	722.8	0.987	2.003	0.47	1.165	90.7	229.2	-14.4	0.152
4-1300	4-2100	0.361	319.7	-20.8	-2.03	0.848	110.0	0.344	1.496	255.8	732.9	0.983	2.013	0.51	1.164	93.3	221.3	-12.1	0.161
4-1350	4-1580	0.279	33.1	10.1	-1.61	0.580	96.4	0.503	1.008	186.4	479.8	0.501	---	0.48	1.000	120.2	343.3	-6.3	0.535
4-1350	4-1590	0.267	46.5	14.6	-1.51	0.561	90.0	0.526	0.986	180.0	483.2	0.467	1.505	0.53	0.991	121.7	350.6	-3.2	0.560
4-1350	4-1600	0.278	62.6	18.8	-1.39	0.544	82.3	0.565	0.968	174.0	487.0	0.421	1.516	0.60	0.985	124.4	357.7	-0.1	0.603
4-1350	4-1820	0.290	139.6	21.0	1.87	0.802	64.2	0.485	1.458	119.5	292.7	---	2.093	-3.69	1.136	71.0	44.3	6.4	0.397
4-1350	4-1840	0.257	136.8	5.3	-3.80	0.809	67.0	0.391	1.483	115.0	307.4	---	2.064	2.05	1.139	75.9	48.4	25.5	0.311
4-1350	4-1850	0.240	138.5	6.9	-2.89	0.812	68.0	0.374	1.493	113.0	315.0	---	2.051	1.18	1.140	78.2	52.6	24.0	0.273
4-1350	4-1860	0.227	139.6	7.2	-2.52	0.814	69.0	0.359	1.501	111.4	322.9	---	2.041	0.84	1.141	80.4	54.9	23.6	0.239
4-1350	4-1870	0.216	140.4	7.2	-2.30	0.816	69.7	0.347	1.508	110.0	331.0	---	2.032	0.67	1.142	82.6	55.2	23.3	0.209
4-1350	4-1880	0.209	141.1	7.2	-2.16	0.817	70.2	0.339	1.513	108.9	339.5	---	2.026	0.57	1.143	84.8	53.0	22.7	0.184
4-1350	4-1890	0.204	141.6	7.3	-2.05	0.818	70.5	0.334	1.517	108.2	348.3	---	2.023	0.51	1.145	87.1	48.0	21.4	0.167
4-1350	4-1900	0.203	141.9	7.5	-1.96	0.819	70.6	0.332	1.519	107.9	357.5	---	2.024	0.47	1.146	89.4	40.5	19.3	0.161
4-1350	4-1910	0.205	142.0	7.8	-1.88	0.819	70.4	0.335	1.521	107.9	367.1	1.011	2.030	0.45	1.148	91.8	32.6	16.4	0.167
4-1350	4-1920	0.212	142.0	8.4	-1.81	0.820	69.9	0.343	1.521	108.4	377.2	0.999	2.043	0.44	1.150	94.4	26.2	13.7	0.187
4-1350	4-1930	0.224	141.8	9.1	-1.73	0.820	69.1	0.357	1.521	109.3	387.9	0.978	2.064	0.44	1.152	97.2	22.3	11.8	0.220

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1350	4-1940	0.243	141.4	10.1	-1.65	0.819	67.7	0.379	1.520	110.8	399.1	0.944	2.096	C.46	1.154	100.5	20.7	10.8	0.265
4-1350	4-1950	0.271	140.7	11.2	-1.56	0.819	65.7	0.411	1.519	113.1	411.1	0.894	2.144	C.5C	1.156	104.3	20.9	10.6	0.326
4-1350	4-1950	0.269	39.5	12.3	-1.56	0.572	93.2	0.510	0.998	183.1	841.1	0.489	1.507	C.5C	0.996	120.7	346.9	-4.8	0.543
4-1350	4-1960	0.259	57.3	17.3	-1.46	0.562	84.9	0.531	0.986	175.5	843.3	0.463	1.510	C.56	0.993	122.0	354.8	-1.4	0.566
4-1350	4-1970	0.286	75.8	20.9	-1.31	0.554	75.8	0.576	0.978	169.1	846.8	0.414	1.542	C.65	0.992	125.2	2.1	1.8	0.619
4-1350	4-2080	0.391	349.0	-8.9	-1.97	0.800	112.5	0.385	1.449	242.2	671.2	0.892	2.007	-C.47	1.157	77.0	291.0	-23.9	0.292
4-1350	4-2090	0.366	348.4	-9.3	-1.88	0.799	110.7	0.355	1.447	243.3	682.5	0.934	1.961	-C.45	1.156	80.4	292.2	-24.0	0.239
4-1350	4-2100	0.348	348.1	-9.5	-1.80	0.798	109.4	0.334	1.446	244.0	693.2	0.963	1.929	-C.44	1.153	83.4	291.4	-24.5	0.199
4-1350	4-2110	0.336	347.9	-9.6	-1.73	0.798	108.6	0.321	1.445	244.4	703.7	0.982	1.908	-C.45	1.151	86.1	287.8	-25.5	0.169
4-1350	4-2120	0.330	347.7	-9.6	-1.64	0.798	108.1	0.313	1.445	244.7	714.0	0.993	1.898	-C.47	1.149	88.6	280.7	-26.7	0.150
4-1350	4-2130	0.285	118.0	17.9	-1.55	0.708	64.9	0.479	1.207	142.8	622.0	0.629	1.785	-C.5C	1.085	63.1	6.1	1.6	0.509
4-1350	4-2130	0.329	347.5	-9.4	-1.55	0.799	108.0	0.311	1.447	245.0	724.2	0.996	1.897	-C.5C	1.147	91.0	271.0	-27.5	0.144
4-1350	4-2140	0.239	116.8	17.6	-1.44	0.716	66.6	0.422	1.224	141.7	630.8	0.707	1.741	-C.57	1.088	67.2	11.3	3.4	0.438
4-1350	4-2140	0.332	347.3	-9.2	-1.44	0.800	108.3	0.316	1.450	245.2	736.3	0.992	1.907	-C.57	1.145	93.4	261.3	-27.5	0.152
4-1350	4-2150	0.198	114.6	17.5	-1.29	0.723	71.9	0.371	1.239	141.3	640.2	0.779	1.700	-C.67	1.090	71.1	16.1	4.9	0.372
4-1350	4-2150	0.341	347.1	-8.8	-1.29	0.801	108.9	0.326	1.455	245.4	744.3	0.981	1.929	-C.67	1.144	95.9	254.4	-27.1	0.173
4-1400	4-1830	0.282	161.4	11.6	1.35	0.755	64.0	0.448	1.419	128.2	285.3	---	2.055	-3.02	1.126	68.9	56.7	12.2	0.425
4-1400	4-1840	0.265	165.0	16.7	3.54	0.761	65.6	0.422	1.435	126.0	292.6	---	2.041	-5.1C	1.129	71.5	63.6	6.8	0.387
4-1400	4-1860	0.281	146.5	-22.9	-12.78	0.769	68.2	0.377	1.462	122.2	308.1	---	2.013	11.41	1.133	76.5	65.6	59.6	0.358
4-1400	4-1870	0.226	156.8	-10.0	-5.69	0.772	69.2	0.360	1.472	120.6	316.0	---	2.002	4.42	1.135	78.8	70.1	41.0	0.268
4-1400	4-1880	0.209	159.7	-6.3	-3.96	0.774	70.0	0.346	1.480	119.3	324.2	---	1.993	2.79	1.137	81.0	72.1	36.3	0.229
4-1400	4-1890	0.199	161.4	-4.5	-3.14	0.776	70.6	0.336	1.486	118.3	332.7	---	1.985	2.07	1.139	83.2	71.4	34.4	0.198
4-1400	4-1900	0.192	162.6	-3.4	-2.64	0.778	71.9	0.328	1.491	117.5	341.5	---	1.981	1.69	1.141	85.5	67.7	33.0	0.175
4-1400	4-1910	0.189	163.4	-2.5	-2.30	0.779	71.3	0.325	1.495	117.0	350.6	---	1.980	1.46	1.143	87.7	60.9	31.4	0.161
4-1400	4-1920	0.188	164.0	-1.6	-2.02	0.779	71.2	0.325	1.497	116.8	360.0	1.011	1.983	1.31	1.145	90.0	52.4	28.8	0.158
4-1400	4-1930	0.192	164.4	-0.7	-1.79	0.779	71.0	0.329	1.498	116.8	369.7	1.005	1.990	1.23	1.147	92.4	44.5	25.7	0.168
4-1400	4-1940	0.199	164.7	0.3	-1.58	0.779	70.4	0.338	1.497	117.2	379.8	0.991	2.004	1.18	1.149	95.0	39.1	22.8	0.191
4-1400	4-1950	0.211	164.8	1.5	-1.38	0.779	69.5	0.354	1.497	117.8	390.2	0.967	2.026	1.17	1.151	97.8	36.5	20.8	0.225
4-1400	4-1960	0.230	164.6	2.7	-1.18	0.779	68.1	0.376	1.495	118.9	401.1	0.933	2.057	1.20	1.154	100.9	36.3	19.7	0.271
4-1400	4-1970	0.256	164.2	4.0	-0.95	0.778	66.1	0.408	1.493	120.4	412.5	0.884	2.101	1.27	1.156	104.5	37.6	19.4	0.329
4-1400	4-1980	0.293	163.4	5.4	-0.70	0.777	63.3	0.451	1.491	122.6	424.6	0.818	2.164	1.38	1.158	108.9	40.0	19.5	0.401
4-1400	4-1990	0.289	83.4	-23.2	-0.37	0.498	85.7	0.614	0.973	177.3	849.3	0.375	1.571	1.58	0.995	127.9	18.7	9.9	0.665
4-1400	4-2120	0.318	14.4	2.5	-1.56	0.747	108.6	0.341	1.394	231.0	674.6	0.919	1.869	-1.18	1.138	78.9	331.1	-17.3	0.260
4-1400	4-2130	0.296	14.3	2.7	-1.36	0.746	106.9	0.316	1.390	230.3	683.8	0.951	1.830	-1.18	1.135	81.5	333.6	-17.4	0.220
4-1400	4-2140	0.290	139.7	13.6	-1.15	0.653	64.8	0.527	1.178	150.2	613.7	0.558	1.799	-1.21	1.073	59.3	19.1	6.0	0.570
4-1400	4-2140	0.279	14.2	3.0	-1.15	0.745	105.6	0.298	1.387	229.4	692.8	0.974	1.800	-1.21	1.131	83.9	334.8	-18.3	0.187
4-1400	4-2150	0.234	137.9	14.0	-0.92	0.664	69.0	0.459	1.199	149.7	623.0	0.649	1.750	-1.28	1.078	64.2	24.2	7.3	0.486
4-1400	4-2150	0.266	14.1	3.5	-0.92	0.744	104.7	0.284	1.385	228.5	701.8	0.991	1.778	-1.28	1.128	86.0	334.1	-20.3	0.161
4-1400	4-2160	0.184	134.0	15.3	-0.67	0.675	73.5	0.395	1.220	150.4	633.5	0.738	1.702	-1.4C	1.082	68.9	28.8	8.1	0.405
4-1400	4-2160	0.258	13.9	4.1	-0.67	0.743	104.1	0.275	1.384	227.9	710.9	1.003	1.765	-1.4C	1.125	88.0	330.6	-23.8	0.143
4-1400	4-2170	0.140	126.6	18.0	-0.34	0.684	77.5	0.338	1.240	152.6	645.4	0.821	1.658	-1.60	1.085	73.4	32.7	7.8	0.330
4-1400	4-2170	0.255	13.5	4.9	-0.34	0.743	103.8	0.272	1.384	227.8	720.5	1.008	1.760	-1.6C	1.123	90.1	323.9	-28.5	0.135
4-1400	4-2180	0.107	113.9	22.8	0.1C	0.693	8C.9	0.29C	1.257	156.3	658.7	0.892	1.623	-1.93	1.088	77.4	35.4	5.9	0.263
4-1400	4-2180	0.258	12.8	5.9	0.10	0.745	104.1	0.274	1.387	228.4	730.9	1.007	1.768	-1.93	1.122	92.3	314.2	-33.6	0.140
4-1400	4-2190	0.089	95.4	30.0	0.79	0.699	83.7	0.256	1.272	161.0	673.0	0.947	1.598	-2.51	1.091	81.C	36.9	0.8	0.208
4-1400	4-2190	0.270	11.7	7.4	0.79	0.747	105.0	0.285	1.394	229.9	742.0	0.996	1.791	-2.51	1.122	94.8	304.3	-37.8	0.161
4-1400	4-2200	0.087	75.7	40.7	2.11	0.704	85.7	0.234	1.284	165.6	687.2	0.984	1.583	-3.73	1.092	84.0	38.6	-10.5	0.173
4-1400	4-2200	0.293	10.0	10.1	2.11	0.751	106.6	0.306	1.405	232.1	753.7	0.974	1.835	-3.73	1.133	97.7	297.6	-42.4	0.202
4-1450	4-1840	0.280	181.1	-2.9	1.35	0.712	64.5	0.459	1.377	135.9	278.8	---	2.009	-2.74	1.116	67.0	69.4	15.7	0.447
4-1450	4-1850	0.260	183.6	4.9	2.33	0.719	66.2	0.429	1.396	133.9	286.4	---	1.995	-3.57	1.119	69.8	75.4	13.3	0.401
4-1450	4-1860	0.245	187.0	9.7	4.25	0.725	67.7	0.403	1.413	132.1	294.1	---	1.982	-5.34	1.122	72.5	81.2	7.3	0.364
4-1450	4-1870	0.257	193.5	24.7	10.18	0.730	69.0	0.380	1.427	130.5	301.9	---	1.970	-11.14	1.125	75.0	88.4	-11.3	0.369
4-1450	4-1890	0.231	170.0	-28.6	-9.53	0.737	71.0	0.344	1.449	128.0	318.8	---	1.947	8.85	1.131	79.8	93.8	60.6	0.284
4-1450	4-1900	0.200	177.6	-19.7	-5.31	0.740	71.7	0.331	1.457	127.1	327.4	---	1.940	4.76	1.134	82.1	91.0	48.5	0.220
4-1450	4-1910	0.188	180.7	-15.7	-3.71	0.742	72.2	0.322	1.463	126.4	336.2	---	1.935	3.32	1.136	84.3	87.6	43.9	0.187
4-1450	4-1920	0.182	182.6	-13.3	-2.84	0.743	72.5	0.317	1.468	125.9	345.4	---	1.932	2.6C	1.139	86.5	81.3	41.4	0.165
4-1450	4-1930	0.180	183.8	-11.5	-2.26	0.744	72.6	0.315	1.470	125.5	354.7	---	1.933	2.18	1.142	88.7	72.3	38.8	0.156
4-1450	4-1940	0.181	184.7	-10.0	-1.83	0.744	72.4	0.317	1.472	125.4	364.2	1.005	1.938	1.93	1.144	91.0	63.1	35.5	0.158
4-1450	4-1950	0.186	185.3	-8.6	-1.48	0.744	72.0	0.323	1.472	125.4	374.0	0.996	1.947	1.77	1.147	93.4	56.2	31.9	0.173
4-1450	4-1960	0.195	185.8	-7.2	-1.17	0.744	71.3	0.335	1.471	125.5	384.0	0.979	1.963	1.69	1.149	95.9	52.4	29.0	0.200
4-1450	4-1970	0.208	185.9	-5.9	-0.88	0.743	70.3	0.352	1.469	125.9	394.2	0.953	1.985	1.65	1.151	98.7	51.5	27.0	0.236
4-1450	4-1980	0.227	185.9	-4.6	-0.60	0.743	68.8	0.375	1.466	126.4	404.7	0.916	2.017	1.67	1.153	101.8	52.7	25.9	0.281
4-1450	4-1990	0.253	185.6	-3.4	-0.29	0.742	66.7	0.408	1.463	127.4	415.6	0.867	2.060	1.74	1.155	105.3	55.3	25.5	0.338
4-1450	4-2000	0.289	185.0	-2.1	0.05	0.741	63.9	0.451	1.460	128.8	427.0	0.802	2.119	1.87	1.156	109.4	58.7	25.5	0.407
4-1450	4-2140	0.273	42.1	13.7	-1.14	0.697	107.1	0.357	1.338	218.4	658.0	0.860	1.815	-1.68	1.119	74.9	360.0	-6.2	0.320
4-1450	4-2150	0.240	43.1	14.4	-0.85	0.694	104.4	0.326	1.331	215.2	664.7	0.896	1.765	-1.65	1.115	77.3	5.3	-4.7	0.279
4-1450	4-2160	0.240	157.2	8.3	-0.57	0.617	7C.0	0.497	1.172	156.5	615.7	0.589	1.755	-1.67	1.066	61.2	36.8	11.5	0.533
4-1450	4-2160	0.211	44.9	15.6	-0.57	0.691	101.9	0.302	1.323	211.1	670.4	0.923	1.722	-1.67	1.111	79.1	10.9	-3.3	0.247
4-1450	4-2170	0.175	150.7	11.3	-0.27	0.633	76.2	0.416	1.200	158.8	627.8	0.700	1.699	-1.75	1.073	67.1	40.8	11.6	0.433
4-1450	4-2170	0.182	48.0	17.3	-0.27	0.687	99.3	0.283	1.313	205.6	674.6	0.942	1.684	-1.75	1.106	80.5	17.2	-2.0	0.223
4-1450	4-2180	0.116	130.0	19.2	0.07	0.650	83.1	0.335	1.233	165.8	644.5	0.820	1.646	-1.88	1.081	73.4	42.4	10.1	0.328
4-1450	4-2180	0.148	54.8	20.3	0.07	0.681	96.1	0.269	1.299	197.2	675.9	0.950	1.648	-1.88	1.100	81.1	25.3	0.0	0.210
4-1500	4-1850	0.283	199.5	-5.1	1.41	0.676	65.7	0.468	1.[illegible]30	142.7	272.7	---	1.953	-2.41	1.103	65.4	82.4	18.1	0.466
4-1500	4-1860	0.261	201.7	-4.1	2.02	0.685	67.5	0.435	[illegible]	140.9	280.4	---	1.941	-2.84	1.108	68.4	88.1	16.4	0.417
4-1500	4-1870	0.243	204.2	-1.9	2.93	0.692	69.1	0.406	1.372	139.3	288.3	---	1.928	-3.58	1.113	71.1	93.4	13.2	0.371
4-1500	4-1880	0.230	207.1	2.6	4.55	0.699	70.5	0.380	1.389	137.9	296.4	---	1.917	-5.04	1.117	73.8	97.9	6.8	0.334
4-1500	4-1890	0.234	211.6	13.8	8.57	0.704	71.6	0.358	1.403	136.8	304.8	---	1.906	-8.90	1.121	76.3	101.8	-8.5	0.323
4-1500	4-1910	0.257	179.4	-45.4	-14.26	0.712	73.4	0.325	1.425	135.1	322.6	---	1.888	14.24	1.128	81.1	145.1	74.6	0.333
4-1500	4-1920	0.196	195.9	-31.1	-6.18	0.714	73.9	0.315	1.432	134.5	331.5	---	1.883	6.31	1.132	83.3	113.1	57.5	0.214
4-1500	4-1930	0.182	200.6	-24.7	-3.82	0.716	74.3	0.308	1.437	134.0	340.7	---	1.879	4.12	1.135	85.5	104.3	50.5	0.176

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1500	4-1940	0.177	202.9	-21.0	-2.65	0.717	74.4	0.304	1.441	133.7	350.1	---	1.879	3.11	1.138	87.7	94.5	46.6	0.157
4-1500	4-1950	0.176	204.4	-18.5	-1.91	0.718	74.4	0.305	1.442	133.4	359.6	---	1.882	2.56	1.141	89.9	83.9	42.9	0.152
4-1500	4-1960	0.179	205.3	-16.5	-1.39	0.718	74.1	0.309	1.443	133.2	369.2	0.997	1.888	2.23	1.143	92.2	75.1	38.9	0.160
4-1500	4-1970	0.186	206.0	-14.9	-0.97	0.717	73.5	0.317	1.442	133.1	378.5	0.984	1.899	2.02	1.145	94.5	69.8	35.2	0.179
4-1500	4-1980	0.196	206.4	-13.5	-0.61	0.717	72.7	0.330	1.440	133.0	388.7	0.964	1.915	1.90	1.147	97.0	67.8	32.5	0.208
4-1500	4-1990	0.211	206.6	-12.2	-0.28	0.716	71.5	0.349	1.437	132.9	398.6	0.936	1.938	1.85	1.149	99.7	68.5	30.6	0.245
4-1500	4-2000	0.231	206.5	-11.1	0.05	0.715	69.9	0.374	1.434	133.0	408.7	0.898	1.969	1.85	1.151	102.7	71.0	29.5	0.291
4-1500	4-2010	0.258	206.3	-10.1	0.38	0.713	67.7	0.407	1.430	133.3	419.2	0.848	2.011	1.92	1.152	106.1	74.6	28.9	0.346
4-1500	4-2020	0.294	205.7	-9.1	0.76	0.712	64.8	0.450	1.426	134.1	430.0	0.784	2.057	2.05	1.152	110.1	79.0	28.5	0.413
4-1500	4-2150	0.266	72.1	20.8	-0.92	0.658	108.7	0.419	1.290	211.4	638.4	0.750	1.830	-2.00	1.104	68.7	18.2	2.4	0.421
4-1500	4-2160	0.220	75.6	21.7	-0.57	0.653	104.6	0.379	1.280	207.0	643.7	0.795	1.765	-1.90	1.099	71.3	24.7	4.6	0.372
4-1500	4-2170	0.262	176.5	1.0	-0.25	0.575	70.3	0.544	1.139	161.4	607.9	0.519	1.758	-1.85	1.052	57.6	50.0	15.5	0.588
4-1500	4-2170	0.178	82.6	22.9	-0.25	0.647	100.4	0.351	1.267	200.5	646.9	0.822	1.712	-1.85	1.093	73.1	32.1	6.9	0.339
4-1500	4-2180	0.177	166.9	6.0	0.06	0.599	79.2	0.442	1.176	165.7	621.8	0.657	1.696	-1.86	1.063	65.0	53.1	15.1	0.464
4-1500	4-2180	0.135	100.5	23.9	0.06	0.637	94.9	0.338	1.247	189.8	646.0	0.825	1.668	-1.86	1.085	73.4	41.7	9.9	0.328
4-1500	4-2300	0.189	74.9	12.1	-3.18	0.670	101.8	0.324	1.316	207.2	778.4	0.890	1.743	3.56	1.107	103.3	357.6	13.5	0.290
4-1500	4-2300	0.297	65.6	15.0	-3.18	0.697	101.3	0.412	1.369	220.5	791.8	0.805	1.933	3.56	1.121	109.1	352.2	7.1	0.393
4-1550	4-1860	0.290	217.7	-12.0	1.48	0.646	67.2	0.478	1.277	148.7	266.3	---	1.888	-1.99	1.088	63.6	95.7	19.3	0.484
4-1550	4-1870	0.267	219.9	-11.3	1.89	0.658	69.2	0.441	1.303	147.1	274.2	---	1.877	-2.21	1.095	66.9	101.4	17.8	0.431
4-1550	4-1880	0.247	222.0	-10.1	2.43	0.668	70.8	0.408	1.325	145.6	282.3	---	1.866	-2.57	1.101	69.9	106.6	15.6	0.382
4-1550	4-1890	0.231	224.2	-7.9	3.19	0.676	72.3	0.379	1.345	144.5	290.6	---	1.856	-2.17	1.107	72.6	111.0	12.0	0.338
4-1550	4-1900	0.219	226.5	-3.9	4.47	0.683	73.5	0.355	1.362	143.5	299.2	---	1.846	-4.29	1.112	75.2	114.3	5.8	0.300
4-1550	4-1910	0.219	229.4	4.9	7.28	0.688	74.5	0.335	1.376	142.7	308.0	---	1.837	-6.95	1.117	77.7	115.9	-7.3	0.280
4-1550	4-1940	0.192	217.0	-39.1	-6.28	0.698	76.4	0.297	1.403	141.4	335.9	---	1.819	7.06	1.129	84.6	136.6	61.2	0.206
4-1550	4-1950	0.178	222.3	-30.3	-3.37	0.700	76.6	0.292	1.407	141.1	345.4	---	1.818	4.30	1.135	86.7	120.8	52.5	0.163
4-1550	4-1960	0.175	224.5	-25.7	-2.05	0.701	76.7	0.291	1.409	140.9	354.9	---	1.819	3.15	1.136	88.8	108.2	47.5	0.148
4-1550	4-1970	0.176	225.7	-22.8	-1.27	0.701	76.5	0.293	1.410	140.5	364.4	0.997	1.823	2.54	1.139	91.0	97.2	43.2	0.148
4-1550	4-1980	0.181	226.5	-20.8	-0.73	0.701	76.0	0.299	1.409	140.2	374.0	0.988	1.831	2.18	1.141	93.2	89.6	39.1	0.161
4-1550	4-1990	0.189	227.8	-19.2	-0.31	0.700	75.4	0.309	1.407	139.7	383.5	0.972	1.842	1.97	1.143	95.5	86.0	35.7	0.183
4-1550	4-2000	0.201	227.3	-17.9	0.05	0.699	74.4	0.323	1.404	139.3	393.1	0.950	1.859	1.84	1.144	97.9	85.7	33.2	0.213
4-1550	4-2010	0.217	227.4	-16.9	0.37	0.698	73.1	0.343	1.401	138.8	402.7	0.920	1.881	1.77	1.145	100.5	87.6	31.4	0.250
4-1550	4-2020	0.238	227.3	-16.1	0.68	0.696	71.3	0.368	1.396	138.4	412.4	0.882	1.911	1.77	1.146	103.4	91.0	30.2	0.294
4-1550	4-2030	0.265	227.0	-15.5	1.01	0.694	69.1	0.401	1.392	138.2	422.4	0.833	1.950	1.82	1.146	106.7	95.4	29.1	0.347
4-1550	4-2160	0.283	102.4	22.1	-0.68	0.631	112.3	0.490	1.247	208.3	623.2	0.635	1.858	-2.16	1.090	62.7	33.8	9.3	0.518
4-1550	4-2170	0.225	107.8	22.2	-0.28	0.626	106.7	0.439	1.236	204.1	628.7	0.693	1.780	-1.95	1.084	66.1	40.5	11.3	0.456
4-1550	4-2180	0.176	119.0	21.5	0.06	0.618	101.1	0.405	1.222	197.3	631.5	0.727	1.717	-1.83	1.078	68.2	48.5	13.4	0.415
4-1550	4-2190	0.212	189.3	-3.1	0.37	0.567	79.0	0.494	1.137	168.3	612.2	0.575	1.700	-1.77	1.047	61.0	67.5	18.7	0.525
4-1550	4-2190	0.140	146.7	15.4	0.37	0.604	93.6	0.397	1.196	185.5	629.4	0.722	1.671	-1.77	1.068	68.3	59.0	16.0	0.407
4-1550	4-2330	0.400	242.4	-24.5	-1.64	0.816	60.9	0.495	1.871	107.9	326.6	---	2.798	2.82	1.212	79.1	160.6	20.8	0.289
4-1550	4-2340	0.391	243.4	-23.6	-1.00	0.817	61.6	0.485	1.877	106.6	335.2	---	2.788	2.35	1.215	82.0	159.5	20.7	0.255
4-1550	4-2340	0.142	114.9	17.4	-1.00	0.646	99.1	0.340	1.276	198.5	787.1	0.842	1.710	2.35	1.107	105.5	31.5	23.1	0.320
4-1550	4-2350	0.385	244.2	-22.8	-0.52	0.818	62.1	0.479	1.881	105.7	344.2	---	2.782	2.07	1.217	84.9	156.0	21.8	0.229
4-1550	4-2350	0.114	135.3	14.3	-0.52	0.637	94.5	0.333	1.258	189.1	787.7	0.840	1.676	2.07	1.104	105.3	41.4	23.4	0.314
4-1600	4-1880	0.278	238.6	-16.7	1.83	0.638	71.0	0.449	1.245	152.5	267.2	---	1.804	-1.57	1.079	65.4	115.2	17.9	0.448
4-1600	4-1890	0.256	240.7	-15.9	2.15	0.651	72.7	0.412	1.271	151.2	275.4	---	1.795	-1.73	1.088	68.5	120.4	16.0	0.395
4-1600	4-1900	0.237	242.6	-14.6	2.55	0.662	74.3	0.380	1.294	150.2	284.0	---	1.786	-1.98	1.095	71.3	125.0	13.5	0.347
4-1600	4-1910	0.222	244.4	-12.6	3.10	0.671	75.6	0.352	1.314	149.4	292.8	---	1.777	-2.39	1.102	74.1	128.8	10.0	0.304
4-1600	4-1920	0.211	246.0	-9.4	3.98	0.678	76.7	0.329	1.331	148.8	301.8	---	1.769	-3.14	1.108	76.6	131.2	4.8	0.266
4-1600	4-1930	0.206	247.5	-3.2	5.75	0.683	77.5	0.311	1.344	148.4	311.1	---	1.762	-4.79	1.113	79.0	131.3	-5.3	0.239
4-1600	4-1940	0.235	248.5	13.7	11.78	0.688	78.2	0.296	1.355	148.2	320.5	---	1.756	-10.70	1.118	81.3	126.6	-31.6	0.273
4-1600	4-1960	0.187	241.8	-42.1	-5.49	0.693	79.0	0.279	1.368	147.9	340.0	---	1.750	6.82	1.126	85.7	156.1	59.1	0.189
4-1600	4-1970	0.175	245.7	-31.4	-2.36	0.694	79.1	0.275	1.372	147.6	349.6	---	1.749	3.82	1.130	87.8	136.1	48.9	0.148
4-1600	4-1980	0.175	247.1	-26.7	-1.12	0.695	79.0	0.276	1.373	147.3	359.1	---	1.752	2.70	1.133	89.8	122.7	43.5	0.137
4-1600	4-1990	0.178	247.8	-24.0	-0.41	0.695	78.7	0.279	1.373	146.8	368.7	0.989	1.756	2.14	1.135	91.9	112.6	39.3	0.142
4-1600	4-2000	0.184	248.2	-22.2	0.06	0.694	78.2	0.286	1.371	146.2	378.1	0.979	1.764	1.81	1.137	94.0	106.6	35.8	0.158
4-1600	4-2010	0.193	248.5	-21.0	0.42	0.693	77.4	0.297	1.368	145.4	387.4	0.962	1.775	1.62	1.138	96.2	104.5	33.0	0.181
4-1600	4-2020	0.206	248.7	-20.1	0.72	0.691	76.4	0.312	1.365	144.6	396.7	0.939	1.790	1.50	1.139	98.5	105.2	30.8	0.211
4-1600	4-2030	0.223	248.8	-19.6	0.98	0.690	75.0	0.331	1.360	143.7	405.9	0.910	1.811	1.44	1.139	100.9	107.9	29.0	0.246
4-1600	4-2040	0.244	248.8	-19.1	1.24	0.689	73.3	0.356	1.355	142.8	415.2	0.873	1.838	1.43	1.138	103.7	111.9	27.5	0.288
4-1600	4-2050	0.271	248.6	-18.9	1.50	0.686	71.0	0.388	1.350	142.0	424.6	0.826	1.874	1.46	1.137	106.7	116.6	26.0	0.336
4-1600	4-2180	0.257	134.9	17.7	0.08	0.614	111.2	0.504	1.200	204.7	616.9	0.595	1.805	-1.80	1.071	61.0	55.3	16.4	0.535
4-1600	4-2190	0.200	145.0	15.6	0.42	0.607	104.7	0.456	1.188	199.2	621.1	0.647	1.729	-1.62	1.065	64.2	63.0	17.8	0.477
4-1600	4-2200	0.161	145.5	9.2	0.70	0.596	97.6	0.431	1.168	190.2	621.7	0.665	1.672	-1.50	1.057	65.6	72.5	19.2	0.447
4-1600	4-2350	0.424	266.1	-25.2	-0.74	0.815	61.2	0.489	1.832	108.7	325.3	---	2.728	2.39	1.212	78.8	180.4	10.6	0.289
4-1600	4-2360	0.415	267.0	-24.3	-0.17	0.816	61.9	0.479	1.837	107.3	333.9	---	2.717	1.98	1.214	81.6	179.9	10.2	0.255
4-1600	4-2370	0.408	267.6	-23.5	0.24	0.817	62.5	0.471	1.842	106.3	343.0	---	2.710	1.71	1.217	84.6	177.1	11.2	0.227
4-1600	4-2370	0.132	151.7	13.1	0.24	0.639	98.9	0.356	1.247	196.9	793.5	0.802	1.691	1.71	1.105	107.2	59.6	25.9	0.344
4-1600	4-2380	0.405	268.0	-23.0	0.57	0.818	62.8	0.467	1.846	105.7	352.5	---	2.707	1.55	1.219	87.6	171.6	13.4	0.210
4-1600	4-2380	0.117	174.7	9.7	0.57	0.630	94.2	0.350	1.229	187.8	794.6	0.799	1.660	1.55	1.101	107.2	70.0	27.0	0.339
4-1600	4-2390	0.405	268.0	-22.5	0.85	0.818	62.8	0.467	1.848	105.6	362.5	0.985	2.711	1.46	1.220	90.8	163.9	16.2	0.209
4-1600	4-2390	0.124	194.2	-1.6	0.85	0.624	90.2	0.357	1.217	180.4	797.3	0.783	1.652	1.46	1.100	107.9	79.7	27.5	0.348
4-1600	4-2400	0.410	267.7	-22.0	1.11	0.819	62.4	0.472	1.849	106.0	373.1	0.976	2.722	1.43	1.221	94.2	155.9	18.4	0.224
4-1600	4-2400	0.144	208.6	-7.0	1.11	0.619	86.4	0.372	1.208	174.0	801.0	0.759	1.657	1.43	1.098	109.1	89.0	27.5	0.366
4-1650	4-1890	0.293	257.9	-19.8	1.81	0.624	72.7	0.463	1.178	157.3	258.9	---	1.723	-0.88	1.058	63.5	129.6	16.6	0.468
4-1650	4-1900	0.269	260.1	-19.1	1.97	0.641	74.5	0.420	1.208	156.1	267.3	---	1.715	-0.92	1.069	66.8	134.9	14.8	0.413
4-1650	4-1910	0.247	262.0	-18.2	2.15	0.654	76.1	0.383	1.234	155.2	275.9	---	1.708	-1.00	1.079	69.9	139.7	12.7	0.362
4-1650	4-1920	0.229	263.6	-17.1	2.37	0.666	77.5	0.352	1.258	154.5	284.9	---	1.700	-1.13	1.088	72.7	144.0	10.4	0.315
4-1650	4-1930	0.215	265.0	-15.6	2.67	0.675	78.7	0.325	1.278	154.1	294.2	---	1.693	-1.34	1.096	75.3	147.4	7.6	0.273
4-1650	4-1940	0.203	266.1	-13.6	3.12	0.682	79.6	0.303	1.294	153.9	303.7	---	1.686	-1.71	1.103	77.8	149.6	4.0	0.235
4-1650	4-1950	0.195	266.8	-10.1	3.95	0.688	80.4	0.286	1.307	153.9	313.4	---	1.681	-2.47	1.109	80.1	149.7	-1.9	0.203

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1650	4-1960	0.197	267.0	-1.9	6.22	0.692	90.9	0.273	1.317	153.9	323.2	---	1.677	-4.66	1.114	82.4	145.0	-16.3	0.188
4-1650	4-1980	0.179	267.9	-38.3	-3.60	0.697	81.5	0.258	1.329	153.8	343.0	---	1.673	5.35	1.122	96.5	168.6	50.3	0.160
4-1650	4-1990	0.173	268.9	-27.4	-0.84	0.698	81.6	0.256	1.332	153.5	352.7	---	1.673	2.62	1.125	88.5	149.5	38.0	0.127
4-1650	4-2000	0.174	269.3	-23.6	0.10	0.699	81.4	0.257	1.332	153.1	362.3	0.980	1.675	1.77	1.127	90.5	137.4	33.5	0.123
4-1650	4-2010	0.179	269.3	-21.7	0.58	0.698	81.0	0.262	1.331	152.4	371.7	0.983	1.680	1.36	1.129	92.4	129.2	30.7	0.132
4-1650	4-2020	0.186	269.8	-20.7	0.90	0.697	80.5	0.269	1.329	151.5	381.0	0.972	1.687	1.14	1.130	94.4	124.8	28.5	0.149
4-1650	4-2030	0.196	270.1	-20.0	1.13	0.696	79.7	0.279	1.326	150.4	390.0	0.956	1.696	1.00	1.130	96.4	123.8	26.5	0.172
4-1650	4-2040	0.208	270.4	-19.7	1.32	0.694	78.6	0.293	1.322	149.2	399.0	0.934	1.709	0.92	1.130	98.5	125.2	24.8	0.199
4-1650	4-2050	0.225	270.6	-19.5	1.48	0.692	77.3	0.311	1.317	147.8	407.8	0.907	1.727	0.88	1.129	100.8	128.4	23.1	0.232
4-1650	4-2060	0.245	270.9	-19.5	1.64	0.690	75.6	0.335	1.312	146.4	416.6	0.873	1.750	0.86	1.127	103.3	132.6	21.4	0.269
4-1650	4-2070	0.271	271.0	-19.6	1.79	0.688	73.5	0.364	1.306	145.1	425.4	0.831	1.781	0.88	1.125	106.8	137.4	19.5	0.313
4-1650	4-2200	0.251	164.1	9.1	0.88	0.614	111.0	0.512	1.160	203.4	612.3	0.566	1.755	-1.35	1.054	60.0	77.3	21.0	0.541
4-1650	4-2210	0.197	176.9	5.0	1.11	0.606	104.0	0.463	1.148	197.5	618.0	0.616	1.680	-1.01	1.048	63.1	85.5	21.4	0.483
4-1650	4-2220	0.173	200.5	-4.1	1.29	0.593	96.1	0.443	1.127	187.8	615.7	0.687	1.627	-0.93	1.040	64.9	96.8	21.4	0.458
4-1650	4-2370	0.450	290.0	-22.1	0.36	0.824	61.5	0.485	1.788	108.4	382.4	---	2.655	1.54	1.210	77.9	200.8	-2.1	0.297
4-1650	4-2380	0.439	290.7	-21.3	0.75	0.825	62.3	0.472	1.795	106.8	330.9	---	2.643	1.24	1.213	80.8	201.4	-2.5	0.261
4-1650	4-2390	0.431	291.3	-20.8	1.02	0.826	63.0	0.463	1.800	105.6	339.9	---	2.634	1.06	1.214	83.7	199.8	-2.4	0.231
4-1650	4-2390	0.157	168.3	9.6	1.02	0.655	103.4	0.377	1.235	204.2	798.5	0.769	1.701	1.06	1.105	109.0	79.3	26.1	0.368
4-1650	4-2400	0.426	291.6	-20.3	1.22	0.827	63.4	0.457	1.804	104.8	349.2	---	2.629	0.96	1.216	86.6	195.6	-0.7	0.209
4-1650	4-2400	0.127	193.8	0.6	1.22	0.642	97.0	0.354	1.210	193.2	797.6	0.782	1.638	0.96	1.098	107.6	90.9	26.4	0.342
4-1650	4-2410	0.424	291.8	-20.0	1.40	0.828	63.5	0.456	1.806	104.4	359.0	---	2.629	0.89	1.217	89.7	188.9	2.1	0.201
4-1650	4-2410	0.131	218.4	-6.9	1.40	0.634	92.6	0.353	1.196	184.9	799.5	0.774	1.618	0.89	1.094	108.1	101.2	25.8	0.342
4-1650	4-2420	0.427	291.6	-19.7	1.56	0.828	63.4	0.458	1.808	104.6	369.4	0.979	2.637	0.87	1.217	93.0	181.1	5.0	0.208
4-1650	4-2420	0.151	229.7	-12.0	1.56	0.628	88.7	0.363	1.185	177.8	802.6	0.755	1.615	0.87	1.091	109.0	110.6	24.6	0.354
4-1650	4-2430	0.435	291.1	-19.6	1.71	0.828	62.8	0.467	1.809	105.4	380.4	0.964	2.654	0.87	1.217	96.5	174.3	7.3	0.235
4-1650	4-2430	0.179	240.4	-15.1	1.71	0.624	84.9	0.381	1.177	171.6	806.6	0.729	1.625	0.87	1.088	110.4	119.5	23.1	0.375
4-1650	4-2440	0.449	290.3	-19.6	1.87	0.828	61.7	0.483	1.809	107.0	392.1	0.936	2.683	0.83	1.216	100.3	169.8	8.6	0.278
4-1650	4-2440	0.215	247.9	-17.0	1.87	0.620	80.8	0.408	1.170	166.2	811.3	0.693	1.647	0.89	1.085	112.4	127.8	21.2	0.406
4-1650	4-2450	0.259	253.2	-18.3	2.04	0.616	76.3	0.445	1.164	161.5	816.8	0.647	1.681	0.95	1.081	115.0	135.5	19.1	0.449
4-1700	4-1910	0.284	279.7	-19.7	1.86	0.632	76.1	0.438	1.133	160.6	257.4	---	1.629	-0.12	1.145	64.7	149.9	12.0	0.438
4-1700	4-1920	0.260	281.7	-18.9	1.88	0.651	77.8	0.394	1.164	159.7	266.1	---	1.623	-0.13	1.058	58.0	154.9	10.1	0.384
4-1700	4-1930	0.239	283.4	-18.2	1.91	0.666	79.2	0.356	1.192	159.1	275.2	---	1.617	-0.14	1.070	71.0	159.6	8.2	0.334
4-1700	4-1940	0.221	284.8	-17.4	1.93	0.678	80.4	0.324	1.216	158.8	284.6	---	1.610	-0.15	1.080	73.8	163.9	6.3	0.289
4-1700	4-1950	0.206	285.8	-16.6	1.97	0.688	81.5	0.298	1.236	158.8	294.3	---	1.605	-0.17	1.039	76.4	167.5	4.6	0.248
4-1700	4-1960	0.193	286.6	-15.8	2.02	0.696	82.3	0.277	1.253	158.9	304.2	---	1.600	-0.21	1.096	78.8	170.2	3.0	0.211
4-1700	4-1970	0.184	287.2	-15.0	2.11	0.701	83.0	0.261	1.266	159.1	314.4	---	1.596	-0.29	1.102	81.0	171.6	1.7	0.178
4-1700	4-1980	0.177	287.6	-13.8	2.31	0.706	83.5	0.249	1.275	159.4	324.5	---	1.593	-0.48	1.108	83.2	170.9	0.1	0.150
4-1700	4-1990	0.175	287.2	-9.6	3.29	0.709	83.8	0.241	1.282	159.5	334.7	---	1.591	-1.45	1.112	85.2	165.1	-7.1	0.130
4-1700	4-2000	0.168	289.4	-20.6	0.51	0.711	83.9	0.236	1.287	159.5	344.7	---	1.590	1.34	1.115	87.1	170.1	18.5	0.115
4-1700	4-2010	0.168	289.2	-16.9	1.40	0.711	83.9	0.234	1.289	159.2	354.5	---	1.590	0.46	1.118	89.0	159.4	13.9	0.106
4-1700	4-2020	0.171	289.4	-16.1	1.59	0.712	83.7	0.236	1.289	158.7	364.1	0.985	1.593	0.28	1.120	90.8	151.3	14.9	0.108
4-1700	4-2030	0.175	289.8	-15.9	1.68	0.711	83.4	0.240	1.288	157.8	373.4	0.979	1.596	0.21	1.120	92.6	145.5	15.9	0.118
4-1700	4-2040	0.182	290.2	-15.9	1.73	0.710	82.8	0.246	1.285	156.7	382.4	0.969	1.601	0.17	1.120	94.4	142.7	16.2	0.134
4-1700	4-2050	0.191	290.8	-16.0	1.76	0.708	82.1	0.255	1.282	155.4	391.2	0.958	1.609	0.15	1.120	96.2	142.7	15.8	0.155
4-1700	4-2060	0.203	291.4	-16.3	1.79	0.707	81.1	0.268	1.277	153.6	399.3	0.935	1.619	0.13	1.118	98.1	144.7	15.0	0.179
4-1700	4-2070	0.218	292.1	-16.5	1.82	0.704	79.9	0.283	1.272	151.8	408.2	0.912	1.633	0.13	1.116	100.1	148.0	13.6	0.207
4-1700	4-2080	0.237	292.8	-16.9	1.84	0.702	78.4	0.303	1.267	149.9	416.4	0.883	1.651	0.12	1.114	102.2	152.5	12.0	0.239
4-1700	4-2090	0.260	293.5	-17.3	1.86	0.700	76.5	0.328	1.261	148.0	424.7	0.848	1.675	0.12	1.111	104.6	157.1	10.1	0.276
4-1700	4-2100	0.280	294.1	-17.7	1.88	0.697	74.1	0.360	1.256	146.2	433.0	0.804	1.708	0.13	1.107	107.3	162.2	8.0	0.320
4-1700	4-2220	0.266	188.9	0.2	1.72	0.629	112.3	0.519	1.128	204.7	608.7	0.543	1.734	-0.18	1.060	59.2	99.8	22.8	0.544
4-1700	4-2230	0.210	201.2	-3.7	1.76	0.623	105.2	0.463	1.118	199.3	612.8	0.600	1.636	-0.15	1.036	62.8	107.8	22.1	0.478
4-1700	4-2240	0.184	222.1	-10.4	1.78	0.612	98.0	0.435	1.101	190.7	613.7	0.622	1.581	-0.14	1.029	64.6	117.5	20.8	0.444
4-1700	4-2400	0.460	314.1	-14.8	1.70	0.843	62.7	0.469	1.749	105.4	325.8	---	2.569	0.19	1.209	79.3	225.8	-16.4	0.279
4-1700	4-2410	0.450	314.7	-14.5	1.75	0.844	63.5	0.457	1.755	103.9	334.5	---	2.558	0.16	1.210	82.1	226.1	-16.6	0.246
4-1700	4-2420	0.442	315.2	-14.2	1.78	0.845	64.1	0.448	1.760	102.7	343.5	---	2.549	0.14	1.211	84.9	223.9	-15.9	0.218
4-1700	4-2420	0.140	211.6	-4.2	1.78	0.665	99.6	0.349	1.190	198.9	799.7	0.775	1.605	0.14	1.092	107.9	111.9	22.4	0.335
4-1700	4-2430	0.437	315.5	-14.0	1.80	0.846	64.5	0.443	1.764	101.9	352.9	---	2.546	0.13	1.211	87.8	218.8	-14.4	0.200
4-1700	4-2430	0.137	233.6	-10.8	1.80	0.656	94.9	0.339	1.173	189.6	800.6	0.775	1.571	0.13	1.087	107.6	122.2	20.6	0.325
4-1700	4-2440	0.437	315.6	-14.0	1.83	0.846	64.5	0.443	1.766	101.7	362.8	0.984	2.548	0.12	1.210	90.9	211.3	-11.9	0.195
4-1700	4-2440	0.153	250.1	-14.8	1.83	0.649	91.0	0.343	1.162	181.9	803.1	0.764	1.560	0.12	1.082	108.1	131.4	18.4	0.329
4-1700	4-2450	0.440	315.4	-14.0	1.85	0.846	64.3	0.447	1.768	102.0	373.3	0.978	2.557	0.12	1.209	94.1	203.4	-9.0	0.207
4-1700	4-2450	0.178	261.9	-17.1	1.85	0.644	87.3	0.355	1.153	175.1	806.5	0.744	1.563	0.12	1.078	109.1	140.0	15.9	0.301
4-1700	4-2460	0.450	315.0	-14.2	1.87	0.847	63.6	0.457	1.763	103.0	384.5	0.960	2.577	0.12	1.208	97.6	197.0	-6.6	0.237
4-1700	4-2460	0.210	270.4	-18.3	1.87	0.640	83.6	0.376	1.146	169.1	810.6	0.716	1.577	0.12	1.073	110.7	148.1	13.3	0.367
4-1700	4-2470	0.466	314.1	-14.5	1.89	0.847	62.4	0.475	1.769	104.9	396.4	0.928	2.609	0.13	1.201	101.5	193.1	-5.0	0.285
4-1700	4-2470	0.249	276.6	-19.1	1.89	0.636	79.5	0.405	1.140	163.8	815.3	0.678	1.602	0.13	1.069	112.7	155.6	10.5	0.400
4-1700	4-2480	0.296	281.0	-19.6	1.92	0.633	74.9	0.446	1.135	159.3	820.8	0.629	1.641	0.14	1.065	115.5	162.6	7.7	0.446
4-1750	4-1930	0.272	300.3	-16.9	1.71	0.644	79.3	0.417	1.084	164.3	254.4	---	1.535	0.70	1.030	65.7	170.5	5.8	0.414
4-1750	4-1940	0.247	302.1	-16.3	1.59	0.665	80.8	0.371	1.117	163.6	263.5	---	1.531	0.71	1.046	69.0	175.4	4.1	0.360
4-1750	4-1950	0.225	303.6	-15.8	1.46	0.682	82.1	0.332	1.146	163.4	273.0	---	1.527	0.74	1.059	72.0	180.2	2.5	0.312
4-1750	4-1960	0.208	304.7	-15.5	1.32	0.696	83.2	0.299	1.172	163.4	282.9	---	1.522	0.80	1.071	74.7	184.7	1.3	0.268
4-1750	4-1970	0.191	305.6	-15.5	1.14	0.706	84.1	0.273	1.193	163.3	293.1	---	1.518	0.90	1.080	77.2	188.9	0.7	0.229
4-1750	4-1980	0.178	306.4	-16.0	0.90	0.715	84.8	0.252	1.210	164.3	303.5	---	1.514	1.07	1.088	79.6	192.5	1.1	0.194
4-1750	4-1990	0.168	307.1	-17.1	0.54	0.721	85.4	0.236	1.223	164.9	314.1	---	1.511	1.36	1.095	81.7	195.5	3.2	0.164
4-1750	4-2000	0.161	308.2	-19.9	-0.13	0.725	85.9	0.224	1.233	165.4	324.6	---	1.509	1.97	1.100	83.7	198.1	9.2	0.140
4-1750	4-2010	0.159	310.8	-28.1	-2.00	0.728	86.1	0.217	1.240	165.7	335.1	---	1.508	3.78	1.104	85.6	203.9	25.6	0.134
4-1750	4-2030	0.173	301.6	5.2	5.81	0.731	86.2	0.210	1.246	165.6	355.3	---	1.508	-4.16	1.109	89.2	158.4	-36.5	0.121
4-1750	4-2040	0.164	304.8	-3.1	3.65	0.731	86.1	0.211	1.246	165.0	364.8	0.983	1.509	-2.06	1.109	90.8	161.0	-16.8	0.102
4-1750	4-2050	0.165	306.4	-6.3	2.92	0.731	85.7	0.214	1.245	164.0	374.0	0.978	1.511	-1.39	1.109	92.5	159.4	-7.2	0.106
4-1750	4-2060	0.169	307.7	-8.1	2.54	0.730	85.3	0.219	1.242	162.6	382.8	0.970	1.515	-1.08	1.108	94.0	158.9	-2.1	0.118

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1750	4-2070	0.178	309.0	-9.3	2.29	0.728	84.6	0.227	1.239	160.9	391.3	0.958	1.520	-0.91	1.107	95.6	160.1	0.4	0.135
4-1750	4-2080	0.186	310.4	-10.2	2.11	0.726	83.8	0.237	1.234	158.9	399.5	0.942	1.526	-0.80	1.104	97.2	162.7	1.2	0.155
4-1750	4-2090	0.198	311.8	-11.0	1.96	0.724	82.7	0.249	1.230	156.7	407.4	0.924	1.536	-0.74	1.101	98.9	166.5	0.9	0.177
4-1750	4-2100	0.214	313.2	-11.6	1.83	0.722	81.4	0.265	1.225	154.3	415.1	0.901	1.549	-0.71	1.098	100.7	171.0	-0.2	0.203
4-1750	4-2110	0.233	314.7	-12.2	1.70	0.719	79.9	0.284	1.219	151.9	422.7	0.873	1.566	-0.70	1.094	102.6	176.0	-1.8	0.232
4-1750	4-2120	0.257	316.1	-12.6	1.58	0.717	77.9	0.309	1.214	149.4	430.2	0.839	1.589	-0.71	1.090	104.7	181.3	-3.7	0.266
4-1750	4-2130	0.287	317.4	-13.1	1.45	0.714	75.5	0.340	1.208	147.1	437.8	0.797	1.620	-0.75	1.086	107.3	186.8	-5.1	0.308
4-1750	4-2250	0.241	220.7	-9.8	2.37	0.651	108.1	0.467	1.094	203.6	610.3	0.584	1.605	0.96	1.027	62.5	129.9	20.3	0.476
4-1750	4-2260	0.201	236.7	-13.4	2.18	0.644	101.6	0.424	1.083	196.7	612.9	0.624	1.642	0.84	1.023	65.2	138.3	18.0	0.426
4-1750	4-2270	0.196	261.0	-17.2	2.03	0.631	94.3	0.410	1.065	186.3	612.1	0.628	1.502	0.77	1.017	65.9	148.2	14.7	0.410
4-1750	4-2430	0.461	337.9	-5.1	2.41	0.868	73.9	0.454	1.711	101.7	326.8	---	2.488	-0.99	1.204	79.8	257.5	-27.2	0.276
4-1750	4-2440	0.449	338.7	-5.0	2.20	0.869	64.7	0.442	1.716	100.0	335.2	---	2.476	-0.85	1.204	82.5	258.2	-27.2	0.243
4-1750	4-2440	0.165	224.7	-7.9	2.20	0.697	102.7	0.347	1.174	206.7	802.0	0.767	1.580	-0.85	1.086	108.1	131.2	15.3	0.332
4-1750	4-2450	0.440	339.2	-5.0	2.03	0.870	65.4	0.434	1.721	98.7	344.1	---	2.467	-0.77	1.203	85.2	256.1	-27.1	0.216
4-1750	4-2450	0.145	248.1	-12.7	2.03	0.685	97.3	0.322	1.153	196.1	801.4	0.782	1.523	-0.77	1.077	106.9	141.5	12.4	0.304
4-1750	4-2460	0.435	339.6	-5.1	1.89	0.870	65.7	0.428	1.725	97.8	353.3	---	2.463	-0.72	1.202	88.0	250.7	-26.7	0.197
4-1750	4-2460	0.151	266.3	-15.4	1.89	0.678	93.5	0.317	1.146	187.6	803.1	0.779	1.502	-0.72	1.071	106.9	150.6	9.4	0.300
4-1750	4-2470	0.433	339.9	-5.2	1.77	0.871	65.9	0.427	1.727	97.5	363.0	0.990	2.464	-0.70	1.200	90.9	242.5	-25.5	0.191
4-1750	4-2470	0.168	280.0	-16.5	1.77	0.673	90.1	0.322	1.131	180.2	865.8	0.767	1.496	-0.70	1.066	107.4	159.1	6.3	0.306
4-1750	4-2480	0.437	339.9	-5.5	1.64	0.871	65.6	0.430	1.729	97.8	373.4	0.985	2.473	-0.70	1.199	94.0	233.6	-23.5	0.201
4-1750	4-2480	0.192	290.3	-16.9	1.64	0.669	86.8	0.355	1.124	173.5	809.1	0.748	1.500	-0.70	1.061	108.4	167.0	3.2	0.320
4-1750	4-2490	0.446	339.6	-5.9	1.52	0.871	65.0	0.440	1.730	98.8	384.4	0.968	2.491	-0.72	1.196	97.4	226.3	-21.3	0.229
4-1750	4-2490	0.223	298.0	-16.9	1.52	0.665	83.3	0.355	1.118	167.5	813.0	0.721	1.515	-0.72	1.056	109.9	174.6	0.1	0.343
4-1750	4-2500	0.445	339.0	-6.6	1.38	0.871	63.8	0.458	1.730	100.8	396.3	0.937	2.523	-0.77	1.195	101.2	221.6	-19.5	0.275
4-1750	4-2500	0.262	303.8	-16.8	1.38	0.662	79.4	0.385	1.113	162.1	817.5	0.684	1.541	-0.77	1.051	111.9	181.8	-3.0	0.377
4-1900	4-1940	0.384	315.4	-13.6	1.65	0.624	81.7	0.459	0.996	170.0	241.6	---	1.453	1.50	0.992	62.7	186.3	0.4	0.455
4-1800	4-1950	0.251	317.4	-13.0	1.40	0.655	83.0	0.400	1.036	169.2	250.7	---	1.451	1.44	1.014	66.5	191.3	-1.2	0.395
4-1800	4-1960	0.224	318.8	-12.7	1.15	0.680	84.2	0.350	1.073	169.1	260.3	---	1.449	1.43	1.035	69.8	196.2	-2.5	0.342
4-1800	4-1970	0.200	319.8	-12.7	0.90	0.699	85.3	0.309	1.105	169.3	270.4	---	1.446	1.45	1.049	72.9	201.1	-3.5	0.294
4-1800	4-1980	0.181	320.5	-13.2	0.63	0.714	86.2	0.275	1.132	169.9	280.9	---	1.443	1.53	1.062	75.6	205.9	-4.0	0.251
4-1800	4-1990	0.165	321.0	-14.2	0.32	0.726	87.0	0.248	1.154	170.8	291.8	---	1.441	1.66	1.072	78.1	210.3	-3.6	0.213
4-1800	4-2000	0.153	321.4	-15.8	-0.06	0.736	87.6	0.227	1.172	171.9	302.9	---	1.439	1.89	1.081	80.4	214.3	-1.8	0.180
4-1800	4-2010	0.144	322.1	-18.5	-0.59	0.742	88.1	0.212	1.186	173.0	314.1	---	1.438	2.27	1.088	82.5	217.8	2.2	0.153
4-1800	4-2020	0.139	323.4	-23.0	-1.42	0.747	88.5	0.207	1.196	174.0	325.2	---	1.437	2.96	1.092	84.4	220.9	10.3	0.134
4-1800	4-2030	0.140	326.5	-31.5	-3.05	0.750	88.7	0.193	1.203	174.6	336.0	---	1.436	4.46	1.096	86.2	225.1	25.3	0.131
4-1800	4-2040	0.175	337.0	-52.1	-8.36	0.752	88.8	0.189	1.208	174.8	346.3	---	1.436	9.65	1.098	87.8	239.7	50.3	0.199
4-1800	4-2060	0.172	308.6	19.3	7.88	0.753	88.6	0.188	1.210	174.0	366.1	0.983	1.436	-6.85	1.099	91.0	151.5	-55.9	0.151
4-1800	4-2070	0.150	314.6	7.8	4.48	0.752	88.3	0.190	1.208	172.8	375.0	0.979	1.437	-3.78	1.097	92.4	165.9	-37.5	0.114
4-1800	4-2080	0.147	318.2	2.2	3.43	0.751	87.9	0.193	1.206	171.2	383.5	0.972	1.439	-2.67	1.096	93.8	170.9	-25.6	0.112
4-1800	4-2090	0.150	32[illegible]	-1.1	2.74	0.750	87.3	0.199	1.202	169.1	391.6	0.963	1.441	-2.11	1.093	95.1	174.8	-18.9	0.121
4-1800	4-2100	0.157	32[illegible]	-3.1	2.27	0.748	86.6	0.206	1.198	166.8	399.3	0.951	1.445	-1.80	1.090	96.4	178.0	-15.5	0.135
4-1800	4-2110	0.166	326.7	-4.5	1.92	0.745	85.8	0.215	1.193	164.1	406.7	0.936	1.450	-1.61	1.086	97.8	183.7	-14.1	0.151
4-1800	4-2120	0.177	328.5	-5.5	1.63	0.743	84.7	0.226	1.188	161.2	413.8	0.919	1.457	-1.49	1.082	99.2	188.9	-14.1	0.171
4-1800	4-2130	0.192	330.2	-6.1	1.37	0.741	83.4	0.241	1.183	158.2	420.7	0.898	1.467	-1.44	1.077	100.6	194.6	-14.8	0.193
4-1800	4-2140	0.210	334.8	-6.5	1.12	0.738	81.9	0.258	1.177	155.0	427.4	0.873	1.481	-1.43	1.073	102.2	200.5	-16.1	0.218
4-1800	4-2150	0.232	[illegible]	-6.8	0.87	0.735	80.0	0.281	1.172	151.8	434.1	0.843	1.501	-1.46	1.069	104.1	206.6	-17.5	0.248
4-1800	4-2160	0.261	[illegible]	-7.0	0.60	0.733	77.7	0.309	1.167	148.6	440.8	0.806	1.528	-1.54	1.064	106.2	212.9	-19.1	0.284
4-1800	4-2170	0.294	[illegible]	-7.1	0.30	0.730	74.8	0.347	1.162	146.0	447.8	0.758	1.565	-1.68	1.060	108.9	219.1	-20.7	0.330
4-1800	4-2280	0.24[illegible]	[illegible]	-16.0	2.50	0.675	105.9	0.431	1.066	203.6	610.7	0.606	1.525	1.95	1.019	64.6	159.3	13.2	0.432
4-1800	4-2290	0.203	[illegible]	-17.2	2.11	0.668	99.9	0.394	1.055	195.9	612.7	0.640	1.471	1.70	1.016	66.9	167.5	9.8	0.390
4-1800	4-2300	0.205	[illegible]	-16.9	1.80	0.656	98.1	0.386	1.038	184.9	611.4	0.637	1.438	1.56	1.011	67.4	177.2	5.4	0.380
4-1800	4-2460	0.444	[illegible]	-6.2	2.50	0.893	65.0	0.442	1.674	98.0	325.2	---	2.414	-1.94	1.195	79.5	294.9	-29.7	0.283
4-1800	4-2470	0.431	[illegible]	-6.0	2.09	0.894	65.9	0.429	1.680	96.0	333.3	---	2.402	-1.69	1.194	82.1	296.4	-29.4	0.250
4-1800	4-2470	0.172	[illegible]	-15.5	2.09	0.719	101.2	0.319	1.141	206.4	803.7	0.777	1.505	-1.69	1.069	107.0	158.7	2.8	0.302
4-1800	4-2480	0.420	[illegible]	5.8	1.77	0.895	66.6	0.420	1.685	94.4	341.8	---	2.392	-1.55	1.192	84.6	295.6	-29.8	0.222
4-1800	4-2480	0.155	273.4	-15.8	1.77	0.710	96.8	0.299	1.124	196.6	803.9	0.788	1.460	-1.55	1.061	106.1	168.1	-1.0	0.280
4-1800	4-2490	0.413	5.1	5.6	1.50	0.895	67.1	0.413	1.689	93.3	350.6	---	2.386	-1.46	1.191	87.3	291.6	-30.8	0.201
4-1800	4-2490	0.156	289.6	-15.9	1.50	0.704	93.4	0.294	1.114	188.3	805.6	0.787	1.441	-1.46	1.054	106.0	176.7	-4.5	0.276
4-1800	4-2500	0.409	5.5	5.2	1.25	0.896	67.3	0.410	1.692	92.7	359.9	---	2.385	-1.43	1.189	90.0	284.2	-31.8	0.190
4-1800	4-2500	0.168	302.9	-15.2	1.25	0.700	90.4	0.297	1.106	180.9	808.1	0.777	1.435	-1.43	1.049	106.4	185.0	-7.8	0.281
4-1800	4-2510	0.411	5.8	4.8	1.00	0.896	67.3	0.411	1.694	92.7	369.8	0.997	2.391	-1.44	1.186	92.8	274.6	-32.2	0.193
4-1800	4-2510	0.188	313.3	-14.1	1.00	0.696	87.3	0.308	1.100	174.0	811.1	0.761	1.438	-1.44	1.043	107.2	193.1	-10.9	0.293
4-1800	4-2520	0.418	5.7	4.1	0.75	0.897	66.8	0.419	1.695	93.5	380.4	0.985	2.405	-1.44	1.184	96.0	265.3	-31.6	0.213
4-1800	4-2520	0.214	321.6	-12.9	0.75	0.693	84.2	0.326	1.094	167.7	814.6	0.738	1.451	-1.49	1.038	108.4	200.9	-13.9	0.314
4-1800	4-2530	0.433	5.4	3.3	0.46	0.897	65.8	0.434	1.696	95.3	392.0	0.960	2.431	-1.60	1.182	99.5	258.4	-30.5	0.251
4-1800	4-2530	0.248	328.2	-11.9	0.46	0.696	80.6	0.352	1.090	161.9	818.5	0.706	1.474	-1.60	1.034	110.2	208.6	-16.6	0.343
4-1800	4-2540	0.292	333.3	-11.0	0.13	0.688	76.5	0.391	1.086	156.7	823.1	0.662	1.510	-1.77	1.030	112.7	216.1	-18.9	0.386
4-1850	4-1960	0.258	324.1	-11.2	1.32	0.630	88.5	0.448	0.962	178.1	238.9	---	1.393	2.09	0.980	63.5	206.8	-6.6	0.440
4-1850	4-1970	0.221	324.8	-11.4	0.94	0.666	89.0	0.382	1.008	178.4	249.0	---	1.393	1.94	1.007	67.5	211.4	-7.6	0.376
4-1850	4-1980	0.191	324.7	-12.1	0.60	0.695	89.6	0.328	1.049	179.2	259.8	---	1.393	1.85	1.029	71.1	216.1	-8.4	0.320
4-1850	4-1990	0.168	324.0	-13.4	0.28	0.717	90.2	0.284	1.085	180.6	271.1	---	---	1.83	1.046	74.2	220.7	-8.7	0.271
4-1850	4-2000	0.150	322.8	-15.3	-0.05	0.734	90.8	0.250	1.115	182.4	283.1	---	---	1.86	1.060	77.0	225.1	-8.3	0.228
4-1850	4-2010	0.137	321.4	-17.8	-0.40	0.747	91.3	0.224	1.139	184.6	295.3	---	---	1.95	1.071	79.5	229.0	-6.9	0.191
4-1850	4-2020	0.127	320.2	-20.9	-0.79	0.756	91.7	0.205	1.158	186.8	307.6	---	---	2.13	1.080	81.8	232.2	-4.1	0.160
4-1850	4-2030	0.121	319.5	-24.7	-1.29	0.763	92.0	0.192	1.172	188.7	319.6	---	---	2.42	1.085	83.8	234.3	0.8	0.135
4-1850	4-2040	0.119	319.7	-29.4	-1.97	0.768	92.2	0.183	1.181	190.1	331.2	---	---	2.91	1.089	85.7	235.3	9.0	0.118
4-1850	4-2050	0.121	321.4	-36.3	-3.04	0.771	92.3	0.178	1.187	190.9	342.2	---	---	3.81	1.092	87.3	235.5	21.3	0.113
4-1850	4-2060	0.134	327.6	46.9	-5.16	0.772	92.3	0.175	1.190	191.0	352.5	---	---	5.75	1.092	88.9	237.3	37.9	0.132
4-1850	4-2070	0.206	345.5	64.2	-12.07	0.772	92.2	0.173	1.191	190.4	361.9	0.984	---	12.50	1.092	90.3	250.3	58.6	0.242
4-1850	4-2090	0.170	305.5	25.8	8.30	0.770	91.6	0.176	1.187	187.7	379.9	0.978	---	-8.70	1.088	92.9	347.5	-61.4	0.181

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1850	4-2100	0.134	313.3	11.9	4.78	0.769	91.2	C.178	1.183	185.5	387.6	0.972	---	-4.84	1.085	94.1	174.0	-47.0	0.131
4-1850	4-2110	0.127	319.3	4.5	3.20	0.766	90.6	C.182	1.178	182.8	395.0	0.964	---	-3.43	1.081	95.2	185.1	-36.5	0.124
4-1850	4-2120	0.127	324.8	0.5	2.31	0.764	89.9	0.187	1.173	179.7	401.9	0.954	1.393	-2.72	1.077	96.3	192.8	-30.5	0.130
4-1850	4-2130	0.131	330.1	-1.8	1.72	0.761	89.1	C.193	1.168	176.4	408.6	0.942	1.393	-2.31	1.072	97.3	199.6	-27.5	0.141
4-1850	4-2140	0.137	335.3	-3.0	1.27	0.759	88.2	C.201	1.162	172.8	414.8	0.929	1.395	-2.07	1.068	98.4	206.3	-26.2	C.154
4-1850	4-2150	0.146	340.4	-3.5	0.89	0.756	87.1	0.210	1.156	169.0	420.9	0.913	1.399	-1.92	1.063	99.5	213.1	-26.0	0.170
4-1850	4-2160	0.158	345.4	-3.5	0.56	0.753	85.8	0.222	1.150	165.1	426.7	0.895	1.406	-1.85	1.058	100.6	220.1	-26.4	0.188
4-1850	4-2170	0.173	350.2	-3.1	0.25	0.750	84.3	C.237	1.145	161.1	432.4	0.873	1.416	-1.83	1.054	101.9	227.2	-27.0	0.209
4-1850	4-2180	0.192	354.8	-2.6	-0.06	0.747	82.5	0.256	1.139	157.0	438.0	0.847	1.431	-1.86	1.050	103.4	234.5	-27.8	0.234
4-1850	4-2190	0.217	359.1	-1.9	-0.39	0.744	80.3	0.281	1.134	153.0	443.6	0.815	1.452	-1.95	1.046	105.2	241.9	-28.5	0.265
4-1850	4-2200	0.249	2.9	-1.1	-0.77	0.741	77.6	0.314	1.128	149.2	449.5	0.774	1.482	-2.11	1.042	107.4	249.3	-29.1	0.305
4-1850	4-2210	0.292	6.3	-0.5	-1.23	0.739	74.1	C.359	1.123	145.9	455.7	0.721	1.526	-2.38	1.039	110.3	256.4	-29.4	0.357
4-1850	4-2310	0.256	278.1	-18.6	2.07	0.688	105.2	C.421	1.038	203.4	609.2	0.601	1.476	2.55	1.014	65.1	188.1	2.6	0.419
4-1850	4-2320	0.225	293.0	-17.6	1.55	0.681	99.2	C.385	1.028	195.3	610.0	0.632	1.424	2.21	1.012	67.4	196.4	-1.1	0.380
4-1950	4-2330	0.215	314.6	-13.9	1.13	0.668	92.4	C.380	1.011	183.9	609.3	0.627	1.395	2.01	1.007	67.7	206.4	-5.5	0.374
4-1850	4-2490	0.409	30.5	17.1	2.00	0.909	65.8	C.432	1.642	95.4	322.3	---	2.352	-2.50	1.183	78.9	330.4	-22.7	0.294
4-1850	4-2500	0.394	31.6	16.5	1.49	0.911	66.8	C.418	1.649	93.2	330.0	---	2.339	-2.18	1.182	81.3	332.5	-21.9	0.260
4-1850	4-2510	0.213	271.6	-18.8	1.49	0.740	103.3	C.325	1.126	211.6	808.4	0.760	1.492	-2.18	1.056	107.9	184.0	-9.5	0.310
4-1850	4-2510	0.382	32.6	16.0	1.08	0.912	67.6	C.407	1.654	91.3	338.0	---	2.328	-1.99	1.180	83.7	332.8	-22.1	0.231
4-1850	4-2510	0.177	288.0	-18.5	1.08	0.730	98.4	C.294	1.107	201.3	808.0	0.782	1.432	-1.99	1.046	106.2	193.6	-13.7	0.278
4-1850	4-2520	0.373	33.4	15.5	0.73	0.913	66.2	C.399	1.658	89.9	346.4	---	2.321	-1.88	1.179	86.1	330.9	-23.4	0.207
4-1850	4-2520	0.165	303.0	-17.2	0.73	0.724	94.9	C.283	1.096	192.7	809.2	0.786	1.406	-1.88	1.039	105.7	202.8	-17.1	0.268
4-1850	4-2530	0.367	34.0	15.0	0.41	0.913	66.0	C.395	1.662	89.0	355.2	---	2.318	-1.83	1.177	88.6	325.9	-25.7	0.191
4-1850	4-2530	0.164	316.8	-15.0	0.41	0.719	91.9	C.282	1.088	184.9	811.1	0.781	1.395	-1.83	1.033	105.8	211.7	-20.0	0.269
4-1850	4-2540	0.366	34.4	14.4	0.10	0.914	66.7	C.394	1.664	88.7	364.6	1.008	2.320	-1.84	1.175	91.3	318.2	-28.3	C.188
4-1850	4-2540	0.173	328.9	-12.5	0.10	0.715	89.0	0.288	1.081	177.6	813.5	0.770	1.393	-1.84	1.028	106.3	220.5	-22.6	0.277
4-1850	4-2550	0.370	34.5	13.6	-0.21	0.914	68.4	0.398	1.666	89.1	374.7	1.002	2.329	-1.90	1.174	94.2	309.0	-30.2	0.199
4-1850	4-2550	0.191	339.3	-9.8	-0.21	0.712	86.0	C.302	1.076	170.7	816.3	0.751	1.401	-1.90	1.024	107.2	229.3	-24.8	0.293
4-1850	4-2560	0.382	34.3	12.7	-0.56	0.914	67.6	0.410	1.667	90.6	385.8	0.984	2.349	-2.02	1.172	97.4	300.7	-31.0	0.228
4-1850	4-2560	0.217	348.0	-7.3	-0.56	0.709	82.7	0.323	1.072	164.2	819.4	0.725	1.418	-2.02	1.020	108.6	238.1	-26.5	0.318
4-1850	4-2570	0.404	33.6	11.7	-0.97	0.914	66.2	C.430	1.667	93.3	398.0	0.950	2.385	-2.22	1.171	101.2	294.8	-30.9	0.277
4-1850	4-2570	0.253	355.1	-5.1	-0.97	0.707	78.9	C.355	1.066	158.4	823.1	0.688	1.447	-2.22	1.017	110.6	246.6	-27.8	0.354
4-1860	4-1930	0.483	316.6	-13.5	4.02	0.408	97.0	C.773	0.785	182.1	207.3	---	---	4.34	0.842	41.5	196.7	-3.6	0.756
4-1860	4-1940	0.394	319.8	-12.4	2.74	0.494	92.6	0.663	0.835	181.3	216.3	---	---	3.23	0.889	49.9	200.4	-4.9	0.641
4-1860	4-1950	0.326	322.2	-11.7	1.96	0.561	90.9	0.563	0.888	180.7	225.4	---	---	2.63	0.932	56.5	204.5	-6.2	0.546
4-1860	4-1960	0.272	323.6	-11.4	1.41	0.614	90.5	C.476	0.940	180.5	235.0	---	---	2.27	0.968	61.8	208.8	-7.4	0.466
4-1860	4-1970	0.231	324.1	-11.7	0.98	0.656	90.6	0.403	0.989	180.8	245.2	---	---	2.05	0.997	66.3	213.3	-8.4	0.397
4-1860	4-1980	0.198	323.7	-12.5	0.61	0.688	90.9	0.342	1.034	181.8	256.1	---	---	1.92	1.022	70.1	217.8	-9.1	0.337
4-1860	4-1990	0.172	322.5	-13.9	0.26	0.714	91.4	C.294	1.073	183.4	267.7	---	---	1.86	1.041	73.4	222.3	-9.4	0.284
4-1860	4-2000	0.153	320.8	-15.9	-0.05	0.733	91.9	0.257	1.106	185.5	279.9	---	---	1.85	1.057	76.4	226.6	-9.2	0.239
4-1860	4-2010	0.139	318.8	-18.5	-0.38	0.747	92.4	C.329	1.133	188.0	292.4	---	---	1.91	1.069	79.0	230.5	-8.1	0.199
4-1860	4-2020	0.130	316.9	-21.5	-0.75	0.758	92.7	0.208	1.154	190.5	305.0	---	---	2.03	1.078	81.3	233.6	-6.7	0.166
4-1860	4-2030	0.123	315.6	-25.0	-1.19	0.765	93.0	C.194	1.169	192.7	317.4	---	---	2.25	1.085	83.4	235.7	-1.6	0.139
4-1860	4-2040	0.120	315.1	-29.2	-1.75	0.770	93.2	0.185	1.180	194.4	329.3	---	---	2.61	1.089	85.4	236.4	5.2	0.119
4-1860	4-2050	0.121	316.0	-34.5	-2.55	0.774	93.3	C.179	1.187	195.5	340.5	---	---	3.23	1.092	87.1	235.9	15.4	0.109
4-1860	4-2060	0.127	319.4	-42.2	-3.91	0.775	93.3	0.175	1.190	195.7	350.9	---	---	4.41	1.092	88.7	235.4	29.3	0.114
4-1860	4-2070	0.151	329.0	-54.6	-6.99	0.776	93.1	C.174	1.191	195.2	360.6	0.984	---	7.32	1.092	90.1	238.8	46.5	0.155
4-1860	4-2080	0.345	3.6	-69.9	-22.74	0.775	92.9	C.173	1.190	193.9	369.1	0.984	---	22.90	1.091	91.3	268.5	69.2	0.425
4-1860	4-2090	0.280	298.0	37.9	17.84	0.774	92.7	0.175	1.187	192.7	378.8	0.979	---	-17.84	1.088	92.8	108.3	-63.9	0.336
4-1860	4-2100	0.148	307.3	18.4	6.57	0.772	92.2	0.177	1.183	190.3	386.2	0.974	---	-6.74	1.085	93.9	163.7	-55.9	0.154
4-1860	4-2110	0.129	314.3	7.3	3.89	0.770	91.6	C.180	1.170	187.6	393.5	0.966	---	-4.22	1.081	94.9	182.3	-42.9	0.130
4-1860	4-2120	0.125	320.4	1.5	2.64	0.767	91.0	C.184	1.173	184.5	400.4	0.957	---	-3.15	1.077	96.0	192.2	-34.8	0.129
4-1860	4-2130	0.126	326.3	-1.6	1.89	0.764	90.2	0.189	1.167	181.1	408.9	0.947	---	-2.57	1.072	97.0	199.8	-30.4	0.137
4-1860	4-2140	0.130	332.1	-3.2	1.35	0.762	89.4	0.195	1.161	177.4	413.1	0.934	1.388	-2.24	1.067	98.0	206.9	-28.4	0.149
4-1860	4-2150	0.136	337.9	-3.9	0.93	0.759	88.3	C.203	1.155	173.5	419.1	0.920	1.390	-2.03	1.063	99.0	214.0	-27.7	0.162
4-1860	4-2160	0.145	343.6	-3.9	0.58	0.756	87.2	0.213	1.149	169.4	424.8	0.904	1.394	-1.91	1.058	100.0	221.1	-27.7	0.176
4-1860	4-2170	0.157	349.1	-3.5	0.25	0.752	85.8	0.226	1.143	165.2	430.3	0.885	1.401	-1.85	1.053	101.2	228.4	-28.1	0.197
4-1860	4-2180	0.173	354.5	-2.7	-0.06	0.749	84.2	0.242	1.137	161.0	435.7	0.862	1.412	-1.85	1.049	102.5	235.9	-28.7	0.219
4-1860	4-2190	0.193	359.5	-1.8	-0.38	0.746	82.2	0.262	1.131	156.7	441.1	0.835	1.428	-1.91	1.045	104.0	243.5	-29.2	0.245
4-1860	4-2200	0.219	4.1	-0.8	-0.73	0.744	79.9	0.289	1.126	152.6	446.6	0.800	1.451	-2.02	1.041	105.8	251.1	-29.7	0.278
4-1860	4-2210	0.254	8.3	0.2	-1.13	0.741	76.9	0.325	1.121	148.8	452.3	0.757	1.485	-2.22	1.038	108.2	258.5	-29.9	0.320
4-1860	4-2220	0.302	11.9	1.1	-1.63	0.738	73.0	C.374	1.116	143.5	458.6	0.698	1.534	-2.53	1.035	111.4	265.7	-29.9	0.377
4-1860	4-2230	0.369	14.6	1.7	-2.32	0.736	67.6	0.445	1.112	143.5	466.1	0.617	1.606	-3.04	1.033	116.0	272.2	-29.6	0.458
4-1860	4-2240	0.470	16.0	2.0	-3.40	0.734	59.7	0.549	1.109	143.6	475.7	0.500	1.717	-3.95	1.032	123.0	277.4	-29.2	0.580
4-1860	4-2250	0.596	322.5	-18.0	-5.48	0.292	92.8	0.882	0.738	180.4	982.0	0.087	1.388	-5.87	0.783	149.4	255.8	-25.4	0.898
4-1860	4-2290	0.547	267.9	-18.9	5.13	0.696	129.4	0.683	1.046	208.9	583.1	0.331	1.760	5.36	1.012	46.9	179.4	6.2	0.727
4-1860	4-2300	0.402	270.5	-18.9	3.32	0.694	117.5	0.547	1.043	210.1	599.9	0.473	1.613	3.72	1.013	56.9	183.4	4.7	0.561
4-1860	4-2310	0.311	277.5	-18.9	2.33	0.691	109.3	0.459	1.037	206.7	606.1	0.561	1.513	2.90	1.013	62.7	189.5	2.1	0.461
4-1860	4-2320	0.574	356.4	-0.2	1.68	0.550	52.7	C.762	0.878	164.6	573.9	0.209	1.547	2.44	0.926	40.9	213.9	-11.6	0.789
4-1860	4-2320	0.252	288.9	-18.3	1.68	0.685	102.7	0.405	1.029	200.2	609.5	0.612	1.446	2.44	1.012	66.1	197.1	-1.2	0.402
4-1860	4-2330	0.472	356.2	-0.3	1.20	0.581	62.5	0.660	0.906	163.1	582.3	0.308	1.504	2.15	0.948	49.0	219.1	-12.9	0.670
4-1860	4-2330	0.221	305.9	-16.1	1.20	0.676	96.5	0.381	1.016	190.8	610.0	0.629	1.403	2.15	1.009	67.6	206.1	-5.1	0.375
4-1860	4-2340	0.337	350.8	-2.5	0.80	0.622	75.4	0.514	0.948	165.3	594.4	0.460	1.436	1.98	0.977	59.2	222.9	-13.1	0.513
4-1860	4-2340	0.236	332.3	-9.3	0.80	0.657	87.5	C.403	0.990	176.4	605.5	0.591	1.390	1.98	0.999	66.2	217.7	-10.1	0.398
4-1860	4-2420	0.508	29.8	8.5	-3.09	0.890	53.1	0.606	1.542	119.4	269.2	---	2.476	3.68	1.177	58.6	288.3	-16.3	0.618
4-1860	4-2430	0.559	32.1	6.3	-5.00	0.894	55.3	0.577	1.559	115.7	275.7	---	2.458	5.42	1.180	61.5	295.0	-11.5	0.575
4-1860	4-2440	0.547	35.2	-1.2	-10.57	0.898	57.3	C.549	1.575	112.2	282.3	---	2.440	10.82	1.182	64.3	300.8	1.1	0.557
4-1860	4-2460	0.494	26.5	28.5	9.92	0.904	61.0	0.498	1.602	105.4	296.1	---	2.400	-9.99	1.183	69.8	327.4	-39.0	0.469
4-1860	4-2470	0.455	31.6	22.6	4.99	0.906	62.6	0.477	1.614	102.3	303.0	---	2.383	-5.23	1.183	72.4	327.7	-28.8	0.402
4-1860	4-2480	0.431	34.0	20.4	3.21	0.908	64.0	0.457	1.624	99.4	310.1	---	2.365	-3.62	1.183	74.9	331.3	-24.2	0.357

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	V 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	V 2	V 2	PSI 2	R A	DECL	SPEED
4-1860	4-2490	0.411	35.7	19.3	2.25	0.910	65.3	0.439	1.652	96.7	317.3	---	2.349	-2.84	1.182	27.3	334.9	-21.5	0.318
4-1860	4-2500	0.394	37.0	18.6	1.61	0.912	66.4	0.428	1.639	94.2	324.8	---	2.335	-2.35	1.181	29.7	337.7	-20.0	0.292
4-1860	4-2510	0.379	38.1	18.0	1.14	0.913	67.3	0.412	1.645	92.1	332.5	---	2.323	-2.12	1.179	32.1	339.3	-19.5	0.249
4-1860	4-2510	0.206	281.1	-19.8	1.14	0.738	101.7	0.314	1.116	208.7	809.1	0.766	1.466	-2.12	1.050	107.3	193.1	-13.4	0.298
4-1860	4-2510	0.457	256.0	-21.7	1.14	0.789	122.5	0.550	1.221	225.4	825.8	0.549	1.892	-2.12	1.086	121.9	186.7	-6.7	0.563
4-1860	4-2520	0.368	39.0	17.5	0.76	0.914	68.1	0.402	1.650	90.4	340.6	---	2.313	-1.96	1.177	34.5	339.0	-20.1	0.222
4-1860	4-2520	0.177	296.2	-18.6	0.76	0.729	97.5	0.290	1.100	199.1	809.3	0.781	1.419	-1.96	1.041	106.1	202.6	-17.2	0.275
4-1860	4-2520	0.553	255.4	-22.4	0.76	0.805	129.4	0.646	1.261	223.6	833.8	0.454	2.067	-1.96	1.095	128.3	192.7	-8.2	0.677
4-1860	4-2530	0.360	39.7	16.9	0.42	0.915	68.6	0.395	1.654	89.1	349.0	---	2.307	-1.88	1.176	36.9	336.2	-21.8	0.200
4-1860	4-2530	0.166	316.4	-16.8	0.42	0.724	94.2	0.282	1.090	190.7	810.7	0.782	1.397	-1.88	1.034	105.8	211.8	-20.3	0.268
4-1860	4-2540	0.356	40.3	16.3	0.10	0.915	68.9	0.391	1.657	88.3	358.0	---	2.306	-1.85	1.174	39.4	330.5	-24.4	0.188
4-1860	4-2540	0.167	323.7	-14.3	0.10	0.719	91.2	0.283	1.082	183.0	812.7	0.776	1.389	-1.85	1.029	106.0	220.9	-22.9	0.271
4-1860	4-2550	0.357	40.6	15.6	-0.21	0.916	68.8	0.392	1.659	88.3	367.6	1.009	2.310	-1.87	1.173	42.1	322.2	-27.2	0.189
4-1860	4-2550	0.177	335.6	-11.3	-0.21	0.716	88.3	0.291	1.076	175.8	815.1	0.763	1.389	-1.87	1.024	104.6	[illegible].0	-25.1	0.282
4-1860	4-2560	0.363	40.5	14.8	-0.54	0.916	68.4	0.396	1.661	89.0	377.9	0.999	2.323	-1.95	1.171	45.1	[illegible].3	-29.1	0.206
4-1860	4-2560	0.195	345.8	-8.4	-0.54	0.712	85.2	0.375	1.671	168.9	817.9	0.743	1.399	-1.93	1.020	107.6	239.0	-26.9	0.300
4-1860	4-2570	0.379	40.2	13.9	-0.91	0.916	67.5	0.412	1.662	90.8	389.3	0.977	2.347	-2.10	1.170	98.5	305.8	-29.8	0.241
4-1860	4-2570	0.223	354.4	-5.6	-0.91	0.710	81.8	0.330	1.667	162.6	821.1	0.715	1.419	-2.10	1.017	109.1	247.8	-28.1	0.328
4-1860	4-2580	0.404	39.3	12.8	-1.35	0.916	65.9	0.437	1.662	94.0	402.1	0.936	2.388	-2.35	1.169	102.5	300.8	-29.7	0.296
4-1860	4-2580	0.262	1.5	-3.2	-1.35	0.707	77.7	0.366	1.063	156.8	824.9	0.674	1.453	-2.35	1.014	111.4	256.4	-28.9	0.368
4-1860	4-2590	0.447	37.7	11.5	-1.93	0.916	63.0	0.478	1.663	99.1	416.6	0.869	2.457	-2.74	1.169	107.5	297.9	-29.3	0.377
4-1860	4-2590	0.318	7.1	-1.3	-1.93	0.705	72.6	0.420	1.660	152.0	829.6	0.615	1.505	-2.74	1.012	114.7	264.5	-29.2	0.428
4-1860	4-2595	0.429	304.3	-12.4	-1.93	0.497	107.2	0.694	0.838	188.0	225.6	0.257	1.419	-2.74	0.880	132.5	241.9	-23.6	0.681
4-1860	4-2600	0.519	35.1	10.0	-2.77	0.916	58.3	0.544	1.667	106.7	433.8	0.758	2.568	-3.40	1.169	114.4	296.0	-28.8	0.494
4-1860	4-2600	0.399	11.1	0.0	-2.77	0.704	65.7	0.500	1.057	149.0	836.1	0.529	1.588	-3.40	1.011	119.9	271.5	-29.2	0.519
4-1860	4-2600	0.413	326.9	-17.0	-2.77	0.476	88.4	0.686	0.823	179.3	1226.4	0.259	1.388	-3.40	0.868	131.5	251.5	-25.7	0.667
4-1860	4-2610	0.523	12.8	0.6	-4.19	0.703	55.6	0.622	1.056	149.1	845.7	0.399	1.712	-4.66	1.010	128.4	276.7	-28.9	0.663
4-1860	4-2610	0.484	343.0	-11.5	-4.39	0.465	70.5	0.759	0.817	172.7	1229.3	0.213	1.420	-4.66	0.862	136.0	260.2	-26.9	0.735
4-1860	4-2650	0.596	302.7	-16.7	6.95	0.374	121.7	0.864	0.768	185.8	1280.9	0.105	1.432	-7.10	0.823	32.1	191.0	-0.9	0.884
4-1860	4-2660	0.577	245.0	-16.8	4.11	0.911	128.8	0.638	1.636	241.9	626.6	0.593	2.679	4.42	1.171	56.5	166.7	13.1	0.637
4-1860	4-2660	0.465	270.7	-18.9	4.11	0.680	122.5	0.616	1.022	208.2	952.9	0.392	1.652	4.42	1.002	51.9	182.0	5.1	0.640
4-1870	4-1930	0.550	315.8	-13.7	5.28	0.367	108.0	0.833	0.763	183.8	202.7	---	---	5.69	0.821	35.7	199.6	-4.7	0.832
4-1870	4-1940	0.437	319.0	-12.7	3.27	0.460	98.6	0.714	0.811	183.5	212.1	---	---	3.85	0.869	46.1	203.0	-5.9	0.695
4-1870	4-1950	0.354	321.3	-12.0	2.22	0.537	94.7	0.604	0.865	183.1	221.5	---	---	2.97	0.915	53.8	206.7	-7.0	0.586
4-1870	4-1960	0.292	322.6	-11.8	1.54	0.598	93.2	0.507	0.920	183.1	231.3	---	---	2.48	0.955	59.9	210.8	-8.1	0.496
4-1870	4-1970	0.244	322.8	-12.2	1.04	0.645	92.7	0.426	0.972	183.6	241.7	---	---	2.18	0.986	64.8	215.1	-9.1	0.420
4-1870	4-1980	0.208	322.0	-13.1	0.64	0.682	92.7	0.359	1.020	184.8	252.8	---	---	1.99	1.015	69.0	219.4	-9.8	0.355
4-1870	4-1990	0.180	320.4	-14.7	0.28	0.710	92.9	0.306	1.063	186.6	264.6	---	---	1.89	1.037	72.6	223.8	-10.1	0.298
4-1870	4-2000	0.159	318.1	-16.2	-0.05	0.731	93.2	0.265	1.099	189.1	277.1	---	---	1.85	1.054	75.7	227.9	-10.0	0.250
4-1870	4-2010	0.145	315.5	-19.3	-0.37	0.748	93.6	0.234	1.129	191.9	290.0	---	---	1.87	1.068	78.5	231.6	-9.0	0.209
4-1870	4-2020	0.135	313.0	-22.2	-0.72	0.759	93.9	0.212	1.152	194.8	303.0	---	---	1.94	1.078	80.9	234.6	-7.0	0.172
4-1870	4-2030	0.129	311.0	-25.4	-1.11	0.768	94.2	0.197	1.169	197.4	315.8	---	---	2.10	1.085	83.1	236.5	-3.5	0.143
4-1870	4-2040	0.126	310.0	-28.9	-1.58	0.773	94.3	0.187	1.181	199.4	327.9	---	---	2.36	1.089	85.1	237.0	2.2	0.121
4-1870	4-2050	0.125	310.1	-33.2	-2.22	0.777	94.4	0.181	1.189	200.6	339.4	---	---	2.80	1.092	86.9	236.0	10.7	0.108
4-1870	4-2060	0.128	312.1	-38.8	-3.18	0.779	94.4	0.177	1.193	201.0	349.9	---	---	3.58	1.093	88.5	234.2	22.3	0.106
4-1870	4-2070	0.139	317.3	-47.4	-4.95	0.779	94.2	0.175	1.194	200.6	359.6	---	---	5.18	1.093	89.9	233.8	36.6	0.123
4-1870	4-2080	0.164	333.3	-61.8	-9.80	0.779	94.0	0.175	1.192	199.4	368.5	0.984	---	9.86	1.091	91.3	241.1	54.4	0.197
4-1870	4-2100	0.195	30C.7	28.4	0.74	0.775	93.3	0.177	1.185	195.6	385.3	0.975	---	-11.01	1.085	93.7	139.5	-63.2	0.221
4-1870	4-2110	0.139	308.6	11.4	5.06	0.773	92.7	0.180	1.180	192.7	392.4	0.968	---	-5.49	1.082	94.8	176.3	-50.1	0.143
4-1870	4-2120	0.127	315.2	2.8	3.14	0.770	92.1	0.183	1.174	189.6	399.2	0.960	---	-3.74	1.077	95.8	190.5	-39.5	0.132
4-1870	4-2130	0.125	321.5	-1.6	2.13	0.767	91.4	0.187	1.168	186.1	405.6	0.950	---	-2.98	1.072	96.7	199.6	-33.5	0.136
4-1870	4-2140	0.126	327.7	-3.8	1.47	0.764	90.5	0.192	1.161	182.3	411.8	0.938	---	-2.43	1.068	97.7	207.3	-30.5	0.145
4-1870	4-2150	0.130	334.1	-4.8	0.99	0.761	89.6	0.199	1.155	178.3	417.6	0.926	1.384	-2.15	1.063	98.6	214.6	-29.2	0.157
4-1870	4-2160	0.136	340.4	-4.9	0.60	0.758	88.5	0.207	1.148	174.1	423.2	0.911	1.386	-1.98	1.058	99.6	222.0	-28.9	0.171
4-1870	4-2170	0.145	346.7	-4.4	0.26	0.754	87.2	0.217	1.142	169.8	428.6	0.894	1.390	-1.88	1.053	100.6	229.5	-29.1	0.187
4-1870	4-2180	0.157	352.9	-3.5	-0.06	0.751	85.7	0.231	1.136	165.4	433.8	0.874	1.398	-1.85	1.048	101.8	237.1	-29.4	0.207
4-1870	4-2190	0.173	358.7	-2.3	-0.37	0.748	84.0	0.248	1.130	160.9	438.9	0.850	1.409	-1.87	1.044	103.1	244.8	-29.9	0.229
4-1870	4-2200	0.194	4.2	-1.0	-0.70	0.745	81.9	0.270	1.124	156.4	444.1	0.823	1.427	-1.94	1.040	104.6	252.6	-30.2	0.257
4-1870	4-2210	0.222	9.3	0.3	-1.06	0.742	79.3	0.299	1.118	152.2	449.4	0.784	1.452	-2.08	1.037	106.6	260.3	-30.2	0.292
4-1870	4-2220	0.260	13.7	1.6	-1.49	0.739	76.0	0.338	1.113	148.3	455.1	0.737	1.490	-2.31	1.034	109.2	267.9	-30.1	0.338
4-1870	4-2230	0.313	17.5	2.7	-2.04	0.737	71.7	0.394	1.108	145.2	461.5	0.672	1.545	-2.67	1.032	112.7	274.9	-29.7	0.401
4-1870	4-2240	0.390	20.2	3.5	-2.83	0.734	65.6	0.474	1.104	143.0	469.4	0.581	1.628	-2.29	1.031	117.9	281.2	-29.1	0.493
4-1870	4-2250	0.508	21.2	3.7	-4.14	0.733	56.4	0.593	1.102	144.7	480.0	0.449	1.755	-4.43	1.030	126.1	285.8	-28.5	0.634
4-1870	4-2300	0.494	274.7	-19.1	4.13	0.695	124.5	0.629	1.039	209.7	593.3	0.386	1.693	4.63	1.012	51.1	186.5	3.2	0.658
4-1870	4-2310	0.371	278.9	-19.1	2.71	0.692	114.1	0.511	1.035	208.9	602.1	0.506	1.504	3.37	1.012	59.3	191.5	1.2	0.519
4-1870	4-2320	0.292	287.3	-18.8	1.87	0.687	106.6	0.438	1.028	204.1	607.1	0.518	1.478	2.71	1.012	64.1	198.3	-1.6	0.437
4-1870	4-2330	0.531	1.4	1.9	1.29	0.560	56.7	0.724	0.884	164.0	576.9	0.244	1.525	2.32	0.934	44.0	222.0	-14.1	0.744
4-1870	4-2330	0.242	300.4	-17.4	1.29	0.680	100.2	0.396	1.018	196.4	609.3	0.615	1.421	2.32	1.010	66.7	206.6	-5.1	0.391
4-1870	4-2340	0.420	359.8	1.1	0.34	0.594	67.3	0.610	0.916	163.4	586.2	0.359	1.476	2.08	0.957	52.7	227.0	-14.9	0.614
4-1870	4-2340	0.222	320.2	-13.2	0.34	0.669	93.4	0.385	1.002	185.4	608.2	0.616	1.388	2.08	1.005	67.3	216.5	-9.1	0.380
4-1870	4-2420	0.599	34.4	10.9	-2.61	0.888	51.7	0.624	1.525	121.6	265.2	---	2.476	3.11	1.174	56.7	290.4	-17.4	0.648
4-1870	4-2430	0.568	36.4	9.6	-3.86	0.893	54.0	0.593	1.543	117.9	271.6	---	2.458	4.18	1.177	59.8	297.3	-13.9	0.601
4-1870	4-2440	0.543	38.8	8.1	-6.51	0.896	56.2	0.564	1.560	114.3	278.1	---	2.439	6.66	1.179	62.7	303.4	-7.1	0.562
4-1870	4-2450	0.565	42.0	-8.7	-17.49	0.900	58.2	0.537	1.575	110.8	284.6	---	2.421	17.48	1.180	65.4	308.6	15.2	0.596
4-1870	4-2460	0.585	17.6	42.9	23.39	0.903	60.1	0.510	1.589	107.2	291.8	---	2.399	-23.57	1.181	68.3	353.2	-52.5	0.627
4-1870	4-2470	0.466	35.4	27.4	7.09	0.906	61.8	0.488	1.601	104.0	298.5	---	2.382	-7.43	1.181	70.8	333.1	-31.7	0.438
4-1870	4-2480	0.435	38.8	23.4	3.96	0.908	63.3	0.467	1.612	101.0	305.4	---	2.364	-4.47	1.181	73.3	335.4	-24.5	0.384
4-1870	4-2490	0.413	40.9	21.7	2.59	0.910	64.7	0.448	1.622	98.1	312.5	---	2.348	-3.27	1.180	75.8	339.0	-20.7	0.342
4-1870	4-2500	0.394	42.4	20.7	1.79	0.912	65.9	0.431	1.630	95.5	319.8	---	2.332	-2.65	1.179	78.2	342.2	-18.5	0.304
4-1870	4-2510	0.378	43.6	19.9	1.23	0.913	66.9	0.417	1.637	93.2	327.3	---	2.319	-2.28	1.178	80.5	344.6	-17.3	0.269

DEPART	ARRIVE	SPEED	R A	DECL	V 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	V 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1870	4-2510	0.283	272.3	-20.9	1.23	0.754	108.5	0.376	1.142	219.1	813.2	0.712	1.571	-2.26	1.059	111.0	191.5	-11.6	0.365
4-1870	4-2510	0.352	266.2	-21.5	1.23	0.768	114.2	0.442	1.170	223.6	817.7	0.653	1.687	-2.26	1.069	115.0	189.8	-9.7	0.437
4-1870	4-2520	0.365	44.7	19.3	0.79	0.914	67.8	0.405	1.642	91.2	335.1	---	2.308	-2.06	1.176	82.9	345.8	-17.1	0.239
4-1870	4-2520	0.203	289.6	-19.9	0.79	0.736	100.6	0.307	1.107	206.3	810.2	0.767	1.448	-2.06	1.044	107.1	202.2	-16.9	0.293
4-1870	4-2520	0.496	262.1	-22.7	0.79	0.794	124.8	0.580	1.229	224.9	828.8	0.517	1.[illegible]	-2.06	1.086	124.0	194.7	-9.6	0.600
4-1870	4-2530	0.351	45.5	18.7	0.43	0.915	68.4	0.396	1.647	89.6	343.2	---	2.299	-1.92	1.175	85.3	344.6	-18.1	0.213
4-1870	4-2530	0.178	293.8	-18.5	0.43	0.728	96.7	0.288	1.094	197.1	810.[illegible]	0.778	1.409	-1.92	1.036	106.1	211.7	-20.3	0.275
4-1870	4-2530	0.588	262.1	-23.3	0.43	0.810	131.2	0.463	1.267	222.7	836.4	0.427	2.106	-1.92	1.094	130.1	200.9	-11.3	0.708
4-1870	4-2540	0.348	46.2	18.1	-0.11	0.916	68.9	0.390	1.650	88.4	351.8	---	2.295	-1.86	1.173	87.7	340.9	-20.3	0.194
4-1870	4-2540	0.168	317.5	-16.3	-0.11	0.723	93.5	0.283	1.084	188.9	812.3	0.778	1.391	-1.86	1.029	105.9	221.1	-23.1	0.271
4-1870	4-2550	0.346	46.6	17.4	-0.21	0.916	68.1	0.388	1.653	87.9	360.9	1.011	2.295	-1.85	1.172	90.3	334.4	-23.2	0.186
4-1870	4-2550	0.169	330.4	-13.3	-0.21	0.719	90.5	0.285	1.077	181.3	814.3	0.730	1.384	-1.85	1.024	106.2	230.4	-25.3	0.276
4-1870	4-2560	0.348	46.8	16.6	-0.52	0.917	68.9	0.391	1.655	88.1	370.7	1.008	2.302	-1.85	1.170	93.0	325.9	-25.9	0.192
4-1870	4-2560	0.180	342.1	-10.0	-0.52	0.715	87.5	0.295	1.072	174.1	816.7	0.756	1.387	-1.89	1.020	106.9	239.6	-27.1	0.288
4-1870	4-2570	0.357	46.7	15.8	-0.86	0.917	68.3	0.399	1.656	89.2	381.4	0.995	2.318	-1.99	1.169	96.1	317.5	-27.7	0.215
4-1870	4-2570	0.199	352.3	-6.8	-0.86	0.712	84.3	0.312	1.067	167.3	819.5	0.734	1.400	-1.99	1.017	108.0	248.8	-28.3	0.309
4-1870	4-2580	0.375	46.1	14.8	-1.25	0.917	67.2	0.416	1.657	91.4	393.2	0.967	2.347	-2.17	1.168	99.6	310.9	-28.3	0.258
4-1870	4-2580	0.229	0.9	-3.8	-1.25	0.710	80.7	0.339	1.062	161.0	822.7	0.702	1.423	-2.17	1.014	109.7	257.8	-29.1	0.340
4-1870	4-2590	0.406	45.0	13.7	-1.73	0.917	65.2	0.446	1.658	95.2	406.5	0.919	2.306	-2.46	1.168	103.9	306.7	-28.2	0.319
4-1870	4-2590	0.272	8.0	-1.3	-1.73	0.707	76.4	0.380	1.059	155.4	826.6	0.656	1.482	-2.46	1.012	112.2	266.3	-29.4	0.386
4-1870	4-2600	0.458	43.0	12.5	-2.38	0.917	61.8	0.494	1.658	101.0	421.8	0.839	2.476	-2.92	1.168	109.4	304.3	-27.8	0.410
4-1870	4-2600	0.335	13.4	0.7	-2.38	0.706	78.8	0.441	1.656	150.9	831.8	0.590	1.522	-2.92	1.010	116.1	274.1	-29.2	0.454
4-1870	4-2600	0.415	317.6	-19.6	-2.38	0.489	100.6	0.683	0.829	185.0	1225.8	0.263	1.396	-2.92	0.872	131.5	252.0	-25.3	0.667
4-1870	4-2610	0.543	39.9	11.0	-3.35	0.918	56.3	0.572	1.659	109.8	440.1	0.710	2.607	-3.73	1.168	117.2	302.5	-27.8	0.543
4-1870	4-2610	0.428	17.1	2.1	-3.35	0.704	63.0	0.533	1.054	148.6	839.0	0.492	1.616	-3.73	1.009	122.2	280.7	-28.8	0.559
4-1870	4-2610	0.428	337.8	-13.5	-3.35	0.472	82.9	0.697	0.818	176.9	1227.2	0.248	1.389	-3.73	0.864	132.4	261.5	-26.7	0.682
4-1870	4-2620	0.573	18.1	2.5	-5.15	0.703	51.2	0.673	1.052	150.2	850.1	0.344	1.761	-5.37	1.009	132.3	285.0	-28.3	0.729
4-1870	4-2620	0.524	351.8	-8.1	-5.15	0.463	64.6	0.770	0.813	171.3	1231.1	0.187	1.438	-5.37	0.859	138.7	269.8	-27.4	0.777
4-1870	4-2660	0.580	275.8	-19.1	5.43	0.681	131.6	0.716	1.020	206.5	944.9	0.290	1.749	5.84	1.001	44.3	185.7	3.4	0.765
4-1870	4-2660	0.555	314.7	-14.0	5.43	0.368	109.8	0.836	0.764	184.1	1282.5	0.125	1.402	5.84	0.821	35.4	199.2	-4.5	0.837
4-1870	4-2670	0.538	249.4	-18.0	3.35	0.912	125.7	0.596	1.031	246.2	634.4	0.659	2.604	3.92	1.173	60.4	172.1	11.0	0.569
4-1870	4-2670	0.425	278.2	-19.0	3.35	0.680	118.5	0.572	1.018	208.0	956.1	0.436	1.600	3.92	1.003	55.1	189.5	1.9	0.587
4-1880	4-1940	0.499	317.8	-13.1	4.13	0.429	107.9	0.774	0.792	185.5	207.8	---	---	4.80	0.852	41.1	205.5	-6.4	2.764
4-1880	4-1950	0.395	320.0	-12.5	2.60	0.512	100.3	0.652	0.844	185.6	217.7	---	---	3.44	0.900	50.6	208.6	-7.8	0.634
4-1880	4-1960	0.320	321.1	-12.3	1.72	0.581	96.9	0.544	0.901	185.9	227.8	---	---	2.73	0.943	57.6	212.7	-8.8	0.531
4-1880	4-1970	0.264	321.0	-12.8	1.12	0.634	95.4	0.453	0.957	186.7	238.4	---	---	2.32	0.980	63.2	216.7	-9.7	0.446
4-1880	4-1980	0.222	319.8	-13.9	0.67	0.675	94.9	0.378	1.009	188.1	249.8	---	---	2.07	1.010	67.8	220.8	-10.4	0.374
4-1880	4-1990	0.192	317.7	-15.6	0.29	0.707	94.8	0.319	1.055	190.3	262.0	---	---	1.92	1.034	73.7	225.0	-10.8	0.313
4-1880	4-2000	0.170	314.8	-17.7	-0.05	0.731	94.9	0.275	1.095	193.2	274.9	---	---	1.84	1.053	75.0	228.9	-10.6	0.261
4-1880	4-2010	0.155	311.7	-20.2	-0.37	0.749	95.1	0.241	1.128	196.5	288.3	---	---	1.82	1.067	78.0	232.4	-9.9	0.216
4-1880	4-2020	0.145	308.7	-22.9	-0.70	0.762	95.3	0.218	1.153	199.8	301.7	---	---	1.86	1.078	80.6	235.2	-8.1	0.178
4-1880	4-2030	0.139	306.4	-25.7	-1.05	0.771	95.5	0.202	1.172	202.8	314.8	---	---	1.97	1.086	82.9	236.9	-5.1	0.147
4-1880	4-2040	0.136	304.9	-28.6	-1.46	0.777	95.6	0.192	1.186	205.0	327.3	---	---	2.16	1.091	84.9	237.1	-0.2	0.124
4-1880	4-2050	0.135	304.6	-31.9	-1.98	0.781	95.6	0.185	1.194	206.4	338.8	---	---	2.47	1.094	86.7	235.5	7.0	0.108
4-1880	4-2060	0.135	305.7	-36.1	-2.70	0.783	95.6	0.181	1.198	206.9	349.5	---	---	3.00	1.095	88.4	232.8	16.7	0.101
4-1880	4-2070	0.140	308.8	-42.0	-3.86	0.783	95.4	0.179	1.199	206.5	359.2	---	---	3.99	1.095	89.9	230.4	28.3	0.108
4-1880	4-2080	0.156	316.3	-51.8	-6.25	0.782	95.2	0.178	1.197	205.3	368.1	0.984	---	6.21	1.093	91.2	231.8	42.5	0.139
4-1880	4-2090	0.251	344.8	-67.6	-15.06	0.781	94.8	0.178	1.194	203.3	376.2	0.981	---	14.86	1.090	92.4	246.4	62.6	0.284
4-1880	4-2100	0.438	298.6	40.7	29.30	0.778	94.5	0.180	1.189	201.5	385.2	0.975	---	-29.66	1.087	93.8	93.9	-57.2	0.544
4-1880	4-2110	0.163	302.7	18.1	7.38	0.776	93.9	0.181	1.183	198.4	391.7	0.969	---	-7.90	1.083	94.7	163.1	-58.0	0.177
4-1880	4-2120	0.136	309.8	4.9	3.92	0.773	93.3	0.183	1.177	195.8	398.3	0.961	---	-4.61	1.078	95.7	187.0	-44.9	0.141
4-1880	4-2130	0.128	316.2	-1.4	2.47	0.770	92.6	0.187	1.170	191.4	404.7	0.952	---	-3.33	1.073	96.6	198.6	-36.8	0.138
4-1880	4-2140	0.126	322.7	-4.6	1.63	0.766	91.8	0.191	1.163	187.6	410.7	0.941	---	-2.67	1.068	97.5	207.3	-32.7	0.144
4-1880	4-2150	0.127	329.3	-6.0	1.06	0.763	90.8	0.196	1.156	183.4	416.4	0.929	---	-2.28	1.063	98.4	215.1	-30.7	0.154
4-1880	4-2160	0.131	336.2	-6.3	0.63	0.759	89.8	0.203	1.149	179.1	421.9	0.916	1.382	-2.05	1.058	99.3	222.7	-30.0	0.167
4-1880	4-2170	0.136	343.1	-5.8	0.26	0.756	88.6	0.212	1.142	174.7	427.1	0.900	1.384	-1.91	1.053	100.2	230.3	-29.9	0.181
4-1880	4-2180	0.145	350.0	-4.8	-0.06	0.753	87.2	0.223	1.135	170.1	432.2	0.883	1.388	-1.84	1.048	101.2	238.1	-30.1	0.198
4-1880	4-2190	0.157	356.7	-3.4	-0.37	0.749	85.6	0.237	1.129	165.4	437.1	0.862	1.396	-1.82	1.044	102.4	246.0	-30.3	0.217
4-1880	4-2200	0.174	3.1	-1.8	-0.68	0.746	83.7	0.255	1.123	160.7	442.1	0.837	1.409	-1.86	1.040	103.7	253.9	-30.5	0.241
4-1880	4-2210	0.196	9.1	-0.1	-1.01	0.743	81.4	0.278	1.117	156.1	447.0	0.806	1.428	-1.99	1.036	105.3	261.9	-30.5	0.270
4-1880	4-2220	0.227	14.5	1.6	-1.38	0.740	78.6	0.310	1.111	151.8	452.2	0.766	1.456	-2.11	1.033	107.4	269.7	-30.2	0.308
4-1880	4-2230	0.268	19.3	3.1	-1.84	0.737	75.0	0.354	1.106	148.0	457.9	0.714	1.498	-2.38	1.031	110.3	277.2	-29.7	0.359
4-1880	4-2240	0.328	23.2	4.4	-2.45	0.736	70.1	0.416	1.101	145.1	464.5	0.643	1.560	-2.81	1.029	114.2	284.0	-29.0	0.429
4-1880	4-2250	0.416	25.7	5.3	-3.35	0.732	63.1	0.508	1.098	144.0	473.0	0.540	1.655	-3.54	1.028	120.2	289.8	-28.1	0.534
4-1880	4-2260	0.553	26.1	5.5	-4.96	0.731	52.4	0.644	1.096	146.3	484.9	0.390	1.801	-4.99	1.028	129.9	293.7	-27.4	0.700
4-1880	4-2310	0.450	282.1	-19.1	3.28	0.691	120.3	0.583	1.032	209.5	596.5	0.430	1.633	4.03	1.011	54.4	194.1	-0.1	0.602
4-1880	4-2320	0.345	287.8	-19.0	2.13	0.688	111.0	0.483	1.026	206.9	603.6	0.530	1.522	3.05	1.011	61.1	199.9	-2.4	0.487
4-1880	4-2330	0.584	6.1	3.8	1.41	0.539	51.1	0.781	0.865	165.4	572.0	0.189	1.541	2.51	0.920	39.2	224.7	-15.1	0.814
4-1880	4-2330	0.276	297.7	-18.0	1.41	0.682	103.9	0.422	1.018	200.8	607.4	0.588	1.448	2.51	1.010	65.0	207.4	-5.4	0.420
4-1880	4-2340	0.482	5.9	3.6	0.90	0.571	61.1	0.682	0.892	163.8	580.2	0.284	1.500	2.19	0.942	47.4	230.2	-16.2	0.695
4-1880	4-2340	0.236	313.0	-15.4	0.90	0.673	97.4	0.393	1.006	191.8	608.2	0.611	1.401	2.19	1.007	66.9	216.5	-9.0	0.389
4-1880	4-2350	0.351	1.0	1.3	0.48	0.612	73.7	0.542	0.932	165.1	591.5	0.427	1.437	1.99	0.970	57.4	234.4	-16.3	0.542
4-1880	4-2350	0.236	337.7	-8.1	0.48	0.655	88.7	0.408	0.982	178.1	604.5	0.581	1.383	1.99	0.998	65.9	228.0	-13.2	0.404
4-1880	4-2430	0.578	41.0	12.2	-3.17	0.890	52.8	0.610	1.526	120.2	267.6	---	2.457	3.39	1.174	58.0	299.6	-15.2	0.630
4-1880	4-2440	0.548	43.1	10.3	-4.74	0.894	55.0	0.580	1.544	116.5	274.0	---	2.439	4.78	1.176	60.9	306.0	-10.7	0.585
4-1880	4-2450	0.529	45.7	4.7	-8.60	0.898	57.1	0.552	1.560	112.9	280.5	---	2.421	8.56	1.178	63.8	311.3	-0.9	0.554
4-1880	4-2470	0.494	36.1	36.2	12.48	0.904	60.9	0.499	1.588	106.0	294.1	---	2.382	-12.92	1.179	69.3	343.3	-39.3	0.501
4-1880	4-2480	0.442	41.4	27.1	5.28	0.907	62.5	0.477	1.600	102.8	300.9	---	2.364	-5.88	1.179	71.8	339.8	-25.9	0.414
4-1880	4-2490	0.416	46.1	24.1	3.17	0.909	64.0	0.457	1.611	99.8	307.8	---	2.347	-3.88	1.178	74.3	342.7	-20.4	0.367
4-1880	4-2500	0.395	47.8	22.7	2.03	0.911	65.3	0.439	1.620	97.0	315.0	---	2.331	-2.97	1.177	76.7	346.2	-17.2	0.327

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1880	4-2510	0.378	49.2	21.7	1.34	0.912	66.4	0.423	1.628	94.5	322.3	---	2.316	-2.46	1.176	79.0	349.2	-15.4	0.290
4-1880	4-2520	0.363	50.4	21.0	0.85	0.914	67.4	0.410	1.634	92.3	329.9	---	2.303	-2.16	1.175	81.4	351.1	-14.5	0.257
4-1880	4-2520	0.258	202.9	-21.1	0.85	0.747	105.7	0.349	1.124	215.1	812.7	0.732	1.517	-2.16	1.450	109.5	201.1	-15.7	0.337
4-1880	4-2520	0.413	270.3	-22.6	0.85	0.778	118.2	0.494	1.487	224.8	822.4	0.601	1.773	-2.16	1.672	118.3	197.3	-11.8	0.497
4-1880	4-2530	0.351	51.4	20.3	0.45	0.915	68.2	0.399	1.639	90.4	337.7	---	2.293	-1.98	1.173	83.7	351.4	-14.8	0.228
4-1880	4-2530	0.203	297.5	-19.9	0.45	0.734	99.8	0.304	1.100	204.1	811.5	0.766	1.435	-1.98	1.038	107.0	291.4	-19.9	0.291
4-1880	4-2530	0.531	268.5	-23.4	0.45	0.799	126.7	0.606	1.236	224.2	831.6	0.487	1.984	-1.98	1.085	125.9	202.9	-22.5	0.633
4-1880	4-2540	0.342	52.2	19.6	0.11	0.916	68.8	0.391	1.643	88.9	346.0	---	2.286	-1.87	1.172	86.1	349.5	-16.2	0.205
4-1880	4-2540	0.180	311.0	-18.1	0.11	0.727	96.0	0.288	1.088	195.3	812.3	0.774	1.402	-1.87	1.031	106.3	221.1	-22.9	0.277
4-1880	4-2550	0.336	52.7	19.0	-0.21	0.916	69.1	0.386	1.647	88.0	354.7	---	2.283	-1.83	1.171	88.5	344.9	-18.7	0.190
4-1880	4-2550	0.171	324.2	-15.5	-0.21	0.721	92.8	0.285	1.079	187.2	813.9	0.772	1.386	-1.83	1.025	106.1	230.7	-25.3	0.275
4-1880	4-2560	0.336	53.1	18.2	-0.51	0.917	69.2	0.386	1.649	87.7	364.0	4.013	2.285	-1.83	1.169	91.1	337.7	-21.8	0.186
4-1880	4-2560	0.172	336.9	-12.2	-0.51	0.717	89.8	0.289	1.073	179.6	815.9	0.763	1.382	-1.83	1.021	106.5	240.1	-27.1	0.281
4-1880	4-2570	0.340	53.1	17.4	-0.83	0.917	69.9	0.390	1.651	88.2	374.1	1.006	2.295	-1.90	1.168	93.9	329.3	-24.5	0.198
4-1880	4-2570	0.183	348.5	-8.6	-0.83	0.714	86.8	0.300	1.067	172.4	818.3	0.747	1.387	-1.90	1.017	107.2	249.6	-28.4	0.296
4-1880	4-2580	0.352	52.8	16.6	-1.18	0.917	68.2	0.402	1.652	89.7	385.1	0.988	2.315	-2.02	1.168	97.1	321.5	-26.0	0.227
4-1880	4-2580	0.204	356.7	-5.0	-1.18	0.711	83.4	0.320	1.062	165.7	821.1	0.722	1.402	-2.02	1.014	108.5	258.8	-29.1	0.319
4-1880	4-2590	0.374	52.0	15.6	-1.59	0.918	66.8	0.422	1.652	92.4	397.3	0.955	2.350	-2.22	1.167	100.9	315.9	-26.5	0.275
4-1880	4-2590	0.237	7.4	-1.8	-1.59	0.709	79.6	0.351	1.058	159.4	824.4	0.687	1.430	-2.22	1.011	110.4	267.7	-29.4	0.354
4-1880	4-2600	0.411	50.6	14.6	-2.10	0.918	64.4	0.457	1.653	96.8	411.3	0.897	2.408	-2.56	1.167	105.5	312.5	-26.4	0.346
4-1880	4-2600	0.285	14.4	0.8	-2.10	0.706	74.9	0.397	1.055	154.0	828.5	0.636	1.474	-2.56	1.010	113.3	276.1	-29.2	0.406
4-1880	4-2610	0.472	48.2	13.4	-2.82	0.918	60.4	0.514	1.653	103.5	427.5	0.803	2.503	-3.10	1.167	111.6	310.5	-26.0	0.449
4-1880	4-2610	0.355	19.7	2.9	-2.82	0.705	68.6	0.467	1.052	150.1	834.1	0.561	1.543	-3.10	1.009	117.8	283.6	-28.6	0.485
4-1880	4-2610	0.413	329.6	-16.2	-2.82	0.481	95.0	0.683	0.823	182.3	1226.3	0.261	1.285	-3.10	0.867	131.3	262.2	-26.3	0.666
4-1880	4-2620	0.574	44.3	11.9	-3.98	0.918	53.7	0.606	1.654	113.7	447.2	0.651	2.657	-4.09	1.168	120.5	308.7	-25.8	0.603
4-1880	4-2620	0.462	22.9	4.2	-3.98	0.703	59.7	0.573	1.050	148.7	842.3	0.448	1.652	-4.09	1.008	124.9	289.5	-27.9	0.608
4-1880	4-2620	0.450	347.9	-9.7	-3.98	0.467	77.3	0.716	0.814	174.8	1228.3	0.231	1.396	-4.09	0.860	133.9	271.5	-27.0	0.706
4-1880	4-2630	0.573	359.8	-4.7	-6.31	0.460	56.6	0.808	0.809	170.4	1233.5	0.155	1.463	-6.27	0.858	142.5	279.3	-27.1	0.834
4-1880	4-2670	0.524	282.3	-19.0	4.25	0.680	126.3	0.659	1.016	207.6	949.4	0.346	1.686	4.91	1.002	48.7	192.6	0.4	0.693
4-1880	4-2670	0.540	330.4	-9.5	4.25	0.351	93.7	0.830	0.756	180.8	1282.6	0.128	1.383	4.91	0.815	36.2	208.4	-8.6	0.823
4-1880	4-2680	0.508	254.3	-19.2	2.66	0.912	123.2	0.561	1.627	209.8	641.4	0.713	2.540	3.48	1.174	63.6	177.8	8.8	0.512
4-1880	4-2680	0.391	286.2	-18.9	2.66	0.679	114.9	0.535	1.014	207.1	958.7	0.472	1.556	3.48	1.004	57.7	197.4	-1.5	0.544
4-1890	4-1940	0.590	316.5	-13.5	5.70	0.410	122.7	0.842	0.782	187.2	203.2	---	---	6.46	0.842	34.3	208.0	-7.7	0.860
4-1890	4-1950	0.453	318.4	-13.0	3.18	0.491	108.5	0.708	0.829	188.1	213.9	---	---	4.10	0.887	46.3	211.1	-8.6	0.697
4-1890	4-1960	0.359	319.2	-13.0	1.98	0.565	102.1	0.586	0.886	188.9	224.4	---	---	3.06	0.933	54.8	214.5	-9.5	0.575
4-1890	4-1970	0.292	318.8	-13.6	1.24	0.624	99.3	0.483	0.945	190.1	235.5	---	---	2.50	0.973	61.3	218.2	-10.3	0.477
4-1890	4-1980	0.243	317.3	-14.8	0.72	0.670	97.7	0.400	1.001	191.9	247.3	---	---	2.16	1.006	66.4	222.0	-10.9	0.397
4-1890	4-1990	0.209	314.5	-16.5	0.30	0.705	97.1	0.335	1.052	194.6	259.9	---	---	1.96	1.032	70.7	225.9	-11.3	0.330
4-1890	4-2000	0.186	311.3	-18.7	-0.05	0.731	96.9	0.286	1.095	198.0	273.4	---	---	1.84	1.053	74.3	229.6	-11.2	0.273
4-1890	4-2010	0.170	307.8	-21.0	-0.37	0.751	96.9	0.250	1.131	201.8	287.3	---	---	1.78	1.069	77.5	232.8	-10.5	0.225
4-1890	4-2020	0.160	304.6	-23.4	-0.69	0.765	97.0	0.225	1.160	205.7	301.2	---	---	1.79	1.080	80.2	235.3	-9.0	0.185
4-1890	4-2030	0.154	302.1	-25.8	-1.01	0.775	97.1	0.209	1.181	209.0	314.7	---	---	1.85	1.088	82.6	236.6	-6.3	0.152
4-1890	4-2040	0.151	300.5	-28.2	-1.38	0.782	97.1	0.198	1.195	211.5	327.4	---	---	1.98	1.094	84.8	236.3	-2.1	0.126
4-1890	4-2050	0.149	300.0	-30.8	-1.81	0.785	97.1	0.192	1.203	213.0	339.0	---	---	2.20	1.097	86.7	234.3	4.1	0.109
4-1890	4-2060	0.149	300.6	-33.8	-2.37	0.787	97.0	0.188	1.208	213.4	349.7	---	---	2.57	1.098	88.4	230.7	12.1	0.100
4-1890	4-2070	0.150	302.7	-37.8	-3.19	0.787	96.8	0.185	1.208	212.9	359.4	---	---	3.22	1.097	89.9	227.2	21.6	0.101
4-1890	4-2080	0.156	307.0	-44.2	-4.62	0.786	96.5	0.184	1.206	211.6	368.2	0.984	---	4.47	1.096	91.3	225.9	32.5	0.116
4-1890	4-2090	0.181	317.7	-55.8	-8.02	0.785	96.2	0.183	1.201	209.6	376.3	0.981	---	7.72	1.093	92.5	230.7	47.2	0.166
4-1890	4-2100	0.451	5.6	-68.0	-29.97	0.782	95.6	0.183	1.196	206.8	383.2	0.977	---	29.50	1.089	93.5	262.6	75.2	0.542
4-1890	4-2110	0.241	298.0	30.2	13.85	0.779	95.3	0.185	1.189	204.4	391.5	0.969	---	-14.47	1.085	94.8	131.3	-63.3	0.283
4-1890	4-2120	0.153	304.7	8.7	5.31	0.776	94.6	0.187	1.182	200.9	397.9	0.961	---	-6.09	1.080	95.7	180.1	-51.4	0.159
4-1890	4-2130	0.137	311.2	-0.8	2.99	0.772	93.9	0.189	1.174	197.1	404.0	0.952	---	-3.93	1.075	96.6	196.7	-40.6	0.144
4-1890	4-2140	0.132	317.6	-5.2	1.87	0.768	93.1	0.192	1.166	193.1	409.9	0.943	---	-2.97	1.069	97.4	206.9	-34.8	0.146
4-1890	4-2150	0.130	324.2	-7.3	1.17	0.765	92.2	0.196	1.158	188.9	415.5	0.931	---	-2.45	1.064	98.3	215.3	-32.1	0.154
4-1890	4-2160	0.130	331.2	-7.9	0.67	0.761	91.1	0.201	1.151	184.5	420.8	0.919	---	-2.13	1.060	99.1	223.2	-30.9	0.164
4-1890	4-2170	0.133	338.4	-7.6	0.28	0.757	90.0	0.208	1.143	179.9	426.0	0.905	1.381	-1.94	1.053	99.9	231.1	-30.5	0.177
4-1890	4-2180	0.138	345.9	-6.6	-0.06	0.753	88.6	0.217	1.136	175.1	430.9	0.889	1.383	-1.83	1.048	100.9	239.0	-30.5	0.191
4-1890	4-2190	0.146	353.3	-5.0	-0.37	0.750	87.1	0.229	1.129	170.3	435.7	0.871	1.387	-1.78	1.044	101.9	247.0	-30.6	0.209
4-1890	4-2200	0.158	0.7	-3.2	-0.67	0.746	85.4	0.244	1.122	165.4	440.4	0.849	1.396	-1.78	1.040	103.0	255.1	-30.7	0.229
4-1890	4-2210	0.175	7.6	-1.1	-0.97	0.743	83.3	0.263	1.116	160.5	445.1	0.822	1.410	-1.84	1.036	104.4	263.2	-30.6	0.254
4-1890	4-2220	0.199	14.1	1.0	-1.31	0.739	80.9	0.289	1.110	155.8	449.9	0.789	1.431	-1.95	1.033	106.1	271.2	-30.2	0.285
4-1890	4-2230	0.232	20.0	3.0	-1.70	0.736	77.7	0.325	1.104	151.4	455.0	0.746	1.462	-2.12	1.030	108.4	279.0	-29.6	0.326
4-1890	4-2240	0.279	25.0	4.7	-2.18	0.733	73.7	0.374	1.099	147.6	460.8	0.688	1.509	-2.44	1.028	111.9	286.3	-28.7	0.382
4-1890	4-2250	0.346	28.9	6.2	-2.85	0.731	68.2	0.444	1.094	145.1	467.7	0.608	1.580	-2.93	1.027	116.1	292.9	-27.7	0.462
4-1890	4-2260	0.448	31.2	7.1	-3.89	0.729	60.2	0.549	1.091	144.7	476.9	0.493	1.690	-3.82	1.027	123.1	298.1	-26.7	0.584
4-1890	4-2310	0.556	287.4	-18.9	4.22	0.688	128.5	0.678	1.027	208.0	588.6	0.330	1.723	5.06	1.009	47.3	197.6	-1.8	0.719
4-1890	4-2320	0.414	290.2	-18.0	2.52	0.686	116.5	0.546	1.023	208.5	598.8	0.465	1.582	3.52	1.010	57.0	202.1	-3.5	0.558
4-1890	4-2330	0.323	297.3	-18.3	1.59	0.681	108.1	0.462	1.017	204.3	604.5	0.548	1.486	2.75	1.009	62.5	208.7	-6.1	0.463
4-1890	4-2340	0.537	11.0	5.7	0.97	0.548	55.5	0.744	0.871	164.9	575.0	0.223	1.520	2.32	0.928	42.5	233.1	-17.2	0.768
4-1890	4-2340	0.264	309.0	-16.5	0.97	0.674	101.2	0.413	1.007	196.9	607.0	0.591	1.423	2.32	1.008	65.6	217.1	-9.2	0.411
4-1890	4-2350	0.426	9.2	4.8	0.51	0.583	66.3	0.630	0.903	164.1	584.2	0.334	1.471	2.05	0.952	51.3	238.3	-17.8	0.638
4-1890	4-2350	0.234	327.4	-12.0	0.51	0.662	94.0	0.399	0.991	186.1	606.2	0.596	1.387	2.05	1.002	66.5	227.2	-12.7	0.396
4-1890	4-2430	0.588	45.7	14.3	-2.72	0.886	51.4	0.627	1.509	122.5	263.6	---	2.456	2.83	1.171	56.2	301.7	-16.0	0.659
4-1890	4-2440	0.556	47.7	13.2	-3.75	0.891	53.8	0.596	1.528	118.8	270.0	---	2.439	3.70	1.173	59.2	308.4	-12.5	0.611
4-1890	4-2450	0.529	49.9	10.4	-5.79	0.895	56.0	0.567	1.545	115.1	276.5	---	2.421	5.57	1.175	62.1	314.2	-6.6	0.568
4-1890	4-2460	0.524	52.4	0.7	-12.31	0.898	58.0	0.539	1.561	111.6	283.0	---	2.403	11.93	1.176	64.9	318.3	6.4	0.557
4-1890	4-2480	0.455	47.0	32.8	8.04	0.905	61.7	0.488	1.588	104.8	296.6	---	2.364	-8.73	1.177	70.3	345.8	-29.7	0.454
4-1890	4-2490	0.421	51.2	27.0	3.96	0.907	63.2	0.467	1.600	101.7	303.4	---	2.346	-4.81	1.177	72.8	348.6	-20.8	0.394
4-1890	4-2500	0.397	53.3	24.7	2.38	0.909	64.6	0.447	1.610	98.8	310.3	---	2.330	-3.29	1.176	75.2	349.8	-16.4	0.350
4-1890	4-2510	0.378	54.9	23.4	1.50	0.911	65.9	0.430	1.618	96.1	317.5	---	2.314	-2.69	1.175	77.6	351.1	-13.8	0.312

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1890	4-2520	0.361	56.2	22.5	0.91	0.912	66.9	0.415	1.625	93.6	324.9	---	2.300	-2.28	1.173	79.9	355.7	-12.3	0.277
4-1890	4-2530	0.347	57.3	21.7	0.47	0.914	67.8	0.403	1.631	91.5	332.5	---	2.289	-2.03	1.172	82.2	357.0	-11.9	0.245
4-1890	4-2530	0.250	291.6	-21.7	0.47	0.742	104.2	0.338	1.114	212.4	813.3	0.737	1.491	-2.03	1.044	109.0	210.6	-19.0	0.327
4-1890	4-2530	0.456	276.0	-23.2	0.47	0.793	120.8	0.529	1.197	224.7	825.7	0.564	1.830	-2.03	1.073	120.7	205.4	-14.3	0.539
4-1890	4-2540	0.337	58.2	21.0	0.11	0.915	68.6	0.393	1.636	89.8	340.5	---	2.279	-1.88	1.171	84.5	356.6	-12.5	0.218
4-1890	4-2540	0.203	305.0	-19.6	0.11	0.731	99.0	0.303	1.094	202.2	812.9	0.763	1.426	-1.88	1.034	107.1	220.9	-22.6	0.291
4-1890	4-2540	0.564	275.2	-23.8	0.11	0.801	128.5	0.629	1.241	223.4	834.1	0.460	2.023	-1.88	1.085	127.7	211.3	-15.3	0.664
4-1890	4-2550	0.329	58.9	20.3	-0.21	0.915	69.1	0.386	1.640	88.5	348.9	---	2.274	-1.80	1.170	86.9	353.8	-14.4	0.197
4-1890	4-2550	0.182	317.9	-17.5	-0.21	0.724	95.4	0.290	1.083	193.5	813.9	0.769	1.397	-1.80	1.027	106.5	230.7	-25.1	0.280
4-1890	4-2560	0.325	59.3	19.6	-0.51	0.916	69.3	0.383	1.643	87.8	357.8	---	2.273	-1.78	1.168	89.4	348.2	-17.3	0.186
4-1890	4-2560	0.173	330.8	-14.5	-0.51	0.719	92.2	0.268	1.075	185.5	815.5	0.765	1.384	-1.78	1.021	106.4	240.4	-27.0	0.280
4-1890	4-2570	0.326	59.5	18.8	-0.81	0.916	69.3	0.384	1.645	87.8	367.3	1.013	2.277	-1.80	1.167	92.0	340.6	-20.4	0.188
4-1890	4-2570	0.175	343.1	-10.9	-0.81	0.715	89.2	0.294	1.068	178.0	817.5	0.754	1.382	-1.80	1.017	106.8	250.1	-28.3	0.289
4-1890	4-2580	0.333	59.4	18.0	-1.13	0.917	68.8	0.391	1.646	88.6	377.7	1.002	2.290	-1.88	1.167	94.9	332.3	-22.6	0.205
4-1890	4-2580	0.187	355.0	-6.9	-1.13	0.712	86.0	0.307	1.063	170.8	819.9	0.736	1.389	-1.88	1.014	107.7	259.6	-29.1	0.306
4-1890	4-2590	0.349	58.9	17.2	-1.48	0.917	67.9	0.405	1.647	90.5	389.1	0.980	2.315	-2.02	1.166	98.3	325.5	-24.1	0.241
4-1890	4-2590	0.210	5.3	-3.1	-1.48	0.709	82.4	0.330	1.058	164.1	822.7	0.709	1.407	-2.02	1.011	109.2	268.8	-29.3	0.332
4-1890	4-2600	0.375	57.8	16.3	-1.91	0.917	66.2	0.430	1.648	93.7	401.9	0.939	2.357	-2.26	1.166	102.3	320.8	-24.5	0.296
4-1890	4-2600	0.246	14.0	0.2	-1.91	0.707	78.3	0.365	1.054	158.0	826.1	0.669	1.439	-2.26	1.009	111.3	277.6	-29.0	0.372
4-1890	4-2610	0.420	56.0	15.3	-2.46	0.917	63.3	0.472	1.648	98.9	416.5	0.870	2.426	-2.64	1.167	107.3	310.1	-24.3	0.377
4-1890	4-2610	0.299	21.0	3.0	-2.46	0.704	73.1	0.418	1.051	152.9	830.6	0.6	1.490	-2.64	1.008	114.7	285.7	-28.3	0.431
4-1890	4-2610	0.456	318.5	-19.1	-2.46	0.497	110.0	0.707	0.833	188.9	1226.6	0.244	1.422	-2.64	0.876	133.5	262.4	-25.7	0.700
4-1890	4-2620	0.492	53.1	14.2	-3.27	0.917	58.6	0.540	1.649	106.6	433.8	0.759	2.538	-3.28	1.167	114.2	316.4	-24.0	0.495
4-1890	4-2620	0.379	26.0	5.1	-3.27	0.703	66.1	0.498	1.048	149.5	836.7	0.526	1.571	-3.28	1.008	119.9	292.7	-27.4	0.522
4-1890	4-2620	0.418	340.7	-12.4	-3.27	0.473	89.6	0.691	0.817	179.8	1227.0	0.253	1.381	-3.28	0.863	141.8	272.4	-26.6	0.675
4-1890	4-2630	0.505	28.6	6.3	-4.65	0.702	55.8	0.621	1.047	149.4	846.1	0.396	1.697	-4.51	1.008	128.4	297.8	-26.4	0.667
4-1890	4-2630	0.479	357.3	-5.8	-4.65	0.461	71.2	0.742	0.810	173.1	1229.8	0.209	1.411	-4.51	0.858	136.1	281.3	-26.7	0.742
4-1890	4-2680	0.594	264.0	-19.9	3.26	0.912	128.4	0.631	1.621	242.2	627.5	0.598	2.644	4.17	1.173	57.0	184.4	5.3	0.627
4-1890	4-2680	0.477	289.4	-18.8	3.26	0.678	121.8	0.612	1.012	207.8	953.0	0.393	1.632	4.17	1.003	52.3	200.0	-2.8	0.634
4-1890	4-2690	0.485	259.5	-20.4	2.02	0.912	121.1	0.532	1.622	252.6	647.7	0.758	2.485	3.10	1.176	66.4	183.6	6.3	0.464
4-1890	4-2690	0.364	294.5	-18.5	2.02	0.676	111.8	0.505	1.010	205.6	960.6	0.500	1.519	3.10	1.005	59.7	205.6	-5.0	0.510
4-1900	4-1950	0.540	316.8	-13.6	4.16	0.483	120.6	0.775	0.824	190.5	209.9	---	---	5.15	0.883	40.4	213.1	-9.3	0.785
4-1900	4-1960	0.415	317.4	-13.7	2.36	0.554	109.5	0.637	0.877	192.1	221.3	---	---	3.51	0.927	51.1	216.1	-10.1	0.632
4-1900	4-1970	0.332	316.5	-14.4	1.40	0.617	104.1	0.520	0.938	193.8	232.9	---	---	2.71	0.969	58.9	219.4	-10.8	0.516
4-1900	4-1980	0.274	314.5	-15.6	0.78	0.667	101.4	0.426	0.998	196.3	245.3	---	---	2.27	1.005	64.8	222.9	-11.4	0.425
4-1900	4-1990	0.235	311.5	-17.4	0.32	0.706	100.1	0.353	1.054	199.6	258.6	---	---	2.00	1.033	69.6	226.5	-11.7	0.350
4-1900	4-2000	0.209	308.0	-19.5	-0.05	0.735	99.4	0.299	1.102	203.6	272.7	---	---	1.83	1.055	73.6	229.8	-11.6	0.287
4-1900	4-2010	0.192	304.3	-21.7	-0.38	0.756	99.1	0.261	1.142	208.1	287.2	---	---	1.74	1.072	77.0	232.6	-11.0	0.235
4-1900	4-2020	0.181	301.1	-23.8	-0.68	0.771	99.0	0.235	1.173	212.5	301.7	---	---	1.71	1.085	79.9	234.7	-9.7	0.192
4-1900	4-2030	0.175	298.6	-25.8	-0.99	0.781	98.9	0.219	1.195	216.1	315.5	---	---	1.73	1.093	82.4	235.5	-7.3	0.157
4-1900	4-2040	0.171	297.1	-27.7	-1.31	0.788	98.8	0.208	1.210	218.8	328.3	---	---	1.81	1.099	84.7	234.7	-3.6	0.130
4-1900	4-2050	0.169	296.6	-29.6	-1.68	0.792	98.8	0.201	1.219	220.3	340.0	---	---	1.97	1.102	86.7	232.0	1.8	0.111
4-1900	4-2060	0.168	297.0	-31.8	-2.14	0.793	98.6	0.197	1.223	220.6	350.5	---	---	2.23	1.103	88.4	227.8	8.5	0.100
4-1900	4-2070	0.167	298.6	-34.6	-2.75	0.793	98.4	0.195	1.222	220.0	360.1	0.984	---	2.67	1.102	90.0	223.5	16.0	0.099
4-1900	4-2080	0.168	301.5	-38.7	-3.70	0.792	98.1	0.193	1.219	218.5	368.7	0.984	---	3.45	1.100	91.4	221.0	24.3	0.107
4-1900	4-2090	0.175	306.9	-45.7	-5.50	0.789	97.7	0.192	1.213	216.3	376.7	0.980	---	5.09	1.096	92.7	222.3	34.7	0.131
4-1900	4-2100	0.219	323.0	-60.0	-10.83	0.786	97.2	0.191	1.206	213.6	383.9	0.976	---	10.26	1.092	93.8	231.5	52.1	0.212
4-1900	4-2120	0.190	300.4	16.5	8.39	0.779	96.0	0.192	1.189	207.0	397.7	0.961	---	-9.25	1.082	95.8	164.0	-59.2	0.205
4-1900	4-2130	0.153	307.0	0.9	3.86	0.775	95.3	0.193	1.180	203.1	403.7	0.952	---	-4.87	1.077	96.7	193.2	-45.1	0.155
4-1900	4-2140	0.143	313.2	-5.5	2.21	0.770	94.5	0.195	1.171	199.0	409.4	0.943	---	-3.38	1.071	97.5	206.0	-37.2	0.150
4-1900	4-2150	0.138	319.5	-8.4	1.31	0.766	93.5	0.198	1.163	194.6	414.9	0.932	---	-2.65	1.065	98.3	215.2	-33.4	0.156
4-1900	4-2160	0.135	326.2	-9.5	0.73	0.762	92.5	0.202	1.154	190.0	420.1	0.921	---	-2.23	1.060	99.0	223.5	-31.6	0.164
4-1900	4-2170	0.134	333.4	-9.5	0.29	0.758	91.4	0.208	1.146	185.3	425.1	0.908	---	-1.98	1.054	99.8	231.6	-31.0	0.175
4-1900	4-2180	0.136	341.0	-8.6	-0.06	0.754	90.1	0.215	1.138	180.4	429.9	0.893	---	-1.83	1.049	100.6	239.7	-30.8	0.188
4-1900	4-2190	0.140	348.9	-7.1	-0.37	0.750	88.7	0.224	1.130	175.5	434.5	0.877	1.383	-1.74	1.044	101.5	247.8	-30.8	0.203
4-1900	4-2200	0.148	356.9	-5.1	-0.67	0.746	87.1	0.236	1.123	170.4	439.0	0.857	1.388	-1.71	1.040	102.5	256.0	-30.7	0.221
4-1900	4-2210	0.160	4.8	-2.7	-0.95	0.742	85.2	0.253	1.116	165.3	443.5	0.834	1.397	-1.73	1.036	103.7	264.2	-30.5	0.242
4-1900	4-2220	0.178	12.4	-0.2	-1.25	0.738	82.9	0.274	1.109	160.3	448.0	0.805	1.413	-1.80	1.033	105.2	272.4	-30.1	0.269
4-1900	4-2230	0.203	19.4	2.3	-1.59	0.735	80.2	0.302	1.103	155.5	452.7	0.769	1.436	-1.92	1.030	107.0	280.4	-29.4	0.303
4-1900	4-2240	0.240	25.6	4.5	-1.99	0.732	76.7	0.341	1.097	151.1	457.9	0.722	1.472	-2.14	1.028	109.5	288.1	-28.4	0.348
4-1900	4-2250	0.292	30.8	6.5	-2.50	0.729	72.2	0.397	1.092	147.4	463.8	0.659	1.525	-2.48	1.026	113.0	295.2	-27.2	0.410
4-1900	4-2260	0.369	34.7	8.0	-3.23	0.726	69.9	0.477	1.088	145.3	471.2	0.569	1.606	-3.05	1.025	118.3	301.3	-25.9	0.502
4-1900	4-2270	0.487	36.6	9.0	-4.45	0.725	68.5	0.597	1.085	146.0	481.4	0.437	1.733	-4.12	1.025	126.5	305.9	-24.8	0.644
4-1900	4-2320	0.505	294.4	-18.5	3.13	0.682	123.7	0.623	1.019	208.2	592.2	0.378	1.[illegible]	4.20	1.008	51.0	205.0	-5.0	0.657
4-1900	4-2330	0.383	298.8	-18.2	1.84	0.679	113.2	0.516	1.014	206.5	600.4	0.491	1.[illegible]	3.07	1.008	59.0	210.6	-7.0	0.524
4-1900	4-2340	0.587	15.6	7.6	1.08	0.524	90.1	0.799	0.853	166.5	570.2	0.172	1.534	2.47	0.914	37.6	235.8	-18.0	0.838
4-1900	4-2340	0.304	307.5	-17.1	1.08	0.673	105.3	0.446	1.006	200.9	604.7	0.557	1.455	2.47	1.007	63.5	218.1	-9.7	0.447
4-1900	4-2350	0.484	15.2	7.2	0.55	0.557	80.5	0.700	0.880	164.7	578.5	0.264	1.496	2.12	0.937	46.1	241.4	-18.8	0.717
4-1900	4-2350	0.254	321.5	-14.0	0.55	0.664	98.2	0.412	0.994	192.0	605.7	0.584	1.403	2.12	1.004	65.7	227.4	-12.8	0.410
4-1900	4-2360	0.352	9.5	4.5	0.14	0.600	73.6	0.558	0.920	166.0	589.8	0.407	1.434	1.91	0.965	56.3	245.7	-18.8	0.561
4-1900	4-2360	0.245	345.7	-5.9	0.14	0.644	88.8	0.426	0.969	178.4	602.1	0.556	1.383	1.91	0.994	64.8	239.3	-16.3	0.425
4-1900	4-2430	0.599	50.6	16.2	-2.40	0.881	50.0	0.645	1.492	125.0	259.7	---	2.455	2.41	1.167	54.3	303.7	-16.4	0.689
4-1900	4-2440	0.565	52.5	15.4	-3.14	0.886	52.5	0.613	1.512	121.2	266.1	---	2.438	2.98	1.170	57.4	310.6	-13.5	0.639
4-1900	4-2450	0.534	54.5	13.8	-4.32	0.891	54.8	0.582	1.530	117.5	272.5	---	2.421	4.05	1.172	60.4	316.8	-9.2	0.592
4-1900	4-2460	0.510	56.6	9.6	-7.15	0.895	56.9	0.553	1.547	113.8	278.9	---	2.402	6.67	1.174	63.3	321.9	-1.6	0.554
4-1900	4-2470	0.557	57.8	49.2	-20.58	0.898	58.8	0.527	1.562	110.4	285.4	---	2.385	19.95	1.175	66.0	324.7	25.1	0.613
4-1900	4-2480	0.509	44.2	45.6	17.10	0.901	60.8	0.500	1.576	106.8	292.4	---	2.363	-17.88	1.175	68.8	1.6	-40.6	0.555
4-1900	4-2490	0.428	56.0	30.9	5.53	0.904	62.4	0.477	1.588	103.7	299.1	---	2.346	-6.46	1.175	71.3	351.0	-22.6	0.425
4-1900	4-2500	0.400	58.8	26.9	2.92	0.906	63.9	0.457	1.599	100.6	305.9	---	2.329	-4.01	1.174	73.7	353.3	-16.1	0.375
4-1900	4-2510	0.379	60.6	25.0	1.73	0.908	65.2	0.438	1.608	97.8	312.9	---	2.313	-2.97	1.173	76.1	356.6	-12.6	0.334

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1900	4-2520	0.360	62.0	23.8	1.01	0.910	66.4	0.422	1.616	95.2	320.1	---	2.298	-2.42	1.172	78.5	359.6	-10.4	0.297
4-1900	4-2530	0.345	63.2	22.9	0.51	0.912	67.4	0.408	1.623	92.9	327.6	---	2.285	-2.10	1.171	80.8	1.7	-9.3	0.263
4-1900	4-2540	0.333	64.2	22.1	0.12	0.913	68.2	0.396	1.629	91.0	335.3	---	2.274	-1.90	1.170	83.1	2.4	-9.3	0.233
4-1900	4-2540	0.246	299.7	-20.8	0.12	0.737	103.2	0.333	1.106	210.0	814.4	0.738	1.475	-1.90	1.038	108.8	220.2	-21.7	0.323
4-1900	4-2540	0.493	382.2	-23.3	0.12	0.786	123.0	0.558	1.205	224.3	828.6	0.532	1.877	-1.90	1.073	122.8	213.8	-16.7	0.575
4-1900	4-2550	0.323	65.0	21.4	-0.22	0.914	68.9	0.388	1.633	89.4	343.4	---	2.267	-1.78	1.168	85.4	1.1	-10.4	0.208
4-1900	4-2550	0.205	312.1	-19.0	-0.22	0.727	98.4	0.304	1.089	200.3	814.3	0.758	1.420	-1.78	1.029	107.2	230.5	-24.7	0.294
4-1900	4-2550	0.595	282.1	-23.7	-0.22	0.803	130.2	0.651	1.247	222.5	836.4	0.435	2.058	-1.78	1.084	129.4	219.9	-27.8	0.693
4-1900	4-2560	0.317	65.6	20.6	-0.51	0.914	69.3	0.383	1.637	88.4	352.0	---	2.263	-1.72	1.167	87.8	357.3	-12.7	0.191
4-1900	4-2560	0.185	324.6	-16.6	-0.51	0.721	94.8	0.293	1.078	191.8	815.4	0.762	1.394	-1.72	1.023	106.7	240.5	-26.7	0.286
4-1900	4-2570	0.315	65.9	19.9	-0.80	0.915	69.4	0.381	1.639	87.9	361.1	1.015	2.264	-1.71	1.167	90.3	350.9	-15.8	0.184
4-1900	4-2570	0.176	337.3	-13.3	-0.80	0.716	91.6	0.293	1.070	183.9	817.0	0.757	1.383	-1.71	1.018	106.8	250.4	-28.1	0.288
4-1900	4-2580	0.318	65.9	19.1	-1.09	0.915	69.2	0.384	1.641	88.2	370.9	1.011	2.271	-1.75	1.166	93.0	342.9	-18.9	0.192
4-1900	4-2580	0.178	349.8	-9.3	-1.09	0.712	88.4	0.300	1.004	176.3	819.1	0.744	1.383	-1.75	1.014	107.3	260.1	-28.8	0.298
4-1900	4-2590	0.328	65.6	18.4	-1.41	0.915	68.6	0.393	1.642	89.4	381.6	0.996	2.288	-1.85	1.166	96.1	335.2	-21.0	0.216
4-1900	4-2590	0.191	1.5	-5.0	-1.41	0.709	85.1	0.316	1.059	169.2	821.5	0.724	1.393	-1.85	1.011	108.3	269.6	-29.0	0.318
4-1900	4-2600	0.347	64.9	17.6	-1.77	0.916	67.4	0.411	1.643	91.7	393.5	0.968	2.318	-2.01	1.166	99.6	329.3	-22.0	0.256
4-1900	4-2600	0.216	11.9	-1.0	-1.77	0.706	81.3	0.343	1.054	162.6	824.4	0.693	1.415	-2.01	1.009	109.9	278.7	-28.7	0.348
4-1900	4-2610	0.379	63.5	16.8	-2.21	0.916	65.3	0.441	1.643	95.6	406.9	0.918	2.369	-2.26	1.166	103.9	325.6	-24.2	0.322
4-1900	4-2610	0.256	20.6	2.5	-2.21	0.704	76.8	0.383	1.050	156.6	828.0	0.648	1.452	-2.26	1.008	112.4	287.3	-27.9	0.393
4-1900	4-2620	0.432	61.3	16.0	-2.81	0.916	61.9	0.491	1.644	101.5	422.3	0.837	2.451	-2.71	1.167	109.5	323.5	-22.1	0.415
4-1900	4-2620	0.317	27.6	5.3	-2.81	0.701	71.1	0.444	1.047	151.9	832.8	0.583	1.512	-2.71	1.007	116.3	295.0	-26.8	0.461
4-1900	4-2620	0.436	331.0	-15.4	-2.81	0.483	103.1	0.697	0.824	185.9	1226.7	0.250	1.399	-2.71	0.869	132.5	272.7	-25.9	0.687
4-1900	4-2630	0.520	57.8	15.0	-3.72	0.916	56.2	0.571	1.644	110.4	440.8	0.705	2.584	-3.47	1.168	117.3	322.0	-21.8	0.550
4-1900	4-2630	0.410	32.3	7.3	-3.72	0.700	63.1	0.537	1.045	149.4	839.8	0.484	1.605	-3.47	1.007	122.4	301.4	-25.6	0.567
4-1900	4-2630	0.431	351.2	-8.3	-3.72	0.465	84.1	0.706	0.812	177.5	1227.9	0.239	1.385	-3.47	0.860	133.0	282.4	-26.1	0.695
4-1900	4-2640	0.557	33.9	8.3	-5.41	0.699	51.0	0.678	1.044	150.8	850.8	0.336	1.751	-5.00	1.008	132.6	305.5	-24.6	0.740
4-1900	4-2640	0.318	6.1	-2.0	-5.41	0.454	64.3	0.776	0.806	171.7	1231.7	0.180	1.432	-5.00	0.857	139.3	290.7	-25.6	0.790
4-1900	4-2680	0.542	294.8	-18.2	4.30	0.676	131.0	0.713	1.010	206.0	944.9	0.290	1.730	5.29	1.002	44.5	203.6	-4.6	0.761
4-1900	4-2680	0.563	334.4	-8.1	4.30	0.348	105.0	0.845	0.754	382.8	1281.7	0.117	1.391	5.29	0.817	34.5	218.2	-12.0	0.848
4-1900	4-2690	0.558	268.8	-20.8	2.42	0.910	125.5	0.593	1.616	246.0	634.7	0.658	2.574	3.56	1.175	60.6	190.0	2.7	0.564
4-1900	4-2690	0.438	296.9	-18.3	2.42	0.675	117.9	0.572	1.008	207.1	955.8	0.432	1.585	3.56	1.004	55.1	207.8	-6.1	0.587
4-1900	4-2700	0.467	265.0	-21.5	1.44	0.910	119.5	0.508	1.617	254.9	653.5	0.795	2.438	2.74	1.178	68.8	189.5	3.7	0.423
4-1900	4-2700	0.340	303.3	-17.6	1.44	0.672	108.9	0.481	1.005	203.5	962.1	0.522	1.488	2.74	1.005	61.3	214.3	-8.4	0.484
4-1910	4-1960	0.499	315.4	-14.3	2.96	0.556	119.7	0.699	0.882	195.4	218.3	---	---	4.18	0.931	46.2	217.5	-10.6	0.711
4-1910	4-1970	0.389	314.3	-15.1	1.63	0.619	110.7	0.564	0.941	198.1	230.8	---	---	3.00	0.971	55.8	220.4	-11.2	0.568
4-1910	4-1980	0.317	312.0	-16.5	0.87	0.670	106.1	0.457	1.005	201.3	244.0	---	---	2.39	1.008	62.8	223.5	-11.7	0.459
4-1910	4-1990	0.270	308.7	-18.2	0.35	0.711	103.7	0.376	1.065	205.4	258.1	---	---	2.04	1.038	68.3	226.6	-12.0	0.374
4-1910	4-2000	0.240	305.0	-20.2	-0.05	0.742	102.4	0.317	1.118	210.3	273.0	---	---	1.83	1.061	72.7	229.5	-11.9	0.304
4-1910	4-2010	0.221	301.4	-22.1	-0.39	0.764	101.7	0.276	1.161	215.5	288.2	---	---	1.70	1.079	76.4	231.9	-11.4	0.247
4-1910	4-2020	0.210	298.3	-23.9	-0.69	0.780	101.3	0.250	1.195	220.3	303.2	---	---	1.63	1.092	79.6	233.4	-10.1	0.200
4-1910	4-2030	0.203	296.1	-25.6	-0.98	0.790	101.0	0.233	1.219	224.2	317.3	---	---	1.62	1.101	82.3	233.6	-8.0	0.163
4-1910	4-2040	0.198	294.8	-27.1	-1.27	0.797	100.9	0.223	1.235	226.9	330.1	---	---	1.67	1.106	84.7	232.1	-4.6	0.134
4-1910	4-2050	0.195	294.4	-28.6	-1.59	0.800	100.7	0.216	1.243	228.2	341.6	---	---	1.77	1.109	86.8	228.7	-0.0	0.114
4-1910	4-2060	0.192	294.9	-30.2	-1.97	0.801	100.4	0.212	1.245	228.4	352.0	---	---	1.95	1.109	88.6	223.9	5.6	0.104
4-1910	4-2070	0.190	296.2	-32.1	-2.44	0.800	100.1	0.208	1.243	227.5	361.2	0.984	---	2.25	1.108	90.2	219.2	11.5	0.101
4-1910	4-2080	0.188	298.4	-34.8	-3.12	0.798	99.8	0.206	1.238	225.8	369.7	0.983	---	2.75	1.105	91.6	216.1	17.5	0.106
4-1910	4-2090	0.189	302.0	-38.9	-4.22	0.795	99.3	0.204	1.230	223.4	377.4	0.980	---	3.71	1.102	92.9	216.1	24.5	0.120
4-1910	4-2100	0.199	308.8	-47.0	-6.59	0.791	98.8	0.202	1.221	220.4	384.5	0.974	---	5.93	1.097	94.0	220.7	35.7	0.151
4-1910	4-2110	0.292	337.2	-64.5	-16.52	0.787	98.2	0.201	1.211	216.9	391.0	0.968	---	15.71	1.092	95.0	235.1	59.6	0.308
4-1910	4-2120	0.333	299.2	33.4	20.07	0.782	97.6	0.201	1.200	213.5	398.0	0.959	---	-21.02	1.086	96.1	121.1	-61.3	0.400
4-1910	4-2130	0.178	303.6	5.0	5.50	0.777	96.8	0.201	1.190	209.4	403.6	0.951	---	-6.60	1.080	96.9	186.0	-51.3	0.178
4-1910	4-2140	0.159	309.7	-5.1	2.74	0.773	96.0	0.202	1.179	205.1	409.2	0.942	---	-3.97	1.074	97.7	204.3	-40.0	0.159
4-1910	4-2150	0.151	315.6	-9.2	1.52	0.768	95.0	0.203	1.169	200.5	414.5	0.932	---	-2.91	1.068	98.4	214.9	-34.6	0.160
4-1910	4-2160	0.145	321.9	-10.9	0.81	0.763	94.0	0.206	1.159	195.8	419.5	0.921	---	-2.35	1.062	99.1	223.7	-32.2	0.167
4-1910	4-2170	0.142	328.6	-11.2	0.31	0.758	92.9	0.210	1.150	191.0	424.4	0.909	---	-2.02	1.056	99.8	232.0	-31.2	0.176
4-1910	4-2180	0.140	336.0	-10.7	-0.07	0.754	91.6	0.215	1.141	186.0	429.1	0.895	---	-1.82	1.050	100.6	240.2	-30.9	0.187
4-1910	4-2190	0.140	343.8	-9.3	-0.39	0.749	90.2	0.223	1.132	180.9	433.6	0.880	---	-1.70	1.045	101.4	248.5	-30.8	0.201
4-1910	4-2200	0.143	352.2	-7.3	-0.67	0.745	88.7	0.232	1.124	175.6	437.9	0.863	1.385	-1.64	1.040	102.2	256.8	-30.7	0.216
4-1910	4-2210	0.150	0.7	-4.8	-0.94	0.741	86.9	0.246	1.116	170.4	442.2	0.842	1.391	-1.62	1.036	103.3	265.1	-30.4	0.234
4-1910	4-2220	0.163	9.2	-1.9	-1.22	0.737	84.8	0.263	1.109	165.1	446.5	0.818	1.401	-1.65	1.033	104.5	273.4	-29.9	0.257
4-1910	4-2230	0.181	17.3	1.3	-1.51	0.733	82.4	0.286	1.102	160.0	450.9	0.787	1.418	-1.74	1.030	106.0	281.5	-29.1	0.285
4-1910	4-2240	0.209	24.8	3.8	-1.85	0.730	79.3	0.318	1.096	155.1	455.6	0.748	1.444	-1.88	1.027	108.1	289.4	-28.8	0.322
4-1910	4-2250	0.250	31.4	6.3	-2.25	0.726	75.5	0.362	1.090	150.7	460.7	0.696	1.484	-2.12	1.025	110.9	296.9	-26.7	0.372
4-1910	4-2260	0.308	36.8	8.4	-2.79	0.723	70.4	0.424	1.085	147.3	466.9	0.625	1.535	-2.50	1.024	114.8	303.7	-25.2	0.443
4-1910	4-2270	0.397	40.5	10.0	-3.60	0.721	63.1	0.517	1.081	145.8	475.0	0.523	1.639	-3.16	1.024	120.9	309.4	-23.8	0.549
4-1910	4-2280	0.537	41.7	10.9	-5.06	0.720	52.0	0.654	1.079	147.9	486.6	0.373	1.785	-4.47	1.025	130.7	313.2	-22.6	0.716
4-1910	4-2330	0.462	302.2	-17.7	2.22	0.675	119.5	0.589	1.010	207.3	554.9	0.416	1.605	3.51	1.006	53.9	213.1	-8.3	0.608
4-1910	4-2340	0.356	308.1	-17.1	1.23	0.670	110.0	0.493	1.004	203.8	601.3	0.509	1.495	2.67	1.006	60.5	219.6	-10.5	0.499
4-1910	4-2350	0.536	20.2	9.3	0.60	0.531	55.0	0.760	0.860	166.0	573.4	0.206	1.514	2.20	0.923	41.1	244.3	-19.6	0.789
4-1910	4-2350	0.288	318.7	-14.9	0.60	0.662	102.3	0.439	0.994	196.7	604.1	0.558	1.430	2.20	1.004	64.0	238.1	-13.2	0.439
4-1910	4-2360	0.423	17.9	8.0	0.15	0.569	66.5	0.645	0.892	165.3	582.7	0.317	1.467	1.93	0.947	50.3	249.6	-20.0	0.655
4-1910	4-2360	0.249	336.2	-9.8	0.15	0.649	94.3	0.422	0.977	186.0	603.4	0.565	1.390	1.93	0.998	65.0	238.6	-16.1	0.421
4-1910	4-2440	0.574	57.4	17.2	-2.73	0.881	51.1	0.630	1.495	123.6	262.2	---	2.438	2.45	1.167	55.7	312.6	-14.0	0.668
4-1910	4-2450	0.542	59.3	16.2	-3.56	0.886	53.5	0.599	1.514	119.0	268.6	---	2.420	3.12	1.169	58.7	319.1	-10.5	0.619
4-1910	4-2460	0.512	61.3	13.9	-5.08	0.890	55.8	0.568	1.532	116.2	275.0	---	2.402	4.49	1.171	61.7	324.9	-5.4	0.574
4-1910	4-2470	0.495	63.3	7.4	-9.13	0.894	57.8	0.540	1.548	112.6	281.5	---	2.384	8.40	1.172	64.5	329.0	5.0	0.543
4-1910	4-2490	0.445	59.3	38.0	9.30	0.900	61.5	0.488	1.576	105.8	294.9	---	2.346	-10.31	1.173	69.8	358.1	-27.9	0.471
4-1910	4-2500	0.404	64.2	29.6	3.84	0.903	63.1	0.466	1.588	102.7	301.6	---	2.329	-5.00	1.172	72.3	356.9	-16.7	0.401
4-1910	4-2510	0.380	66.3	26.7	2.06	0.905	64.5	0.447	1.598	99.8	308.5	---	2.312	-3.37	1.171	74.7	359.8	-11.8	0.356

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1910	4-2520	0.361	67.9	25.1	1.14	0.907	65.8	0.429	1.607	97.0	315.6	---	2.296	-2.60	1.171	77.1	3.1	-8.9	0.317
4-1910	4-2530	0.344	69.1	23.9	0.55	0.909	66.9	0.414	1.615	94.6	322.9	---	2.282	-2.17	1.169	79.4	5.8	-7.2	0.282
4-1910	4-2540	0.330	70.2	23.0	0.12	0.910	67.8	0.401	1.621	92.4	330.4	---	2.270	-1.91	1.168	81.7	7.3	-6.5	0.249
4-1910	4-2550	0.318	71.1	22.2	-0.22	0.911	68.6	0.390	1.626	90.6	338.3	---	2.261	-1.75	1.167	84.0	7.3	-6.9	0.221
4-1910	4-2550	0.245	307.3	-20.2	-0.22	0.732	102.4	0.331	1.100	207.9	815.6	0.735	1.464	-1.75	1.034	108.8	229.9	-23.9	0.323
4-1910	4-2550	0.526	288.7	-23.1	-0.22	0.787	124.9	0.584	1.211	223.5	831.2	0.504	1.919	-1.75	1.073	124.6	222.4	-19.0	0.608
4-1910	4-2560	0.310	71.8	21.5	-0.52	0.912	69.1	0.383	1.630	89.3	346.6	---	2.255	-1.66	1.166	86.3	5.0	-8.5	0.199
4-1910	4-2560	0.207	319.1	-18.1	-0.52	0.723	97.8	0.307	1.084	198.5	815.8	0.752	1.416	-1.66	1.025	107.5	240.4	-26.2	0.299
4-1910	4-2570	0.306	72.2	20.7	-0.80	0.912	69.4	0.379	1.633	88.5	355.3	---	2.253	-1.62	1.166	88.7	0.1	-11.2	0.186
4-1910	4-2570	0.187	331.2	-15.4	-0.80	0.716	97.2	0.298	1.073	190.1	817.0	0.754	1.393	-1.62	1.019	107.1	250.5	-27.7	0.293
4-1910	4-2580	0.306	72.4	20.0	-1.07	0.913	69.4	0.379	1.636	88.3	364.7	1.015	2.256	-1.63	1.165	91.3	352.9	-14.4	0.184
4-1910	4-2580	0.179	343.8	-11.7	-1.07	0.712	90.9	0.299	1.066	182.2	818.6	0.747	1.385	-1.63	1.015	107.2	260.4	-28.5	0.297
4-1910	4-2590	0.312	72.3	19.2	-1.35	0.913	69.1	0.385	1.637	88.9	374.8	1.007	2.267	-1.69	1.165	94.1	345.0	-17.2	0.198
4-1910	4-2590	0.182	356.3	-7.4	-1.35	0.708	87.6	0.309	1.060	174.7	820.6	0.732	1.387	-1.69	1.012	107.8	270.1	-28.7	0.310
4-1910	4-2600	0.325	71.8	18.5	-1.66	0.913	68.5	0.397	1.638	90.5	385.9	0.988	2.288	-1.80	1.165	97.3	338.1	-19.8	0.229
4-1910	4-2600	0.196	8.2	-2.9	-1.66	0.705	84.1	0.328	1.055	167.6	823.1	0.709	1.400	-1.80	1.009	109.0	279.5	-28.3	0.332
4-1910	4-2610	0.348	70.7	17.8	-2.03	0.914	66.8	0.419	1.639	93.3	398.3	0.952	2.325	-1.98	1.165	101.1	323.2	-19.7	0.280
4-1910	4-2610	0.224	18.7	1.3	-2.03	0.702	86.0	0.358	1.050	161.1	826.1	0.674	1.428	-1.98	1.008	110.9	288.4	-27.5	0.366
4-1910	4-2620	0.387	69.0	17.2	-2.49	0.914	64.2	0.456	1.639	97.8	412.4	0.892	2.386	-2.28	1.166	105.8	330.4	-19.8	0.353
4-1910	4-2620	0.269	27.5	4.9	-2.49	0.699	75.1	0.404	1.047	155.4	829.9	0.624	1.469	-2.28	1.007	113.8	296.6	-26.3	0.418
4-1910	4-2630	0.450	66.4	16.6	-3.13	0.914	60.2	0.515	1.639	104.6	428.7	0.795	2.484	-2.77	1.167	112.0	328.8	-19.6	0.459
4-1910	4-2630	0.339	34.2	7.7	-3.13	0.697	88.6	0.474	1.044	151.2	835.3	0.548	1.539	-2.77	1.007	118.3	303.9	-24.9	0.497
4-1910	4-2630	0.429	342.5	-11.3	-3.13	0.471	97.2	0.699	0.818	193.1	1227.2	0.246	1.389	-2.77	0.865	132.5	283.0	-25.5	0.689
4-1910	4-2640	0.555	62.2	15.9	-4.17	0.914	53.3	0.611	1.640	114.9	440.4	0.638	2.642	-3.66	1.168	121.0	327.3	-19.5	0.616
4-1910	4-2640	0.447	38.4	9.5	-4.17	0.696	59.4	0.582	1.041	169.7	843.4	0.435	1.648	-3.66	1.007	125.6	309.5	-23.5	0.623
4-1910	4-2640	0.451	1.2	-4.0	-4.17	0.455	78.2	0.728	0.805	175.5	1229.2	0.220	1.396	-3.66	0.858	138.8	292.2	-25.0	0.725
4-1910	4-2650	0.568	14.2	1.7	-6.29	0.447	56.4	0.818	0.803	171.1	1234.3	0.146	1.460	-5.64	0.856	143.5	299.6	-24.1	0.852
4-1910	4-2690	0.537	301.3	-17.6	3.09	0.671	125.9	0.661	1.006	200.6	949.0	0.341	1.671	4.26	1.003	48.6	210.9	-7.6	0.694
4-1910	4-2700	0.530	274.0	-21.5	1.68	0.908	122.2	0.560	1.611	241.9	641.2	0.709	2.514	3.04	1.177	63.6	195.8	0.1	0.512
4-1910	4-2700	0.405	304.9	-17.4	1.68	0.670	114.5	0.539	1.004	205.7	958.0	0.463	1.545	3.04	1.004	57.4	216.2	-9.4	0.550
4-1910	4-2710	0.454	270.9	-22.4	0.90	0.908	118.1	0.488	1.611	256.6	658.8	0.826	2.397	2.42	1.179	70.9	195.5	0.9	0.388
4-1910	4-2710	0.320	312.4	-16.3	0.90	0.667	106.2	0.863	1.000	200.9	963.0	0.537	1.463	2.42	1.005	62.4	223.4	-11.8	0.465
4-1920	4-1970	0.474	312.4	-15.8	1.98	0.637	119.4	0.622	0.966	202.0	229.2	---	---	3.40	0.985	51.6	220.9	-11.5	0.641
4-1920	4-1980	0.379	309.8	-17.2	0.99	0.684	112.1	0.497	1.028	207.1	243.5	---	---	2.55	1.019	60.2	223.5	-12.0	0.506
4-1920	4-1990	0.319	306.4	-18.9	0.38	0.725	108.2	0.405	1.092	212.3	258.6	---	---	2.09	1.049	66.7	226.1	-12.2	0.405
4-1920	4-2000	0.283	302.7	-20.7	-0.06	0.756	108.0	0.341	1.149	218.1	274.5	---	---	1.82	1.073	71.7	228.5	-12.1	0.326
4-1920	4-2010	0.260	299.2	-22.4	-0.40	0.778	104.8	0.298	1.197	224.0	290.5	---	---	1.65	1.091	75.8	230.3	-11.6	0.262
4-1920	4-2020	0.246	296.5	-24.0	-0.70	0.794	104.0	0.271	1.233	229.2	305.8	---	---	1.56	1.104	79.3	231.2	-10.4	0.211
4-1920	4-2030	0.237	294.5	-25.3	-0.98	0.804	103.5	0.255	1.258	233.2	320.0	---	---	1.52	1.112	82.2	230.7	-8.4	0.171
4-1920	4-2040	0.231	293.5	-26.5	-1.25	0.810	103.2	0.244	1.273	235.7	332.6	---	---	1.53	1.117	84.7	228.4	-5.4	0.141
4-1920	4-2050	0.227	293.3	-27.6	-1.53	0.812	102.8	0.237	1.279	236.8	343.9	---	---	1.58	1.119	88.9	224.3	-1.4	0.121
4-1920	4-2060	0.223	293.9	-28.8	-1.84	0.812	102.5	0.232	1.279	236.6	353.8	---	---	1.70	1.119	88.8	219.2	3.3	0.110
4-1920	4-2070	0.219	295.1	-30.1	-2.22	0.810	102.1	0.228	1.274	235.3	362.8	0.984	---	1.81	1.117	90.5	214.3	7.8	0.107
4-1920	4-2080	0.215	297.1	-31.8	-2.72	0.807	101.7	0.224	1.266	233.3	370.7	0.982	---	2.25	1.113	92.0	211.3	12.7	0.111
4-1920	4-2090	0.212	299.8	-34.4	-3.46	0.803	101.2	0.220	1.255	230.6	378.5	0.978	---	2.84	1.109	93.3	211.0	16.5	0.120
4-1920	4-2100	0.211	304.0	-38.8	-4.78	0.798	100.6	0.217	1.242	227.4	385.2	0.972	---	4.01	1.103	94.4	213.8	21.1	0.136
4-1920	4-2110	0.226	312.7	-48.5	-8.10	0.792	100.0	0.215	1.229	223.8	391.6	0.966	---	7.20	1.097	95.4	221.4	26.8	0.180
4-1920	4-2120	0.559	8.2	-62.6	-37.07	0.787	99.2	0.212	1.216	219.7	397.1	0.959	---	36.03	1.091	96.2	235.7	76.8	0.659
4-1920	4-2130	0.229	301.1	15.0	9.77	0.781	98.5	0.212	1.203	215.8	403.1	0.948	---	-10.93	1.084	97.2	166.5	-60.0	0.243
4-1920	4-2140	0.181	307.3	-3.3	3.65	0.775	97.6	0.211	1.191	211.3	409.1	0.940	---	-4.95	1.077	98.0	201.2	-43.8	0.173
4-1920	4-2150	0.168	312.9	-9.3	1.83	0.770	96.7	0.211	1.179	206.7	414.1	0.930	---	-3.27	1.071	98.7	214.2	-36.1	0.168
4-1920	4-2160	0.160	318.7	-11.8	0.92	0.764	95.6	0.212	1.167	201.8	419.2	0.920	---	-2.49	1.064	99.3	223.7	-32.8	0.172
4-1920	4-2170	0.154	324.8	-12.6	0.34	0.759	94.5	0.214	1.156	196.8	423.9	0.908	---	-2.07	1.058	100.0	232.3	-31.4	0.180
4-1920	4-2180	0.149	331.6	-12.4	-0.07	0.754	93.2	0.218	1.146	191.7	428.5	0.896	---	-1.81	1.052	100.7	240.6	-30.8	0.189
4-1920	4-2190	0.146	339.0	-11.3	-0.40	0.749	91.9	0.224	1.136	186.5	432.9	0.882	---	-1.65	1.047	101.3	249.0	-30.6	0.201
4-1920	4-2200	0.145	347.1	-9.5	-0.69	0.744	90.3	0.232	1.127	181.1	437.1	0.866	---	-1.56	1.042	102.1	257.4	-30.4	0.214
4-1920	4-2210	0.147	355.8	-7.1	-0.95	0.740	88.6	0.242	1.118	175.7	441.3	0.848	1.389	-1.52	1.037	103.0	265.8	-30.1	0.230
4-1920	4-2220	0.154	4.8	-4.1	-1.20	0.735	86.7	0.256	1.110	170.2	445.3	0.826	1.395	-1.52	1.033	104.0	274.2	-29.5	0.249
4-1920	4-2230	0.166	13.9	-0.9	-1.46	0.731	84.4	0.275	1.103	164.8	449.5	0.799	1.406	-1.56	1.030	105.3	282.4	-28.7	0.275
4-1920	4-2240	0.186	22.6	2.4	-1.74	0.727	81.7	0.301	1.096	159.6	453.8	0.766	1.425	-1.66	1.027	107.0	290.5	-27.5	0.304
4-1920	4-2250	0.217	30.6	5.5	-2.07	0.723	78.3	0.336	1.089	154.7	458.4	0.723	1.455	-1.82	1.025	109.3	298.2	-26.1	0.345
4-1920	4-2260	0.262	37.5	8.2	-2.49	0.720	74.0	0.386	1.083	150.4	463.7	0.666	1.501	-2.08	1.023	112.4	305.4	-24.5	0.401
4-1920	4-2270	0.329	42.9	10.4	-3.06	0.717	68.2	0.457	1.078	147.4	470.3	0.585	1.572	-2.51	1.023	117.0	311.8	-22.8	0.482
4-1920	4-2280	0.433	46.3	11.9	-3.96	0.715	59.7	0.564	1.075	146.8	479.2	0.469	1.681	-3.27	1.023	124.2	316.9	-21.3	0.605
4-1920	4-2290	0.598	46.5	12.7	-5.74	0.714	46.5	0.720	1.074	150.7	492.7	0.300	1.847	-4.92	1.024	136.0	319.8	-20.2	0.804
4-1920	4-2330	0.564	307.3	-16.7	2.84	0.668	127.8	0.683	1.005	206.0	587.3	0.318	1.692	4.18	1.004	46.9	216.6	-10.0	0.724
4-1920	4-2340	0.424	310.5	-16.6	1.45	0.665	115.7	0.556	1.001	205.5	596.6	0.444	1.557	2.93	1.000	56.2	221.8	-11.6	0.570
4-1920	4-2350	0.585	24.8	11.0	0.67	0.504	49.7	0.814	0.842	167.7	568.8	0.157	1.528	2.30	0.909	36.2	247.1	-20.3	0.858
4-1920	4-2350	0.333	318.2	-15.2	0.67	0.658	106.7	0.478	0.992	200.3	601.4	0.518	1.467	2.30	1.003	61.5	229.3	-13.8	0.482
4-1920	4-2360	0.479	23.9	10.4	0.16	0.540	60.8	0.713	0.870	166.0	577.1	0.249	1.490	1.95	0.932	45.0	252.8	-20.7	0.734
4-1920	4-2360	0.274	331.4	-11.6	0.16	0.648	98.7	0.439	0.979	191.5	602.6	0.549	1.410	1.95	0.999	63.9	238.9	-16.3	0.440
4-1920	4-2370	0.337	15.8	6.5	-0.23	0.589	75.7	0.560	0.914	168.1	589.3	0.402	1.426	1.73	0.964	56.2	256.6	-20.4	0.565
4-1920	4-2370	0.262	351.1	-1.9	-0.23	0.624	87.5	0.461	0.951	177.1	598.2	0.512	1.389	1.73	0.986	62.6	291.7	-19.1	0.463
4-1920	4-2440	0.584	60.4	18.7	-2.44	0.874	49.7	0.648	1.478	126.2	258.4	---	2.436	2.05	1.164	53.9	314.6	-14.3	0.698
4-1920	4-2450	0.550	64.3	18.0	-3.03	0.879	52.2	0.615	1.498	122.4	264.8	---	2.420	2.48	1.166	57.0	321.2	-13.2	0.647
4-1920	4-2460	0.518	66.2	16.5	-3.98	0.884	54.6	0.584	1.517	118.6	271.2	---	2.402	3.28	1.168	60.0	327.4	-7.3	0.598
4-1920	4-2470	0.491	68.1	13.4	-5.89	0.888	56.7	0.554	1.534	115.0	277.6	---	2.384	5.06	1.170	62.9	332.6	-1.1	0.555
4-1920	4-2480	0.490	69.5	2.5	-12.67	0.892	58.7	0.527	1.550	111.5	284.0	---	2.366	11.70	1.170	65.6	335.1	14.9	0.544
4-1920	4-2490	0.594	42.7	58.3	28.73	0.895	60.7	0.499	1.564	108.0	291.0	---	2.345	-29.83	1.170	68.4	29.0	-43.2	0.704
4-1920	4-2500	0.412	69.2	33.8	5.70	0.898	62.3	0.477	1.577	104.9	297.5	---	2.329	-6.93	1.170	70.9	1.4	-19.1	0.432

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1920	4-2510	0.383	72.0	28.5	2.60	0.901	63.8	0.456	1.588	101.8	304.3	---	2.311	-3.96	1.170	73.3	3.0	-11.5	0.380
4-1920	4-2520	0.361	73.7	26.2	1.34	0.903	65.2	0.437	1.598	99.0	311.3	---	2.295	-2.84	1.169	75.7	6.2	-7.7	0.338
4-1920	4-2530	0.343	75.1	24.8	0.62	0.905	66.4	0.420	1.606	96.4	318.4	---	2.280	-2.26	1.168	78.0	9.3	-5.4	0.301
4-1920	4-2540	0.328	76.2	23.7	0.13	0.906	67.4	0.406	1.613	94.1	325.8	---	2.267	-1.93	1.167	80.3	11.5	-4.1	0.266
4-1920	4-2550	0.315	77.2	22.8	-0.24	0.907	68.2	0.394	1.619	92.1	333.5	---	2.256	-1.73	1.166	82.6	12.4	-3.9	0.236
4-1920	4-2550	0.351	300.8	-21.4	-0.24	0.748	111.3	0.419	1.135	218.9	820.3	0.660	1.610	-1.73	1.047	114.0	227.6	-21.9	0.416
4-1920	4-2550	0.394	298.4	-21.8	-0.24	0.757	114.7	0.457	1.151	221.2	822.6	0.625	1.677	-1.73	1.053	116.4	226.5	-21.2	0.458
4-1920	4-2560	0.305	77.9	22.0	-0.54	0.908	68.9	0.385	1.624	90.5	341.5	---	2.248	-1.60	1.165	84.9	11.4	-4.7	0.210
4-1920	4-2560	0.245	314.5	-19.2	-0.54	0.726	101.7	0.332	1.094	205.9	836.9	0.730	1.457	-1.60	1.029	109.0	239.8	-25.4	0.326
4-1920	4-2560	0.557	295.3	-22.5	-0.54	0.787	126.7	0.608	1.217	222.6	833.6	0.477	1.956	-1.60	1.073	126.4	231.3	-20.9	0.639
4-1920	4-2570	0.299	78.5	21.2	-0.81	0.909	69.3	0.379	1.627	89.4	349.9	---	2.244	-1.53	1.165	87.2	8.0	-6.8	0.191
4-1920	4-2570	0.209	325.9	-16.9	-0.81	0.717	97.3	0.311	1.079	196.7	817.3	0.744	1.414	-1.53	1.022	107.8	250.3	-27.1	0.306
4-1920	4-25 0	0.296	78.8	20.5	-1.07	0.910	69.5	0.377	1.630	88.8	358.9	---	2.244	-1.51	1.164	89.7	2.0	-9.7	0.182
4-1920	4-2580	0.190	337.8	-13.8	-1.07	0.711	93.6	0.304	1.069	188.4	818.5	0.744	1.394	-1.51	1.017	107.5	260.5	-28.0	0.302
4-1920	4-2590	0.298	78.8	19.8	-1.32	0.910	69.4	0.379	1.632	88.9	369.6	1.013	2.250	-1.54	1.164	92.4	354.4	-12.9	0.187
4-1920	4-2590	0.182	350.4	-9.8	-1.32	0.707	90.2	0.307	1.062	180.5	820.2	0.735	1.388	-1.54	1.013	107.7	270.4	-28.3	0.308
4-1920	4-2600	0.307	78.5	19.1	-1.59	0.910	68.9	0.387	1.633	89.9	379.1	1.001	2.265	-1.60	1.164	95.3	346.8	-15.4	0.208
4-1920	4-2600	0.186	3.1	-5.2	-1.59	0.703	86.8	0.319	1.056	173.0	822.2	0.719	1.393	-1.60	1.010	108.5	280.0	-27.9	0.323
4-1920	4-2610	0.324	77.7	18.5	-1.89	0.911	67.8	0.403	1.634	92.0	390.7	0.976	2.292	-1.73	1.164	98.7	340.9	-16.8	0.247
4-1920	4-2610	0.202	15.0	-0.5	-1.89	0.699	83.0	0.341	1.051	166.0	824.7	0.692	1.409	-1.73	1.008	109.9	289.2	-27.0	0.349
4-1920	4-2620	0.352	76.4	18.0	-2.26	0.911	66.0	0.430	1.634	95.4	403.6	0.931	2.337	-1.93	1.165	102.8	337.2	-17.3	0.306
4-1920	4-2620	0.234	25.7	3.8	-2.26	0.697	78.6	0.376	1.046	159.7	827.9	0.653	1.440	-1.93	1.007	112.0	297.8	-25.7	0.388
4-1920	4-2630	0.399	74.4	17.6	-2.73	0.911	62.9	0.474	1.634	100.6	418.4	0.859	2.410	-2.25	1.166	107.9	335.1	-17.2	0.390
4-1920	4-2630	0.286	34.4	7.4	-2.73	0.694	73.1	0.430	1.043	154.3	832.1	0.595	1.491	-2.25	1.006	115.4	305.6	-24.1	0.448
4-1920	4-2630	0.520	329.5	-15.2	-2.73	0.493	118.1	0.751	0.835	190.81	228.6	0.208	1.462	-2.25	0.880	137.4	282.5	-24.7	0.764
4-1920	4-2630	0.595	323.8	-16.7	-2.73	0.512	128.5	0.797	0.848	192.91	230.7	0.172	1.525	-2.25	0.891	142.0	281.6	-24.5	0.834
4-1920	4-2640	0.475	71.2	17.2	-3.43	0.911	58.0	0.546	1.635	108.5	435.8	0.743	2.527	-2.81	1.168	115.0	333.8	-17.1	0.512
4-1920	4-2640	0.366	40.8	10.0	-3.43	0.692	65.7	0.512	1.040	150.9	838.2	0.508	1.572	-2.81	1.007	120.7	312.3	-22.5	0.541
4-1920	4-2640	0.431	353.3	-6.9	-3.43	0.458	91.5	0.709	0.812	180.61	228.0	0.236	1.388	-2.81	0.862	133.3	292.9	-24.3	0.703
4-1920	4-2650	0.493	44.2	11.7	-4.63	0.691	55.0	0.637	1.038	150.7	847.7	0.377	1.699	-3.88	1.008	129.5	317.1	-21.0	0.690
4-1920	4-2650	0.481	10.7	0.3	-4.63	0.444	71.6	0.758	0.804	173.81	230.8	0.195	1.413	-3.88	0.857	137.5	301.6	-23.3	0.766
4-1920	4-2700	0.490	308.4	-16.8	2.05	0.665	121.4	0.617	1.002	206.3	952.2	0.384	1.619	3.46	1.003	51.9	218.8	-10.7	0.641
4-1920	4-2710	0.508	279.6	-22.1	1.03	0.905	121.3	0.533	1.606	251.3	647.1	0.751	2.461	2.59	1.178	66.2	201.9	-2.7	0.467
4-1920	4-2710	0.377	313.4	-16.2	1.03	0.663	111.2	0.513	0.999	203.7	959.5	0.486	1.511	2.59	1.005	59.1	225.0	-12.6	0.521
4-1920	4-2720	0.443	276.9	-23.1	0.87	0.905	117.0	0.470	1.606	257.9	663.7	0.851	2.361	2.11	1.180	72.8	201.6	-1.9	0.358
4-1920	4-2720	0.302	322.1	-14.4	0.41	0.660	103.5	0.450	0.994	197.7	963.5	0.547	1.441	2.11	1.005	63.3	233.1	-14.8	0.453
4-1930	4-1980	0.467	308.0	-17.7	1.18	0.718	119.7	0.553	1.087	214.0	244.1	---	---	2.77	1.044	56.7	222.9	-12.1	0.574
4-1930	4-1990	0.387	304.6	-19.3	0.43	0.752	113.7	0.447	1.148	220.4	260.5	---	---	2.16	1.070	64.5	225.0	-12.2	0.449
4-1930	4-2000	0.339	301.0	-21.0	-0.06	0.780	110.3	0.376	1.208	227.2	277.3	---	---	1.81	1.092	70.4	226.8	-12.1	0.355
4-1930	4-2010	0.310	297.9	-22.5	-0.43	0.801	108.4	0.331	1.258	233.7	293.9	---	---	1.60	1.109	75.1	228.0	-11.6	0.283
4-1930	4-2020	0.292	295.4	-23.9	-0.72	0.815	107.2	0.304	1.295	239.1	309.4	---	---	1.48	1.121	78.9	228.1	-10.4	0.226
4-1930	4-2030	0.280	293.9	-25.0	-0.99	0.823	106.4	0.287	1.319	242.9	323.4	---	---	1.41	1.129	82.1	226.8	-8.6	0.183
4-1930	4-2040	0.272	292.2	-25.9	-1.24	0.828	105.8	0.276	1.332	245.0	335.7	---	---	1.35	1.132	84.8	223.8	-5.8	0.151
4-1930	4-2050	0.266	293.2	-26.8	-1.49	0.829	105.3	0.267	1.334	245.6	346.4	---	---	1.41	1.133	87.1	219.1	-2.3	0.131
4-1930	4-2060	0.260	293.9	-27.6	-1.76	0.827	104.9	0.261	1.330	245.0	356.0	---	---	1.49	1.132	89.2	213.8	1.5	0.120
4-1930	4-2070	0.254	295.2	-28.5	-2.06	0.823	104.4	0.254	1.319	243.3	364.5	0.984	---	1.62	1.129	90.9	209.3	4.9	0.117
4-1930	4-2080	0.248	297.0	-29.6	-2.44	0.818	103.9	0.249	1.305	241.0	372.3	0.981	---	1.85	1.124	92.4	206.7	7.8	0.120
4-1930	4-2090	0.242	299.3	-31.2	-2.97	0.813	103.3	0.243	1.289	238.0	379.5	0.976	---	2.23	1.118	93.8	206.5	10.4	0.127
4-1930	4-2100	0.237	302.4	-33.6	-3.79	0.806	102.7	0.238	1.272	234.5	386.1	0.970	---	2.92	1.112	94.9	208.8	14.0	0.138
4-1930	4-2110	0.235	307.1	-38.4	-5.40	0.800	102.0	0.233	1.255	230.7	392.3	0.963	---	4.40	1.105	95.9	213.9	21.1	0.157
4-1930	4-2120	0.263	319.4	-51.1	-10.60	0.793	101.2	0.229	1.238	226.5	398.1	0.955	---	9.48	1.097	96.8	224.3	39.9	0.224
4-1930	4-2130	0.599	310.1	40.1	39.81	0.786	100.4	0.227	1.222	222.4	404.5	0.944	---	-41.05	1.090	97.8	107.1	-50.8	0.746
4-1930	4-2140	0.212	305.7	1.4	5.58	0.779	99.4	0.224	1.206	217.6	409.2	0.936	---	-6.94	1.082	98.4	194.4	-50.2	0.202
4-1930	4-2150	0.191	311.4	-8.7	2.33	0.773	98.4	0.222	1.192	212.9	414.2	0.927	---	-3.82	1.075	99.1	213.0	-38.0	0.179
4-1930	4-2160	0.180	316.7	-12.2	1.08	0.766	97.3	0.222	1.178	207.9	419.0	0.917	---	-2.69	1.068	99.7	223.5	-33.2	0.180
4-1930	4-2170	0.171	322.2	-13.4	0.39	0.760	96.2	0.222	1.165	202.8	423.6	0.906	---	-2.12	1.061	100.3	232.4	-31.3	0.186
4-1930	4-2180	0.163	328.2	-13.6	-0.08	0.754	94.9	0.224	1.153	197.6	428.1	0.894	---	-1.80	1.055	100.9	240.9	-30.6	0.194
4-1930	4-2190	0.157	334.9	-12.8	-0.42	0.748	93.5	0.228	1.142	192.2	432.3	0.882	---	-1.60	1.049	101.5	249.4	-30.3	0.204
4-1930	4-2200	0.152	342.4	-11.4	-0.71	0.743	92.0	0.234	1.131	186.7	436.5	0.867	---	-1.48	1.043	102.2	257.8	-30.0	0.215
4-1930	4-2210	0.150	350.8	-9.2	-0.96	0.738	90.4	0.242	1.122	181.2	440.5	0.850	---	-1.41	1.038	102.9	266.3	-29.7	0.229
4-1930	4-2220	0.151	359.8	-6.4	-1.19	0.733	88.5	0.253	1.113	175.6	444.4	0.831	1.394	-1.39	1.034	103.8	274.7	-29.1	0.245
4-1930	4-2230	0.157	9.4	-3.1	-1.43	0.728	86.4	0.268	1.104	170.0	448.3	0.808	1.401	-1.40	1.030	104.9	283.1	-28.2	0.266
4-1930	4-2240	0.170	19.0	0.0	-1.67	0.724	83.9	0.289	1.096	164.4	452.3	0.779	1.414	-1.46	1.027	106.3	291.3	-27.0	0.291
4-1930	4-2250	0.192	28.3	4.2	-1.94	0.720	80.8	0.318	1.089	159.1	456.6	0.743	1.435	-1.57	1.025	108.1	299.2	-25.5	0.325
4-1930	4-2260	0.227	36.7	7.5	-2.27	0.716	77.1	0.358	1.083	154.3	461.3	0.695	1.470	-1.74	1.023	110.7	306.7	-23.8	0.370
4-1930	4-2270	0.278	43.8	10.2	-2.69	0.712	72.2	0.414	1.077	150.3	466.8	0.631	1.522	-2.02	1.022	114.2	313.6	-22.0	0.434
4-1930	4-2280	0.356	49.1	12.4	-3.30	0.709	65.5	0.496	1.072	147.8	474.0	0.540	1.604	-2.50	1.022	119.6	319.6	-20.1	0.528
4-1930	4-2290	0.478	51.9	13.9	-4.32	0.707	55.5	0.619	1.069	148.3	484.1	0.407	1.730	-3.35	1.022	128.1	324.0	-18.6	0.674
4-1930	4-2340	0.512	314.7	-15.6	1.78	0.657	122.9	0.638	0.996	205.5	590.3	0.360	1.631	3.30	1.002	50.3	224.7	-13.0	0.667
4-1930	4-2350	0.392	319.6	-14.8	0.78	0.652	112.0	0.532	0.990	202.7	597.5	0.463	1.516	2.43	1.002	57.9	231.1	-14.7	0.542
4-1930	4-2360	0.528	29.0	12.3	0.18	0.510	55.5	0.773	0.851	167.4	572.2	0.193	1.508	1.97	0.918	40.1	255.7	-21.3	0.806
4-1930	4-2360	0.312	329.4	-12.4	0.18	0.644	103.2	0.471	0.979	195.8	600.6	0.518	1.440	1.97	0.999	61.9	239.8	-16.8	0.475
4-1930	4-2370	0.409	25.5	10.5	-0.25	0.552	68.0	0.652	0.884	166.9	581.8	0.308	1.460	1.70	0.945	49.8	260.8	-21.3	0.665
4-1930	4-2370	0.267	347.1	-6.3	-0.25	0.628	94.0	0.455	0.960	184.8	599.7	0.524	1.397	1.70	0.991	63.0	250.9	-19.0	0.457
4-1930	4-2440	0.594	67.5	19.9	-2.23	0.867	48.3	0.666	1.461	128.7	254.7	---	2.434	1.72	1.160	52.1	316.4	-14.4	0.728
4-1930	4-2450	0.558	69.4	19.3	-2.67	0.872	50.9	0.632	1.482	124.9	261.0	---	2.419	2.01	1.163	55.3	323.2	-11.6	0.675
4-1930	4-2460	0.525	71.3	18.4	-3.30	0.877	53.3	0.600	1.501	121.1	267.4	---	2.402	2.50	1.165	58.4	329.6	-8.2	0.625
4-1930	4-2470	0.495	73.1	16.5	-4.39	0.882	55.6	0.569	1.519	117.5	273.8	---	2.384	3.46	1.167	61.8	335.3	-3.7	0.577
4-1930	4-2480	0.471	74.7	12.1	-6.64	0.886	57.7	0.540	1.536	113.9	280.2	---	2.366	5.89	1.168	64.1	339.8	4.0	0.537
4-1930	4-2490	0.537	72.9	-9.9	-22.16	0.890	59.6	0.514	1.551	110.5	286.6	---	2.348	20.98	1.168	66.8	339.9	34.1	0.612

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1930	4-2500	0.437	72.2	43.4	11.17	0.893	61.4	0.488	1.565	107.1	293.6	---	2.328	-12.47	1.168	69.5	10.6	-26.9	0.492
4-1930	4-2510	0.387	77.7	30.9	3.56	0.896	63.0	0.465	1.577	104.0	300.2	---	2.311	-4.98	1.168	72.0	6.4	-12.3	0.405
4-1930	4-2520	0.363	79.6	27.3	1.63	0.898	64.5	0.445	1.588	101.1	307.1	---	2.294	-3.17	1.167	74.4	9.2	-6.9	0.359
4-1930	4-2530	0.343	81.0	25.4	0.71	0.900	65.7	0.427	1.597	98.4	314.1	---	2.279	-2.38	1.167	76.7	12.4	-3.9	0.320
4-1930	4-2540	0.326	82.2	24.2	0.15	0.902	66.9	0.411	1.605	95.9	321.4	---	2.265	-1.95	1.166	79.0	15.1	-2.1	0.284
4-1930	4-2550	0.312	83.2	23.2	-0.25	0.903	67.8	0.398	1.611	93.8	328.9	---	2.253	-1.69	1.165	81.3	16.8	-1.3	0.251
4-1930	4-2560	0.301	84.0	22.3	-0.57	0.904	68.6	0.388	1.617	92.0	336.7	---	2.243	-1.54	1.164	83.6	16.9	-1.5	0.223
4-1930	4-2560	0.324	301.9	-20.1	-0.57	0.736	108.6	0.394	1.118	215.2	819.9	0.677	1.559	-1.54	1.039	112.6	238.2	-24.1	0.391
4-1930	4-2560	0.451	303.1	-21.3	-0.57	0.761	118.6	0.508	1.167	221.9	826.6	0.575	1.760	-1.54	1.057	119.7	234.8	-22.3	0.518
4-1930	4-2570	0.293	84.7	21.5	-0.83	0.905	69.1	0.380	1.621	90.6	344.9	---	2.237	-1.44	1.164	85.9	14.8	-2.8	0.200
4-1930	4-2570	0.246	321.6	-18.0	-0.83	0.719	101.1	0.335	1.088	203.9	818.2	0.724	1.453	-1.44	1.026	109.2	249.8	-26.4	0.331
4-1930	4-2570	0.585	301.9	-21.6	-0.83	0.786	128.4	0.631	1.221	221.6	835.9	0.451	1.992	-1.44	1.073	128.0	240.3	-22.5	0.669
4-1930	4-2580	0.288	85.1	20.7	-1.07	0.906	69.4	0.376	1.624	89.7	353.6	---	2.234	-1.40	1.163	88.2	10.2	-5.2	0.185
4-1930	4-2580	0.211	332.7	-15.4	-1.07	0.711	96.7	0.316	1.075	194.9	818.8	0.734	1.415	-1.40	1.019	108.2	260.3	-27.5	0.314
4-1930	4-2590	0.288	85.2	20.1	-1.30	0.906	69.5	0.375	1.627	89.5	362.8	1.016	2.237	-1.39	1.163	90.8	3.3	-8.3	0.182
4-1930	4-2590	0.192	344.5	-12.0	-1.30	0.705	93.0	0.312	1.065	186.7	820.0	0.733	1.397	-1.39	1.014	108.0	270.5	-27.7	0.312
4-1930	4-2600	0.292	85.1	19.4	-1.54	0.907	69.2	0.380	1.628	89.9	372.9	1.010	2.247	-1.42	1.163	93.5	355.6	-11.3	0.193
4-1930	4-2600	0.185	357.1	-7.7	-1.54	0.700	89.4	0.317	1.058	178.8	821.7	0.722	1.393	-1.42	1.011	108.4	280.3	-27.4	0.321
4-1930	4-2610	0.304	84.5	18.9	-1.80	0.907	68.5	0.391	1.629	91.3	383.8	0.992	2.266	-1.50	1.164	96.6	348.7	-13.4	0.222
4-1930	4-2610	0.190	10.0	-2.8	-1.80	0.696	85.8	0.332	1.052	171.4	823.8	0.703	1.401	-1.50	1.008	109.3	289.7	-26.5	0.339
4-1930	4-2620	0.325	83.5	18.5	-2.09	0.907	67.1	0.411	1.630	93.9	395.8	0.960	2.300	-1.64	1.164	100.2	344.0	-14.4	0.267
4-1930	4-2620	0.210	22.2	2.2	-2.09	0.693	83.7	0.358	1.047	164.5	826.4	0.672	1.421	-1.64	1.007	110.9	298.5	-25.1	0.369
4-1930	4-2630	0.360	81.9	18.2	-2.45	0.907	66.9	0.445	1.630	97.9	409.4	0.905	2.354	-1.86	1.165	104.7	341.2	-14.7	0.337
4-1930	4-2630	0.246	32.9	6.5	-2.45	0.690	76.9	0.398	1.043	158.3	829.9	0.627	1.458	-1.86	1.006	113.4	306.8	-23.4	0.414
4-1930	4-2640	0.416	79.4	18.0	-2.95	0.907	61.2	0.498	1.630	104.0	425.1	0.818	2.442	-2.21	1.167	110.5	339.7	-14.6	0.434
4-1930	4-2640	0.306	41.5	9.9	-2.95	0.688	70.7	0.461	1.039	153.5	834.6	0.560	1.518	-2.21	1.006	117.4	314.1	-21.5	0.484
4-1930	4-2640	0.472	343.0	-10.4	-2.95	0.469	107.9	0.728	0.822	187.1	1228.2	0.223	1.421	-2.21	0.871	135.2	293.0	-23.6	0.732
4-1930	4-2650	0.508	75.6	17.9	-3.70	0.907	55.2	0.564	1.631	113.0	443.7	0.679	2.582	-2.84	1.169	118.6	338.7	-14.4	0.576
4-1930	4-2650	0.400	47.5	12.3	-3.70	0.686	62.2	0.556	1.036	150.9	841.6	0.460	1.613	-2.84	1.007	123.8	320.1	-19.7	0.594
4-1930	4-2650	0.442	3.8	-2.4	-3.70	0.444	85.6	0.727	0.807	178.3	1229.1	0.220	1.394	-2.84	0.860	134.8	302.6	-22.5	0.727
4-1930	4-2660	0.551	49.7	13.7	-5.12	0.686	49.6	0.700	1.035	152.5	852.9	0.311	1.760	-4.14	1.009	134.4	324.0	-18.4	0.772
4-1930	4-2660	0.521	19.7	4.4	-5.12	0.432	64.0	0.796	0.801	172.6	1233.0	0.163	1.438	-4.14	0.857	141.2	310.4	-21.1	0.821
4-1930	4-2700	0.599	313.8	-15.5	2.67	0.659	130.6	0.716	0.999	204.7	944.4	0.284	1.714	4.13	1.002	44.3	222.4	-12.4	0.766
4-1930	4-2710	0.579	288.8	-21.3	1.23	0.900	125.8	0.594	1.600	244.4	634.0	0.650	2.549	2.81	1.177	60.4	208.3	-6.2	0.568
4-1930	4-2710	0.449	316.1	-15.5	1.23	0.658	117.4	0.580	0.997	205.1	954.7	0.419	1.575	2.81	1.004	54.5	227.2	-13.7	0.598
4-1930	4-2720	0.490	285.3	-22.5	0.46	0.901	119.8	0.509	1.600	253.0	652.6	0.786	2.414	2.18	1.179	68.5	208.1	-5.6	0.428
4-1930	4-2720	0.351	322.3	-14.4	0.46	0.655	108.1	0.493	0.993	201.0	960.6	0.503	1.483	2.18	1.005	60.4	234.4	-15.5	0.500
4-1930	4-2730	0.435	283.1	-23.5	-0.04	0.901	116.1	0.455	1.600	258.7	668.3	0.872	2.328	1.82	1.182	74.4	207.8	-4.7	0.331
4-1930	4-2730	0.589	37.0	15.0	-0.04	0.568	46.8	0.794	0.898	163.6	933.2	0.185	1.611	1.82	0.953	37.7	259.5	-21.8	0.856
4-1930	4-2730	0.286	332.5	-11.7	-0.04	0.651	100.6	0.443	0.988	193.9	963.5	0.550	1.425	1.82	1.004	63.7	243.3	-17.4	0.447
4-1940	4-1990	0.483	303.4	-19.6	0.50	0.802	120.4	0.513	1.272	229.9	263.8	---	---	2.24	1.109	61.6	223.2	-12.1	0.5
4-1940	4-2000	0.416	300.0	-21.2	-0.07	0.821	115.4	0.433	1.322	237.6	281.5	---	---	1.80	1.125	68.7	224.3	-11.9	0.399
4-1940	4-2010	0.375	297.2	-22.6	-0.46	0.836	112.5	0.383	1.368	244.4	298.4	---	---	1.54	1.138	74.1	224.8	-11.4	0.313
4-1940	4-2020	0.350	295.1	-23.7	-0.76	0.846	110.7	0.354	1.402	249.6	313.7	---	---	1.39	1.147	78.4	224.2	-10.3	0.249
4-1940	4-2030	0.334	293.9	-24.6	-1.01	0.852	109.5	0.335	1.421	252.9	327.2	---	---	1.30	1.152	81.9	222.2	-8.5	0.201
4-1940	4-2040	0.322	293.5	-25.4	-1.24	0.853	108.7	0.321	1.426	254.5	338.9	---	---	1.25	1.154	84.9	218.4	-6.0	0.168
4-1940	4-2050	0.312	293.8	-26.0	-1.47	0.852	108.1	0.310	1.420	254.5	349.1	---	---	1.25	1.153	87.4	213.5	-3.0	0.147
4-1940	4-2060	0.303	294.7	-26.6	-1.70	0.847	107.5	0.300	1.406	253.4	358.2	---	---	1.29	1.150	89.6	208.5	0.1	0.136
4-1940	4-2070	0.295	296.0	-27.2	-1.95	0.841	106.9	0.291	1.386	251.3	366.3	0.983	---	1.38	1.145	91.4	204.5	2.6	0.133
4-1940	4-2080	0.287	297.7	-27.9	-2.24	0.834	106.3	0.282	1.363	248.6	373.7	0.979	---	1.53	1.138	93.0	202.5	4.5	0.136
4-1940	4-2090	0.278	299.9	-28.6	-2.63	0.826	105.6	0.273	1.339	245.3	380.6	0.974	---	1.77	1.131	94.4	202.7	5.9	0.141
4-1940	4-2100	0.269	302.5	-30.1	-3.17	0.818	104.9	0.265	1.315	241.6	387.0	0.967	---	2.20	1.123	95.5	204.9	7.6	0.149
4-1940	4-2110	0.262	305.9	-32.5	-4.09	0.809	104.1	0.257	1.291	237.5	392.9	0.959	---	3.00	1.115	96.6	209.2	10.8	0.160
4-1940	4-2120	0.260	311.4	-37.9	-6.16	0.801	103.3	0.251	1.269	233.2	398.6	0.951	---	4.95	1.106	97.5	216.1	19.1	0.181
4-1940	4-2130	0.332	333.7	-56.3	-16.45	0.792	102.4	0.245	1.247	228.6	403.9	0.942	---	15.13	1.098	98.2	229.1	48.6	0.320
4-1940	4-2140	0.282	304.5	15.3	11.9	0.784	101.4	0.241	1.228	224.0	409.4	0.932	---	-13.35	1.089	99.0	168.8	-61.1	0.296
4-1940	4-2150	0.218	310.7	-6.7	3.25	0.776	100.4	0.237	1.209	219.1	414.2	0.923	---	-4.78	1.081	99.6	210.7	-41.2	0.197
4-1940	4-2160	0.203	315.9	-12.0	1.32	0.769	99.2	0.234	1.193	214.0	418.9	0.913	---	-2.97	1.073	100.2	223.2	-33.9	0.191
4-1940	4-2170	0.192	320.9	-13.9	0.44	0.762	98.0	0.233	1.177	208.8	423.4	0.903	---	-2.20	1.065	100.7	232.5	-31.2	0.195
4-1940	4-2180	0.182	326.2	-14.3	-0.09	0.755	96.7	0.233	1.163	203.5	427.8	0.892	---	-1.79	1.058	101.2	241.2	-30.2	0.201
4-1940	4-2190	0.173	332.1	-13.9	-0.46	0.748	95.3	0.235	1.150	198.0	431.9	0.880	---	-1.54	1.052	101.8	249.6	-29.8	0.209
4-1940	4-2200	0.165	338.8	-12.8	-0.74	0.742	93.8	0.239	1.138	192.4	436.0	0.866	---	-1.39	1.046	102.4	258.1	-29.5	0.219
4-1940	4-2210	0.159	346.3	-11.0	-0.99	0.736	92.2	0.245	1.127	186.8	439.9	0.851	---	-1.30	1.040	103.0	266.7	-29.2	0.231
4-1940	4-2220	0.155	354.9	-8.5	-1.20	0.731	90.4	0.253	1.116	181.1	443.7	0.834	---	-1.26	1.035	103.8	275.2	-28.5	0.245
4-1940	4-2230	0.156	4.3	-5.3	-1.41	0.725	88.3	0.266	1.107	175.3	447.5	0.813	1.401	-1.25	1.031	104.7	283.6	-27.6	0.262
4-1940	4-2240	0.162	14.3	-1.6	-1.62	0.720	85.9	0.282	1.098	169.6	451.2	0.788	1.408	-1.27	1.028	105.9	291.9	-26.4	0.284
4-1940	4-2250	0.176	24.6	2.4	-1.85	0.716	83.2	0.306	1.090	163.9	455.2	0.757	1.423	-1.34	1.025	107.4	299.9	-24.9	0.312
4-1940	4-2260	0.200	34.4	6.2	-2.11	0.711	79.8	0.338	1.082	158.6	459.4	0.717	1.448	-1.45	1.023	109.4	307.6	-23.1	0.349
4-1940	4-2270	0.239	43.1	9.6	-2.43	0.707	75.6	0.383	1.076	153.9	464.2	0.664	1.488	-1.64	1.022	112.3	314.6	-21.1	0.400
4-1940	4-2280	0.298	50.3	12.3	-2.85	0.704	70.0	0.448	1.070	150.2	470.2	0.591	1.549	-1.94	1.021	116.4	321.4	-19.1	0.473
4-1940	4-2290	0.390	55.3	14.4	-3.69	0.701	62.2	0.543	1.065	148.5	478.1	0.487	1.644	-2.47	1.021	122.8	326.9	-17.2	0.583
4-1940	4-2300	0.534	57.2	15.7	-4.87	0.699	50.3	0.684	1.063	150.5	489.8	0.336	1.796	-3.58	1.022	133.1	330.5	-15.8	0.756
4-1940	4-2350	0.466	322.7	-13.9	0.93	0.644	118.4	0.602	0.985	203.8	592.4	0.392	1.578	2.61	0.999	53.0	233.6	-15.8	0.624
4-1940	4-2360	0.575	33.6	14.0	0.20	0.479	50.4	0.825	0.833	169.0	567.6	0.146	1.521	2.00	0.905	35.2	258.5	-21.0	0.875
4-1940	4-2360	0.362	329.6	-12.3	0.20	0.637	108.1	0.515	0.977	199.0	597.6	0.473	1.480	2.00	0.998	59.0	241.2	-17.5	0.524
4-1940	4-2370	0.464	31.9	12.9	-0.27	0.519	62.4	0.721	0.862	167.6	576.3	0.240	1.483	1.66	0.929	44.5	264.1	-21.9	0.745
4-1940	4-2370	0.295	342.7	-8.2	-0.27	0.625	98.9	0.474	0.962	190.1	598.8	0.506	1.419	1.66	0.992	61.7	251.2	-19.3	0.479
4-1940	4-2460	0.567	74.5	20.4	-2.41	0.864	49.5	0.650	1.465	127.4	257.4	---	2.417	1.63	1.160	53.5	325.0	-11.7	0.704
4-1940	4-2460	0.532	76.4	19.7	-2.86	0.870	52.1	0.616	1.485	123.6	263.7	---	2.401	1.95	1.162	56.7	331.6	-8.6	0.652
4-1940	4-2470	0.500	78.2	18.5	-3.54	0.875	54.4	0.584	1.504	119.9	270.1	---	2.383	2.51	1.164	59.7	337.6	-4.9	0.602

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1940	4-2480	0.471	79.9	16.1	-4.83	0.879	56.6	0.554	1.522	116.4	276.5	---	2.365	3.68	1.165	62.6	343.0	0.2	0.556
4-1940	4-2490	0.454	81.1	9.5	-8.52	0.883	58.7	0.526	1.538	112.9	283.0	---	2.347	7.27	1.166	65.4	346.4	10.4	0.522
4-1940	4-2510	0.395	83.0	35.3	5.72	0.889	62.2	0.475	1.566	106.3	296.3	---	2.311	-7.20	1.166	70.6	11.0	-15.3	0.436
4-1940	4-2520	0.365	85.4	28.6	2.11	0.892	63.7	0.454	1.578	103.4	303.1	---	2.294	-3.69	1.166	73.1	12.0	-6.6	0.381
4-1940	4-2530	0.344	86.9	25.9	0.84	0.894	65.1	0.435	1.588	100.6	310.0	---	2.278	-2.53	1.165	75.4	15.2	-2.7	0.340
4-1940	4-2540	0.326	88.1	24.4	0.17	0.896	66.3	0.418	1.596	98.0	317.2	---	2.263	-1.97	1.164	77.7	18.3	-0.3	0.302
4-1940	4-2550	0.310	89.2	23.3	-0.27	0.898	67.3	0.403	1.604	95.7	324.5	---	2.250	-1.66	1.164	80.0	20.6	1.0	0.267
4-1940	4-2560	0.298	90.0	22.3	-0.60	0.899	68.2	0.391	1.610	93.7	332.2	---	2.239	-1.46	1.163	82.3	21.6	1.4	0.236
4-1940	4-2570	0.288	90.7	21.5	-0.86	0.900	68.8	0.382	1.615	92.1	340.2	---	2.231	-1.35	1.163	84.6	20.7	0.7	0.210
4-1940	4-2570	0.315	317.7	-18.7	-0.86	0.726	107.2	0.387	1.109	212.6	820.6	0.679	1.538	-1.35	1.034	112.3	248.5	-25.3	0.386
4-1940	4-2570	0.489	308.9	-20.3	-0.86	0.761	121.1	0.542	1.176	221.5	829.5	0.539	1.814	-1.35	1.059	122.0	243.6	-23.1	0.560
4-1940	4-2580	0.282	91.2	20.7	-1.09	0.901	69.3	0.376	1.618	91.0	348.6	---	2.226	-1.28	1.162	86.9	17.4	-1.1	0.191
4-1940	4-2580	0.247	228.5	-16.4	-1.09	0.712	100.5	0.340	1.083	202.0	819.6	0.716	1.451	-1.28	1.023	109.5	259.8	-26.8	0.338
4-1940	4-2590	0.279	91.5	20.0	-1.30	0.902	69.5	0.373	1.621	90.4	357.5	---	2.226	-1.25	1.162	89.3	11.5	-3.8	0.181
4-1940	4-2590	0.213	339.4	-13.5	-1.30	0.704	96.1	0.324	1.070	193.1	820.2	0.724	1.416	-1.25	1.016	108.7	270.3	-27.2	0.324
4-1940	4-2600	0.281	91.5	19.4	-1.51	0.902	69.4	0.375	1.623	90.4	367.1	1.015	2.231	-1.26	1.162	91.9	4.0	-6.9	0.184
4-1940	4-2600	0.196	351.3	-9.8	-1.51	0.698	92.3	0.321	1.061	184.8	821.5	0.720	1.401	-1.26	1.012	108.6	280.3	-26.8	0.324
4-1940	4-2610	0.288	91.2	18.9	-1.73	0.902	68.9	0.382	1.624	91.3	377.5	1.003	2.245	-1.30	1.163	94.8	356.6	-9.6	0.203
4-1940	4-2610	0.188	4.1	-5.1	-1.73	0.693	88.6	0.329	1.054	177.0	823.3	0.707	1.400	-1.30	1.009	109.1	289.9	-25.9	0.335
4-1940	4-2620	0.304	90.4	18.6	-1.97	0.902	67.9	0.397	1.625	93.1	388.9	0.980	2.270	-1.36	1.164	98.1	350.8	-11.2	0.240
4-1940	4-2620	0.196	17.3	0.0	-1.97	0.689	84.6	0.347	1.048	169.7	825.5	0.684	1.411	-1.35	1.007	110.2	299.0	-24.5	0.357
4-1940	4-2630	0.330	89.1	18.3	-2.25	0.902	66.3	0.422	1.625	96.2	401.5	0.939	2.312	-1.53	1.165	102.0	347.2	-11.9	0.295
4-1940	4-2630	0.219	29.7	5.0	-2.25	0.686	80.2	0.377	1.043	163.0	828.3	0.649	1.436	-1.53	1.006	112.1	307.5	-22.7	0.392
4-1940	4-2640	0.372	87.2	18.3	-2.61	0.902	63.5	0.443	1.625	100.9	415.8	0.872	2.378	-1.76	1.166	106.9	345.3	-12.0	0.374
4-1940	4-2640	0.262	48.4	9.2	-2.61	0.683	74.8	0.425	1.039	157.1	832.1	0.597	1.480	-1.76	1.006	115.1	315.3	-20.7	0.445
4-1940	4-2650	0.440	84.2	18.4	-3.12	0.902	59.0	0.528	1.626	107.9	432.4	0.767	2.484	-2.15	1.168	113.5	344.3	-11.8	0.486
4-1940	4-2650	0.332	48.7	12.3	-3.12	0.681	67.8	0.498	1.035	152.9	837.5	0.520	1.551	-2.15	1.006	119.3	322.2	-18.6	0.528
4-1940	4-2650	0.456	354.5	-5.8	-3.12	0.448	100.9	0.729	0.815	184.1	1228.7	0.220	1.409	-2.15	0.867	135.2	302.9	-21.9	0.733
4-1940	4-2660	0.551	75.7	18.5	-3.95	0.903	51.6	0.630	1.626	118.3	452.5	0.601	2.651	-2.87	1.170	122.9	343.3	-11.8	0.652
4-1940	4-2660	0.443	53.9	14.5	-3.95	0.679	58.0	0.609	1.033	151.5	845.7	0.404	1.663	-2.87	1.008	127.5	327.5	-16.9	0.658
4-1940	4-2660	0.461	14.1	2.3	-3.95	0.429	79.0	0.753	0.803	176.3	1230.5	0.198	1.408	-2.87	0.859	137.1	311.7	-20.2	0.763
4-1940	4-2670	0.573	28.1	8.2	-5.69	0.419	55.2	0.842	0.798	172.1	1236.0	0.126	1.469	-4.50	0.857	146.0	318.6	-18.5	0.892
4-1940	4-2710	0.542	326.4	-14.2	1.53	0.651	125.3	0.667	0.994	204.6	948.2	0.331	1.657	3.15	1.003	48.2	230.3	-15.0	0.703
4-1940	4-2720	0.550	294.1	-21.4	0.53	0.896	123.5	0.561	1.594	246.9	640.3	0.699	2.488	2.27	1.178	63.3	214.5	-8.9	0.518
4-1940	4-2720	0.414	324.1	-13.8	0.53	0.649	113.7	0.551	0.991	203.2	956.5	0.445	1.538	2.27	1.004	56.6	236.3	-16.4	0.566
4-1940	4-2730	0.475	291.2	-22.6	-0.04	0.896	118.4	0.488	1.594	254.3	657.6	0.816	2.372	1.82	1.181	70.6	214.5	-8.4	0.395
4-1940	4-2730	0.329	331.7	-12.0	-0.04	0.645	105.0	0.479	0.987	197.7	961.1	0.514	1.460	1.82	1.004	61.4	244.4	-18.0	0.487
4-1940	4-2740	0.428	289.4	-23.6	-0.44	0.896	115.3	0.442	1.594	259.2	672.6	0.890	2.297	1.55	1.182	75.9	214.1	-7.5	0.308
4-1940	4-2740	0.533	41.8	16.1	-0.44	0.568	51.8	0.754	0.903	163.1	936.6	0.222	1.584	1.55	0.958	41.2	268.4	-22.2	0.805
4-1940	4-2740	0.272	344.0	-8.1	-0.44	0.640	97.3	0.443	0.980	189.4	962.8	0.546	1.414	1.55	1.003	63.7	254.1	-19.5	0.448
4-1950	4-2000	0.521	299.5	-21.3	-0.08	0.889	121.3	0.529	1.583	249.0	286.8	---	---	1.79	1.179	66.3	221.1	-11.6	0.467
4-1950	4-2010	0.461	297.0	-22.5	-0.50	0.891	117.2	0.469	1.593	255.6	303.4	---	---	1.48	1.182	72.7	221.0	-11.0	0.361
4-1950	4-2020	0.424	295.3	-23.5	-0.81	0.893	114.7	0.432	1.603	260.2	318.2	---	---	1.29	1.185	77.7	219.7	-9.9	0.284
4-1950	4-2030	0.400	294.5	-24.2	-1.05	0.893	113.1	0.407	1.601	262.8	330.9	---	---	1.18	1.186	81.7	217.0	-8.3	0.230
4-1950	4-2040	0.382	294.4	-24.8	-1.26	0.890	111.9	0.388	1.585	263.7	342.0	---	---	1.12	1.184	85.0	213.0	-6.0	0.193
4-1950	4-2050	0.368	294.9	-25.3	-1.46	0.884	111.1	0.371	1.559	263.2	351.6	---	---	1.10	1.180	87.7	208.2	-3.4	0.170
4-1950	4-2060	0.356	296.0	-25.7	-1.66	0.876	110.3	0.355	1.526	261.6	360.2	0.984	---	1.11	1.174	90.1	203.6	-1.0	0.159
4-1950	4-2070	0.344	297.4	-26.1	-1.86	0.866	109.7	0.340	1.488	259.1	368.0	0.982	---	1.16	1.166	92.0	200.4	0.8	0.155
4-1950	4-2080	0.332	299.2	-26.5	-2.10	0.856	109.0	0.326	1.450	256.0	375.0	0.977	---	1.25	1.158	93.7	199.0	1.9	0.157
4-1950	4-2090	0.320	301.2	-26.9	-2.38	0.845	108.2	0.313	1.412	252.5	381.6	0.971	---	1.41	1.148	95.1	199.6	2.6	0.161
4-1950	4-2100	0.309	303.6	-27.8	-2.76	0.834	107.4	0.300	1.378	248.5	387.7	0.963	---	1.68	1.138	96.3	202.0	3.1	0.167
4-1950	4-2110	0.298	306.4	-28.8	-3.33	0.823	106.6	0.289	1.342	244.3	393.5	0.955	---	2.14	1.128	97.3	205.9	4.1	0.175
4-1950	4-2120	0.288	310.0	-31.2	-4.38	0.812	105.6	0.279	1.311	239.8	399.0	0.946	---	3.09	1.118	98.2	211.6	7.3	0.184
4-1950	4-2130	0.287	316.4	-37.9	-7.22	0.802	104.7	0.270	1.283	235.1	404.3	0.937	---	5.83	1.108	99.0	220.0	18.3	0.210
4-1950	4-2150	0.254	310.4	-1.6	5.43	0.782	102.5	0.256	1.234	225.2	414.2	0.918	---	-7.01	1.088	100.2	204.8	-47.9	0.230
4-1950	4-2160	0.231	315.9	-11.2	1.74	0.773	101.3	0.251	1.213	220.1	418.8	0.908	---	-3.41	1.079	100.8	222.5	-35.0	0.206
4-1950	4-2170	0.217	320.6	-13.8	0.53	0.764	100.1	0.248	1.194	214.8	423.3	0.898	---	-2.30	1.071	101.3	232.5	-31.1	0.207
4-1950	4-2180	0.205	325.3	-14.6	-0.10	0.756	98.7	0.246	1.176	209.4	427.5	0.887	---	-1.77	1.063	101.7	241.3	-29.8	0.212
4-1950	4-2190	0.193	330.5	-14.4	-0.50	0.749	97.3	0.245	1.161	203.8	431.6	0.876	---	-1.48	1.055	102.2	249.9	-29.2	0.218
4-1950	4-2200	0.182	336.3	-13.6	-0.79	0.741	95.8	0.247	1.146	198.2	435.6	0.863	---	-1.30	1.049	102.7	258.4	-28.9	0.226
4-1950	4-2210	0.173	343.0	-12.1	-1.02	0.735	94.1	0.251	1.133	192.5	439.4	0.850	---	-1.19	1.043	103.2	266.9	-28.6	0.236
4-1950	4-2220	0.165	350.6	-10.1	-1.23	0.728	92.3	0.257	1.122	186.6	443.1	0.834	---	-1.12	1.037	103.9	275.3	-27.9	0.247
4-1950	4-2230	0.161	359.4	-7.2	-1.41	0.722	90.3	0.266	1.111	180.7	446.8	0.815	---	-1.10	1.033	104.7	283.9	-27.0	0.262
4-1950	4-2240	0.161	9.2	-3.7	-1.60	0.717	88.0	0.280	1.101	174.9	450.4	0.793	1.409	-1.10	1.029	105.7	292.3	-25.8	0.280
4-1950	4-2250	0.167	19.8	0.3	-1.79	0.711	85.4	0.298	1.092	169.0	454.1	0.766	1.417	-1.13	1.026	106.9	300.4	-24.2	0.304
4-1950	4-2260	0.182	30.6	4.6	-1.99	0.706	82.3	0.324	1.083	163.4	458.0	0.732	1.435	-1.20	1.023	108.6	308.3	-22.4	0.334
4-1950	4-2270	0.210	40.9	8.5	-2.24	0.702	78.6	0.361	1.076	158.1	462.3	0.688	1.464	-1.32	1.022	110.9	315.7	-20.4	0.375
4-1950	4-2280	0.255	49.9	11.9	-2.54	0.697	73.8	0.412	1.069	153.6	467.4	0.628	1.510	-1.52	1.020	114.2	322.7	-18.2	0.434
4-1950	4-2290	0.324	57.0	14.4	-2.97	0.694	67.3	0.487	1.063	150.4	473.8	0.545	1.581	-1.84	1.020	119.0	328.8	-16.0	0.519
4-1950	4-2300	0.432	61.4	16.3	-3.65	0.691	58.1	0.598	1.059	149.7	482.8	0.426	1.692	-2.42	1.021	126.6	333.7	-14.1	0.648
4-1950	4-2350	0.560	327.4	-12.3	1.16	0.633	126.6	0.691	0.979	203.0	585.4	0.302	1.656	2.87	0.996	46.3	237.0	-17.1	0.733
4-1950	4-2360	0.425	331.6	-11.6	0.23	0.628	114.0	0.575	0.973	201.0	593.4	0.413	1.633	2.04	0.996	54.9	243.3	-18.3	0.592
4-1950	4-2370	0.513	37.1	14.8	-0.30	0.486	57.3	0.780	0.843	168.9	571.4	0.185	1.500	1.62	0.915	39.4	267.1	-22.3	0.817
4-1950	4-2370	0.336	341.2	-8.7	-0.30	0.618	103.8	0.509	0.961	194.2	596.7	0.472	1.451	1.62	0.992	59.4	252.3	-19.7	0.518
4-1950	4-2380	0.384	3.8	11.9	-0.65	0.535	71.9	0.647	0.881	169.4	582.0	0.311	1.450	1.30	0.945	50.2	271.6	-21.9	0.661
4-1950	4-2380	0.287	0.9	-1.1	-0.65	0.597	92.3	0.501	0.938	182.3	595.0	0.468	1.408	1.38	0.980	60.1	264.1	-21.0	0.507
4-1950	4-2450	0.576	79.6	21.2	-2.22	0.855	48.1	0.668	1.448	130.0	253.8	---	2.415	1.32	1.157	51.8	326.8	-11.6	0.733
4-1950	4-2460	0.540	81.5	20.6	-2.55	0.861	50.8	0.633	1.469	126.2	260.1	---	2.399	1.52	1.159	55.0	333.4	-8.7	0.680
4-1950	4-2470	0.506	83.3	19.7	-3.00	0.866	53.3	0.600	1.489	122.5	266.5	---	2.382	1.86	1.161	58.1	339.7	-5.4	0.628
4-1950	4-2480	0.476	85.1	18.3	-3.74	0.871	55.5	0.568	1.508	118.8	272.8	---	2.365	2.50	1.163	61.1	345.5	-1.4	0.579

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1950	4-2490	0.449	86.5	15.2	-5.30	0.875	57.7	0.539	1.525	115.3	279.3	---	2.347	3.97	1.163	63.9	350.4	4.3	0.534
4-1950	4-2500	0.447	88.6	3.9	-11.66	0.879	59.6	0.512	1.541	112.0	285.8	---	2.329	10.23	1.164	66.6	352.0	20.1	0.517
4-1950	4-2510	0.442	85.0	50.2	14.63	0.883	61.4	0.486	1.555	108.7	292.6	---	2.310	-16.16	1.164	69.3	24.5	-27.9	0.527
4-1950	4-2520	0.368	91.2	30.5	3.03	0.885	63.0	0.463	1.567	105.6	299.2	---	2.293	-4.65	1.164	71.8	15.2	-7.4	0.405
4-1950	4-2530	0.345	92.7	26.4	1.04	0.888	64.4	0.443	1.578	102.7	306.1	---	2.277	-2.76	1.163	74.2	17.9	-1.8	0.359
4-1950	4-2540	0.326	93.9	24.4	0.19	0.890	65.7	0.424	1.588	100.1	313.1	---	2.261	-2.01	1.163	76.5	21.2	1.2	0.320
4-1950	4-2550	0.309	95.0	23.1	-0.30	0.892	66.8	0.408	1.596	97.7	320.4	---	2.247	-1.61	1.162	78.8	23.9	3.0	0.284
4-1950	4-2560	0.296	95.9	22.1	-0.65	0.893	67.8	0.395	1.602	95.6	327.9	---	2.235	-1.38	1.162	81.1	25.6	3.8	0.251
4-1950	4-2570	0.285	96.7	21.2	-0.91	0.895	68.5	0.384	1.609	93.8	335.7	---	2.226	-1.24	1.161	83.3	25.7	3.7	0.222
4-1950	4-2580	0.277	97.3	20.4	-1.12	0.895	69.1	0.377	1.612	92.5	343.9	---	2.219	-1.15	1.161	85.6	23.6	2.7	0.198
4-1950	4-2580	0.309	325.0	-17.0	-1.12	0.717	106.2	0.386	1.101	210.1	821.6	0.677	1.525	-1.15	1.030	112.3	258.6	-25.9	0.387
4-1950	4-2580	0.522	314.9	-18.9	-1.12	0.760	123.3	0.571	1.183	220.7	832.2	0.507	1.860	-1.15	1.060	124.0	252.7	-24.2	0.597
4-1950	4-2590	0.272	97.6	19.7	-1.32	0.896	69.4	0.372	1.616	91.6	352.6	---	2.217	-1.11	1.161	88.0	19.0	0.4	0.183
4-1950	4-2590	0.247	335.4	-14.5	-1.32	0.703	99.9	0.345	1.078	200.0	821.0	0.706	1.451	-1.11	1.020	109.9	269.8	-26.5	0.347
4-1950	4-2600	0.271	97.7	19.1	-1.50	0.897	69.5	0.372	1.618	91.3	361.8	1.017	2.219	-1.09	1.161	90.5	12.1	-2.5	0.180
4-1950	4-2600	0.214	346.2	-11.3	-1.50	0.696	95.5	0.332	1.066	191.2	821.7	0.712	1.420	-1.09	1.014	109.2	280.1	-26.2	0.336
4-1950	4-2610	0.276	97.5	18.7	-1.69	0.897	69.2	0.376	1.619	91.7	371.8	1.011	2.228	-1.11	1.162	93.2	4.4	-5.5	0.190
4-1950	4-2610	0.197	358.3	-7.2	-1.69	0.690	91.5	0.332	1.057	183.0	823.1	0.706	1.407	-1.11	1.011	109.3	289.9	-25.3	0.338
4-1950	4-2 20	0.287	97.0	18.3	-1.88	0.897	68.5	0.387	1.620	93.0	382.6	0.994	2.247	-1.16	1.163	96.2	357.8	-7.7	0.218
4-1950	4-2620	0.192	11.4	-2.3	-1.88	0.685	87.5	0.342	1.050	175.2	824.9	0.690	1.409	-1.16	1.008	109.9	299.2	-23.9	0.352
4-1950	4-2630	0.306	96.0	18.2	-2.10	0.897	67.2	0.406	1.621	95.3	394.4	0.963	2.279	-1.25	1.164	99.8	353.2	-8.9	0.262
4-1950	4-2630	0.202	24.9	3.0	-2.10	0.681	83.3	0.364	1.044	168.0	827.2	0.664	1.424	-1.25	1.007	111.3	308.0	-22.1	0.378
4-1950	4-2640	0.338	94.5	18.2	-2.37	0.897	65.1	0.437	1.621	98.9	407.7	0.912	2.330	-1.40	1.165	104.0	350.7	-9.3	0.327
4-1950	4-2640	0.230	37.6	7.9	-2.37	0.678	78.4	0.400	1.039	161.5	830.3	0.623	1.455	-1.40	1.006	113.6	316.2	-19.9	0.419
4-1950	4-2650	0.389	92.2	18.4	-2.72	0.897	61.8	0.487	1.621	104.4	422.8	0.831	2.413	-1.65	1.167	109.5	349.5	-9.2	0.418
4-1950	4-2650	0.281	48.2	11.9	-2.72	0.675	72.4	0.456	1.035	156.1	834.5	0.563	1.507	-1.65	1.006	117.1	323.5	-17.7	0.481
4-1950	4-2660	0.471	88.7	18.8	-3.25	0.897	56.3	0.566	1.621	112.5	440.5	0.704	2.538	-2.07	1.169	117.0	348.8	-9.1	0.549
4-1950	4-2660	0.368	55.9	14.7	-3.25	0.673	64.4	0.542	1.032	152.7	840.8	0.472	1.591	-2.07	1.007	122.8	329.8	-15.5	0.579
4-1950	4-2660	0.453	5.5	-0.9	-3.25	0.430	94.2	0.741	0.808	181.5	1229.5	0.209	1.408	-2.07	0.864	136.2	312.3	-19.5	0.749
4-1950	4-2670	0.497	60.0	16.5	-4.17	0.672	52.8	0.671	1.030	152.9	850.7	0.339	1.721	-2.89	1.009	132.1	334.2	-13.8	0.736
4-1950	4-2670	0.492	24.0	6.7	-4.17	0.415	71.4	0.788	0.799	174.7	1232.5	0.170	1.428	-2.89	0.859	140.4	320.4	-17.5	0.812
4-1950	4-2720	0.493	327.6	-12.6	0.64	0.641	120.6	0.625	0.989	203.9	951.1	0.370	1.608	2.40	1.003	51.3	238.9	-17.4	0.654
4-1950	4-2730	0.526	299.6	-21.2	-0.05	0.890	121.6	0.533	1.587	248.8	646.1	0.741	2.434	1.81	1.180	65.9	221.0	-11.6	0.474
4-1950	4-2730	0.382	332.8	-11.6	-0.05	0.638	110.1	0.528	0.985	200.5	957.7	0.465	1.506	1.81	1.003	58.1	246.0	-18.7	0.542
4-1950	4-2740	0.463	297.2	-22.4	-0.48	0.890	117.3	0.470	1.587	255.1	662.4	0.841	2.334	1.49	1.181	72.4	221.2	-11.1	0.365
4-1950	4-2740	0.579	47.0	17.7	-0.48	0.548	46.6	0.805	0.892	164.8	932.1	0.174	1.610	1.49	0.951	36.6	271.0	-22.5	0.874
4-1950	4-2740	0.308	342.1	-8.8	-0.48	0.633	101.7	0.472	0.980	193.7	961.0	0.517	1.442	1.49	1.002	61.8	255.0	-20.0	0.480
4-1950	4-2750	0.423	295.8	-23.4	-0.79	0.890	114.7	0.430	1.587	259.3	676.7	0.905	2.269	1.30	1.183	77.3	220.5	-10.3	0.288
4-1950	4-2750	0.470	45.5	16.8	-0.79	0.568	57.7	0.705	0.910	163.1	940.5	0.268	1.552	1.30	0.964	45.3	277.1	-22.1	0.746
4-1950	4-2750	0.262	357.5	-3.2	-0.79	0.626	93.3	0.452	0.971	184.0	961.4	0.532	1.409	1.30	0.999	63.2	265.6	-20.9	0.460
4-1960	4-2000	0.677	299.4	-21.3	-0.09	1.000	128.1	0.704	2.491	260.8	292.4	---	---	1.77	1.273	61.8	217.4	-11.1	0.582
4-1960	4-2010	0.579	297.2	-22.4	-0.56	0.978	122.5	0.615	2.192	266.6	308.4	---	---	1.40	1.253	70.8	216.7	-10.5	0.437
4-1960	4-2020	0.521	295.9	-23.2	-0.87	0.964	119.1	0.558	2.062	270.4	322.3	---	---	1.18	1.243	76.7	215.0	-9.5	0.340
4-1960	4-2030	0.484	295.4	-23.9	-1.10	0.952	116.9	0.518	1.971	272.2	334.2	---	---	1.05	1.235	81.3	212.1	-8.0	0.274
4-1960	4-2040	0.457	295.6	-24.3	-1.30	0.940	115.4	0.485	1.889	272.4	344.6	---	---	0.98	1.226	85.0	208.0	-6.0	0.231
4-1960	4-2050	0.436	296.4	-24.6	-1.47	0.928	114.3	0.457	1.808	271.3	353.7	---	---	0.94	1.217	88.0	203.6	-3.8	0.204
4-1960	4-2060	0.418	297.6	-24.9	-1.64	0.914	113.4	0.431	1.729	269.3	361.9	0.983	---	0.93	1.206	90.6	199.7	-1.9	0.191
4-1960	4-2070	0.401	299.2	-25.0	-1.81	0.899	112.6	0.407	1.654	266.5	369.3	0.981	---	0.95	1.195	92.7	197.1	-0.6	0.186
4-1960	4-2080	0.386	301.0	-25.2	-1.99	0.885	111.8	0.385	1.585	263.2	376.1	0.975	---	1.01	1.183	94.4	196.4	0.0	0.185
4-1960	4-2090	0.370	303.1	-25.4	-2.20	0.870	111.0	0.365	1.522	259.4	382.4	0.967	---	1.11	1.170	95.9	197.3	0.1	0.188
4-1960	4-2100	0.355	305.4	-25.7	-2.47	0.855	110.1	0.346	1.465	255.2	388.4	0.959	---	1.28	1.157	97.2	199.8	-0.1	0.192
4-1960	4-2110	0.340	307.9	-26.2	-2.84	0.841	109.2	0.329	1.415	250.8	394.0	0.950	---	1.55	1.145	98.3	203.7	-0.2	0.197
4-1960	4-2120	0.326	310.8	-27.3	-3.44	0.827	108.2	0.314	1.371	246.2	399.4	0.940	---	2.06	1.132	99.1	208.8	0.5	0.202
4-1960	4-2130	0.314	314.6	-29.7	-4.67	0.814	107.1	0.301	1.331	241.4	404.5	0.931	---	3.20	1.120	99.8	215.4	4.0	0.210
4-1960	4-2140	0.319	323.0	-39.0	-9.16	0.802	106.0	0.289	1.297	236.4	409.4	0.922	---	7.62	1.109	100.5	225.3	20.3	0.248
4-1960	4-2150	0.361	309.8	19.4	16.42	0.790	104.9	0.281	1.266	231.3	414.3	0.911	---	-18.04	1.098	101.1	165.8	-63.0	0.387
4-1960	4-2160	0.263	316.5	-9.3	2.54	0.779	103.6	0.272	1.239	226.1	418.7	0.902	---	-4.25	1.087	101.5	221.2	-37.3	0.227
4-1960	4-2170	0.246	321.2	-13.4	0.66	0.769	102.3	0.266	1.216	220.7	423.1	0.892	---	-2.44	1.078	102.0	232.5	-31.0	0.222
4-1960	4-2180	0.231	325.5	-14.5	-0.11	0.759	100.9	0.262	1.194	215.2	427.3	0.882	---	-1.75	1.069	102.4	241.5	-29.2	0.225
4-1960	4-2190	0.217	330.1	-14.5	-0.55	0.750	99.4	0.259	1.175	209.6	431.3	0.871	---	-1.40	1.061	102.8	250.1	-28.6	0.229
4-1960	4-2200	0.204	335.1	-13.9	-0.85	0.742	97.8	0.258	1.158	203.9	435.2	0.859	---	-1.19	1.053	103.2	258.6	-28.2	0.236
4-1960	4-2210	0.191	340.9	-12.8	-1.08	0.734	96.1	0.260	1.143	198.1	439.0	0.846	---	-1.07	1.046	103.6	267.1	-27.9	0.243
4-1960	4-2220	0.180	347.5	-11.0	-1.27	0.726	94.3	0.263	1.129	192.2	442.6	0.832	---	-0.99	1.040	104.2	275.7	-27.3	0.253
4-1960	4-2230	0.171	355.3	-8.7	-1.43	0.720	92.3	0.270	1.116	186.3	446.2	0.815	---	-0.95	1.035	104.8	284.2	-26.4	0.265
4-1960	4-2240	0.166	4.3	-5.6	-1.59	0.713	90.1	0.280	1.105	180.3	449.7	0.795	---	-0.93	1.031	105.6	292.6	-25.2	0.280
4-1960	4-2250	0.166	14.6	-1.7	-1.75	0.707	87.6	0.295	1.095	174.3	453.3	0.771	1.418	-0.94	1.027	106.7	300.8	-23.6	0.300
4-1960	4-2260	0.173	25.8	2.6	-1.91	0.701	84.7	0.316	1.085	168.4	456.9	0.742	1.428	-0.98	1.024	108.1	308.7	-21.7	0.326
4-1960	4-2270	0.190	37.2	7.0	-2.10	0.696	81.3	0.346	1.076	162.7	460.8	0.704	1.449	-1.06	1.022	110.0	316.3	-19.6	0.360
4-1960	4-2280	0.222	47.9	10.9	-2.32	0.691	77.0	0.387	1.069	157.6	465.3	0.655	1.483	-1.18	1.020	112.6	323.6	-17.3	0.407
4-1960	4-2290	0.275	57.0	14.1	-2.61	0.687	71.6	0.447	1.062	153.4	470.7	0.587	1.536	-1.37	1.019	116.4	330.2	-15.0	0.474
4-1960	4-2300	0.356	63.7	16.4	-3.04	0.683	64.0	0.534	1.056	150.8	477.9	0.493	1.620	-1.71	1.019	122.1	335.9	-12.8	0.573
4-1960	4-2310	0.485	67.3	18.0	-3.77	0.681	53.0	0.661	1.053	151.5	488.3	0.357	1.749	-2.36	1.021	131.3	340.1	-11.1	0.728
4-1960	4-2360	0.504	335.2	-10.3	0.28	0.617	121.1	0.651	0.968	201.4	587.8	0.338	1.598	2.10	0.993	49.4	246.1	-19.3	0.683
4-1960	4-2370	0.558	41.7	16.3	-0.34	0.451	52.3	0.832	0.826	170.4	566.8	0.139	1.513	1.57	0.902	34.5	269.9	-22.5	0.886
4-1960	4-2370	0.389	341.8	-8.5	-0.34	0.608	109.3	0.558	0.958	197.0	593.5	0.424	1.493	1.57	0.990	56.1	253.9	-20.4	0.573
4-1960	4-2380	0.441	38.4	14.7	-0.72	0.497	65.9	0.720	0.857	169.6	576.1	0.240	1.475	1.28	0.928	44.6	275.1	-22.2	0.746
4-1960	4-2380	0.314	355.8	-3.3	-0.72	0.592	98.2	0.518	0.941	187.8	594.3	0.453	1.429	1.28	0.982	58.9	264.4	-21.3	0.527
4-1960	4-2450	0.585	84.7	21.7	-2.09	0.845	46.7	0.686	1.431	132.6	250.3	---	2.412	1.05	1.153	50.0	328.5	-11.5	0.762
4-1960	4-2460	0.548	86.6	21.2	-2.32	0.852	49.5	0.650	1.453	128.8	256.6	---	2.397	1.18	1.156	53.3	335.2	-8.7	0.707
4-1960	4-2470	0.513	88.3	20.5	-2.63	0.857	52.1	0.616	1.474	125.0	262.9	---	2.381	1.34	1.158	56.5	341.5	-5.6	0.654

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1960	4-2480	0.481	90.2	19.5	-3.08	0.862	54.4	0.583	1.493	121.4	269.3	---	2.364	1.75	1.160	59.6	347.6	-2.2	0.603
4-1960	4-2490	0.451	91.8	17.7	-3.89	0.867	56.6	0.552	1.511	117.8	275.7	---	2.346	2.47	1.161	62.5	353.1	2.0	0.555
4-1960	4-2500	0.428	93.0	13.6	-5.91	0.871	58.7	0.524	1.528	114.4	282.2	---	2.328	4.41	1.162	65.3	357.5	8.8	0.512
4-1960	4-2510	0.515	97.1	-12.3	-23.58	0.875	60.5	0.498	1.543	111.2	288.7	---	2.311	22.00	1.162	67.9	354.8	44.1	0.608
4-1960	4-2520	0.376	97.0	35.1	5.43	0.878	62.2	0.473	1.556	108.0	295.5	---	2.292	-7.09	1.162	70.5	19.9	-11.2	0.436
4-1960	4-2530	0.347	98.5	26.9	1.39	0.881	63.7	0.451	1.568	105.0	302.3	---	2.276	-3.13	1.162	72.9	20.4	-1.3	0.379
4-1960	4-2540	0.326	99.7	24.2	0.23	0.883	65.1	0.431	1.579	102.3	309.3	---	2.260	-2.05	1.161	75.3	23.7	2.6	0.338
4-1960	4-2550	0.309	100.7	22.7	-0.35	0.885	66.3	0.414	1.587	99.8	316.4	---	2.245	-1.56	1.161	77.6	26.9	4.8	0.300
4-1960	4-2560	0.294	101.7	21.6	-0.71	0.887	67.3	0.400	1.595	97.6	323.8	---	2.232	-1.29	1.161	79.9	29.2	6.0	0.266
4-1960	4-2570	0.282	102.5	20.6	-0.97	0.888	68.1	0.388	1.601	95.7	331.5	---	2.222	-1.12	1.160	82.1	30.1	6.4	0.235
4-1960	4-2580	0.273	103.1	19.8	-1.17	0.889	68.8	0.378	1.606	94.2	339.5	---	2.214	-1.02	1.160	84.4	29.1	5.8	0.208
4-1960	4-2590	0.266	103.6	19.2	-1.35	0.890	69.2	0.372	1.610	93.1	348.0	---	2.209	-0.96	1.160	86.8	25.6	4.3	0.189
4-1960	4-2590	0.304	332.1	-15.0	-1.35	0.707	105.3	0.387	1.094	207.7	822.4	0.671	1.517	-0.96	1.026	112.4	268.8	-26.8	0.391
4-1960	4-2590	0.551	320.9	-17.3	-1.35	0.757	125.4	0.599	1.190	219.7	834.6	0.477	1.902	-0.96	1.062	126.0	261.9	-26.5	0.633
4-1960	4-2600	0.264	103.8	18.6	-1.51	0.891	69.4	0.370	1.613	92.5	356.9	---	2.209	-0.93	1.161	89.2	19.6	1.7	0.179
4-1960	4-2600	0.247	342.3	-12.3	-1.51	0.694	99.3	0.353	1.074	197.9	822.3	0.695	1.452	-0.93	1.018	110.4	279.7	-25.6	0.357
4-1960	4-2610	0.266	103.7	18.1	-1.66	0.891	69.3	0.372	1.615	92.5	366.5	1.015	2.214	-0.93	1.161	91.8	12.1	-1.3	0.182
4-1960	4-2610	0.215	353.2	-8.8	-1.66	0.687	94.7	0.342	1.061	189.2	823.2	0.698	1.424	-0.93	1.013	109.9	289.8	-24.8	0.349
4-1960	4-2620	0.273	103.4	17.8	-1.82	0.891	68.9	0.379	1.616	93.3	376.8	1.004	2.228	-0.96	1.162	94.6	4.8	-3.9	0.201
4-1960	4-2620	0.199	5.6	-4.4	-1.82	0.681	90.6	0.344	1.052	181.1	824.6	0.690	1.415	-0.96	1.009	110.1	299.3	-23.3	0.354
4-1960	4-2630	0.287	102.7	17.7	-2.00	0.892	67.9	0.393	1.616	95.0	388.1	0.981	2.252	-1.01	1.163	97.8	359.3	-5.7	0.237
4-1960	4-2630	0.196	19.2	0.9	-2.00	0.676	86.3	0.358	1.045	173.4	826.5	0.671	1.420	-1.01	1.000	110.9	308.3	-21.5	0.371
4-1960	4-2640	0.312	101.5	17.8	-2.20	0.892	66.3	0.418	1.616	97.8	400.5	0.941	2.292	-1.11	1.165	101.6	356.0	-6.5	0.290
4-1960	4-2640	0.210	33.0	6.2	-2.20	0.672	81.7	0.385	1.040	166.4	829.0	0.640	1.440	-1.11	1.006	112.6	316.7	-19.2	0.402
4-1960	4-2650	0.351	99.6	18.1	-2.45	0.892	63.7	0.457	1.616	102.1	414.4	0.878	2.354	-1.26	1.166	106.4	354.4	-6.6	0.366
4-1960	4-2650	0.245	45.8	10.9	-2.45	0.669	76.3	0.428	1.035	160.2	832.5	0.592	1.478	-1.26	1.006	116.3	324.4	-16.9	0.450
4-1960	4-2660	0.413	96.9	18.6	-2.79	0.892	59.6	0.517	1.616	108.4	430.4	0.780	2.453	-1.51	1.168	112.6	353.8	-6.5	0.471
4-1960	4-2660	0.306	56.1	14.4	-2.79	0.666	69.5	0.494	1.031	155.4	837.3	0.522	1.540	-1.51	1.007	119.6	331.3	-14.5	0.525
4-1960	4-2660	0.556	351.7	-5.8	-2.79	0.455	120.6	0.794	0.829	189.31231.3		0.171	1.486	-1.51	0.881	141.5	311.6	-19.0	0.831
4-1960	4-2660	0.594	348.9	-6.8	-2.79	0.465	126.4	0.815	0.835	190.31232.3		0.155	1.516	-1.51	0.887	143.6	311.1	-19.0	0.865
4-1960	4-2670	0.512	92.8	19.3	-3.33	0.892	52.9	0.612	1.617	117.7	449.4	0.628	2.606	-1.96	1.170	121.3	353.2	-6.3	0.624
4-1960	4-2670	0.405	63.0	16.8	-3.33	0.664	60.2	0.594	1.028	153.1	844.8	0.417	1.640	-1.96	1.008	126.5	336.9	-12.3	0.642
4-1960	4-2670	0.461	16.4	4.0	-3.33	0.410	87.3	0.762	0.802	179.11230.8		0.191	1.415	-1.96	0.862	138.0	321.2	-16.7	0.778
4-1960	4-2680	0.563	65.6	18.3	-4.37	0.663	46.4	0.742	1.027	155.2	856.7	0.265	1.789	-2.92	1.010	137.9	340.4	-10.8	0.830
4-1960	4-2680	0.535	33.4	10.7	-4.37	0.396	62.6	0.830	0.796	173.71235.2		0.135	1.456	-2.92	0.858	144.7	328.4	-14.6	0.876
4-1960	4-2720	0.591	332.6	-10.8	0.81	0.632	129.3	0.718	0.986	202.7	943.8	0.278	1.693	2.59	1.001	44.1	242.5	-18.7	0.770
4-1960	4-2730	0.592	308.3	-19.3	-0.06	0.884	126.0	0.693	1.581	242.3	633.4	0.643	2.519	1.80	1.178	60.2	227.4	-14.4	0.573
4-1960	4-2730	0.449	335.3	-10.6	-0.06	0.630	116.2	0.582	0.983	202.1	953.2	0.401	1.565	1.80	1.002	53.7	248.2	-19.5	0.615
4-1960	4-2740	0.506	305.2	-20.8	-0.54	0.884	120.1	0.509	1.581	250.2	651.4	0.776	2.386	1.41	1.180	68.2	227.8	-14.1	0.436
4-1960	4-2740	0.353	342.1	-9.8	-0.54	0.626	106.4	0.513	0.978	197.1	958.3	0.477	1.480	1.41	1.002	59.1	256.3	-20.5	0.526
4-1960	4-2750	0.452	303.2	-21.9	-0.85	0.884	116.4	0.454	1.581	255.5	666.9	0.863	2.298	1.19	1.182	74.1	228.0	-18.7	0.339
4-1960	4-2750	0.519	51.4	18.4	-0.85	0.547	52.3	0.763	0.898	164.4	935.7	0.217	1.582	1.19	0.957	40.5	279.8	-22.2	0.819
4-1960	4-2750	0.289	353.9	-4.7	-0.85	0.620	97.8	0.473	0.971	188.9	960.2	0.512	1.430	1.19	1.000	61.8	266.2	-21.2	0.483
4-1960	4-2760	0.418	302.0	-22.8	-1.09	0.884	114.1	0.419	1.580	259.1	660.6	0.918	2.242	1.06	1.183	78.6	227.0	-12.9	0.269
4-1960	4-2760	0.390	46.1	16.3	-1.09	0.572	66.0	0.637	0.921	164.3	945.8	0.334	1.507	1.06	0.972	50.6	285.0	-21.5	0.666
4-1960	4-2760	0.263	15.6	4.1	-1.09	0.607	87.1	0.480	0.957	176.9	955.4	0.498	1.417	1.06	0.994	61.4	278.1	-21.4	0.492
4-1970	4-2010	0.752	297.7	-22.3	-0.63	1.120	128.3	0.876	6.729	276.8	312.5	---	---	1.30	1.370	67.9	212.6	-10.1	0.566
4-1970	4-2020	0.653	296.7	-23.0	-0.95	1.070	123.8	0.765	3.867	279.6	325.5	---	---	1.06	1.331	75.1	210.7	-9.1	0.430
4-1970	4-2030	0.592	296.5	-23.5	-1.18	1.038	120.9	0.688	3.053	280.7	336.7	---	---	0.91	1.305	80.5	207.8	-7.8	0.343
4-1970	4-2040	0.550	297.0	-23.8	-1.35	1.011	119.1	0.629	2.625	280.4	346.5	---	---	0.83	1.286	84.8	204.1	-6.1	0.287
4-1970	4-2050	0.519	298.1	-24.0	-1.50	0.988	117.8	0.580	2.339	278.9	355.2	---	---	0.78	1.267	88.2	200.1	-4.3	0.253
4-1970	4-2060	0.493	299.5	-24.1	-1.64	0.966	116.7	0.537	2.123	278.5	363.0	0.983	---	0.76	1.250	91.1	196.9	-2.8	0.235
4-1970	4-2070	0.470	301.3	-24.1	-1.78	0.944	115.8	0.498	1.952	278.4	370.2	0.979	---	0.76	1.233	93.4	194.9	-1.9	0.226
4-1970	4-2080	0.448	303.2	-24.1	-1.92	0.923	114.9	0.464	1.813	278.9	376.8	0.972	---	0.79	1.216	95.3	194.6	-1.6	0.222
4-1970	4-2090	0.428	305.3	-24.1	-2.07	0.903	114.0	0.433	1.699	265.9	382.9	0.964	---	0.85	1.199	96.9	195.8	-1.8	0.222
4-1970	4-2100	0.409	307.5	-24.1	-2.26	0.883	113.1	0.405	1.603	261.6	388.7	0.954	---	0.95	1.183	98.2	198.5	-2.4	0.224
4-1970	4-2110	0.389	309.9	-24.2	-2.51	0.865	112.1	0.380	1.524	257.1	394.3	0.944	---	1.12	1.167	99.3	202.3	-3.2	0.226
4-1970	4-2120	0.371	312.5	-24.5	-2.86	0.847	111.0	0.359	1.457	252.3	399.5	0.934	---	1.40	1.151	100.1	207.1	-3.7	0.228
4-1970	4-2130	0.353	315.4	-25.4	-3.48	0.831	109.9	0.340	1.400	247.4	404.5	0.924	---	1.95	1.137	100.9	213.0	-3.2	0.231
4-1970	4-2140	0.339	319.4	-28.1	-4.97	0.815	108.7	0.324	1.352	242.4	409.4	0.914	---	2.37	1.123	101.5	220.3	0.9	0.238
4-1970	4-2150	0.380	336.0	-44.9	-15.20	0.801	107.4	0.310	1.311	237.2	414.0	0.905	---	13.53	1.110	102.0	231.8	32.2	0.337
4-1970	4-2160	0.303	317.0	-4.2	4.81	0.788	106.1	0.299	1.276	231.9	418.6	0.895	---	-6.54	1.098	102.4	216.9	-44.1	0.262
4-1970	4-2170	0.279	322.4	-12.6	0.89	0.775	104.7	0.289	1.245	226.5	422.9	0.885	---	-2.69	1.087	102.8	232.4	-31.3	0.241
4-1970	4-2180	0.261	326.5	-14.2	-0.14	0.764	103.2	0.282	1.218	221.0	427.0	0.875	---	-1.73	1.076	103.2	241.7	-28.6	0.241
4-1970	4-2190	0.245	330.6	-14.4	-0.63	0.753	101.7	0.276	1.195	215.4	431.0	0.865	---	-1.30	1.067	103.5	250.3	-27.8	0.244
4-1970	4-2200	0.229	335.0	-13.9	-0.94	0.743	100.0	0.273	1.174	209.6	434.9	0.853	---	-1.07	1.058	103.8	258.8	-27.5	0.248
4-1970	4-2210	0.214	339.9	-12.9	-1.15	0.734	98.3	0.272	1.155	203.8	438.6	0.841	---	-0.93	1.051	104.2	267.3	-27.1	0.254
4-1970	4-2220	0.200	345.7	-11.5	-1.32	0.725	96.4	0.273	1.139	197.8	442.2	0.828	---	-0.84	1.044	104.6	275.8	-26.6	0.262
4-1970	4-2230	0.187	352.4	-9.5	-1.47	0.717	94.4	0.277	1.124	191.8	445.7	0.813	---	-0.79	1.038	105.2	284.3	-25.7	0.271
4-1970	4-2240	0.177	0.4	-6.9	-1.60	0.710	92.3	0.285	1.111	185.7	449.2	0.795	---	-0.79	1.033	105.8	292.7	-24.5	0.284
4-1970	4-2250	0.171	9.8	-3.5	-1.73	0.703	89.8	0.296	1.099	179.6	452.6	0.773	1.474	-0.76	1.029	106.7	301.0	-22.9	0.300
4-1970	4-2260	0.171	20.6	0.7	-1.86	0.696	87.1	0.313	1.088	173.5	456.1	0.748	1.429	-0.78	1.025	107.8	309.0	-21.1	0.322
4-1970	4-2270	0.179	32.4	5.2	-2.00	0.690	83.9	0.337	1.078	167.6	459.7	0.715	1.441	-0.82	1.023	109.4	316.8	-18.9	0.350
4-1970	4-2280	0.200	44.3	9.6	-2.16	0.685	80.0	0.370	1.069	162.0	463.7	0.673	1.465	-0.86	1.021	111.5	324.2	-16.5	0.388
4-1970	4-2290	0.238	55.3	13.4	-2.36	0.680	75.2	0.418	1.061	157.1	468.5	0.618	1.505	-1.01	1.019	114.6	331.1	-14.1	0.442
4-1970	4-2300	0.300	64.3	16.2	-2.63	0.675	68.8	0.487	1.055	153.3	474.4	0.541	1.568	-1.21	1.019	119.0	337.4	-11.7	0.520
4-1970	4-2310	0.397	70.4	18.2	-3.04	0.672	60.0	0.588	1.050	151.7	482.5	0.433	1.667	-1.55	1.019	125.9	342.6	-9.5	0.638
4-1970	4-2320	0.550	72.6	19.6	-3.64	0.670	46.8	0.733	1.047	154.2	494.8	0.280	1.815	-2.28	1.021	137.1	346.0	-8.1	0.823
4-1970	4-2370	0.454	344.1	-7.5	-0.40	0.597	115.7	0.621	0.954	198.6	589.0	0.361	1.547	1.50	0.988	51.6	256.1	-21.0	0.646
4-1970	4-2380	0.490	44.0	16.5	-0.80	0.459	61.0	0.781	0.828	170.6	571.1	0.184	1.493	1.17	0.913	39.4	278.2	-22.4	0.820

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

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4-1970	4-2380	0.356	354.2	-4.0	-0.80	0.584	103.8	0.554	0.940	191.7	592.2	0.419	1.461	1.17	1.082	56.5	265.4	-21.7	0.567
4-1970	4-2450	0.595	89.7	22.0	-1.99	0.835	45.3	0.704	1.413	135.2	246.3	---	2.408	0.82	1.145	48.2	330.1	-11.3	0.791
4-1970	4-2460	0.557	91.7	21.5	-2.16	0.841	48.2	0.667	1.436	131.3	253.1	---	2.394	0.89	1.152	51.6	336.8	-8.5	0.735
4-1970	4-2470	0.521	93.6	21.0	-2.37	0.847	50.8	0.632	1.458	127.6	259.5	---	2.379	1.02	1.155	54.9	343.3	-5.6	0.681
4-1970	4-2480	0.487	95.4	20.2	-2.66	0.853	53.3	0.598	1.478	123.9	265.8	---	2.363	1.23	1.157	58.0	349.5	-2.4	0.628
4-1970	4-2490	0.456	97.1	19.0	-3.11	0.858	55.6	0.566	1.497	120.3	272.2	---	2.345	1.61	1.158	61.0	355.4	1.1	0.578
4-1970	4-2500	0.428	98.5	16.9	-4.00	0.863	57.7	0.536	1.515	116.9	278.7	---	2.328	2.43	1.159	63.9	0.6	5.5	0.530
4-1970	4-2510	0.408	99.1	11.0	-6.86	0.867	59.7	0.509	1.531	113.6	285.2	---	2.310	5.23	1.160	66.6	4.1	14.2	0.491
4-1970	4-2520	0.513	92.0	63.4	25.21	0.870	61.5	0.483	1.545	110.3	292.0	---	2.291	-26.91	1.160	69.3	46.9	-34.0	0.651
4-1970	4-2530	0.350	104.3	28.1	2.12	0.873	63.0	0.460	1.558	107.4	298.7	---	2.275	-3.88	1.160	71.7	23.2	-1.8	0.401
4-1970	4-2540	0.328	105.3	23.9	0.29	0.876	64.5	0.439	1.569	104.6	305.6	---	2.258	-2.12	1.160	74.1	26.1	3.7	0.356
4-1970	4-2550	0.309	106.3	22.1	-0.41	0.878	65.7	0.421	1.579	102.0	312.6	---	2.243	-1.49	1.159	76.5	29.5	6.4	0.317
4-1970	4-2560	0.294	107.3	20.8	-0.79	0.880	66.8	0.405	1.587	99.7	319.9	---	2.229	-1.17	1.159	78.8	32.3	8.0	0.281
4-1970	4-2570	0.280	108.1	19.9	-1.05	0.881	67.7	0.391	1.594	97.7	327.5	---	2.218	-0.99	1.159	81.0	34.0	8.8	0.248
4-1970	4-2580	0.270	108.8	19.0	-1.24	0.883	68.5	0.381	1.599	96.0	335.4	---	2.208	-0.88	1.159	83.3	35.9	8.7	0.219
4-1970	4-2590	0.262	109.3	18.3	-1.40	0.883	69.0	0.373	1.604	94.7	343.6	---	2.202	-0.81	1.159	85.6	31.6	7.7	0.196
4-1970	4-2600	0.258	109.6	17.8	-1.53	0.884	69.3	0.369	1.607	93.9	352.4	---	2.200	-0.77	1.160	87.9	26.6	5.7	0.181
4-1970	4-2600	0.299	339.1	-12.7	-1.53	0.696	104.4	0.390	1.088	205.3	823.8	0.664	1.512	-0.77	1.024	112.7	278.7	-25.0	0.397
4-1970	4-2600	0.579	326.9	-15.3	-1.53	0.753	127.3	0.625	1.195	218.6	837.0	0.448	1.942	-0.77	1.063	127.9	271.2	-24.4	0.669
4-1970	4-2610	0.257	109.7	17.3	-1.66	0.885	69.4	0.368	1.609	93.7	361.6	1.016	2.202	-0.76	1.160	90.4	19.5	2.9	0.178
4-1970	4-2610	0.246	349.2	-9.8	-1.66	0.684	98.5	0.361	1.069	195.7	823.7	0.683	1.455	-0.76	1.016	111.0	289.3	-24.2	0.369
4-1970	4-2620	0.262	109.5	17.0	-1.79	0.885	69.1	0.373	1.611	94.1	371.6	1.010	2.212	-0.76	1.161	93.1	11.9	0.0	0.189
4-1970	4-2620	0.216	0.4	-6.0	-1.79	0.677	93.9	0.353	1.057	187.1	824.6	0.683	1.430	-0.76	1.011	110.6	299.1	-22.8	0.364
4-1970	4-2630	0.272	109.0	17.0	-1.92	0.885	68.4	0.384	1.612	95.2	382.3	0.993	2.230	-0.75	1.162	96.1	5.5	-2.2	0.216
4-1970	4-2630	0.201	13.2	-1.2	-1.92	0.671	89.5	0.359	1.048	179.1	826.2	0.672	1.425	-0.75	1.009	111.0	308.3	-20.9	0.372
4-1970	4-2640	0.291	108.1	17.1	-2.07	0.885	67.2	0.403	1.612	97.4	394.1	0.963	2.261	-0.85	1.164	99.6	1.3	-3.5	0.260
4-1970	4-2640	0.201	27.4	4.2	-2.07	0.666	85.0	0.377	1.041	171.6	828.2	0.649	1.434	-0.85	1.007	112.1	319.9	-18.6	0.393
4-1970	4-2650	0.321	106.6	17.4	-2.24	0.885	65.1	0.433	1.612	100.8	407.0	0.913	2.311	-0.94	1.165	103.8	359.1	-4.0	0.324
4-1970	4-2650	0.221	41.6	9.5	-2.24	0.662	79.9	0.409	1.036	164.7	831.0	0.612	1.459	-0.94	1.007	114.1	325.0	-16.1	0.430
4-1970	4-2660	0.369	104.5	18.0	-2.47	0.885	62.0	0.481	1.612	105.7	421.7	0.836	2.387	-1.09	1.167	109.0	358.3	-3.9	0.411
4-1970	4-2660	0.264	54.3	13.7	-2.47	0.659	73.9	0.460	1.031	159.0	834.9	0.557	1.505	-1.09	1.007	117.4	332.3	-13.5	0.497
4-1970	4-2670	0.444	101.3	18.9	-2.80	0.885	56.9	0.555	1.612	113.0	438.7	0.717	2.506	-1.34	1.170	116.1	358.1	-3.7	0.534
4-1970	4-2670	0.337	64.0	16.7	-2.80	0.656	66.1	0.538	1.027	155.0	840.6	0.475	1.580	-1.34	1.007	122.5	338.7	-11.1	0.576
4-1970	4-2670	0.498	5.9	0.1	-2.80	0.419	107.1	0.775	0.814	185.2	1230.9	0.183	1.445	-1.34	0.872	139.4	321.3	-16.2	0.801
4-1970	4-2680	0.565	96.4	19.9	-3.35	0.885	48.6	0.667	1.613	123.9	459.3	0.537	2.688	-1.82	1.172	126.4	357.5	-3.7	0.715
4-1970	4-2680	0.456	69.8	18.7	-3.35	0.655	55.1	0.655	1.025	154.1	849.5	0.353	1.697	-1.82	1.009	130.9	343.6	-9.1	0.717
4-1970	4-2680	0.481	27.2	8.6	-3.35	0.390	79.5	0.792	0.799	177.2	1232.6	0.166	1.431	-1.82	0.861	140.8	329.6	-13.6	0.821
4-1970	4-2690	0.592	42.0	14.1	-4.57	0.378	52.2	0.879	0.793	173.6	1238.8	0.096	1.489	-2.98	0.859	150.3	335.8	-11.5	0.956
4-1970	4-2730	0.532	339.4	-9.0	-0.07	0.620	123.8	0.671	0.980	202.1	947.2	0.322	1.639	1.79	1.001	47.8	251.2	-20.4	0.712
4-1970	4-2740	0.560	313.3	-18.8	-0.61	0.877	123.7	0.560	1.574	244.4	639.6	0.692	2.456	1.32	1.179	63.2	234.2	-16.7	0.522
4-1970	4-2740	0.410	343.8	-8.0	-0.61	0.617	112.0	0.566	0.977	199.4	954.6	0.423	1.530	1.32	1.011	55.5	258.2	-21.1	0.587
4-1970	4-2750	0.488	310.8	-20.1	-0.94	0.877	118.7	0.488	1.574	251.1	656.5	0.807	2.341	1.07	1.181	70.3	234.9	-16.5	0.402
4-1970	4-2750	0.563	56.6	19.7	-0.94	0.526	47.2	0.812	0.887	166.0	931.3	0.167	1.607	1.07	0.949	36.0	282.4	-22.3	0.886
4-1970	4-2750	0.327	352.7	-5.1	-0.94	0.611	102.4	0.505	0.971	192.8	958.1	0.480	1.461	1.07	0.999	59.7	267.2	-21.6	0.519
4-1970	4-2760	0.442	309.2	-21.2	-1.17	0.877	115.6	0.440	1.573	255.6	671.1	0.882	2.265	0.92	1.182	75.6	235.0	-16.1	0.316
4-1970	4-2760	0.449	54.0	18.5	-1.17	0.548	59.5	0.708	0.906	164.7	940.2	0.264	1.547	0.92	0.963	45.1	288.2	-21.5	0.751
4-1970	4-2760	0.276	8.7	1.1	-1.17	0.602	92.8	0.485	0.960	182.9	958.4	0.494	1.426	0.92	0.995	61.0	278.1	-21.6	0.498
4-1970	4-2770	0.413	308.2	-22.0	-1.34	0.877	113.5	0.409	1.573	258.7	680.3	0.630	2.216	0.83	1.182	79.7	233.7	-15.3	0.253
4-1980	4-2020	0.845	297.5	-22.8	-1.06	1.238	128.7	1.126	-7.148	287.5	327.4	---	---	0.90	1.473	72.7	207.3	-8.9	0.581
4-1980	4-2030	0.740	297.7	-23.2	-1.27	1.164	125.2	0.964	26.214	288.1	338.2	---	---	0.76	1.412	79.3	204.6	-7.7	0.452
4-1980	4-2040	0.671	298.5	-23.4	-1.43	1.113	122.9	0.849	6.424	287.4	347.7	---	---	0.67	1.370	84.3	201.4	-6.3	0.372
4-1980	4-2050	0.622	299.9	-23.4	-1.55	1.072	121.3	0.759	4.084	285.6	356.1	---	---	0.62	1.338	88.3	198.0	-4.9	0.323
4-1980	4-2060	0.584	301.5	-23.4	-1.66	1.037	120.1	0.686	3.131	283.0	363.7	0.983	---	0.59	1.309	91.5	195.3	-3.7	0.294
4-1980	4-2070	0.552	303.5	-23.2	-1.77	1.005	119.1	0.624	2.599	279.8	370.6	0.978	---	0.58	1.283	94.1	193.8	-3.0	0.278
4-1980	4-2080	0.523	305.5	-23.1	-1.87	0.975	118.1	0.570	2.254	276.1	377.1	0.970	---	0.59	1.259	96.2	193.7	-2.9	0.270
4-1980	4-2090	0.496	307.7	-22.9	-1.98	0.947	117.2	0.523	2.012	272.0	383.2	0.960	---	0.62	1.237	97.9	195.1	-3.3	0.265
4-1980	4-2100	0.471	309.9	-22.7	-2.11	0.921	116.2	0.482	1.832	267.7	388.9	0.949	---	0.66	1.215	99.3	197.7	-4.2	0.263
4-1980	4-2110	0.447	312.2	-22.5	-2.27	0.897	115.1	0.447	1.695	263.0	394.3	0.938	---	0.77	1.195	100.4	201.5	-5.3	0.262
4-1980	4-2120	0.423	314.6	-22.4	-2.48	0.874	114.0	0.416	1.588	258.2	399.5	0.927	---	0.93	1.176	101.3	206.2	-6.4	0.261
4-1980	4-2130	0.401	317.2	-22.6	-2.81	0.853	112.8	0.389	1.501	253.3	404.5	0.917	---	1.20	1.158	102.0	211.7	-7.3	0.261
4-1980	4-2140	0.380	320.1	-23.3	-3.45	0.834	111.5	0.367	1.431	248.1	409.2	0.907	---	1.79	1.141	102.6	218.1	-6.9	0.261
4-1980	4-2150	0.364	324.5	-26.6	-5.38	0.816	110.2	0.347	1.374	242.9	413.8	0.897	---	3.67	1.126	103.1	226.0	-1.5	0.267
4-1980	4-2170	0.315	324.0	-11.2	1.39	0.785	107.3	0.317	1.285	232.1	422.6	0.877	---	-3.20	1.098	103.8	232.1	-32.3	0.265
4-1980	4-2180	0.295	328.1	-13.7	-0.17	0.771	105.7	0.306	1.250	226.6	426.7	0.867	---	-1.69	1.086	104.1	242.0	-27.9	0.261
4-1980	4-2190	0.276	331.8	-14.0	-0.74	0.758	104.1	0.298	1.220	220.9	430.7	0.857	---	-1.17	1.075	104.3	250.5	-26.9	0.262
4-1980	4-2200	0.258	335.7	-13.6	-1.05	0.746	102.4	0.291	1.195	215.2	434.5	0.846	---	-0.91	1.065	104.6	259.0	-26.6	0.264
4-1980	4-2210	0.240	340.0	-12.7	-1.25	0.735	100.6	0.288	1.172	209.3	438.2	0.835	---	-0.77	1.057	104.9	267.4	-26.4	0.268
4-1980	4-2220	0.223	344.9	-11.5	-1.40	0.725	98.7	0.286	1.152	203.3	441.8	0.822	---	-0.68	1.049	105.2	276.0	-25.9	0.273
4-1980	4-2230	0.208	350.7	-9.8	-1.52	0.716	96.7	0.288	1.135	197.3	445.3	0.808	---	-0.63	1.042	105.6	284.4	-25.0	0.281
4-1980	4-2240	0.194	357.6	-7.6	-1.63	0.707	94.5	0.292	1.119	191.2	448.7	0.792	---	-0.59	1.036	106.2	292.8	-23.8	0.291
4-1980	4-2250	0.182	5.8	-4.7	-1.73	0.699	92.1	0.300	1.105	185.0	452.0	0.773	---	-0.58	1.031	106.9	301.1	-22.3	0.304
4-1980	4-2260	0.176	15.7	-1.0	-1.82	0.692	89.4	0.313	1.093	178.8	455.4	0.750	1.435	-0.58	1.027	107.8	309.2	-20.4	0.322
4-1980	4-2270	0.176	27.1	3.4	-1.93	0.685	86.4	0.332	1.081	172.7	458.9	0.722	1.441	-0.60	1.024	109.1	317.0	-18.2	0.345
4-1980	4-2280	0.187	39.5	8.1	-2.04	0.678	82.8	0.360	1.071	166.8	462.6	0.686	1.456	-0.64	1.021	110.8	324.6	-15.8	0.377
4-1980	4-2290	0.212	52.0	12.3	-2.17	0.673	78.4	0.398	1.062	161.3	466.8	0.639	1.485	-0.71	1.020	113.3	331.8	-13.3	0.420
4-1980	4-2300	0.258	63.1	15.7	-2.34	0.667	72.9	0.453	1.054	156.7	471.8	0.576	1.532	-0.82	1.018	116.8	338.5	-10.7	0.483
4-1980	4-2310	0.332	71.6	18.2	-2.58	0.663	65.5	0.534	1.048	153.5	478.4	0.489	1.607	-1.01	1.018	122.2	344.4	-8.3	0.574
4-1980	4-2320	0.448	76.8	19.8	-2.98	0.660	55.0	0.651	1.043	153.2	487.9	0.365	1.722	-1.36	1.019	130.5	349.0	-6.3	0.715
4-1980	4-2370	0.535	348.0	-5.8	-0.48	0.582	123.6	0.699	0.948	198.7	583.2	0.285	1.611	1.40	0.984	45.7	259.2	-21.7	0.742
4-1980	4-2380	0.535	48.8	17.9	-0.92	0.420	56.3	0.833	0.821	171.9	566.5	0.137	1.505	1.02	0.900	34.4	281.0	-22.5	0.890

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1980	4-2380	0.410	354.8	-4.6	-0.92	0.572	109.9	0.604	0.937	194.4	589.0	0.371	1.503	1.02	0.980	52.9	267.1	-22.1	0.625
4-1980	4-2390	0.406	41.4	15.0	-1.17	0.479	73.1	0.704	0.859	172.5	577.3	0.254	1.464	0.82	0.931	45.9	285.3	-21.9	0.729
4-1980	4-2390	0.332	12.4	3.4	-1.17	0.547	95.3	0.576	0.913	183.9	588.7	0.387	1.439	0.82	0.967	55.1	278.5	-22.1	0.590
4-1980	4-2460	0.565	96.7	21.7	-2.04	0.830	46.8	0.685	1.419	133.9	249.8	---	2.391	0.64	1.149	49.9	338.4	-8.3	0.763
4-1980	4-2470	0.529	98.6	21.1	-2.18	0.837	49.6	0.688	1.442	130.1	256.1	---	2.376	0.72	1.152	53.3	344.9	-5.4	0.708
4-1980	4-2480	0.494	100.5	20.4	-2.36	0.843	52.2	0.614	1.463	126.4	262.4	---	2.361	0.83	1.154	56.5	351.2	-2.4	0.654
4-1980	4-2490	0.461	102.2	19.6	-2.62	0.848	54.6	0.589	1.483	122.8	268.8	---	2.344	1.04	1.155	59.6	357.3	0.7	0.602
4-1980	4-2500	0.431	103.8	18.9	-3.05	0.853	56.8	0.549	1.502	119.4	275.3	---	2.326	1.42	1.157	62.5	3.0	4.2	0.552
4-1980	4-2510	0.405	105.0	18.9	-4.04	0.858	58.8	0.520	1.518	116.0	281.8	---	2.309	2.36	1.157	65.3	8.1	8.8	0.505
4-1980	4-2520	0.396	104.2	4.6	-9.20	0.861	60.6	0.494	1.534	112.8	288.4	---	2.291	7.46	1.158	67.9	9.7	22.7	0.477
4-1980	4-2530	0.357	110.3	32.3	4.44	0.865	62.3	0.469	1.546	109.8	295.1	---	2.273	-6.23	1.158	70.5	27.6	-5.8	0.429
4-1980	4-2540	0.329	110.6	23.5	0.40	0.868	63.8	0.447	1.560	106.9	302.0	---	2.257	-2.24	1.158	73.0	28.3	4.6	0.374
4-1980	4-2550	0.310	111.7	21.2	-0.50	0.870	65.2	0.427	1.570	104.3	309.0	---	2.241	-1.39	1.158	75.3	31.9	7.9	0.333
4-1980	4-2560	0.294	112.7	19.8	-0.91	0.872	66.3	0.410	1.579	101.9	316.2	---	2.227	-1.03	1.158	77.6	35.1	9.8	0.296
4-1980	4-2570	0.279	113.6	18.8	-1.15	0.874	67.3	0.396	1.587	99.8	323.7	---	2.214	-0.84	1.158	79.9	37.4	10.9	0.262
4-1980	4-2580	0.268	114.3	18.0	-1.33	0.875	68.1	0.384	1.593	98.0	331.4	---	2.204	-0.72	1.158	82.2	38.1	11.2	0.231
4-1980	4-2590	0.259	114.9	17.3	-1.46	0.876	68.8	0.375	1.598	96.6	339.5	---	2.196	-0.65	1.158	84.5	36.8	10.7	0.205
4-1980	4-2600	0.253	115.3	16.7	-1.57	0.877	69.2	0.369	1.601	95.6	348.1	---	2.192	-0.61	1.159	86.8	33.0	9.2	0.185
4-1980	4-2610	0.251	115.5	16.3	-1.68	0.878	69.3	0.367	1.604	95.0	357.1	---	2.192	-0.59	1.159	89.2	26.6	6.9	0.176
4-1980	4-2610	0.294	346.1	-10.2	-1.68	0.685	103.6	0.395	1.082	202.9	824.9	0.655	1.508	-0.59	1.021	113.0	288.5	-23.7	0.405
4-1980	4-2620	0.253	115.4	16.0	-1.77	0.878	69.2	0.369	1.606	95.1	366.7	1.014	2.198	-0.58	1.160	91.8	19.0	4.9	0.181
4-1980	4-2620	0.244	356.2	-7.0	-1.77	0.674	97.7	0.371	1.064	193.5	825.1	0.670	1.458	-0.58	1.015	111.6	298.7	-22.3	0.382
4-1980	4-2630	0.260	115.0	16.0	-1.87	0.878	68.7	0.376	1.607	95.9	377.0	1.002	2.212	-0.59	1.162	94.6	11.9	1.4	0.201
4-1980	4-2630	0.213	7.9	-2.8	-1.87	0.666	92.9	0.366	1.052	185.0	826.2	0.667	1.438	-0.59	1.011	111.4	308.1	-20.3	0.380
4-1980	4-2640	0.275	114.4	16.1	-1.98	0.879	67.8	0.391	1.608	97.5	388.2	0.979	2.236	-0.62	1.163	97.8	6.7	-0.4	0.237
4-1980	4-2640	0.203	21.9	2.3	-1.98	0.660	88.2	0.376	1.044	177.1	827.8	0.652	1.436	-0.62	1.008	112.0	317.0	-18.0	0.392
4-1980	4-2650	0.293	113.2	16.5	-2.10	0.879	66.2	0.415	1.608	100.1	400.5	0.940	2.275	-0.67	1.165	101.6	3.8	-1.2	0.290
4-1980	4-2650	0.208	36.2	7.8	-2.10	0.655	83.3	0.398	1.037	169.7	830.1	0.624	1.450	-0.67	1.007	113.4	325.3	-15.4	0.418
4-1980	4-2660	0.335	111.6	17.1	-2.24	0.878	63.7	0.454	1.607	104.1	414.1	0.878	2.336	-0.76	1.167	106.2	2.6	-1.4	0.303
4-1980	4-2660	0.034	56.7	12.7	-2.24	0.651	77.8	0.437	1.031	163.2	833.3	0.581	1.482	-0.76	1.007	115.9	333.0	-12.7	0.462
4-1980	4-2670	0.394	109.1	18.1	-2.44	0.878	59.8	0.512	1.607	109.8	429.6	0.784	2.430	-0.90	1.169	112.2	2.4	-1.2	0.405
4-1980	4-2670	0.288	63.0	16.3	-2.44	0.648	70.9	0.498	1.027	158.0	837.8	0.516	1.538	-0.90	1.007	119.8	339.9	-10.1	0.531
4-1980	4-2680	0.485	105.3	19.2	-2.74	0.878	53.5	0.601	1.607	118.3	447.8	0.641	2.573	-1.14	1.171	120.4	2.4	-1.0	0.610
4-1980	4-2680	0.377	71.8	18.7	-2.74	0.646	61.8	0.590	1.024	155.0	844.6	0.420	1.628	-1.14	1.008	126.1	345.7	-7.7	0.638
4-1980	4-2680	0.485	15.8	5.4	-2.74	0.391	98.3	0.786	0.806	182.3	1231.8	0.173	1.439	-1.14	0.868	140.3	330.1	-13.0	0.815
4-1980	4-2690	0.519	76.0	20.3	-3.29	0.644	48.9	0.725	1.022	156.0	855.3	0.281	1.763	-1.64	1.010	136.5	349.8	-5.9	0.809
4-1980	4-2690	0.515	37.6	12.9	-3.29	0.368	70.4	0.830	0.794	175.8	1235.1	0.135	1.454	-1.64	0.861	144.7	337.6	-10.4	0.878
4-1980	4-2740	0.479	346.8	-6.7	-0.72	0.606	118.6	0.634	0.974	200.5	949.7	0.357	1.591	1.19	0.999	50.7	260.7	-21.8	0.667
4-1980	4-2750	0.534	318.5	-18.0	-1.05	0.869	121.8	0.531	1.567	246.0	645.4	0.735	2.399	0.91	1.179	65.8	241.4	-18.8	0.478
4-1980	4-2750	0.374	353.2	-4.8	-1.05	0.602	107.6	0.549	0.969	195.8	955.2	0.437	1.501	0.91	0.999	56.7	268.7	-22.1	0.568
4-1980	4-2760	0.473	316.4	-19.2	-1.26	0.869	117.5	0.468	1.566	251.6	661.2	0.833	2.300	0.76	1.180	72.1	242.2	-18.6	0.372
4-1980	4-2760	0.497	60.3	20.0	-1.26	0.524	54.0	0.765	0.893	165.8	935.4	0.210	1.577	0.76	0.955	40.3	290.9	-21.5	0.824
4-1980	4-2760	0.304	5.3	-0.3	-1.26	0.594	97.7	0.507	0.961	187.6	957.2	0.474	1.448	0.76	0.995	59.6	278.7	-21.9	0.522
4-1980	4-2770	0.433	315.1	-20.1	-1.42	0.869	114.8	0.426	1.566	255.5	675.2	0.898	2.234	0.67	1.181	77.0	242.2	-18.3	0.295
4-1980	4-2770	0.351	50.1	16.7	-1.42	0.556	71.2	0.618	0.922	167.4	947.1	0.352	1.491	0.67	0.974	52.0	295.1	-20.6	0.446
4-1980	4-2770	0.285	32.1	10.2	-1.42	0.376	83.4	0.532	0.942	174.1	953.9	0.440	1.443	0.67	0.986	57.9	291.4	-21.0	0.451
4-1980	4-2780	0.408	314.2	-20.8	-1.54	0.869	113.1	0.399	1.565	258.0	687.9	0.941	2.190	0.62	1.181	81.0	240.4	-17.6	0.238
4-1990	4-2040	0.835	300.0	-23.0	-1.52	1.260	126.7	1.198	4.903	293.5	347.9	---	---	0.49	1.496	83.4	200.0	-6.9	0.499
4-1990	4-2050	0.756	301.6	-22.9	-1.62	1.189	124.8	1.029	33.772	291.6	356.2	---	---	0.44	1.437	88.1	197.2	-5.7	0.422
4-1990	4-2060	0.698	303.6	-22.7	-1.70	1.133	123.4	0.902	10.053	288.9	363.7	0.983	---	0.41	1.391	91.8	194.9	-4.7	0.376
4-1990	4-2070	0.652	305.7	-22.4	-1.77	1.085	122.3	0.799	4.870	285.6	370.6	0.977	---	0.40	1.352	94.7	193.6	-4.2	0.348
4-1990	4-2080	0.612	307.9	-22.1	-1.84	1.043	121.4	0.715	3.390	281.9	377.0	0.967	---	0.40	1.317	97.1	193.7	-4.1	0.331
4-1990	4-2090	0.576	310.2	-21.8	-1.92	1.005	120.4	0.643	2.682	277.8	383.0	0.956	---	0.41	1.286	99.0	195.0	-4.6	0.320
4-1990	4-2100	0.544	312.5	-21.4	-2.00	0.970	119.4	0.583	2.265	273.3	388.7	0.944	---	0.44	1.257	100.5	197.6	-5.6	0.312
4-1990	4-2110	0.513	314.8	-21.0	-2.09	0.939	118.3	0.532	1.991	268.7	394.1	0.932	---	0.49	1.231	101.7	201.3	-6.9	0.307
4-1990	4-2120	0.484	317.1	-20.7	-2.21	0.910	117.1	0.488	1.799	263.8	399.2	0.921	---	0.57	1.207	102.6	205.8	-8.3	0.302
4-1990	4-2130	0.457	319.5	-20.5	-2.38	0.883	115.9	0.451	1.657	258.8	404.2	0.909	---	0.70	1.184	103.4	211.1	-9.7	0.298
4-1990	4-2140	0.431	322.1	-20.4	-2.67	0.859	114.5	0.420	1.548	253.7	408.9	0.898	---	0.95	1.164	103.9	217.1	-10.8	0.294
4-1990	4-2150	0.406	324.9	-21.0	-3.30	0.836	113.1	0.393	1.463	248.4	413.5	0.888	---	1.55	1.145	104.4	223.9	-10.6	0.292
4-1990	4-2160	0.389	330.1	-25.6	-6.23	0.816	111.7	0.371	1.395	243.1	417.9	0.878	---	4.44	1.128	104.7	232.6	-2.0	0.298
4-1990	4-2170	0.358	325.3	-7.2	3.14	0.798	110.1	0.352	1.339	237.6	422.2	0.868	---	-4.96	1.112	105.0	230.2	-37.2	0.299
4-1990	4-2180	0.333	330.2	-13.1	-0.24	0.781	108.5	0.336	1.293	232.0	426.3	0.858	---	-1.61	1.098	105.2	242.3	-27.1	0.285
4-1990	4-2190	0.311	333.6	-13.5	-0.91	0.766	106.8	0.324	1.255	226.4	430.3	0.848	---	-0.98	1.086	105.4	250.8	-25.9	0.283
4-1990	4-2200	0.290	337.1	-13.1	-1.21	0.751	105.0	0.314	1.222	220.6	434.1	0.838	---	-0.72	1.074	105.5	259.2	-25.7	0.284
4-1990	4-2210	0.270	340.8	-12.3	-1.38	0.739	103.2	0.307	1.194	214.8	437.8	0.827	---	-0.58	1.064	105.7	267.6	-25.5	0.285
4-1990	4-2220	0.250	345.1	-11.2	-1.50	0.727	101.2	0.303	1.169	208.8	441.6	0.815	---	-0.50	1.055	106.0	276.1	-25.1	0.288
4-1990	4-2230	0.231	350.1	-9.7	-1.60	0.716	99.1	0.301	1.148	202.7	444.9	0.802	---	-0.45	1.047	106.3	284.5	-24.3	0.294
4-1990	4-2240	0.214	355.9	-7.8	-1.67	0.706	96.9	0.303	1.130	196.5	448.2	0.788	---	-0.42	1.040	106.7	292.9	-23.2	0.301
4-1990	4-2250	0.196	3.0	-5.3	-1.75	0.696	94.5	0.308	1.113	190.3	451.5	0.770	---	-0.40	1.035	107.3	301.2	-21.7	0.311
4-1990	4-2260	0.187	11.6	-2.2	-1.81	0.688	91.4	0.317	1.099	184.0	454.8	0.750	---	-0.40	1.030	108.0	309.3	-19.8	0.326
4-1990	4-2270	0.180	22.1	1.8	-1.88	0.680	88.9	0.332	1.086	177.8	458.2	0.725	1.446	-0.40	1.026	109.0	317.2	-17.6	0.345
4-1990	4-2280	0.182	34.2	6.4	-1.95	0.672	85.5	0.354	1.074	171.7	461.7	0.694	1.454	-0.42	1.023	110.5	324.9	-15.2	0.371
4-1990	4-2290	0.196	47.4	11.0	-2.03	0.666	81.5	0.385	1.064	165.9	465.5	0.654	1.473	-0.46	1.020	112.5	332.2	-12.6	0.407
4-1990	4-2300	0.228	60.2	15.0	-2.13	0.659	76.5	0.430	1.054	160.6	469.9	0.601	1.508	-0.51	1.019	115.3	339.2	-9.9	0.457
4-1990	4-2310	0.283	71.3	17.9	-2.21	0.654	70.1	0.494	1.047	156.4	475.5	0.529	1.564	-0.61	1.018	119.5	345.6	-7.4	0.529
4-1990	4-2320	0.372	78.9	19.8	-2.46	0.650	61.5	0.588	1.041	154.2	483.0	0.429	1.652	-0.77	1.018	126.0	351.0	-4.9	0.638
4-1990	4-2330	0.511	82.7	21.1	-2.83	0.647	48.9	0.722	1.037	155.4	494.1	0.289	1.785	-1.10	1.019	136.1	354.9	-3.2	0.808
4-1990	4-2380	0.578	53.0	19.0	-1.08	0.378	51.7	0.878	0.806	173.4	562.2	0.098	1.515	0.83	0.887	29.4	288.8	-22.5	0.958
4-1990	4-2380	0.476	357.2	-2.5	-1.08	0.557	116.9	0.668	0.932	195.7	584.5	0.310	1.555	0.83	0.977	48.2	269.5	-22.6	0.702
4-1990	4-2390	0.458	48.6	17.3	-1.31	0.435	67.8	0.772	0.837	172.9	571.8	0.191	1.484	0.63	0.915	40.3	280.7	-21.9	0.810

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1990	4-2390	0.371	9.4	2.1	-1.31	0.538	102.2	0.606	0.914	188.2	587.1	0.360	1.469	0.63	0.968	52.9	279.3	-22.4	0.625
4-1990	4-2460	0.574	101.6	21.6	-1.95	0.819	45.4	0.702	1.402	136.4	246.5	---	2.387	0.42	1.145	48.2	339.9	-8.0	0.791
4-1990	4-2470	0.536	103.6	21.0	-2.04	0.826	48.3	0.665	1.425	132.6	252.8	---	2.373	0.46	1.148	51.7	346.5	-5.2	0.734
4-1990	4-2480	0.501	105.5	20.4	-2.14	0.832	51.0	0.629	1.447	128.9	259.1	---	2.358	0.52	1.151	55.0	352.9	-2.3	0.679
4-1990	4-2490	0.467	107.2	19.7	-2.28	0.838	53.5	0.595	1.468	125.3	265.5	---	2.342	0.62	1.153	58.1	359.0	0.6	0.626
4-1990	4-2500	0.436	108.9	18.8	-2.50	0.843	55.8	0.563	1.488	121.8	271.9	---	2.325	0.80	1.154	61.1	5.0	3.7	0.575
4-1990	4-2510	0.408	110.4	17.5	-2.90	0.848	57.9	0.532	1.506	118.5	278.4	---	2.307	1.16	1.155	64.0	10.6	7.1	0.526
4-1990	4-2520	0.383	111.4	14.7	-4.00	0.852	59.8	0.504	1.522	115.3	285.0	---	2.290	2.23	1.156	66.7	15.5	11.9	0.480
4-1990	4-2540	0.332	116.2	23.3	0.65	0.859	63.2	0.455	1.550	109.3	298.5	---	2.255	-2.49	1.156	71.8	30.5	5.0	0.393
4-1990	4-2550	0.312	116.9	20.0	-0.64	0.862	64.6	0.434	1.561	106.6	305.5	---	2.239	-1.23	1.156	74.2	34.0	9.5	0.350
4-1990	4-2560	0.294	117.9	18.5	-1.07	0.864	65.8	0.416	1.571	104.2	312.6	---	2.224	-0.84	1.156	76.6	37.6	11.6	0.311
4-1990	4-2570	0.279	118.8	17.5	-1.30	0.866	66.9	0.400	1.579	102.0	320.0	---	2.211	-0.65	1.157	78.9	40.4	12.9	0.275
4-1990	4-2580	0.266	119.6	16.7	-1.44	0.868	67.8	0.387	1.586	100.1	327.7	---	2.200	-0.54	1.157	81.1	41.9	13.5	0.243
4-1990	4-2590	0.257	120.2	16.0	-1.55	0.869	68.5	0.377	1.591	98.5	335.6	---	2.191	-0.47	1.157	83.4	41.5	13.4	0.214
4-1990	4-2600	0.249	120.7	15.5	-1.63	0.870	69.0	0.369	1.596	97.3	344.0	---	2.185	-0.43	1.158	85.7	38.7	12.4	0.192
4-1990	4-2610	0.246	121.0	15.1	-1.71	0.870	69.2	0.366	1.599	96.6	352.8	---	2.1	-0.41	1.159	88.1	33.3	10.6	0.178
4-1990	4-2610	0.430	341.3	-10.8	-1.71	0.704	117.6	0.503	1.126	213.8	830.0	0.560	1.693	-0.41	1.039	119.7	285.5	-23.4	0.524
4-1990	4-2610	0.442	340.9	-10.9	-1.71	0.706	116.6	0.512	1.131	214.3	830.5	0.551	1.710	-0.41	1.041	120.3	285.2	-23.4	0.536
4-1990	4-2620	0.246	121.0	14.8	-1.78	0.871	69.2	0.366	1.601	96.4	362.2	1.016	2.187	-0.40	1.160	90.6	25.9	7.9	0.176
4-1990	4-2620	0.289	353.1	-7.5	-1.78	0.673	102.6	0.401	1.075	200.4	826.1	0.644	1.507	-0.40	1.019	113.4	298.0	-21.9	0.414
4-1990	4-2630	0.251	120.9	14.8	-1.84	0.871	68.9	0.371	1.602	96.8	372.2	1.008	2.197	-0.40	1.161	93.3	18.3	5.1	0.189
4-1990	4-2630	0.242	3.5	-3.9	-1.84	0.682	96.8	0.382	1.059	191.2	826.5	0.655	1.463	-0.40	1.013	112.3	307.8	-19.9	0.396
4-1990	4-2640	0.261	120.4	14.9	-1.91	0.871	68.2	0.382	1.603	98.0	382.9	0.991	2.215	-0.41	1.162	96.3	12.3	2.9	0.217
4-1990	4-2640	0.215	15.8	0.6	-1.91	0.655	91.7	0.381	1.048	182.8	827.7	0.648	1.447	-0.41	1.010	112.3	316.9	-17.5	0.398
4-1990	4-2650	0.280	139.5	15.3	-1.99	0.871	67.0	0.401	1.603	100.0	394.6	0.960	2.247	-0.44	1.164	99.7	8.5	1.6	0.262
4-1990	4-2660	0.206	30.1	5.9	-1.99	0.649	86.8	0.395	1.039	175.0	829.5	0.629	1.450	-0.44	1.008	113.2	325.4	-14.9	0.415
4-1990	4-2660	0.309	118.2	16.0	-2.08	0.871	65.0	0.432	1.603	103.2	407.4	0.910	2.296	-0.48	1.166	103.8	6.8	1.1	0.325
4-1990	4-2660	0.217	45.6	11.3	-2.08	0.644	81.4	0.423	1.033	167.9	832.1	0.596	1.469	-0.48	1.007	115.0	333.3	-12.1	0.447
4-1990	4-2670	0.355	116.2	16.9	-2.19	0.871	61.9	0.479	1.603	107.8	421.7	0.835	2.370	-0.55	1.168	109.0	6.5	1.2	0.411
4-1990	4-2670	0.252	60.1	15.6	-2.19	0.640	75.2	0.470	1.027	161.8	835.8	0.545	1.510	-0.55	1.007	118.0	340.7	-9.2	0.500
4-1990	4-2680	0.426	113.3	18.1	-2.35	0.871	67.0	0.550	1.602	114.4	438.1	0.720	2.484	-0.67	1.170	115.8	6.7	1.4	0.529
4-1990	4-2680	0.318	71.8	18.5	-2.35	0.637	87.4	0.542	1.023	157.4	841.1	0.469	1.577	-0.67	1.008	122.8	347.2	-6.6	0.582
4-1990	4-2690	0.537	108.9	19.6	-2.61	0.871	49.3	0.657	1.603	124.2	457.7	0.550	2.655	-0.89	1.173	125.5	6.6	1.5	0.700
4-1990	4-2690	0.427	79.2	20.4	-2.61	0.635	56.7	0.650	1.020	155.7	849.2	0.357	1.683	-0.89	1.010	130.5	352.4	-4.3	0.712
4-1990	4-2690	0.490	29.5	10.3	-2.61	0.364	89.6	0.808	0.800	179.9	1233.4	0.154	1.446	-0.89	0.866	142.5	338.4	-9.7	0.848
4-1990	4-2700	0.596	81.4	21.5	-3.14	0.634	41.2	0.801	1.019	158.9	862.3	0.203	1.835	-1.39	1.012	143.2	355.4	-3.0	0.917
4-1990	4-2700	0.563	47.4	16.4	-3.14	0.345	59.8	0.875	0.791	175.1	1238.5	0.099	1.483	-1.39	0.861	149.9	344.9	-7.1	0.951
4-1990	4-2740	0.563	351.2	-8.7	-0.89	0.594	126.6	0.715	0.971	200.0	943.4	0.277	1.664	1.00	0.998	44.4	264.0	-22.4	0.769
4-1990	4-2750	0.590	326.3	-15.4	-1.21	0.861	125.7	0.587	1.560	240.1	633.6	0.644	2.476	0.72	1.178	60.5	247.8	-20.6	0.371
4-1990	4-2750	0.432	355.2	-3.8	-1.21	0.591	113.5	0.605	0.967	197.8	951.3	0.382	1.551	0.72	0.997	52.8	270.8	-22.5	0.634
4-1990	4-2760	0.510	323.6	-16.9	-1.39	0.861	120.1	0.506	1.559	247.0	650.8	0.771	2.348	0.59	1.179	68.2	248.8	-20.6	0.440
4-1990	4-2760	0.540	65.8	21.1	-1.39	0.500	49.0	0.814	0.883	167.3	931.0	0.764	1.601	0.58	0.948	35.8	293.4	-21.3	0.892
4-1990	4-2760	0.342	4.2	-0.7	-1.39	0.584	102.7	0.541	0.960	191.3	955.0	0.441	1.479	0.58	0.995	57.3	279.9	-22.3	0.561
4-1990	4-2770	0.458	321.9	-18.0	-1.52	0.861	116.5	0.451	1.559	251.8	665.7	0.856	2.261	0.49	1.180	73.8	249.7	-20.5	0.346
4-1990	4-2770	0.418	61.0	19.5	-1.52	0.526	63.0	0.701	0.904	166.7	940.5	0.270	1.538	0.49	0.963	45.7	298.8	-20.4	0.745
4-1990	4-2770	0.288	22.4	6.4	-1.52	0.573	91.0	0.526	0.948	180.9	954.8	0.449	1.446	0.49	0.989	58.3	291.0	-21.3	0.545
4-1990	4-2780	0.424	320.8	-18.8	-1.61	0.861	114.1	0.414	1.558	255.0	679.1	0.913	2.203	0.44	1.180	78.3	249.4	-20.2	0.276
4-1990	4-2790	0.402	320.1	-19.4	-1.69	0.861	112.6	0.390	1.558	257.1	691.4	0.950	2.165	0.41	1.180	82.1	247.1	-19.6	0.224
4-2000	4-2050	0.937	303.3	-22.4	-7.71	1.357	128.2	1.462	-2.125	296.7	355.6	---	---	0.25	1.583	87.4	197.5	-6.7	0.569
4-2000	4-2060	0.845	305.5	-22.1	-1.75	1.266	126.7	1.226	-4.340	294.1	363.2	0.983	---	0.23	1.505	91.7	195.6	-5.9	0.489
4-2000	4-2070	0.776	307.9	-21.7	-1.80	1.199	125.6	1.052	18.626	290.9	370.1	0.976	---	0.22	1.444	95.2	194.4	-5.4	0.440
4-2000	4-2080	0.720	310.3	-21.2	-1.84	1.134	124.6	0.917	11.640	287.1	376.5	0.966	---	0.22	1.394	97.9	194.4	-5.4	0.410
4-2000	4-2090	0.672	312.7	-20.7	-1.87	1.082	123.6	0.807	4.949	283.0	382.6	0.953	---	0.22	1.351	100.1	195.7	-5.9	0.389
4-2000	4-2100	0.630	315.1	-20.2	-1.91	1.035	122.6	0.718	3.327	278.6	388.2	0.940	---	0.23	1.312	101.7	198.1	-6.8	0.374
4-2000	4-2110	0.591	317.5	-19.7	-1.96	0.993	121.6	0.643	2.597	274.0	393.6	0.927	---	0.25	1.278	103.1	201.6	-8.1	0.362
4-2000	4-2120	0.555	319.8	-19.2	-2.02	0.956	120.4	0.581	2.181	269.1	398.8	0.914	---	0.28	1.246	104.1	205.9	-9.7	0.352
4-2000	4-2130	0.521	322.1	-18.7	-2.09	0.922	119.1	0.529	1.915	264.1	403.7	0.901	---	0.33	1.218	104.8	211.0	-11.4	0.343
4-2000	4-2140	0.489	324.5	-18.3	-2.20	0.891	117.7	0.486	1.731	259.0	408.5	0.890	---	0.42	1.193	105.4	216.8	-13.0	0.335
4-2000	4-2150	0.459	326.9	-18.0	-2.41	0.863	116.3	0.450	1.596	253.7	413.0	0.879	---	0.61	1.170	105.8	223.1	-14.3	0.328
4-2000	4-2160	0.431	329.6	-18.3	-2.96	0.836	114.7	0.419	1.495	248	417.4	0.868	---	1.14	1.149	106.1	230.2	-14.4	0.322
4-2000	4-2170	0.437	341.2	-31.7	-12.41	0.816	113.1	0.394	0.415	242.9	421.7	0.858	---	10.58	1.130	106.3	240.6	12.6	0.370
4-2000	4-2180	0.375	332.7	-12.4	-0.40	0.795	111.4	0.373	1.352	237.3	425.8	0.848	---	-1.45	1.114	106.4	242.7	-26.1	0.313
4-2000	4-2190	0.350	335.9	-13.0	-1.18	0.777	109.7	0.355	1.301	231.7	429.8	0.839	---	-0.69	1.098	106.5	251.2	-24.7	0.309
4-2000	4-2200	0.326	339.0	-12.5	-1.43	0.760	107.8	0.341	1.258	225.9	433.7	0.829	---	-0.46	1.085	106.6	259.5	-24.7	0.307
4-2000	4-2210	0.303	342.3	-11.7	-1.56	0.744	105.9	0.331	1.222	220.1	437.4	0.818	---	-0.35	1.073	106.7	267.8	-24.6	0.306
4-2000	4-2220	0.280	346.0	-10.6	-1.64	0.730	103.9	0.323	1.192	214.1	441.0	0.807	---	-0.29	1.063	106.9	276.2	-24.3	0.307
4-2000	4-2230	0.259	350.3	-9.3	-1.69	0.717	101.8	0.316	1.166	208.0	444.4	0.795	---	-0.26	1.053	107.1	284.6	-23.6	0.310
4-2000	4-2240	0.239	355.3	-7.6	-1.74	0.706	99.5	0.317	1.144	201.9	447.8	0.781	---	-0.24	1.046	107.4	293.0	-22.5	0.314
4-2000	4-2250	0.220	1.4	-5.5	-1.78	0.695	97.1	0.319	1.124	195.6	451.1	0.766	---	-0.22	1.039	107.8	301.3	-21.0	0.322
4-2000	4-2260	0.203	8.8	-2.8	-1.82	0.685	94.4	0.325	1.107	189.3	454.3	0.747	---	-0.22	1.033	108.4	309.4	-19.2	0.333
4-2000	4-2270	0.191	17.9	0.7	-1.85	0.675	91.5	0.336	1.092	183.0	457.6	0.725	---	-0.22	1.028	109.2	317.3	-17.0	0.348
4-2000	4-2280	0.185	29.1	4.9	-1.89	0.667	88.2	0.353	1.078	176.7	460.9	0.698	1.459	-0.22	1.024	110.4	325.0	-14.6	0.370
4-2000	4-2290	0.189	42.1	9.6	-1.93	0.659	84.4	0.378	1.066	170.6	464.5	0.663	1.470	-0.24	1.021	112.0	332.5	-11.9	0.399
4-2000	4-2300	0.208	55.9	13.9	-1.98	0.652	79.8	0.414	1.056	165.0	468.5	0.619	1.493	-0.26	1.019	114.3	339.6	-9.2	0.440
4-2000	4-2310	0.248	68.8	17.4	-2.04	0.645	74.2	0.466	1.047	160.0	473.3	0.559	1.534	-0.30	1.018	117.7	346.4	-6.4	0.498
4-2000	4-2320	0.315	79.2	19.6	-2.12	0.640	66.7	0.541	1.039	156.4	479.5	0.477	1.601	-0.36	1.017	122.7	352.4	-3.8	0.584
4-2000	4-2330	0.422	85.9	21.1	-2.26	0.636	56.4	0.650	1.033	155.3	488.3	0.362	1.705	-0.47	1.017	130.5	357.4	-1.7	0.715
4-2000	4-2340	0.588	87.9	22.2	-2.53	0.635	41.4	0.799	1.032	158.6	501.5	0.208	1.855	-0.73	1.019	143.0	0.4	-0.3	0.917
4-2000	4-2380	0.555	1.2	-0.6	-1.33	0.539	125.2	0.744	0.925	195.6	578.6	0.236	1.613	0.55	0.973	42.0	272.8	-23.0	0.800
4-2000	4-2390	0.505	54.0	18.7	-1.51	0.390	63.5	0.827	0.820	173.8	567.0	0.142	1.498	0.39	0.900	35.0	291.7	-21.7	0.884

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2000	4-2590	0.423	9.4	2.2	-1.51	0.524	109.0	C.653	0.912	190.9	584.1	0.316	1.507	C.35	C.966	49.4	281.0	-22.6	0.682
4-2000	4-2460	0.583	106.4	21.3	-1.89	0.806	44.C	C.720	1.385	138.9	243.2	---	2.381	C.22	1.141	46.4	341.4	-7.8	0.819
4-2000	4-2470	0.544	108.4	20.8	-1.93	0.814	47.0	C.682	1.409	135.1	249.5	---	2.369	C.24	1.145	50.0	348.0	-4.9	0.761
4-2000	4-2480	0.508	110.3	20.2	-1.98	0.821	49.8	C.645	1.432	131.4	255.8	---	2.355	C.26	1.147	53.4	354.4	-2.1	0.705
4-2000	4-2490	0.474	112.2	19.5	-2.05	0.827	52.4	C.610	1.455	127.8	262.2	---	2.339	C.3C	1.149	56.6	0.7	0.8	0.650
4-2000	4-2500	0.442	113.9	18.8	-2.14	0.833	54.8	C.576	1.474	124.3	268.6	---	2.323	C.37	1.151	59.7	6.8	3.6	0.597
4-2000	4-2510	0.412	115.5	17.9	-2.28	0.838	57.0	C.545	1.492	120.9	275.1	---	2.305	C.49	1.152	62.6	12.7	6.4	0.547
4-2000	4-2520	0.385	116.9	16.7	-2.59	0.842	59.0	C.515	1.510	117.7	281.7	---	2.288	C.7E	1.153	65.4	18.3	9.5	0.499
4-2000	4-2530	0.361	117.7	13.6	-3.8C	0.846	6C.9	C.488	1.525	114.6	288.3	---	2.270	1.97	1.154	68.1	22.9	14.6	0.454
4-2000	4-2540	0.335	121.9	24.7	1.73	0.859	62.5	C.464	1.539	111.7	295.1	---	2.253	-3.58	1.154	7C.7	33.4	3.4	0.413
4-2000	4-2550	0.314	121.9	18.4	-0.91	0.853	64.C	C.442	1.151	109.0	302.1	---	2.237	-C.95	1.155	73.1	35.8	11.2	0.367
4-2000	4-2560	0.295	122.8	16.9	-1.32	0.855	65.3	C.422	1.162	106.4	309.2	---	2.222	-C.56	1.155	75.5	39.8	13.5	0.327
4-2000	4-2570	0.280	123.8	16.C	-1.5C	0.858	66.4	C.405	1.171	104.2	316.5	---	2.208	-C.4C	1.155	77.3	43.1	14.9	0.290
4-2000	4-2580	0.266	124.6	15.2	-1.60	0.859	67.4	C.391	1.179	102.2	324.C	---	2.196	-C.32	1.156	8C.1	45.3	15.6	0.255
4-2000	4-2590	0.255	125.3	14.6	-1.67	0.861	68.2	C.379	1.185	100.5	331.9	---	2.186	-C.2E	1.156	82.4	45.7	15.8	0.225
4-2000	4-2600	0.247	125.9	14.1	-1.72	0.862	68.7	C.371	1.190	99.2	340.1	---	2.179	-C.25	1.157	84.7	43.9	15.3	0.200
4-2000	4-2610	0.242	126.3	13.7	-1.76	0.863	69.1	C.365	1.193	98.3	348.8	---	2.175	-C.23	1.158	87.0	39.5	13.9	0.182
4-2000	4-2620	0.240	126.5	13.4	-1.80	0.863	69.2	C.364	1.196	97.9	357.9	---	2.176	-C.22	1.159	89.4	32.6	11.6	0.174
4-2000	4-2620	0.377	349.8	-7.8	-1.80	0.682	111.0	C.468	1.102	209.0	829.0	0.586	1.619	-C.22	1.031	117.6	296.2	-21.7	0.488
4-2000	4-2620	0.512	344.9	-8.9	-1.80	0.731	122.4	C.580	1.154	215.1	835.1	0.485	1.823	-C.22	1.050	124.8	292.9	-22.1	0.618
4-2000	4-2630	0.243	126.4	13.4	-1.84	0.864	69.1	C.366	1.598	98.0	367.6	1.012	2.183	-C.22	1.160	2.0	24.8	8.2	0.181
4-2000	4-2630	0.283	C.2	-4.5	-1.84	0.661	101.6	C.409	1.069	197.8	827.4	0.632	1.506	-C.22	1.018	114.0	307.2	-19.6	0.425
4-2000	4-2640	0.250	126.1	13.6	-1.87	0.864	68.5	C.375	1.598	98.8	378.0	0.999	2.198	-C.22	1.162	94.9	18.0	6.3	0.202
4-2000	4-2640	0.239	11.2	-0.6	-1.87	0.650	95.6	C.394	1.053	188.8	828.0	0.638	1.469	-C.22	1.013	113.1	316.6	-17.1	0.412
4-2000	4-2650	0.265	125.5	14.C	-1.91	0.864	67.6	C.390	1.599	100.4	389.2	0.975	2.223	-C.23	1.163	98.1	13.4	4.6	0.240
4-2000	4-2650	0.215	24.3	4.2	-1.91	0.643	90.4	C.398	1.043	186.5	829.3	0.628	1.458	-C.23	1.010	113.4	325.3	-14.4	0.418
4-2000	4-2660	0.288	124.4	14.7	-1.95	0.864	66.0	C.415	1.599	102.9	401.3	0.935	2.262	-C.24	1.165	101.8	11.0	3.7	0.293
4-2000	4-2660	0.211	39.6	9.6	-1.95	0.637	85.0	C.417	1.035	173.0	831.4	0.604	1.466	-C 24	1.008	114.6	333.5	-11.5	0.440
4-2000	4-2670	0.325	122.9	15.6	-2.01	0.864	63.5	C.454	1.598	106.6	414.7	0.873	2.323	-C.27	1.167	106.4	10.3	3.5	0.367
4-2000	4-2670	0.229	55.6	14.6	-2.01	0.632	79.1	C.452	1.028	166.2	834.4	0.564	1.492	-C.27	1.008	116.6	341.2	-8.5	0.480
4-2000	4-2680	0.381	120.6	16.8	-2.08	0.864	59.6	C.511	1.598	111.9	429.8	0.781	2.414	-C.32	1.170	112.2	10.6	3.7	0.466
4-2000	4-2680	0.276	69.8	18.1	-2.08	0.628	72.1	C.508	1.023	160.7	836.6	0.503	1.542	-C.32	1.008	120.5	348.1	-5.7	0.543
4-2000	4-2690	0.467	117.2	18.3	-2.18	0.864	53.6	C.597	1.597	119.6	447.4	0.644	2.551	-C.4C	1.172	120.1	11.0	4.0	0.605
4-2000	4-2690	0.357	80.3	20.3	-2.18	0.625	63.1	C.594	1.019	157.2	845.0	0.414	1.624	-C.4C	1.009	126.4	354.2	-3.1	0.644
4-2000	4-2700	0.488	86.0	21.6	-2.36	0.623	56.5	C.719	1.017	157.3	854.9	0.286	1.747	-C.57	1.011	136.0	358.6	-1.1	0.801
4-2000	4-2700	0.512	41.0	14.7	-2.36	0.337	79.9	C.840	0.795	178.0	1235.7	0.127	1.462	-C.57	0.864	145.9	346.3	-6.2	0.897
4-2000	4-2750	0.501	358.5	-2.8	-1.43	0.578	120.5	C.673	0.964	198.5	946.3	0.315	1.612	C.46	0.996	47.7	273.5	-22.9	0.717
4-2000	4-2760	0.556	33C.9	-14.3	-1.56	0.853	123.4	C.553	1.552	241.8	639.8	0.694	2.411	C.35	1.178	63.5	255.2	-22.0	0.520
4-2000	4-2760	0.580	70.7	21.4	-1.56	0.475	44.3	C.857	0.873	168.9	926.9	0 125	1.620	C.35	0.941	31.4	295.8	-21.1	0.955
4-2000	4-2760	0.389	4.9	-0.2	-1.56	0.573	108.2	C.585	0.958	194.1	952.0	0.357	1.519	C.35	0.996	54.2	281.5	-22.6	0.612
4-2000	4-2770	0.489	328.8	-15.7	-1.64	0.853	118.7	C.483	1.551	247.6	655.8	0.803	2.300	C.25	1.178	70.2	256.5	-22.1	0.406
4-2000	4-2770	0.468	68.1	20.2	-1.64	0.499	57.2	C.761	0.891	167.4	935.6	0.213	1.569	C.29	C.954	40.7	301.5	-20.1	0.821
4-2000	4-2770	0.314	18.4	4.8	-1.64	0.564	96.6	C.546	0.949	185.6	953.7	0.431	1.466	C.29	C.990	57.0	291.5	-21.5	0.567
4-2000	4-2780	0.445	327.3	-16.4	-1.70	0.853	115.6	C.435	1.550	251.6	669.9	0.877	2.224	C.25	1.179	75.4	257.4	-22.0	0.322
4-2000	4-2790	0.415	326.4	-17.3	-1.75	0.852	113.5	C.402	1.550	254.3	682.8	0.926	2.173	C.23	1.178	79.6	256.8	-21.9	0.259
4-2000	4-2800	0.592	97.1	22.4	-1.79	0.722	41.8	C.763	1.176	150.3	589.0	0.279	2.073	C.22	1.087	41.0	323.8	-14.2	0.880
4-2000	4-2800	0.396	325.9	-17.8	-1.79	0.852	112.2	C.381	1.549	256.1	694.8	0.958	2.140	C.22	1.178	83.1	254.0	-21.4	0.212
4-2010	4-2070	0.937	309.9	-21.0	-1.84	1.344	128.7	1.434	2.249	295.5	369.1	0.977	---	C.03	1.574	55.4	196.1	-6.8	0.569
4-2010	4-2080	0.855	312.5	-20.4	-1.85	1.255	127.7	1.208	4.645	291.9	375.6	0.966	---	C.03	1.498	98.6	196.0	-6.7	0.514
4-2010	4-2090	0.789	315.1	-19.7	-1.85	1.182	126.8	1.035	26.870	287.8	381.7	0.951	---	C.03	1.437	101.1	197.0	-7.1	0.477
4-2010	4-2100	0.733	317.7	-19.1	-1.86	1.120	125.9	C.900	9.364	283.5	387.5	0.936	---	C.03	1.384	103.0	199.2	-8.0	0.451
4-2010	4-2110	0.683	320.1	-18.4	-1.86	1.065	124.8	C.791	4.402	278.9	392.9	0.921	---	C.04	1.338	104.5	202.4	-9.3	0.430
4-2010	4-2120	0.637	322.5	-17.8	-1.87	1.016	123.7	C.702	3.044	274.1	398.1	0.907	---	C.04	1.298	105.6	206.5	-10.8	0.413
4-2010	4-2130	0.595	324.8	-17.1	-1.88	0.972	122.4	C.629	2.410	269.1	403.1	0.893	---	C.05	1.262	106.4	211.4	-12.6	0.398
4-2010	4-2140	0.556	327.1	-16.5	-1.90	0.934	121.1	C.570	2.045	264.0	407.8	0.881	---	C.06	1.230	107.0	216.9	-14.4	0.385
4-2010	4-2150	0.520	329.4	-15.9	-1.92	0.899	119.6	C.520	1.810	258.7	412.4	0.869	---	C.07	1.201	107.4	223.1	-16.3	0.373
4-2010	4-2160	0.486	331.7	-15.2	-1.96	0.868	118.0	C.479	1.646	253.4	416.8	0.858	---	C.12	1.176	107.6	229.7	-17.9	0.363
4-2010	4-2170	0.454	334.1	-14.8	-2.13	0.840	116.3	C.445	1.526	247.9	421.1	0.848	---	C.2E	1.153	107.8	236.8	-19.1	0.354
4-2010	4-2180	0.422	335.8	-12.6	-1.19	0.815	114.6	C.416	1.435	242.4	425.3	0.838	---	-C.66	1.133	107.8	243.6	-23.3	0.346
4-2010	4-2190	0.394	338.6	-12.6	-1.70	0.792	112.7	C.393	1.364	236.8	429.3	0.828	---	-C.15	1.115	107.9	251.7	-22.9	0.339
4-2010	4-2200	0.366	341.4	-11.9	-1.77	0.772	110.8	0.374	1.307	231.0	433.1	0.818	---	-C.09	1.099	107.9	259.8	-23.4	0.334
4-2010	4-2210	0.340	344.3	-11.0	-1.80	0.753	108.8	0.359	1.261	225.2	436.9	0.808	---	-C.C6	1.085	107.9	268.0	-23.6	0.331
4-2010	4-2220	0.314	347.6	-9.9	-1.81	0.736	106.7	C.347	1.222	219.3	440.5	0.798	---	-C.C5	1.072	107.9	276.3	-23.5	0.329
4-2010	4-2230	0.290	351.3	-8.7	-1.82	0.721	104.5	C.339	1.190	213.2	444.0	0.786	---	-C.04	1.061	108.0	284.7	-22.9	0.329
4-2010	4-2240	0.266	355.6	-7.2	-1.83	0.707	102.2	C.334	1.162	207.1	447.4	0.774	---	-C.04	1.052	108.2	293.0	-21.9	0.331
4-2010	4-2250	0.244	0.8	-5.3	-1.84	0.694	99.8	C.333	1.139	200.8	450.6	0.759	---	-C.04	1.044	108.5	301.3	-20.4	0.336
4-2010	4-2260	0.224	7.1	-3.0	-1.84	0.683	97.1	C.336	1.118	194.5	453.9	0.743	---	-C.03	1.037	108.9	309.4	-18.6	0.344
4-2010	4-2270	0.207	14.9	0.0	-1.85	0.672	94.2	C.343	1.100	188.1	457.1	0.723	---	-C.03	1.032	109.6	317.4	-16.5	0.355
4-2010	4-2290	0.195	24.7	3.7	-1.85	0.662	91.0	C.356	1.084	181.8	460.3	0.699	---	-C.03	1.027	110.3	325.1	-14.0	0.372
4-2010	4-2290	0.190	36.8	8.1	-1.86	0.653	87.3	C.376	1.071	175.5	463.7	0.668	1.473	-C.03	1.023	111.8	332.7	-11.3	0.396
4-2010	4-2300	0.198	50.7	12.7	-1.87	0.645	83.0	C.405	1.068	169.5	467.4	0.630	1.487	-C.04	1.020	113.7	340.0	-8.5	0.430
4-2010	4-2310	0.223	65.0	16.6	-1.88	0.637	77.9	C.447	1.048	164.1	471.7	0.580	1.516	-C.04	1.018	116.4	346.9	-5.7	0.477
4-2010	4-2320	0.273	77.7	19.3	-1.89	0.631	71.3	C.508	1.038	159.5	477.0	0.511	1.566	-C.05	1.017	120.4	353.4	-2.9	0.546
4-2010	4-2330	0.355	87.1	21.0	-1.90	0.625	62.6	C.596	1.031	156.8	484.1	0.417	1.645	-C.06	1.016	126.5	359.1	-0.5	0.648
4-2010	4-2340	0.484	92.3	22.1	-1.93	0.622	50.3	C.720	1.027	157.2	494.4	0.287	1.766	-C.09	1.017	136.0	3.5	1.4	0.806
4-2010	4-2390	0.549	58.4	19.8	-1.79	0.343	59.7	0.874	0.805	175.0	562.5	0.101	1.508	C.07	0.888	29.9	294.5	-21.5	0.954
4-2010	4-2390	0.486	11.5	3.3	-1.79	0.507	116.6	0.714	0.906	192.2	579.7	0.259	1.553	C.07	0.963	44.6	283.4	-22.8	0.758
4-2010	4-2400	0.409	44.7	15.4	-1.81	0.431	83.4	C.731	0.851	177.6	575.2	0.229	1.474	C.05	0.926	43.7	297.4	-21.0	0.764
4-2010	4-2490	0.388	32.8	11.2	-1.83	0.464	93.8	C.685	0.873	181.8	579.4	0.275	1.472	C.05	0.942	47.2	294.8	-21.4	0.713
4-2010	4-2460	0.592	111.0	20.9	-1.85	0.793	42.6	C.737	1.367	141.3	240.0	---	2.376	C.03	1.137	44.7	342.9	-7.2	0.848

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2010	4-2470	0.553	113.1	20.3	-1.86	0.801	45.8	0.699	1.392	137.5	246.3	---	2.364	0.04	1.141	48.3	369.4	-4.5	0.788
4-2010	4-2480	0.516	115.1	19.7	-1.87	0.809	48.7	0.661	1.416	133.9	252.6	---	2.351	0.04	1.144	51.8	355.9	-1.7	0.730
4-2010	4-2490	0.481	116.9	19.1	-1.88	0.816	51.4	0.625	1.438	130.2	259.0	---	2.336	0.04	1.146	55.2	2.2	1.0	0.674
4-2010	4-2500	0.448	118.7	18.5	-1.89	0.822	53.8	0.590	1.459	126.7	265.4	---	2.320	0.05	1.148	58.3	8.4	3.7	0.620
4-2010	4-2510	0.417	120.4	17.8	-1.90	0.827	56.1	0.557	1.479	123.4	271.9	---	2.303	0.06	1.150	61.3	14.5	6.3	0.568
4-2010	4-2520	0.388	122.0	17.1	-1.93	0.832	58.2	0.527	1.497	120.1	278.4	---	2.286	0.09	1.151	64.2	20.4	8.8	0.5
4-2010	4-2530	0.362	123.4	16.2	-2.01	0.837	60.1	0.499	1.514	117.0	285.1	---	2.268	0.16	1.152	66.9	26.1	11.2	0.471
4-2010	4-2540	0.340	124.4	14.1	-2.71	0.840	61.9	0.473	1.529	114.1	291.8	---	2.251	0.86	1.152	69.5	31.0	14.9	0.426
4-2010	4-2550	0.317	126.4	15.8	-1.60	0.844	63.4	0.450	1.542	111.3	298.7	---	2.235	-0.26	1.153	72.0	37.2	13.9	0.383
4-2010	4-2560	0.297	127.5	14.8	-1.74	0.847	64.8	0.429	1.553	108.7	305.8	---	2.219	-0.11	1.153	74.5	41.7	15.7	0.342
4-2010	4-2570	0.281	128.5	14.1	-1.78	0.849	66.0	0.411	1.563	106.4	313.1	---	2.205	-0.07	1.154	76.8	45.5	16.9	0.304
4-2010	4-2580	0.266	129.5	13.5	-1.80	0.851	67.0	0.395	1.571	104.4	320.6	---	2.192	-0.06	1.154	79.1	48.3	17.7	0.268
4-2010	4-2590	0.254	130.3	12.9	-1.82	0.853	67.9	0.382	1.578	102.6	328.4	---	2.181	-0.05	1.155	81.4	49.5	18.0	0.236
4-2010	4-2600	0.245	130.9	12.4	-1.83	0.854	68.5	0.372	1.583	101.2	336.5	---	2.173	-0.04	1.156	83.7	48.7	17.8	0.208
4-2010	4-2610	0.239	131.4	12.1	-1.83	0.855	69.0	0.366	1.587	100.1	345.0	---	2.168	-0.04	1.157	86.0	45.2	16.9	0.187
4-2010	4-2620	0.236	131.7	11.9	-1.84	0.855	69.2	0.362	1.591	99.5	353.9	---	2.167	-0.03	1.158	88.4	39.1	15.0	0.175
4-2010	4-2630	0.236	131.7	11.9	-1.85	0.856	69.1	0.363	1.593	99.4	363.4	1.014	2.171	-0.03	1.159	90.9	31.3	12.5	0.175
4-2010	4-2640	0.355	357.2	-4.8	-1.85	0.666	108.5	0.462	1.090	205.6	829.5	0.587	1.594	-0.03	1.027	117.2	305.9	-19.4	0.484
4-2010	4-2630	0.551	349.9	-6.6	-1.85	0.709	125.6	0.620	1.165	214.3	838.2	0.442	1.887	-0.03	1.055	127.7	301.3	-20.4	0.671
4-2010	4-2640	0.242	131.6	12.1	-1.85	0.856	68.8	0.369	1.594	99.9	373.4	1.005	2.182	-0.03	1.161	93.6	23.9	9.7	0.191
4-2010	4-2640	0.276	7.6	-1.3	-1.85	0.648	100.4	0.418	1.063	195.2	828.7	0.619	1.507	-0.03	1.017	114.6	316.0	-16.8	0.438
4-2010	4-2650	0.253	131.1	12.5	-1.86	0.856	68.0	0.381	1.594	101.1	384.2	0.986	2.202	-0.03	1.163	96.6	18.4	7.6	0.221
4-2010	4-2650	0.235	19.3	2.9	-1.86	0.637	94.3	0.409	1.048	186.3	829.5	0.620	1.476	-0.03	1.012	114.0	325.1	-14.0	0.430
4-2010	4-2660	0.272	130.3	13.1	-1.86	0.856	66.7	0.402	1.594	103.0	395.8	0.954	2.234	-0.04	1.164	100.1	15.3	6.3	0.267
4-2010	4-2660	0.216	33.5	8.0	-1.86	0.630	88.8	0.417	1.038	178.3	831.1	0.605	1.470	-0.04	1.010	114.6	333.5	-11.0	0.441
4-2010	4-2670	0.301	129.1	14.1	-1.87	0.856	69.7	0.433	1.594	106.0	408.5	0.903	2.284	-0.04	1.167	104.2	14.1	5.9	0.331
4-2010	4-2670	0.218	49.8	13.3	-1.87	0.624	83.0	0.442	1.030	171.0	833.5	0.575	1.484	-0.04	1.009	116.2	341.4	-8.0	0.469
4-2010	4-2680	0.346	127.3	15.2	-1.88	0.856	61.6	0.481	1.593	110.3	422.6	0.828	2.358	-0.04	1.169	109.3	14.2	6.0	0.416
4-2010	4-2680	0.245	66.8	17.5	-1.88	0.619	76.4	0.485	1.023	164.6	836.9	0.527	1.519	-0.04	1.008	119.0	348.8	-4.9	0.518
4-2010	4-2690	0.414	124.7	16.7	-1.89	0.856	56.8	0.551	1.592	116.4	438.6	0.716	2.469	-0.05	1.171	115.9	14.9	6.2	0.532
4-2010	4-2690	0.306	79.5	20.1	-1.89	0.615	68.4	0.552	1.019	159.8	842.0	0.456	1.581	-0.05	1.009	123.5	355.4	-2.1	0.595
4-2010	4-2700	0.519	120.6	18.5	-1.91	0.856	49.4	0.653	1.593	125.5	457.4	0.552	2.633	-0.07	1.174	125.3	15.3	6.4	0.696
4-2010	4-2700	0.407	88.4	21.5	-1.91	0.613	57.9	0.653	1.015	157.6	849.6	0.352	1.678	-0.07	1.010	130.8	0.8	0.3	0.717
4-2010	4-2700	0.532	29.8	11.2	-1.91	0.345	105.9	0.840	0.805	183.1	1235.1	0.129	1.482	-0.07	0.874	146.0	346.7	-5.8	0.902
4-2010	4-2710	0.563	91.8	22.5	-1.95	0.611	42.9	0.794	1.014	159.8	861.7	0.209	1.818	-0.11	1.012	142.6	4.4	1.8	0.907
4-2010	4-2710	0.550	51.9	18.2	-1.95	0.309	68.6	0.880	0.790	176.9	1238.8	0.095	1.486	-0.11	0.864	150.5	353.7	-2.8	0.962
4-2010	4-2750	0.583	3.1	-0.1	-1.77	0.565	128.9	0.752	0.960	197.7	939.9	0.238	1.682	0.05	0.994	41.2	276.9	-23.2	0.821
4-2010	4-2760	0.447	7.1	0.9	-1.80	0.561	114.5	0.641	0.956	195.8	948.1	0.343	1.569	0.06	0.993	50.1	283.6	-22.8	0.679
4-2010	4-2770	0.526	335.7	-13.1	-1.81	0.844	123.4	0.523	1.544	243.1	645.6	0.736	2.352	0.05	1.177	66.2	262.9	-23.2	0.476
4-2010	4-2770	0.512	7.0	21.8	-1.81	0.473	52.1	0.811	0.880	168.7	931.2	0.166	1.593	0.05	0.947	36.1	304.0	-19.7	0.889
4-2010	4-2770	0.351	17.0	4.4	-1.81	0.553	102.1	0.578	0.948	189.2	951.7	0.000	1.496	0.05	0.989	54.7	292.6	-21.7	0.605
4-2010	4-2780	0.470	333.8	-14.2	-1.82	0.844	117.4	0.462	1.543	247.8	660.5	0.830	2.254	0.04	1.177	72.1	264.4	-23.2	0.375
4-2010	4-2780	0.371	63.5	19.3	-1.82	0.598	70.5	0.674	0.907	169.8	942.5	0.295	1.518	0.04	0.965	47.8	308.3	-18.8	0.714
4-2010	4-2780	0.306	41.8	13.2	-1.82	0.534	86.0	0.584	0.930	177.1	949.8	0.387	1.473	0.04	0.979	54.4	304.4	-19.6	0.611
4-2010	4-2790	0.431	332.7	-15.0	-1.83	0.844	114.7	0.420	1.542	251.1	674.0	0.895	2.189	0.04	1.177	76.8	265.2	-23.2	0.300
4-2010	4-2800	0.406	331.9	-15.6	-1.84	0.844	112.9	0.391	1.541	253.3	686.4	0.938	2.144	0.03	1.176	80.7	264.3	-23.2	0.243
4-2010	4-2810	0.553	103.6	21.7	-1.85	0.717	44.4	0.735	1.181	149.1	592.3	0.313	2.049	0.03	1.088	43.4	332.0	-11.5	0.842
4-2010	4-2810	0.390	331.4	-16.0	-1.85	0.843	111.8	0.373	1.541	254.8	698.0	0.966	2.115	0.03	1.175	84.1	260.7	-23.0	0.201
4-2020	4-2090	0.936	317.5	-18.8	-1.85	1.316	129.8	1.365	-2.603	292.2	380.6	0.951	---	-0.15	1.553	101.9	199.0	-8.4	0.593
4-2020	4-2100	0.858	320.2	-18.0	-1.82	1.230	129.0	1.154	-6.080	288.0	386.4	0.934	---	-0.15	1.479	104.2	200.8	-9.2	0.548
4-2020	4-2110	0.792	322.8	-17.2	-1.80	1.157	128.1	0.991	99.355	283.5	391.9	0.917	---	-0.15	1.417	105.9	203.7	-10.3	0.515
4-2020	4-2120	0.734	325.2	-16.5	-1.76	1.093	127.0	0.862	6.521	278.7	397.2	0.900	---	-0.17	1.363	107.2	207.5	-11.8	0.487
4-2020	4-2130	0.682	327.6	-15.7	-1.73	1.038	125.8	0.759	3.673	273.8	402.2	0.885	---	-0.19	1.317	108.1	212.2	-13.5	0.464
4-2020	4-2140	0.634	329.9	-14.9	-1.68	0.988	124.4	0.676	2.687	269.7	407.0	0.871	---	-0.22	1.276	108.7	217.5	-15.4	0.444
4-2020	4-2150	0.590	332.1	-14.1	-1.61	0.945	123.0	0.608	2.191	266.5	411.6	0.859	---	-0.28	1.240	109.1	223.4	-17.4	0.427
4-2020	4-2160	0.549	334.2	-13.2	-1.48	0.906	121.4	0.552	1.893	258.2	416.1	0.847	---	-0.39	1.209	109.3	229.8	-19.5	0.411
4-2020	4-2170	0.511	336.2	-12.0	-1.18	0.871	119.7	0.507	1.696	252.8	420.4	0.836	---	-0.68	1.181	109.4	236.6	-21.9	0.397
4-2020	4-2180	0.475	337.0	-7.7	1.27	0.841	117.9	0.469	1.557	247.3	424.6	0.826	---	-3.12	1.156	109.4	242.4	-30.0	0.389
4-2020	4-2190	0.443	342.1	-13.2	-3.04	0.813	116.0	0.438	1.453	241.7	428.6	0.816	---	1.21	1.135	109.4	252.5	-19.0	0.375
4-2020	4-2200	0.411	344.1	-11.4	-2.34	0.788	114.0	0.413	1.374	236.0	432.5	0.80[illegible]	---	0.51	1.116	109.3	260.2	-21.7	0.366
4-2020	4-2210	0.380	346.7	-10.2	-2.14	0.766	111.9	0.392	1.312	230.2	436.3	0.797	---	0.33	1.099	109.2	268.2	-22.5	0.359
4-2020	4-2220	0.352	349.5	-9.1	-2.05	0.746	109.8	0.376	1.262	224.3	439.9	0.787	---	0.25	1.084	109.2	276.5	-22.6	0.355
4-2020	4-2230	0.324	352.8	-7.9	-1.99	0.728	107.5	0.364	1.221	218.3	443.5	0.776	---	0.21	1.071	109.1	284.8	-22.2	0.352
4-2020	4-2240	0.298	356.5	-6.5	-1.95	0.711	105.1	0.355	1.186	212.1	446.9	0.765	---	0.18	1.060	109.2	293.1	-21.2	0.351
4-2020	4-2250	0.272	1.0	-4.8	-1.91	0.696	102.6	0.351	1.157	205.9	450.2	0.751	---	0.16	1.051	109.3	301.3	-19.9	0.353
4-2020	4-2260	0.249	6.4	-2.8	-1.89	0.683	99.9	0.350	1.133	199.6	453.4	0.736	---	0.15	1.043	109.6	309.5	-18.1	0.358
4-2020	4-2270	0.228	13.0	-0.2	-1.86	0.670	97.0	0.354	1.111	193.2	456.6	0.718	---	0.15	1.036	110.1	317.4	-15.9	0.366
4-2020	4-2280	0.210	21.5	3.0	-1.84	0.659	93.8	0.362	1.093	186.8	459.8	0.697	---	0.15	1.030	110.8	325.2	-13.5	0.379
4-2020	4-2290	0.198	32.1	7.0	-1.81	0.648	90.3	0.377	1.076	180.4	463.1	0.670	---	0.15	1.026	111.9	332.8	-10.8	0.398
4-2020	4-2300	0.196	45.2	11.5	-1.78	0.638	86.2	0.400	1.062	174.3	466.6	0.637	1.488	0.16	1.022	113.4	340.2	-8.0	0.425
4-2020	4-2310	0.209	60.0	15.7	-1.75	0.630	81.4	0.434	1.050	168.4	470.5	0.594	1.506	0.17	1.019	115.6	347.3	-5.1	0.464
4-2020	4-2320	0.242	74.5	18.9	-1.71	0.622	75.4	0.484	1.039	163.2	475.1	0.536	1.542	0.20	1.017	118.9	354.1	-2.2	0.519
4-2020	4-2330	0.304	86.5	20.8	-1.66	0.615	67.8	0.555	1.030	159.3	481.1	0.458	1.602	0.24	1.016	123.7	0.3	0.5	0.601
4-2020	4-2340	0.404	94.7	21.9	-1.57	0.610	57.5	0.657	1.024	157.6	489.3	0.351	1.697	0.31	1.016	131.1	5.6	2.8	0.724
4-2020	4-2350	0.559	97.8	22.7	-1.40	0.608	42.7	0.796	1.021	160.0	501.6	0.208	1.833	0.46	1.017	142.7	9.1	4.3	0.913
4-2020	4-2390	0.593	62.2	20.6	-2.21	0.292	56.1	0.914	0.792	176.3	558.3	0.068	1.515	-0.39	0.876	24.7	297.2	-21.2	1.022
4-2020	4-2390	0.561	15.4	5.0	-2.21	0.485	125.4	0.785	0.898	192.1	574.1	0.193	1.604	-0.35	0.958	38.5	286.5	-22.8	0.853
4-2020	4-2400	0.466	54.4	18.2	-2.08	0.373	77.3	0.805	0.827	176.9	569.0	0.161	1.492	-0.27	0.907	37.2	301.2	-20.5	0.857
4-2020	4-2400	0.429	28.3	9.6	-2.08	0.457	104.2	0.713	0.877	185.9	578.0	0.252	1.502	-0.27	0.945	45.0	295.5	-21.6	0.750
4-2020	4-2470	0.562	117.6	19.7	-1.81	0.788	44.5	0.716	1.375	140.0	243.2	---	2.359	-0.15	1.137	46.7	350.8	-4.1	0.815

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2020	4-2480	0.524	119.7	19.1	-1.78	0.796	47.5	C.677	1.399	136.3	249.5	---	2.346	-C.16	1.140	50.2	357.3	-1.4	0.756
4-2020	4-2490	0.488	121.8	16.5	-1.75	C.804	5C.3	C.640	1.422	132.7	255.9	---	2.332	-C.17	1.143	53.7	3.7	1.3	0.698
4-2020	4-2500	0.454	123.4	17.9	-1.73	C.810	52.9	C.604	1.444	129.2	262.3	---	2.317	-C.20	1.145	56.9	9.9	4.C	0.643
4-2020	4-2510	0.422	125.2	17.3	-1.65	C.816	55.2	C.570	1.465	125.8	268.7	---	2.3CC	-C.24	1.147	60.0	16.1	6.4	0.590
4-2020	4-2520	0.393	126.8	16.8	-1.56	0.822	57.4	C.539	1.484	122.5	275.3	---	2.283	-C.32	1.148	62.9	22.2	8.7	0.539
4-2020	4-2530	0.366	128.5	16.4	-1.38	C.826	59.4	C.509	1.502	119.4	281.9	---	2.266	-C.49	1.149	65.7	28.2	10.5	0.491
4-2020	4-2540	0.341	130.3	17.C	-0.77	C.831	61.2	C.482	1.517	116.4	288.6	---	2.249	-1.08	1.150	68.4	34.4	11.C	0.445
4-2020	4-2550	0.330	127.7	4.8	-6.25	C.834	62.8	C.458	1.531	113.6	295.5	---	2.232	4.41	1.151	71.0	35.3	26.6	0.408
4-2020	4-2560	C.301	131.6	11.7	-2.56	C.837	64.3	C.436	1.544	111.0	302.6	---	2.216	C.73	1.152	73.4	43.1	18.9	0.358
4-2020	4-2570	0.283	133.0	11.8	-2.22	0.840	65.5	C.416	1.554	108.7	309.8	---	2.201	C.41	1.152	75.8	47.6	19.2	0.319
4-2020	4-2580	0.267	134.0	11.4	-2.09	0.842	66.6	C.399	1.563	106.6	317.2	---	2.188	C.29	1.153	78.1	51.0	19.8	0.282
4-2020	4-2590	0.254	134.9	11.C	-2.02	C.844	67.5	C.386	1.571	104.7	324.9	---	2.176	C.23	1.154	80.4	52.9	20.2	0.248
4-2020	4-2600	0.244	135.7	10.6	-1.97	C.845	68.3	C.374	1.577	103.2	332.9	---	2.167	C.19	1.155	82.7	53.0	20.1	0.218
4-2020	4-2610	0.237	136.3	10.4	-1.93	C.847	68.8	C.366	1.582	102.1	341.3	---	2.161	C.17	1.156	85.0	50.5	19.5	0.194
4-2020	4-2620	0.232	136.7	10.2	-1.90	0.847	69.1	C.362	1.585	101.3	350.1	---	2.158	C.16	1.157	87.4	45.2	18.2	0.178
4-2020	4-2630	0.232	136.8	10.2	-1.87	C.848	69.2	C.361	1.587	101.0	359.4	---	2.160	C.15	1.158	89.8	37.8	15.9	0.173
4-2020	4-2640	0.235	136.8	10.4	-1.85	C.848	68.9	C.365	1.589	101.2	369.2	1.009	2.168	C.15	1.160	92.5	29.9	13.2	0.182
4-2020	4-2640	0.337	4.6	-1.7	-1.85	C.650	107.0	C.461	1.C80	202.4	830.4	0.582	1.579	C.15	1.024	117.3	315.C	-16.7	0.486
4-2020	4-2640	0.584	355.1	-4.1	-1.85	C.705	128.5	C.656	1.174	213.2	841.2	C.404	1.934	C.15	1.060	130.3	309.7	-18.3	0.720
4-2020	4-2650	0.243	136.5	10.8	-1.82	C.848	62.4	C.374	1.590	102.0	379.6	0.995	2.184	C.15	1.162	95.3	23.6	10.7	0.206
4-2020	4-2650	0.268	15.3	2.1	-1.82	C.634	99.0	C.428	1.C56	192.5	830.0	0.604	1.509	C.15	1.016	115.3	324.7	-13.8	0.452
4-2020	4-2660	0.258	136.0	11.5	-1.80	C.848	67.3	C.391	1.590	103.6	390.6	C.969	2.211	C.15	1.164	96.5	19.6	9.1	0.246
4-2020	4-2660	0.232	28.1	6.6	-1.80	C.624	92.8	C.425	1.C42	183.8	831.1	0.600	1.485	C.75	1.012	115.1	333.4	-10.7	0.449
4-2020	4-2670	0.282	135.0	12.4	-1.77	C.848	65.6	C.417	1.589	105.9	402.9	0.927	2.252	C.16	1.166	102.3	17.9	8.3	0.301
4-2020	4-2670	0.218	43.6	11.8	-1.77	C.617	86.9	C.439	1.032	176.0	833.C	0.579	1.485	C.16	1.010	116.0	341.5	-7.5	0.466
4-2020	4-2680	0.318	133.6	13.6	-1.74	C.848	63.1	C.456	1.588	109.4	416.1	0.864	2.373	C.18	1.168	106.8	17.7	8.1	0.374
4-2020	4-2680	0.229	60.7	16.5	-1.74	C.611	80.6	C.478	1.025	169.0	835.8	0.543	1.507	C.18	1.009	118.0	349.1	-4.3	0.502
4-2020	4-2690	0.373	131.5	15.C	-1.69	C.848	59.3	C.514	1.588	114.4	430.9	C.772	2.404	C.21	1.170	112.6	18.5	8.3	0.473
4-2020	4-2690	0.269	76.7	19.8	-1.69	C.606	73.2	C.523	1.C19	163.3	839.8	C.486	1.551	C.21	1.009	121.5	356.2	-1.3	0.562
4-2020	4-2700	0.456	128.3	16.7	-1.62	C.848	53.4	C.599	1.587	121.5	448.0	C.637	2.537	C.26	1.173	120.4	19.3	8.6	0.609
4-2020	4-2700	0.345	88.8	21.4	-1.62	C.602	64.0	C.604	1.014	159.4	845.9	0.402	1.627	C.26	1.010	127.1	2.4	1.4	0.656
4-2020	4-2710	C.589	123.4	18.8	-1.51	C.848	44.2	C.719	1.588	132.1	468.5	C.447	2.730	C.36	1.175	131.5	1V.5	8.7	0.804
4-2020	4-2710	0.467	95.7	22.4	-1.51	C.600	51.5	C.721	1.C11	158.9	855.2	C.282	1.741	C.36	1.011	136.1	7.1	3.4	0.805
4-2020	4-2710	0.531	42.9	15.9	-1.51	C.307	93.7	C.86C	C.797	180.6	1237.C	C.111	1.483	C.36	C.87C	148.3	354.6	-2.1	0.933
4-2020	4-2760	0.514	10.5	2.5	-2.13	C.547	121.8	C.708	0.952	196.3	983.0	C.278	1.627	-C.32	C.991	45.0	286.3	-22.9	0.761
4-2020	4-2770	0.572	342.7	-10.2	-2.04	C.835	124.9	C.573	1.536	237.9	634.9	0.656	2.417	-C.24	1.176	61.4	269.0	-23.9	0.559
4-2020	4-2770	0.552	79.2	22.4	-2.04	C.446	47.2	C.854	0.870	170.1	927.0	0.127	1.612	-C.24	0.940	31.6	306.4	-19.4	0.953
4-2020	4-2770	0.398	17.6	4.8	-2.04	C.540	108.0	C.622	0.946	191.8	948.8	0.358	1.534	-C.24	0.988	51.6	294.2	-21.9	0.656
4-2020	4-2780	0.500	340.4	-11.6	-1.98	C.835	119.7	C.496	1.535	243.8	650.9	C.773	2.297	-C.20	1.176	68.5	270.8	-23.9	0.438
4-2020	4-2780	0.430	73.7	21.2	-1.98	C.476	62.9	C.747	0.891	169.5	936.6	0.226	1.556	-C.20	0.955	42.0	311.5	-18.2	0.804
4-2020	4-2780	0.323	34.4	10.7	-1.98	C.527	93.7	C.591	0.934	182.6	949.7	0.382	1.485	-C.20	0.981	53.9	304.4	-19.9	0.619
4-2020	4-2790	0.451	338.9	-12.6	-1.94	C.835	116.2	C.443	1.534	247.7	665.0	0.855	2.214	-C.17	1.176	73.9	272.5	-24.0	0.348
4-2020	4-2800	0.418	337.9	-13.3	-1.90	C.835	113.9	C.406	1.533	250.4	677.9	0.911	2.155	-C.16	1.175	78.2	273.0	-24.1	0.280
4-2020	4-2810	0.570	108.2	21.2	-1.88	C.703	42.4	C.760	1.170	151.3	589.0	0.280	2.061	-C.15	1.084	41.1	333.6	-11.C	0.878
4-2020	4-2810	0.396	337.2	-13.7	-1.88	C.834	112.3	C.381	1.532	252.2	689.9	0.949	2.116	-C.15	1.174	81.8	271.7	-24.2	0.229
4-2020	4-2820	0.514	109.9	20.8	-1.85	C.711	47.0	C.706	1.186	148.C	595.8	0.349	2.024	-C.15	1.088	45.9	340.1	-8.6	0.801
4-2020	4-2820	0.382	236.8	-14.C	-1.85	C.834	111.3	C.365	1.532	253.4	701.2	0.973	2.091	-C.15	1.172	85.0	267.5	-24.3	0.191
4-2030	4-2120	0.851	327.9	-15.2	-1.69	1.193	13C.2	1.07811.511		283.1	396.1	0.895	---	-C.35	1.449	108.7	209.0	-12.7	0.580
4-2030	4-2130	0.784	330.4	-14.3	-1.61	1.121	129.1	0.93012.519		278.2	401.2	0.878	---	-C.38	1.388	109.8	213.3	-14.4	0.546
4-2030	4-2140	0.725	332.7	-13.4	-1.52	1.058	127.8	0.813	4.610	273.2	406.1	0.863	---	-C.44	1.336	110.5	218.4	-16.2	0.516
4-2030	4-2150	0.671	334.9	-12.5	-1.40	1.003	126.4	C.720	3.026	268.1	410.7	0.849	---	-C.53	1.290	110.9	224.1	-18.1	0.491
4-2030	4-2160	0.622	337.2	-11.5	-1.21	0.955	124.8	C.644	2.351	262.8	415.2	0.836	---	-C.69	1.251	111.2	230.3	-20.2	0.469
4-2030	4-2170	0.577	338.9	-10.5	-0.82	0.912	123.1	C.583	1.979	257.4	419.6	0.825	---	-1.05	1.216	111.2	237.0	-22.7	0.449
4-2030	4-2180	0.535	340.4	-9.8	0.42	0.874	121.3	C.534	1.745	251.9	423.8	0.814	---	-2.27	1.186	111.2	243.7	-27.1	0.433
4-2030	4-2190	0.530	352.3	-24.3	-13.94	0.841	119.4	C.493	1.585	246.4	427.9	0.804	---	12.12	1.160	111.1	253.0	6.6	0.470
4-2030	4-2200	0.461	347.4	-11.4	-3.46	0.810	117.3	C.459	1.470	240.7	431.8	0.795	---	1.67	1.137	110.9	260.6	-18.8	0.405
4-2030	4-2210	0.426	349.4	-9.6	-2.67	0.784	115.2	C.432	1.383	235.0	435.6	0.785	---	C.91	1.116	110.7	268.5	-21.C	0.393
4-2030	4-2220	0.393	351.9	-8.2	-2.37	C.760	113.0	C.410	1.315	229.1	439.3	0.775	---	C.44	1.099	110.5	276.7	-21.6	0.385
4-2030	4-2230	0.362	354.7	-7.C	-2.21	0.738	110.7	C.393	1.261	223.1	442.9	0.765	---	C.5C	1.084	110.4	284.9	-21.4	0.379
4-2030	4-2240	0.332	358.0	-5.6	-2.10	0.718	108.2	C.381	1.218	217.1	446.3	0.754	---	C.42	1.071	110.3	293.2	-20.6	0.375
4-2030	4-2250	0.304	1.9	-4.1	-2.02	0.701	105.7	C.372	1.182	210.9	449.7	0.742	---	C.38	1.059	110.4	301.4	-19.3	0.373
4-2030	4-2260	0.277	6.5	-2.2	-1.95	C.685	102.9	C.367	1.151	204.6	453..	0.728	---	C.35	1.050	110.5	309.5	-17.6	0.375
4-2030	4-2270	0.252	12.2	-0.C	-1.89	C.670	100.0	C.367	1.126	198.2	456.2	C.712	---	C.33	1.042	110.8	317.5	-15.5	0.380
4-2030	4-2280	0.230	19.4	2.8	-1.84	C.657	96.8	C.372	1.104	191.8	459.4	0.693	---	C.32	1.035	111.4	325.3	-13.0	0.389
4-2030	4-2290	0.212	28.5	6.2	-1.78	C.644	93.3	C.383	1.084	185.4	462.6	0.669	---	C.32	1.029	112.2	332.9	-10.4	0.404
4-2030	4-2300	0.202	40.2	10.3	-1.72	0.633	89.4	C.401	1.C68	179.0	465.9	0.640	1.496	C.34	1.024	113.4	340.3	-7.5	0.425
4-2030	4-2310	0.203	54.4	14.7	-1.66	C.623	84.8	C.428	1.C53	172.9	469.6	0.603	1.504	C.36	1.021	115.2	347.6	-4.5	0.456
4-2030	4-2320	0.223	69.9	18.3	-1.59	C.614	79.3	C.468	1.041	167.3	473.7	C.554	1.528	C.4C	1.018	117.8	354.6	-1.6	0.501
4-2030	4-2330	0.267	84.2	20.7	-1.49	C.605	72.5	C.526	1.030	162.6	478.8	C.489	1.572	C.46	1.016	121.7	1.2	1.3	0.367
4-2030	4-2340	0.344	95.1	21.8	-1.34	C.599	63.5	C.609	1.022	159.4	485.6	0.399	1.644	C.58	1.015	127.5	7.1	3.8	0.665
4-2030	4-2350	0.466	101.5	22.5	-1.10	C.594	51.2	C.727	1.C16	159.2	495.3	0.278	1.755	C.79	1.015	136.6	11.8	5.8	0.814
4-2030	4-2400	0.514	60.1	19.6	-2.46	C.319	74.6	C.859	0.810	177.4	564.1	C.114	1.505	-C.72	0.893	31.6	304.2	-20.1	0.934
4-2030	4-2400	0.486	29.0	10.C	-2.46	C.438	112.9	C.763	0.873	187.8	574.4	0.207	1.540	-C.72	0.942	40.6	297.5	-21.6	0.817
4-2030	4-2470	C.571	122.C	19.C	-1.78	C.775	43.1	C.733	1.357	142.3	240.1	---	2.352	-C.32	1.133	45.0	352.2	-3.7	0.842
4-2030	4-2480	0.532	124.1	18.3	-1.72	C.783	46.3	C.694	1.382	138.6	246.4	---	2.341	-C.38	1.136	48.6	358.7	-1.0	0.781
4-2030	4-2490	0.495	126.1	17.7	-1.65	C.791	49.2	C.655	1.406	135.0	252.8	---	2.328	-C.36	1.139	52.2	5.1	1.7	0.723
4-2030	4-2500	0.461	127.9	17.1	-1.57	C.798	51.9	C.619	1.429	131.5	259.2	---	2.313	-C.41	1.142	55.5	11.4	4.3	0.666
4-2030	4-2510	0.428	129.8	16.6	-1.47	C.805	54.3	C.584	1.451	128.1	265.6	---	2.297	-C.48	1.144	58.7	17.6	6.7	0.612
4-2030	4-2520	0.398	131.5	16.1	-1.32	C.811	56.6	C.551	1.471	124.9	272.2	---	2.281	-C.59	1.146	61.7	23.8	8.8	0.560
4-2030	4-2530	0.371	133.2	15.9	-1.06	C.816	58.7	C.520	1.489	121.7	278.8	---	2.263	-C.82	1.147	64.6	30.0	10.5	0.510

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2030	4-2540	0.345	135.1	16.4	-0.46	0.820	60.6	0.492	1.506	118.7	285.5	---	2.246	-1.40	1.148	67.3	36.3	11.0	0.463
4-2030	4-2550	0.325	139.1	24.1	3.31	0.824	62.2	0.466	1.521	115.9	292.4	---	2.230	-5.15	1.149	69.9	45.2	3.4	0.427
4-2030	4-2560	0.308	134.3	5.4	-4.85	0.828	63.8	0.443	1.534	113.3	299.4	---	2.213	3.04	1.150	72.4	43.4	25.8	0.378
4-2030	4-2570	0.286	136.9	8.7	-2.97	0.831	65.1	0.422	1.546	110.9	306.6	---	2.198	1.19	1.151	74.8	49.3	22.3	0.334
4-2030	4-2580	0.269	138.3	9.0	-2.50	0.833	66.2	0.404	1.555	108.8	314.0	---	2.184	0.75	1.151	77.2	53.4	22.1	0.295
4-2030	4-2590	0.255	139.4	8.9	-2.28	0.835	67.2	0.389	1.563	106.9	321.6	---	2.172	0.56	1.152	79.5	56.0	22.3	0.260
4-2030	4-2600	0.244	140.2	8.7	-2.15	0.837	68.0	0.377	1.570	105.3	329.5	---	2.162	0.46	1.153	81.8	58.9	22.3	0.228
4-2030	4-2610	0.235	140.9	8.5	-2.06	0.838	68.6	0.368	1.575	104.0	337.8	---	2.154	0.40	1.155	84.1	55.4	22.0	0.201
4-2030	4-2620	0.230	141.4	8.4	-1.98	0.839	69.0	0.362	1.579	103.1	346.5	---	2.150	0.36	1.156	86.4	51.0	21.0	0.182
4-2030	4-2630	0.228	141.7	8.4	-1.92	0.840	69.2	0.359	1.582	102.7	355.6	---	2.151	0.34	1.157	88.8	44.1	19.2	0.172
4-2030	4-2640	0.229	141.8	8.6	-1.86	0.840	69.1	0.361	1.584	102.7	365.2	1.012	2.156	0.32	1.159	91.4	36.0	16.6	0.176
4-2030	4-2650	0.236	141.7	9.1	-1.81	0.840	68.6	0.368	1.585	103.2	375.3	1.001	2.169	0.32	1.161	94.1	28.9	13.9	0.194
4-2030	4-2650	0.321	12.1	1.6	-1.81	0.635	105.2	0.464	1.071	199.2	831.4	0.574	1.568	0.32	1.022	117.5	323.9	-13.7	0.492
4-2030	4-2660	0.247	141.3	9.7	-1.75	0.840	67.8	0.382	1.585	104.4	386.2	0.980	2.190	0.33	1.163	97.1	24.1	11.8	0.227
4-2030	4-2660	0.260	23.6	5.6	-1.75	0.620	97.5	0.441	1.050	189.7	831.5	0.587	1.512	0.33	1.015	116.1	333.0	-10.4	0.467
4-2030	4-2670	0.267	140.6	10.6	-1.7	840	66.4	0.403	1.585	106.3	397.8	0.945	2.224	0.34	1.165	100.6	21.7	10.7	0.275
4-2030	4-2670	0.230	37.7	10.4	-1.7	0.610	91.1	0.443	1.037	181.3	832.8	0.577	1.496	0.34	1.012	116.3	341.4	-7.1	0.471
4-2030	4-2680	0.297	139.5	11.7	-1.63	0.840	64.3	0.436	1.584	109.1	410.3	0.893	2.275	0.38	1.167	104.7	21.2	10.3	0.380
4-2030	4-2680	0.223	54.5	15.4	-1.63	0.603	84.7	0.464	1.027	173.8	835.1	0.551	1.503	0.38	1.010	117.6	349.3	-3.9	0.495
4-2030	4-2690	0.341	137.8	13.1	-1.54	0.840	61.2	0.485	1.583	113.1	424.2	0.816	2.350	0.43	1.170	109.8	21.8	10.4	0.425
4-2030	4-2690	0.245	72.2	12.3	-1.54	0.597	77.7	0.504	1.020	157.3	838.4	0.506	1.533	0.43	1.009	120.2	356.7	-0.7	0.540
4-2030	4-2700	0.408	135.3	14.8	-1.43	0.840	56.4	0.555	1.582	118.9	439.6	0.704	2.460	0.51	1.172	116.4	23.0	10.7	0.541
4-2030	4-2700	0.299	87.2	21.3	-1.43	0.592	69.4	0.567	1.014	162.2	843.2	0.439	1.589	0.51	1.009	124.6	3.4	2.2	0.614
4-2030	4-2710	0.510	131.5	16.8	-1.25	0.840	49.1	0.656	1.582	127.3	458.2	0.545	2.620	0.66	1.174	125.6	23.8	10.9	0.701
4-2030	4-2710	0.394	97.4	22.2	-1.25	0.589	58.6	0.663	1.010	159.6	850.5	0.340	1.680	0.66	1.010	131.5	9.1	9.7	0.730
4-2030	4-2720	0.541	101.9	22.9	-0.90	0.588	43.9	0.795	1.008	161.1	862.0	0.206	1.810	0.98	1.012	142.7	13.0	6.3	0.909
4-2030	4-2720	0.555	55.2	19.6	-0.90	0.271	81.2	0.893	0.791	178.9	1239.8	0.085	1.498	0.98	0.868	152.2	2.1	1.4	0.988
4-2030	4-2760	0.592	15.2	4.7	-2.64	0.532	130.4	0.784	0.948	195.5	936.8	0.206	1.691	-0.88	0.988	38.5	289.7	-22.8	0.866
4-2030	4-2770	0.589	83.9	22.7	-2.35	0.418	42.3	0.891	0.860	171.6	923.1	0.094	1.627	-0.61	0.933	27.3	308.6	-19.0	1.014
4-2030	4-2770	0.453	19.6	5.8	-2.35	0.527	114.6	0.675	0.944	193.4	944.9	0.306	1.581	-0.61	0.987	47.8	296.3	-21.9	0.722
4-2030	4-2780	0.536	347.0	-8.8	-2.18	0.826	122.6	0.539	1.528	239.3	641.0	0.705	2.351	-0.48	1.175	64.4	276.8	-24.3	0.509
4-2030	4-2780	0.477	80.6	22.0	-2.18	0.446	57.3	0.801	0.879	170.3	931.9	0.175	1.582	-0.48	0.946	37.1	314.1	-17.6	0.877
4-2030	4-2780	0.356	31.8	9.9	-2.19	0.516	100.1	0.618	0.934	186.4	948.1	0.357	1.511	-0.48	0.981	51.9	305.3	-20.1	0.652
4-2030	4-2790	0.475	345.3	-10.0	-2.07	0.826	118.2	0.472	1.526	244.0	655.9	0.806	2.247	-0.41	1.174	70.6	278.9	-24.3	0.403
4-2030	4-2800	0.434	343.8	-10.8	-1.99	0.826	115.2	0.425	1.525	247.2	669.2	0.876	2.174	-0.36	1.173	75.4	280.5	-24.4	0.323
4-2030	4-2810	0.587	312.6	20.8	-1.92	0.689	40.3	0.785	1.160	153.5	585.7	0.249	2.071	-0.30	1.081	38.8	335.2	-10.6	0.915
4-2030	4-2810	0.405	343.0	-11.3	-1.92	0.825	113.1	0.393	1.524	249.4	681.6	0.925	2.122	-0.34	1.172	79.4	280.9	-24.6	0.262
4-2030	4-2820	0.530	114.4	20.3	-1.86	0.698	45.2	0.731	1.176	150.1	592.5	0.316	2.036	-0.32	1.084	43.7	341.6	-8.1	0.837
4-2030	4-2820	0.386	342.4	-11.7	-1.86	0.825	111.7	0.371	1.523	250.8	693.2	0.958	2.087	-0.32	1.170	82.8	279.0	-24.9	0.216
4-2030	4-2830	0.475	115.9	19.7	-1.81	0.708	49.8	0.675	1.192	147.0	599.4	0.388	1.997	-0.32	1.088	48.5	347.9	-5.6	0.759
4-2030	4-2830	0.374	342.0	-11.9	-1.81	0.825	110.9	0.357	1.523	251.8	704.2	0.979	2.066	-0.32	1.169	85.9	274.2	-25.4	0.183
4-2040	4-2150	0.766	337.7	-11.0	-1.25	1.078	129.8	0.863	6.137	272.4	409.7	0.839	---	-0.72	1.354	112.9	225.1	-18.7	0.568
4-2040	4-2160	0.707	339.8	-10.0	-1.03	1.017	128.3	0.760	3.443	267.2	414.3	0.825	---	-0.90	1.303	113.1	231.1	-20.7	0.537
4-2040	4-2170	0.652	341.8	-8.7	-0.64	0.964	126.6	0.678	2.526	261.9	418.7	0.812	---	-1.24	1.260	113.2	237.7	-23.0	0.510
4-2040	4-2180	0.603	343.5	-6.9	0.25	0.918	124.8	0.612	2.067	256.4	422.9	0.801	---	-2.10	1.223	113.1	244.5	-26.3	0.487
4-2040	4-2190	0.562	343.2	0.4	5.42	0.876	122.9	0.559	1.793	250.9	427.0	0.791	---	-7.22	1.191	112.9	249.3	-38.8	0.483
4-2040	4-2200	0.522	352.1	-13.6	-6.66	0.840	120.8	0.515	1.612	245.3	431.0	0.781	---	4.90	1.163	112.7	261.1	-11.6	0.456
4-2040	4-2210	0.477	352.4	-9.2	-3.57	0.807	116.6	0.480	1.484	239.6	434.9	0.772	---	1.86	1.138	112.4	268.8	-18.9	0.434
4-2040	4-2220	0.439	354.5	-7.4	-2.84	0.778	116.4	0.451	1.389	233.8	438.6	0.763	---	1.17	1.117	112.1	276.9	-20.4	0.420
4-2040	4-2230	0.404	357.0	-6.0	-2.50	0.752	114.0	0.428	1.317	227.9	442.3	0.753	---	0.87	1.099	111.9	285.1	-20.6	0.410
4-2040	4-2240	0.371	359.9	-4.6	-2.29	0.729	111.5	0.410	1.260	221.8	445.8	0.743	---	0.71	1.083	111.7	293.3	-19.9	0.402
4-2040	4-2250	0.339	3.3	-3.2	-2.15	0.708	108.9	0.397	1.213	215.7	449.2	0.731	---	0.61	1.070	111.5	301.5	-18.7	0.398
4-2040	4-2260	0.309	7.3	-1.5	-2.03	0.689	106.1	0.389	1.176	209.5	452.5	0.719	---	0.55	1.058	111.6	309.5	-17.1	0.396
4-2040	4-2270	0.280	12.2	0.4	-1.94	0.672	103.2	0.385	1.144	203.1	455.7	0.704	---	0.51	1.048	111.7	317.5	-15.0	0.398
4-2040	4-2280	0.254	18.3	2.8	-1.85	0.656	100.0	0.386	1.118	196.7	458.9	0.687	---	0.49	1.040	112.1	325.3	-12.6	0.403
4-2040	4-2290	0.232	26.1	5.8	-1.77	0.642	96.5	0.392	1.095	190.3	462.1	0.666	---	0.49	1.033	112.7	333.0	-9.9	0.414
4-2040	4-2300	0.215	36.2	9.5	-1.68	0.629	92.6	0.405	1.075	183.8	465.4	0.640	---	0.50	1.028	113.6	340.5	-7.1	0.430
4-2040	4-2310	0.207	49.2	13.7	-1.59	0.617	88.2	0.426	1.059	177.6	468.8	0.607	1.510	0.53	1.023	115.1	347.8	-4.1	0.455
4-2040	4-2320	0.213	64.5	17.6	-1.49	0.606	83.0	0.458	1.044	171.6	472.7	0.566	1.522	0.57	1.019	117.2	354.9	-1.0	0.491
4-2040	4-2330	0.242	80.3	20.4	-1.36	0.597	76.8	0.505	1.031	166.3	477.2	0.510	1.553	0.69	1.016	120.3	1.8	1.9	0.544
4-2040	4-2340	0.299	92.8	21.8	-1.18	0.589	68.8	0.573	1.021	162.1	482.9	0.436	1.607	0.78	1.014	125.0	8.2	4.6	0.622
4-2040	4-2350	0.394	103.1	22.3	-0.91	0.582	58.2	0.671	1.014	160.0	490.8	0.334	1.693	1.00	1.013	132.1	13.7	7.0	0.740
4-2040	4-2360	0.540	107.3	22.7	-0.30	0.579	43.5	0.801	1.010	161.6	502.4	0.201	1.819	1.49	1.014	143.2	17.6	8.5	0.919
4-2040	4-2400	0.562	64.2	20.4	-3.04	0.263	74.0	0.904	0.796	178.2	559.5	0.077	1.515	-1.35	0.881	26.2	307.0	-19.6	1.006
4-2040	4-2400	0.553	32.3	11.3	-3.04	0.412	122.2	0.825	0.865	188.0	569.3	0.151	1.579	-1.35	0.936	34.8	300.4	-21.3	0.904
4-2040	4-2470	0.580	126.3	18.1	-1.76	0.791	41.8	0.750	1.340	144.6	237.0	---	2.345	-0.49	1.128	43.2	353.6	-3.3	0.869
4-2040	4-2480	0.540	128.4	17.5	-1.68	0.770	45.1	0.710	1.365	141.0	243.4	---	2.335	-0.50	1.132	47.0	0.0	-0.5	0.807
4-2040	4-2490	0.503	130.4	16.8	-1.58	0.779	48.1	0.671	1.390	137.4	249.7	---	2.323	-0.53	1.136	50.6	6.4	2.1	0.787
4-2040	4-2500	0.468	132.3	16.2	-1.47	0.786	50.9	0.633	1.414	133.9	256.1	---	2.309	-0.58	1.139	54.1	12.8	4.6	0.689
4-2040	4-2510	0.435	134.2	15.6	-1.34	0.793	53.4	0.597	1.436	130.5	262.6	---	2.293	-0.66	1.141	57.3	19.1	7.0	0.634
-2040	4-2520	0.404	136.0	15.2	-1.16	0.800	55.8	0.563	1.457	127.2	269.1	---	2.277	-0.79	1.143	60.4	25.4	9.1	0.580
4-2040	4-2530	0.376	137.8	15.0	-0.87	0.805	58.0	0.531	1.476	124.0	275.8	---	2.260	-1.03	1.144	63.4	31.6	10.7	0.530
4-2040	4-2540	0.349	139.7	15.4	-0.33	0.810	59.9	0.501	1.494	121.1	282.5	---	2.243	-1.54	1.146	66.2	37.9	11.4	0.481
4-2040	4-2550	0.326	142.3	18.3	1.33	0.815	61.7	0.475	1.510	118.2	289.3	---	2.226	-3.15	1.147	68.8	45.0	9.0	0.438
4-2040	4-2560	0.580	109.8	-27.8	-37.33	0.818	63.3	0.450	1.524	115.6	296.4	---	2.209	35.55	1.148	71.4	57.1	80.8	0.743
4-2040	4-2570	0.291	139.9	3.9	-4.49	0.821	64.7	0.428	1.536	113.2	303.4	---	2.194	2.75	1.149	73.9	50.5	27.5	0.351
4-2040	4-2580	0.272	142.2	6.0	-3.14	0.824	65.9	0.409	1.547	111.0	310.8	---	2.180	1.44	1.150	76.3	55.5	25.0	0.309
4-2040	4-2590	0.257	143.5	6.5	-2.65	0.826	66.9	0.393	1.556	109.0	318.4	---	2.167	1.00	1.151	78.6	58.8	24.6	0.272
4-2040	4-2600	0.244	144.6	6.5	-2.39	0.828	67.8	0.380	1.563	107.4	326.3	---	2.156	0.78	1.152	80.9	60.4	24.5	0.239
4-2040	4-2610	0.235	145.4	6.4	-2.22	0.830	68.4	0.369	1.569	106.0	334.4	---	2.148	0.65	1.153	83.2	59.8	24.2	0.210

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2040	4-2620	0.228	146.0	6.4	-2.09	0.831	68.9	0.362	1.573	105.0	343.0	---	2.143	0.58	1.155	85.5	56.5	23.5	0.187
4-2040	4-2630	0.225	146.4	6.5	-1.99	0.832	69.1	0.358	1.577	104.4	351.9	---	2.141	0.52	1.156	87.9	50.3	22.1	0.174
4-2040	4-2640	0.225	146.7	6.8	-1.90	0.832	69.1	0.359	1.579	104.2	361.3	1.013	2.145	0.50	1.158	90.4	42.3	19.8	0.172
4-2040	4-2650	0.229	146.7	7.2	-1.81	0.832	68.8	0.364	1.580	104.5	371.3	1.006	2.154	0.49	1.160	93.0	34.5	17.1	0.185
4-2040	4-2660	0.239	146.5	7.9	-1.73	0.832	68.2	0.374	1.580	105.4	381.8	0.989	2.172	0.49	1.162	95.9	28.8	14.7	0.212
4-2040	4-2660	0.306	20.1	5.0	-1.73	0.620	103.4	0.470	1.062	196.1	832.5	0.562	1.561	0.49	1.020	117.9	332.4	-10.4	0.500
4-2040	4-2670	0.254	145.9	8.7	-1.64	0.832	67.0	0.392	1.580	106.9	393.0	0.960	2.200	0.51	1.164	99.1	25.7	13.1	0.254
4-2040	4-2670	0.253	32.6	9.3	-1.64	0.606	95.7	0.456	1.045	186.9	833.1	0.568	1.518	0.51	1.015	117.0	341.2	-6.9	0.485
4-2040	4-2680	0.279	145.1	9.8	-1.55	0.832	65.3	0.420	1.579	109.2	405.1	0.916	2.243	0.54	1.166	102.9	24.7	12.4	0.311
4-2040	4-2680	0.229	48.3	14.2	-1.55	0.596	89.0	0.464	1.030	178.8	834.7	0.552	1.509	0.54	1.012	117.6	349.3	-3.5	0.496
4-2040	4-2690	0.316	43.7	11.2	-1.43	0.832	62.7	0.461	1.578	112.4	418.2	0.851	2.305	0.60	1.169	107.5	25.1	12.3	0.386
4-2040	4-2690	0.232	66.4	18.5	-1.43	0.589	82.1	0.492	1.021	171.6	837.4	0.519	1.524	0.60	1.010	119.5	357.0	-0.2	0.528
4-2040	4-2700	0.370	141.8	12.8	-1.28	0.832	58.8	0.520	1.577	117.1	432.7	0.758	2.397	0.70	1.171	113.3	26.3	12.5	0.485
4-2040	4-2700	0.267	83.9	21.2	-1.28	0.583	74.3	0.542	1.014	165.7	841.3	0.465	1.564	0.70	1.010	122.8	4.2	2.9	0.584
4-2040	4-2710	0.452	138.8	14.7	-1.07	0.832	52.9	0.604	1.577	123.8	449.4	0.624	2.529	0.87	1.173	121.0	27.6	12.9	0.620
4-2040	4-2710	0.338	97.3	22.2	-1.07	0.579	64.7	0.619	1.009	161.6	847.2	0.385	1.634	0.87	1.010	128.2	1[illegible]	5.6	0.675
4-2040	4-2720	0.576	134.2	17.0	-0.71	0.832	43.8	0.722	1.577	133.8	469.3	0.439	2.716	1.18	1.176	131.8	28.2	12.9	0.810
4-2040	4-2720	0.455	105.1	22.5	-0.71	0.576	52.1	0.730	1.006	140.6	856.4	0.272	1.740	1.18	1.011	136.9	15.6	7.7	0.817
4-2040	4-2730	0.599	66.1	22.2	0.12	0.235	66.6	0.930	0.787	178.1	1243.7	0.055	1.519	1.97	0.866	157.7	9.2	4.6	1.062
4-2040	4-2770	0.517	23.0	7.3	-2.78	0.512	122.1	0.738	0.940	193.9	940.1	0.246	1.634	-1.11	0.985	42.5	298.9	-21.7	0.804
4-2040	4-2780	0.580	353.7	-5.8	-2.45	0.817	126.2	0.590	1.520	234.4	630.7	0.623	2.416	-0.83	1.173	59.6	282.5	-24.4	0.593
4-2040	4-2780	0.518	86.3	22.4	-2.45	0.417	52.2	0.846	0.868	171.4	927.7	0.134	1.603	-0.83	0.939	32.5	316.4	-17.1	0.943
4-2040	4-2780	0.399	31.7	10.0	-2.45	0.503	106.5	0.657	0.932	189.1	945.4	0.320	1.545	-0.83	0.981	49.0	306.8	-20.1	0.700
4-2040	4-2790	0.504	351.3	-7.3	-2.25	0.817	120.5	0.508	1.519	240.1	646.6	0.747	2.290	-0.68	1.173	67.0	284.8	-24.3	0.466
4-2040	4-2790	0.367	70.2	19.9	-2.25	0.463	76.5	0.698	0.900	174.0	940.5	0.271	1.528	-0.68	0.960	46.0	19.7	-16.3	0.745
4-2040	4-2790	0.344	60.9	18.1	-2.25	0.475	83.7	0.665	0.909	176.8	943.3	0.305	1.513	-0.68	0.966	48.6	318.3	-16.8	0.705
4-2040	4-2800	0.453	349.7	-8.2	-2.11	0.816	116.8	0.450	1.517	243.9	660.6	0.834	2.200	-0.59	1.172	72.5	287.0	-24.3	0.372
4-2040	4-2810	0.417	348.7	-8.9	-1.95	0.816	114.2	0.409	1.515	246.4	673.3	0.895	2.135	-0.53	1.170	78.9	288.6	-24.4	0.301
4-2040	4-2820	0.546	118.7	19.7	-1.90	0.684	43.3	0.756	1.165	152.2	589.2	0.285	2.046	-0.50	1.081	41.5	343.1	-7.6	0.872
4-2040	4-2820	0.392	347.9	-9.3	-1.90	0.816	112.4	0.380	1.514	248.1	685.1	0.938	2.090	-0.50	1.169	80.6	288.6	-24.7	0.246
4-2040	4-2830	0.490	120.3	19.1	-1.81	0.693	48.0	0.700	1.182	149.1	596.1	0.355	2.009	-0.49	1.085	46.4	349.4	-5.1	0.793
4-2040	4-2830	0.375	347.4	-9.5	-1.81	0.815	111.2	0.361	1.513	249.3	696.4	0.967	2.059	-0.49	1.167	83.8	286.3	-25.4	0.204
4-2040	4-2840	0.436	121.7	18.5	-1.72	0.701	52.6	0.642	1.199	146.1	603.2	0.429	1.968	-0.49	1.088	51.1	355.5	-2.6	0.716
4-2040	4-2840	0.365	347.1	-9.6	-1.72	0.815	110.4	0.349	1.513	250.0	707.1	0.985	2.041	-0.49	1.165	86.7	280.8	-26.4	0.175
4-2050	4-2170	0.740	344.7	-7.3	-0.53	1.030	130.1	0.798	3.961	266.1	417.6	0.800	---	-1.37	1.316	115.3	238.6	-23.2	0.583
4-2050	4-2180	0.681	346.5	-5.7	0.18	0.973	128.3	0.710	2.715	260.7	421.9	0.788	---	-2.02	1.269	115.1	245.4	-25.8	0.551
4-2050	4-2190	0.627	347.6	-4.5	2.31	0.922	126.4	0.639	2.154	255.3	426.1	0.778	---	-4.09	1.229	114.4	252.1	-31.2	0.528
4-2050	4-2210	0.536	356.1	-9.6	-5.41	0.838	122.2	0.536	1.634	244.0	434.1	0.758	---	3.74	1.165	114.2	269.0	-15.2	0.482
4-2050	4-2220	0.491	357.4	-6.7	-3.56	0.803	119.9	0.499	1.495	238.3	437.9	0.749	---	1.95	1.140	113.8	277.1	-18.9	0.462
4-2050	4-2230	0.451	359.5	-5.0	-2.90	0.772	117.5	0.469	1.393	232.4	441.6	0.740	---	1.34	1.118	113.5	285.2	-19.6	0.446
4-2050	4-2240	0.413	2.1	-3.6	-2.55	0.745	115.0	0.445	1.316	226.5	445.1	0.730	---	1.04	1.099	113.1	293.4	-19.2	0.435
4-2050	4-2250	0.378	5.1	-2.2	-2.31	0.720	112.3	0.427	1.256	220.4	448.6	0.720	---	0.87	1.083	112.9	301.6	-18.2	0.426
4-2050	4-2260	0.344	8.6	-0.7	-2.14	0.697	109.5	0.414	1.208	214.2	451.9	0.708	---	0.77	1.069	112.8	309.6	-16.6	0.421
4-2050	4-2270	0.312	12.9	1.1	-2.00	0.677	106.5	0.406	1.168	207.9	455.2	0.695	---	0.71	1.057	112.8	317.6	-14.6	0.419
4-2050	4-2280	0.282	18.1	3.2	-1.88	0.659	103.3	0.402	1.136	201.5	458.4	0.679	---	0.67	1.047	112.9	325.4	-12.2	0.420
4-2050	4-2290	0.255	24.7	5.8	-1.77	0.642	99.8	0.405	1.109	195.1	461.6	0.660	---	0.65	1.039	113.3	333.0	-9.6	0.427
4-2050	4-2300	0.233	33.4	9.0	-1.66	0.627	96.0	0.413	1.086	188.6	464.9	0.637	---	0.66	1.032	114.1	340.6	-6.7	0.439
4-2050	4-2310	0.217	44.7	12.8	-1.54	0.613	91.7	0.429	1.066	182.2	468.2	0.609	---	0.68	1.026	115.2	347.9	-3.7	0.458
4-2050	4-2320	0.213	59.0	16.8	-1.42	0.601	86.7	0.454	1.049	176.0	471.8	0.573	1.525	0.72	1.021	116.9	355.2	-0.6	0.487
4-2050	4-2330	0.227	75.2	20.0	-1.26	0.589	80.9	0.492	1.034	170.3	475.9	0.525	1.543	0.80	1.018	119.4	2.2	2.4	0.529
4-2050	4-2340	0.267	90.8	21.8	-1.07	0.579	73.6	0.547	1.022	165.4	480.9	0.462	1.581	0.93	1.015	123.2	8.9	5.3	0.592
4-2050	4-2350	0.340	102.9	22.3	-0.78	0.571	64.3	0.627	1.012	162.0	487.5	0.377	1.647	1.15	1.013	128.8	15.0	7.9	0.686
4-2050	4-2360	0.455	110.2	22.4	-0.30	0.566	51.8	0.739	1.006	161.3	496.8	0.263	1.749	1.57	1.012	137.6	20.0	9.8	0.829
4-2050	4-2470	0.590	130.4	17.2	-1.76	0.747	40.4	0.767	1.322	146.9	234.0	---	2.336	-0.65	1.124	41.5	354.9	-2.8	0.896
4-2050	4-2480	0.549	132.6	16.5	-1.65	0.757	43.8	0.727	1.348	143.2	240.3	---	2.328	-0.66	1.128	45.4	1.4	-0.1	0.833
4-2050	4-2490	0.511	134.6	15.8	-1.53	0.766	47.0	0.687	1.373	139.6	246.7	---	2.317	-0.68	1.132	49.1	7.8	2.5	0.772
4-2050	4-2500	0.475	136.8	15.2	-1.40	0.774	49.9	0.648	1.398	136.1	253.2	---	2.304	-0.73	1.135	52.6	14.1	5.0	0.713
4-2050	4-2510	0.442	138.5	14.6	-1.24	0.781	52.5	0.611	1.421	132.7	259.6	---	2.289	-0.81	1.138	56.0	20.5	7.4	0.656
4-2050	4-2520	0.410	140.3	14.1	-1.04	0.788	55.0	0.575	1.443	129.5	266.1	---	2.273	-0.95	1.140	59.2	26.8	9.4	0.601
4-2050	4-2530	0.381	142.1	13.9	-0.75	0.794	57.7	0.542	1.463	126.5	272.8	---	2.257	-1.18	1.142	62.2	33.1	11.0	0.549
4-2050	4-2540	0.354	144.0	14.1	-0.26	0.800	59.3	0.512	1.482	123.3	279.5	---	2.240	-1.61	1.143	65.0	39.5	11.9	0.499
4-2050	4-2550	0.330	146.4	15.8	0.84	0.804	61.1	0.483	1.499	120.5	286.3	---	2.223	-2.65	1.145	67.8	46.1	10.9	0.453
4-2050	4-2560	0.319	151.9	27.3	6.34	0.808	62.7	0.458	1.514	117.8	293.2	---	2.207	-8.09	1.146	70.4	56.2	-1.4	0.431
4-2050	4-2570	0.313	139.5	-6.9	-9.15	0.812	64.2	0.435	1.527	115.4	300.4	---	2.191	7.44	1.147	72.9	50.0	40.7	0.387
4-2050	4-2580	0.276	145.4	2.0	-4.24	0.815	65.5	0.415	1.538	113.1	307.7	---	2.176	2.59	1.148	75.3	57.3	29.1	0.325
4-2050	4-2590	0.259	147.3	3.6	-3.19	0.817	66.6	0.397	1.548	111.2	315.3	---	2.163	1.60	1.150	77.7	61.4	27.2	0.286
4-2050	4-2600	0.246	148.6	4.1	-2.71	0.819	67.5	0.383	1.556	109.4	323.1	---	2.151	1.18	1.151	80.0	63.7	26.7	0.250
4-2050	4-2610	0.235	149.6	4.2	-2.43	0.821	68.3	0.371	1.562	108.0	331.2	---	2.142	0.95	1.152	82.3	64.0	26.3	0.219
4-2050	4-2620	0.228	150.4	4.4	-2.23	0.822	68.8	0.363	1.567	106.9	339.6	---	2.136	0.82	1.154	84.6	61.6	25.8	0.194
4-2050	4-2630	0.223	150.9	4.5	-2.07	0.823	69.1	0.358	1.571	106.2	348.5	---	2.133	0.74	1.155	87.0	56.3	24.8	0.177
4-2050	4-2640	0.222	151.3	4.8	-1.94	0.824	69.2	0.356	1.573	105.8	357.7	---	2.134	0.69	1.157	89.4	48.5	22.8	0.170
4-2050	4-2650	0.224	151.5	5.3	-1.83	0.824	69.0	0.360	1.575	106.0	367.4	1.009	2.141	0.66	1.159	92.0	40.3	20.2	0.178
4-2050	4-2660	0.231	151.4	5.9	-1.72	0.824	68.5	0.368	1.576	106.6	377.7	0.996	2.155	0.65	1.161	94.7	33.8	17.6	0.200
4-2050	4-2660	0.401	16.1	4.4	-1.72	0.631	113.6	0.539	1.092	204.4	835.5	0.503	1.680	0.65	1.033	122.4	331.0	-10.8	0.580
4-2050	4-2660	0.516	11.9	3.2	-1.72	0.658	124.0	0.627	1.135	209.2	840.4	0.423	1.847	0.65	1.050	128.4	328.8	-11.8	0.687
4-2050	4-2670	0.244	151.0	6.8	-1.61	0.824	67.6	0.383	1.575	107.7	388.6	0.972	2.179	0.66	1.163	97.8	29.8	15.6	0.236
4-2050	4-2670	0.291	28.6	8.5	-1.61	0.604	101.4	0.479	1.053	192.9	833.8	0.549	1.557	0.66	1.019	118.5	340.8	-6.9	0.512
4-2050	4-2680	0.265	150.4	7.9	-1.49	0.824	66.1	0.406	1.575	109.6	400.2	0.935	2.219	0.70	1.166	101.3	28.2	14.5	0.286
4-2050	4-2680	0.247	42.6	13.0	-1.49	0.591	98.7	0.472	1.036	184.1	834.8	0.546	1.525	0.70	1.014	118.1	349.2	-5.3	0.505
4-2050	4-2690	0.295	149.3	9.2	-1.35	0.824	63.9	0.441	1.574	112.3	412.7	0.880	2.268	0.76	1.168	105.5	28.3	14.2	0.352

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2050	4-2690	0.231	60.0	17.6	-1.35	0.581	86.5	0.489	1.024	176.4	836.8	0.524	1.525	0.76	1.012	119.2	357.2	0.2	0.524
4-2050	4-2700	0.340	147.7	10.7	-1.18	0.824	60.7	0.491	1.572	116.1	426.4	0.800	2.344	0.86	1.170	110.6	29.5	14.3	0.439
4-2050	4-2700	0.247	78.8	20.9	-1.18	0.574	79.0	0.525	1.016	169.7	840.0	0.482	1.549	0.86	1.010	121.7	4.6	3.4	0.565
4-2050	4-2710	0.407	145.4	12.5	-0.95	0.823	55.8	0.562	1.571	121.5	441.8	0.688	2.455	1.02	1.172	117.2	31.1	14.7	0.554
4-2050	4-2710	0.297	95.2	22.2	-0.95	0.569	70.2	0.586	1.009	164.5	844.7	0.418	1.600	1.02	1.010	125.9	11.5	6.4	0.636
4-2050	4-2720	0.507	141.8	14.6	-0.59	0.823	48.5	0.663	1.571	129.4	459.7	0.530	2.612	1.31	1.179	126.3	32.3	14.9	0.713
4-2050	4-2720	0.388	106.4	22.4	-0.59	0.565	59.1	0.677	1.005	161.6	851.9	0.326	1.685	1.31	1.010	132.6	17.4	8.8	0.748
4-2050	4-2730	0.529	111.6	22.5	0.09	0.563	44.2	0.803	1.002	162.5	862.8	0.198	1.807	1.93	1.012	143.4	21.7	10.5	0.920
4-2050	4-2730	0.588	55.3	20.1	0.09	0.245	105.4	0.915	0.797	191.5	1241.8	0.068	1.527	1.93	0.876	155.5	10.4	5.2	1.047
4-2050	4-2770	0.589	27.6	9.3	-3.44	0.495	130.8	0.807	0.935	193.2	934.1	0.180	1.691	-1.83	0.982	36.2	302.1	-21.4	0.902
4-2050	4-2780	0.557	91.3	22.5	-2.81	0.387	47.2	0.885	0.859	172.6	923.7	0.099	1.618	-1.26	0.932	28.1	318.7	-16.6	1.005
4-2050	4-2780	0.450	33.3	10.7	-2.81	0.489	113.4	0.706	0.930	190.8	941.8	0.273	1.587	-1.26	0.979	45.2	308.7	-19.9	0.762
4-2050	4-2790	0.539	357.7	-4.4	-2.48	0.808	123.5	0.552	1.511	235.9	637.1	0.677	2.344	-0.99	1.171	62.9	290.2	-24.1	0.538
4-2050	4-2790	0.431	83.8	21.6	-2.48	0.423	66.3	0.778	0.881	172.6	933.8	0.196	1.566	-0.99	0.948	39.2	323.3	-15.3	0.847
4-2050	4-2790	0.358	51.0	15.7	-2.48	0.472	94.9	0.665	0.916	182.5	943.7	0.307	1.525	-0.99	0.970	48.5	318.1	-17.2	0.708
4-2050	4-2800	0.476	355.7	-5.6	-2.25	0.807	118.7	0.481	1.509	240.4	651.8	0.783	2.235	-0.83	1.170	69.4	292.8	-24.0	0.428
4-2050	4-2810	0.431	354.4	-6.4	-2.08	0.807	115.5	0.430	1.507	243.4	664.9	0.859	2.156	-0.74	1.169	74.2	295.1	-23.9	0.345
4-2050	4-2820	0.563	123.0	18.9	-1.95	0.670	41.3	0.780	1.155	154.3	586.0	0.254	2.056	-0.65	1.077	39.2	344.6	-7.1	0.908
4-2050	4-2820	0.400	353.5	-6.8	-1.95	0.806	113.2	0.394	1.505	245.4	677.1	0.912	2.098	-0.69	1.167	78.2	296.5	-24.0	0.281
4-2050	4-2830	0.506	124.6	18.2	-1.83	0.679	46.3	0.724	1.171	151.1	592.9	0.323	2.020	-0.66	1.081	44.3	350.8	-4.6	0.828
4-2050	4-2830	0.378	352.8	-7.1	-1.83	0.806	111.6	0.368	1.504	246.7	688.5	0.950	2.058	-0.66	1.165	81.7	296.3	-24.6	0.231
4-2050	4-2840	0.450	126.1	17.7	-1.71	0.688	51.0	0.666	1.188	148.1	600.0	0.397	1.980	-0.65	1.084	49.1	356.9	-2.1	0.748
4-2050	4-2840	0.363	352.4	-7.3	-1.71	0.806	110.8	0.351	1.503	247.5	699.4	0.975	2.031	-0.65	1.163	84.7	293.4	-25.7	0.193
4-2050	4-2850	0.397	127.2	17.1	-1.59	0.696	55.4	0.607	1.205	145.4	607.3	0.473	1.937	-0.67	1.088	53.8	2.9	0.3	0.670
4-2050	4-2850	0.355	352.0	-7.2	-1.59	0.806	109.9	0.341	1.503	248.1	710.0	0.990	2.016	-0.67	1.161	87.4	287.4	-27.1	0.108
4-2060	4-2190	0.707	351.0	-2.3	1.49	0.980	130.0	0.738	2.915	259.4	425.1	0.764	---	-3.25	1.278	117.1	253.3	-28.9	0.593
4-2060	4-2200	0.657	350.7	5.5	7.97	0.925	128.0	0.663	2.238	254.0	429.2	0.756	---	-9.67	1.235	116.6	258.5	-41.6	0.565
4-2060	4-2210	0.613	2.3	-13.1	-11.10	0.878	125.8	0.604	1.877	248.3	433.2	0.743	---	9.47	1.199	116.2	268.3	-4.9	0.557
4-2060	4-2220	0.550	0.7	-6.4	-4.80	0.836	123.5	0.556	1.653	242.6	437.1	0.735	---	3.24	1.168	115.7	277.2	-16.6	0.511
4-2060	4-2230	0.503	2.3	-4.1	-3.48	0.798	121.1	0.517	1.502	236.9	440.8	0.726	---	1.99	1.141	115.2	285.4	-18.5	0.489
4-2060	4-2240	0.460	4.6	-2.6	-2.88	0.765	118.5	0.486	1.394	230.9	444.4	0.717	---	1.46	1.118	114.8	293.6	-18.5	0.472
4-2060	4-2250	0.420	7.2	-1.2	-2.53	0.736	115.8	0.462	1.313	224.9	447.9	0.707	---	1.18	1.098	114.4	301.7	-17.6	0.459
4-2060	4-2260	0.383	10.4	0.3	-2.28	0.709	113.0	0.443	1.250	218.8	451.3	0.696	---	1.01	1.082	114.1	309.7	-16.1	0.450
4-2060	4-2270	0.347	14.1	2.0	-2.09	0.686	110.0	0.430	1.200	212.6	454.7	0.684	---	0.91	1.068	114.0	317.6	-14.2	0.444
4-2060	4-2280	0.314	18.6	3.8	-1.93	0.664	106.7	0.423	1.160	206.2	457.9	0.670	---	0.85	1.056	114.0	325.4	-11.9	0.442
4-2060	4-2290	0.283	24.3	6.1	-1.79	0.645	103.3	0.420	1.127	199.8	461.2	0.653	---	0.81	1.046	114.2	333.1	-9.2	0.444
4-2060	4-2300	0.255	31.6	8.9	-1.65	0.627	99.4	0.424	1.099	193.3	464.4	0.633	---	0.81	1.037	114.7	340.6	-6.4	0.451
4-2060	4-2310	0.233	41.3	12.2	-1.51	0.611	95.2	0.435	1.075	186.9	467.7	0.607	---	0.82	1.030	115.5	348.1	-3.3	0.465
4-2060	4-2320	0.220	54.0	16.0	-1.36	0.596	90.5	0.454	1.055	180.5	471.2	0.576	---	0.86	1.024	116.9	355.4	-0.2	0.487
4-2060	4-2330	0.222	69.6	19.5	-1.19	0.583	84.9	0.485	1.038	174.5	475.0	0.535	1.541	0.93	1.019	118.9	2.6	2.9	0.521
4-2060	4-2340	0.245	86.4	21.7	-0.98	0.571	78.2	0.530	1.024	169.1	479.5	0.482	1.566	1.06	1.016	121.9	9.5	5.8	0.572
4-2060	4-2350	0.299	101.0	22.4	-0.69	0.561	69.8	0.595	1.012	164.8	485.1	0.410	1.614	1.26	1.013	126.5	16.0	8.6	0.648
4-2060	4-2360	0.390	111.3	22.2	-0.25	0.553	58.8	0.688	1.003	162.4	492.7	0.313	1.693	1.63	1.011	133.5	21.8	10.8	0.762
4-2060	4-2370	0.529	116.2	22.2	0.60	0.549	43.8	0.812	0.998	163.4	503.8	0.188	1.809	2.40	1.011	144.3	26.1	12.4	0.934
4-2060	4-2470	0.599	134.4	16.2	-1.78	0.732	36.1	0.784	1.304	149.1	231.0	---	2.327	-0.81	1.119	39.7	356.2	-2.3	0.923
4-2060	4-2480	0.559	136.6	15.5	-1.64	0.743	42.6	0.744	1.330	145.4	237.4	---	2.320	-0.81	1.124	43.7	2.7	0.4	0.859
4-2060	4-2490	0.520	138.7	14.7	-1.50	0.752	45.8	0.703	1.356	141.9	243.8	---	2.310	-0.82	1.128	47.6	9.1	3.0	0.796
4-2060	4-2500	0.483	140.7	14.1	-1.34	0.761	48.9	0.663	1.382	138.4	250.2	---	2.298	-0.87	1.131	51.2	15.4	5.5	0.736
4-2060	4-2510	0.449	142.6	13.5	-1.17	0.769	51.6	0.625	1.406	135.0	256.7	---	2.284	-0.95	1.134	54.6	21.8	7.8	0.678
4-2060	4-2520	0.417	144.5	13.0	-0.95	0.777	54.2	0.588	1.428	131.7	263.2	---	2.269	-1.08	1.137	57.9	28.2	9.8	0.622
4-2060	4-2530	0.387	146.3	12.7	-0.66	0.783	56.5	0.554	1.450	128.6	269.8	---	2.253	-1.29	1.139	61.0	34.5	11.4	0.568
4-2060	4-2540	0.359	148.2	12.7	-0.21	0.789	58.6	0.522	1.469	125.6	276.5	---	2.236	-1.66	1.141	63.9	40.9	12.4	0.518
4-2060	4-2550	0.334	150.4	13.8	0.62	0.794	60.5	0.493	1.487	122.7	283.3	---	2.219	-2.43	1.142	66.7	47.4	12.1	0.470
4-2060	4-2560	0.314	153.8	18.4	3.00	0.799	62.3	0.466	1.503	120.0	290.2	---	2.203	-4.74	1.144	69.4	54.9	7.3	0.430
4-2060	4-2580	0.286	147.1	-4.4	-6.54	0.806	65.1	0.420	1.529	115.3	304.7	---	2.172	4.94	1.147	74.4	58.4	36.5	0.347
4-2060	4-2590	0.263	150.7	0.1	-4.02	0.808	66.3	0.402	1.539	113.3	312.2	---	2.158	2.48	1.148	76.8	63.7	30.7	0.300
4-2060	4-2600	0.248	152.4	1.4	-3.15	0.811	67.3	0.386	1.548	111.5	320.0	---	2.146	1.69	1.149	79.1	66.7	29.1	0.262
4-2060	4-2610	0.236	153.7	1.9	-2.70	0.813	68.1	0.373	1.555	110.0	328.0	---	2.136	1.31	1.151	81.5	67.8	28.5	0.229
4-2060	4-2620	0.227	154.6	2.2	-2.40	0.814	68.7	0.364	1.561	108.9	336.4	---	2.129	1.09	1.153	83.8	66.4	28.0	0.202
4-2060	4-2630	0.222	155.3	2.4	-2.19	0.815	69.1	0.357	1.565	108.0	345.1	---	2.124	0.96	1.154	86.1	62.0	27.2	0.181
4-2060	4-2640	0.219	155.8	2.8	-2.01	0.816	69.2	0.355	1.568	107.5	354.2	---	2.124	0.88	1.156	88.5	54.8	25.6	0.171
4-2060	4-2650	0.220	156.0	3.3	-1.86	0.816	69.2	0.356	1.570	107.5	363.8	1.010	2.129	0.83	1.158	91.0	46.3	23.2	0.173
4-2060	4-2660	0.226	156.1	4.0	-1.72	0.816	68.8	0.363	1.571	107.9	373.8	1.001	2.141	0.81	1.160	93.7	39.0	20.5	0.189
4-2060	4-2670	0.236	155.9	4.8	-1.59	0.816	68.0	0.375	1.571	108.8	384.4	0.981	2.160	0.81	1.163	96.6	34.1	18.2	0.220
4-2060	4-2670	0.360	24.8	7.9	-1.59	0.609	109.6	0.526	1.073	200.0	835.7	0.509	1.638	0.81	1.028	121.5	339.9	-7.1	0.566
4-2060	4-2670	0.568	16.4	5.6	-1.59	0.660	129.0	0.680	1.152	208.7	844.4	0.369	1.935	0.81	1.058	132.3	336.1	-9.1	0.758
4-2060	4-2680	0.253	155.4	5.9	-1.44	0.816	66.8	0.395	1.570	110.2	395.7	0.950	2.190	0.84	1.165	99.9	31.8	16.7	0.264
4-2060	4-2680	0.278	37.9	12.1	-1.44	0.588	99.2	0.490	1.044	189.8	835.3	0.532	1.556	0.84	1.018	119.3	348.9	-3.2	0.526
4-2060	4-2690	0.279	154.6	7.1	-1.28	0.816	64.9	0.425	1.569	112.4	407.7	0.903	2.235	0.89	1.167	103.7	31.5	16.1	0.323
4-2060	4-2690	0.243	53.7	16.6	-1.28	0.575	91.3	0.492	1.029	181.4	836.6	0.522	1.535	0.89	1.014	119.4	357.2	0.4	0.528
4-2060	4-2700	0.316	153.3	8.6	-1.10	0.816	62.2	0.467	1.568	115.5	420.7	0.835	2.300	0.99	1.169	108.3	32.6	16.0	0.400
4-2060	4-2700	0.239	72.7	20.4	-1.10	0.566	83.7	0.516	1.018	174.0	839.2	0.492	1.544	0.99	1.011	121.1	4.9	3.8	0.556
4-2060	4-2710	0.372	151.4	10.3	-0.86	0.815	58.2	0.528	1.566	120.0	435.1	0.740	2.393	1.14	1.172	114.2	34.3	16.3	0.500
4-2060	4-2710	0.268	91.4	22.3	-0.86	0.559	75.3	0.563	1.010	167.9	843.0	0.441	1.579	1.14	1.010	124.3	12.2	6.9	0.609
4-2060	4-2720	0.453	148.6	12.3	-0.51	0.815	52.2	0.613	1.566	126.3	451.4	0.606	2.525	1.41	1.174	121.9	36.0	16.6	0.636
4-2060	4-2720	0.336	105.8	22.4	-0.51	0.554	65.3	0.637	1.004	163.7	848.7	0.364	1.643	1.41	1.010	129.6	18.7	9.6	0.697
4-2060	4-2730	0.574	144.2	14.7	0.07	0.815	43.2	0.730	1.566	135.8	470.9	0.423	2.709	1.91	1.176	132.7	36.9	16.7	0.824
4-2060	4-2730	0.449	114.3	22.1	0.07	0.551	52.3	0.743	1.000	162.4	857.5	0.257	1.744	1.91	1.011	138.0	24.0	11.7	0.835
4-2060	4-2780	0.593	95.8	22.5	-3.33	0.356	42.2	0.917	0.850	173.9	919.8	0.070	1.630	-1.85	0.926	23.8	320.8	-16.0	1.064
4-2060	4-2780	0.509	36.4	12.0	-3.33	0.473	121.1	0.764	0.926	191.5	937.3	0.219	1.633	-1.85	0.977	40.3	311.1	-19.5	0.838

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2060	4-2790	0.581	4.2	-1.5	-2.77	0.798	127.1	0.603	1.502	231.3	627.3	0.596	2.408	-1.37	1.170	58.2	295.5	-23.6	0.620
4-2060	4-2790	0.478	91.2	22.0	-2.77	0.390	60.3	0.830	0.869	173.0	929.1	0.148	1.590	-1.37	0.939	34.2	325.8	-14.5	0.920
4-2060	4-2790	0.395	48.7	15.2	-2.77	0.460	102.6	0.695	0.916	185.7	941.8	0.280	1.552	-1.37	0.970	46.2	319.1	-17.2	0.746
4-2060	4-2800	0.503	1.7	-2.8	-2.44	0.798	121.2	0.518	1.501	236.7	642.9	0.723	2.278	-1.12	1.169	65.7	298.1	-23.4	0.490
4-2060	4-2810	0.449	0.1	-3.8	-2.20	0.798	117.1	0.456	1.499	240.2	656.6	0.815	2.183	-0.97	1.167	71.3	300.8	-23.2	0.394
4-2060	4-2820	0.580	127.1	18.1	-2.02	0.655	39.3	0.804	1.144	156.3	582.8	0.225	2.064	-0.88	1.074	36.9	346.0	-6.6	0.944
4-2060	4-2820	0.410	359.0	-4.4	-2.02	0.797	114.3	0.412	1.497	242.5	669.0	0.080	2.113	-0.88	1.166	75.7	303.1	-23.1	0.320
4-2060	4-2830	0.522	128.8	17.4	-1.86	0.665	44.4	0.749	1.161	153.1	589.7	0.292	2.030	-0.83	1.077	42.1	352.3	-4.1	0.862
4-2060	4-2830	0.383	358.2	-4.7	-1.86	0.796	112.3	0.380	1.495	244.0	680.6	0.927	2.063	-0.83	1.163	79.5	304.4	-23.4	0.262
4-2060	4-2840	0.466	130.5	16.8	-1.71	0.674	49.4	0.691	1.178	150.1	596.8	0.364	1.992	-0.81	1.081	47.1	358.4	-1.6	0.761
4-2060	4-2840	0.364	357.6	-4.9	-1.71	0.796	110.9	0.357	1.493	245.0	691.7	0.960	2.027	-0.81	1.161	82.7	303.7	-24.2	0.217
4-2060	4-2850	0.411	131.5	16.2	-1.57	0.683	54.0	0.631	1.195	147.3	604.0	0.441	1.950	-0.81	1.084	51.9	4.4	0.8	0.702
4-2060	4-2850	0.351	357.2	-4.9	-1.57	0.796	108.9	0.342	1.493	245.6	702.3	0.982	2.003	-0.81	1.159	85.5	300.4	-25.7	0.184
4-2060	4-2860	0.358	132.3	15.8	-1.42	0.692	58.4	0.571	1.213	145.0	611.6	0.520	1.905	-0.84	1.087	56.5	10.2	3.1	0.624
4-2060	4-2860	0.344	356.9	-4.8	-1.42	0.796	109.4	0.334	1.493	246.0	712.6	0.995	1.991	-0.84	1.156	88.2	293.8	-27.7	0.162
4-2070	4-2220	0.619	4.7	-7.0	-7.38	0.877	127.2	0.623	1.911	246.8	436.2	0.719	---	5.87	1.202	117.8	277.1	-12.3	0.572
4-2070	4-2230	0.562	5.3	-5.4	-4.57	0.832	124.8	0.574	1.667	241.1	440.0	0.711	---	2.94	1.169	117.2	285.5	-17.0	0.539
4-2070	4-2240	0.513	7.2	-1.6	-3.35	0.793	122.2	0.534	1.506	235.4	443.6	0.702	---	2.00	1.142	116.6	293.7	-17.6	0.516
4-2070	4-2250	0.468	9.6	-0.1	-2.81	0.758	119.5	0.502	1.392	229.3	447.2	0.693	---	1.55	1.118	116.1	301.8	-17.0	0.497
4-2070	4-2260	0.426	12.4	1.4	-2.46	0.726	116.6	0.478	1.307	223.2	450.7	0.683	---	1.29	1.098	115.7	309.9	-15.7	0.483
4-2070	4-2270	0.386	15.7	2.9	-2.20	0.698	113.6	0.459	1.242	217.1	454.1	0.672	---	1.13	1.081	115.3	317.8	-13.8	0.473
4-2070	4-2280	0.349	19.7	4.6	-2.00	0.673	110.4	0.447	1.191	210.8	457.4	0.659	---	0.04	1.066	115.2	325.5	-11.5	0.466
4-2070	4-2290	0.314	24.6	6.6	-1.82	0.650	106.9	0.440	1.150	204.4	460.7	0.644	---	0.98	1.054	115.2	333.2	-8.9	0.464
4-2070	4-2300	0.282	30.9	9.0	-1.65	0.630	103.1	0.439	1.116	197.9	463.9	0.626	---	0.95	1.044	115.5	340.7	-6.1	0.467
4-2070	4-2310	0.255	39.1	11.9	-1.49	0.611	98.9	0.445	1.088	191.5	467.2	0.604	---	0.96	1.035	116.1	348.2	-3.0	0.476
4-2070	4-2320	0.234	50.0	15.4	-1.32	0.594	94.3	0.459	1.064	185.1	470.6	0.576	---	0.99	1.028	117.1	355.6	0.1	0.493
4-2070	4-2330	0.225	64.3	18.9	-1.14	0.579	88.9	0.482	1.044	178.8	474.2	0.541	1.548	1.05	1.022	118.7	2.8	3.2	0.519
4-2070	4-2340	0.234	81.0	21.5	-0.91	0.565	82.6	0.518	1.027	173.0	478.3	0.495	1.560	1.16	1.017	121.2	9.9	6.2	0.560
4-2070	4-2350	0.270	97.5	22.6	-0.63	0.553	74.9	0.572	1.013	168.0	483.3	0.434	1.592	1.35	1.013	124.9	16.8	9.1	0.620
4-2070	4-2360	0.339	110.6	22.3	-0.22	0.543	65.1	0.649	1.002	164.5	489.7	0.352	1.652	1.67	1.010	130.4	23.1	11.6	0.712
4-2070	4-2370	0.451	118.6	21.8	0.48	0.536	52.1	0.755	0.995	163.4	498.7	0.244	1.746	2.27	1.009	139.0	28.3	13.5	0.850
4-2070	4-2480	0.568	140.5	14.3	-1.64	0.728	41.3	0.760	1.313	147.6	234.5	---	2.311	-0.95	1.119	42.1	3.9	0.8	0.895
4-2070	4-2490	0.529	142.6	13.6	-1.47	0.734	44.7	0.719	1.339	144.0	240.9	---	2.362	-0.96	1.124	46.0	10.3	3.4	0.821
4-2070	4-2500	0.491	144.6	12.9	-1.30	0.748	47.8	0.678	1.365	140.6	247.3	---	2.291	-0.99	1.127	49.7	16.7	5.9	0.759
4-2070	4-2510	0.456	146.6	12.2	-1.11	0.757	50.7	0.639	1.390	137.2	253.8	---	2.278	-1.06	1.131	53.2	23.1	8.2	0.700
4-2070	4-2520	0.423	148.5	11.7	-0.89	0.765	53.4	0.601	1.413	133.9	260.3	---	2.263	-1.18	1.134	56.6	29.5	10.2	0.643
4-2070	4-2530	0.393	150.4	11.4	-0.60	0.772	55	0.566	1.436	130.7	266.9	---	2.248	-1.37	1.136	59.8	35.9	11.9	0.588
4-2070	4-2540	0.365	152.3	11.3	-0.19	0.778	58	0.533	1.456	127.7	273.6	---	2.232	-1.69	1.138	62.8	42.3	12.9	0.536
4-2070	4-2550	0.339	154.4	12.0	0.50	0.784	6	0.502	1.475	124.9	280.4	---	2.215	-2.29	1.140	65.6	48.8	13.0	0.487
4-2070	4-2560	0.317	157.1	14.5	1.99	0.789	4	0.474	1.492	122.2	287.3	---	2.199	-3.70	1.142	68.4	55.6	10.5	0.442
4-2070	4-2570	0.315	163.7	28.5	8.57	0.793	6	0.449	1.507	119.7	294.4	---	2.183	-10.20	1.143	71.0	66.1	-5.0	0.433
4-2070	4-2580	0.332	142.4	-18.8	-14.11	0.796	64	0.450	1.520	117.4	301.8	---	2.167	12.56	1.145	73.5	59.1	56.3	0.416
4-2070	4-2590	0.269	153.1	-4.7	-5.45	0.800	66.0	0.406	1.531	114.4	309.2	---	2.153	3.98	1.146	75.9	65.7	35.8	0.317
4-2070	4-2600	0.251	155.9	-1.8	-3.79	0.802	67.1	0.390	1.544	[illegible]	316.9	---	2.141	2.40	1.148	78.3	69.6	32.0	0.275
4-2070	4-2610	0.238	157.4	-0.7	-3.06	0.804	67.9	0.376	1.558	[illegible]	324.9	---	2.130	1.75	1.150	80.6	71.4	30.7	0.240
4-2070	4-2620	0.228	158.6	-0.2	-2.63	0.806	68.6	0.365	1.554	110.8	333.2	---	2.122	1.41	1.151	82.9	70.8	30.0	0.210
4-2070	4-2630	0.221	159.4	0.3	-2.33	0.807	69.0	0.358	1.559	109.9	341.9	---	2.116	1.21	1.153	85.2	67.4	29.3	0.187
4-2070	4-2640	0.218	160.1	0.7	-2.10	0.808	69.3	0.354	1.562	109.3	350.9	---	2.115	1.08	1.155	87.6	60.9	28.1	0.172
4-2070	4-2650	0.217	160.5	1.2	-1.91	0.808	69.3	0.354	1.564	109.1	360.3	1.011	2.118	1.00	1.157	90.1	52.5	26.1	0.170
4-2070	4-2660	0.221	160.7	1.9	-1.74	0.809	69.0	0.358	1.566	109.3	370.1	1.004	2.127	0.96	1.160	92.7	44.4	23.7	0.181
4-2070	4-2670	0.229	160.6	2.8	-1.58	0.809	68.4	0.369	1.566	109.9	380.5	0.989	2.143	0.95	1.162	95.5	38.6	20.8	0.207
4-2070	4-2680	0.244	160.3	3.8	-1.41	0.808	67.3	0.385	1.565	111.1	391.4	0.962	2.168	0.97	1.164	98.6	35.6	18.9	0.246
4-2070	4-2680	0.332	33.8	11.3	-1.41	0.590	106.4	0.524	1.059	196.2	836.5	0.504	1.615	0.97	1.025	121.5	348.3	-3.4	0.566
4-2070	4-2690	0.265	159.7	5.1	-1.24	0.808	65.8	0.411	1.564	112.9	403.0	0.922	2.206	1.01	1.166	102.2	34.8	18.0	0.298
4-2070	4-2690	0 267	48.2	15.6	-1.24	0.572	98.7	0.504	1.036	186.7	836.9	0.513	1.558	1.01	1.017	120.2	357.0	0.5	0.543
4-2070	4-2700	0.297	158.7	6.9	-1.04	0.808	63.4	0.447	1.563	115.4	415.5	0.864	2.262	1.10	1.168	106.4	35.6	17.7	0.366
4-2070	4-2700	0.242	66.1	19.7	-1.04	0.560	88.6	0.515	1.022	178.7	838.7	0.495	1.548	1.10	1.013	121.0	5.0	4.1	0.555
4-2070	4-2710	0.343	157.1	8.1	-0.79	0.807	60.1	0.499	1.561	119.1	429.0	0.782	2.341	1.24	1.171	111.6	37.3	17.9	0.455
4-2070	4-2710	0.252	86.0	22.2	-0.79	0.551	80.3	0.549	1.011	171.8	841.8	0.456	1.567	1.24	1.011	123.3	12.6	7.3	0.593
4-2070	4-2720	0.410	154.8	9.9	-0.46	0.807	55.1	0.572	1.560	124.2	444.2	0.667	2.453	1.48	1.173	118.3	39.3	18.2	0.572
4-2070	4-2720	0.299	103.4	22.6	-0.46	0.545	70.3	0.607	1.004	166.5	846.5	0.395	1.613	1.48	1.010	127.4	19.7	10.2	0.661
4-2070	4-2730	0.509	151.3	12.1	0.06	0.807	47.7	0.673	1.560	131.8	461.8	0.510	2.609	1.90	1.175	127.4	40.9	18.4	0.731
4-2070	4-2730	0.387	115.3	22.0	0.06	0.540	99.4	0.695	0.999	163.5	853.5	0.305	1.693	1.90	1.010	134.0	25.8	12.6	0.770
4-2070	4-2740	0.523	120.9	21.7	1.04	0.537	94.2	0.814	0.996	164.1	864.2	0.185	1.808	2.79	1.011	144.5	30.4	14.2	0.938
4-2070	4-2780	0.576	40.8	13.6	-4.09	0.455	129.8	0.826	0.922	191.0	931.8	0.161	1.683	-2.68	0.974	34.4	314.0	-19.0	0.929
4-2070	4-2790	0.519	97.0	22.0	-3.17	0.357	55.0	0.873	0.858	173.9	924.9	0.109	1.607	-1.85	0.932	29.6	328.1	-13.8	0.985
4-2070	4-2790	0.441	49.1	15.5	-3.17	0.445	110.2	0.736	0.914	187.8	938.7	0.241	1.587	-1.85	0.969	42.7	320.7	-16.9	0.800
4-2070	4-2800	0.536	7.9	-0.1	-2.68	0.789	124.1	0.561	1.493	232.8	633.9	0.655	2.331	-1.44	1.167	64.7	303.0	-22.7	0.560
4-2070	4-2810	0.470	5.9	-1.1	-2.35	0.788	119.1	0.488	1.491	237.0	648.3	0.764	2.218	-1.22	1.166	68.1	305.9	-22.4	0.448
4-2070	4-2820	0.597	131.1	17.1	-2.10	0.641	37.2	0.827	1.134	158.3	579.7	0.197	24071	-1.08	1.070	34.6	347.4	-6.1	0.979
4-2070	4-2820	0.423	4.5	-1.9	-2.10	0.788	115.6	0.434	1.488	239.6	661.1	0.842	2.134	-1.08	1.164	73.1	308.8	-22.1	0.364
4-2070	4-2830	0.539	132.8	16.4	-1.90	0.651	42.6	0.773	1.150	155.0	586.6	0.261	2.039	-1.00	1.074	39.9	353.7	-3.6	0.897
4-2070	4-2830	0.390	3.6	-2.3	-1.90	0.787	113.1	0.395	1.486	241.4	672.9	0.900	2.073	-1.00	1.162	77.2	311.0	-22.1	0.298
4-2070	4-2840	0.482	134.4	15.8	-1.73	0.660	47.7	0.715	1.167	152.0	593.6	0.333	2.002	-0.96	1.078	45.0	359.8	-1.1	0.815
4-2070	4-2840	0.366	2.9	-2.5	-1.73	0.787	111.4	0.366	1.484	242.4	684.0	0.941	2.028	-0.96	1.159	80.6	312.0	-22.5	0.246
4-2070	4-2850	0.425	135.7	15.2	-1.56	0.670	52.5	0.655	1.185	149.2	600.8	0.409	1.961	-0.95	1.081	49.9	5.8	1.3	0.733
4-2070	4-2850	0.349	2.4	-2.5	-1.56	0.786	110.1	0.346	1.483	243.1	694.7	0.969	1.996	-0.95	1.157	83.6	311.1	-23.6	0.205
4-2070	4-2860	0.371	136.6	14.8	-1.39	0.679	57.1	0.594	1.203	146.8	608.3	0.488	1.917	-0.97	1.084	54.7	11.7	3.6	0.654
4-2070	4-2860	0.338	2.0	-2.4	-1.39	0.786	109.3	0.333	1.482	243.5	705.0	0.988	1.976	-0.97	1.154	86.3	307.3	-25.6	0.175
4-2070	4-2870	0.320	137.1	14.5	-1.21	0.688	61.3	0.534	1.220	144.8	616.2	0.569	1.872	-1.02	1.087	59.3	17.4	5.6	0.576

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2070	4-2870	0.332	1.7	-2.2	-1.21	0.786	108.9	0.326	1.482	243.8	715.2	0.999	1.966	-1.02	1.152	88.8	300.2	-28.2	0.158
4-2080	4-2230	0.630	8.7	-3.1	-5.91	0.879	128.5	0.641	1.937	245.2	439.1	0.695	---	4.54	1.205	119.3	285.5	-14.6	0.598
4-2080	4-2240	0.572	10.1	-0.7	-4.01	0.828	126.0	0.590	1.675	239.4	442.8	0.687	---	2.74	1.171	118.6	293.9	-16.6	0.566
4-2080	4-2250	0.521	12.2	1.0	-3.18	0.786	123.3	0.550	1.505	233.6	446.5	0.678	---	2.00	1.142	117.9	302.0	-16.4	0.541
4-2080	4-2260	0.474	14.7	2.5	-2.69	0.749	120.4	0.518	1.387	227.6	450.0	0.669	---	1.61	1.118	117.4	310.0	-15.2	0.522
4-2080	4-2270	0.429	17.7	3.9	-2.35	0.716	117.4	0.493	1.299	221.4	453.5	0.659	---	1.38	1.097	116.9	317.9	-13.4	0.506
4-2080	4-2280	0.388	21.2	5.5	-2.08	0.686	114.1	0.475	1.233	215.2	456.8	0.647	---	1.23	1.080	116.6	325.7	-11.2	0.496
4-2080	4-2290	0.349	25.5	7.3	-1.87	0.660	110.6	0.463	1.181	208.9	460.2	0.634	---	1.15	1.065	116.4	333.3	-8.6	0.489
4-2080	4-2300	0.313	30.9	9.4	-1.67	0.636	106.9	0.458	1.139	202.5	463.4	0.617	---	1.10	1.052	116.5	340.9	-5.8	0.487
4-2080	4-2310	0.281	37.9	11.9	-1.48	0.614	102.8	0.459	1.104	196.0	466.7	0.598	---	1.09	1.042	116.9	348.3	-2.8	0.491
4-2080	4-2320	0.254	47.2	15.0	-1.30	0.594	98.2	0.467	1.076	189.6	470.1	0.573	---	1.10	1.033	117.6	355.7	0.3	0.502
4-2080	4-2330	0.236	59.7	18.3	-1.10	0.576	93.0	0.484	1.052	183.2	473.6	0.543	---	1.18	1.026	118.8	3.0	3.5	0.522
4-2080	4-2340	0.233	75.4	21.2	-0.86	0.560	87.0	0.513	1.032	177.2	477.4	0.503	1.562	1.26	1.020	120.8	10.3	6.6	0.554
4-2080	4-2350	0.252	92.8	22.7	-0.58	0.546	79.8	0.556	1.016	171.7	481.9	0.451	1.581	1.48	1.015	123.8	17.4	9.5	0.602
4-2080	4-2360	0.302	108.3	22.6	-0.19	0.533	70.9	0.619	1.002	167.2	487.4	0.382	1.623	1.70	1.010	128.3	24.1	12.2	0.676
4-2080	4-2370	0.390	119.2	21.7	0.40	0.524	59.3	0.709	0.992	164.6	494.9	0.289	1.695	2.19	1.008	135.1	30.1	14.4	0.787
4-2080	4-2380	0.525	124.7	21.2	1.55	0.518	43.8	0.826	0.967	165.3	505.7	0.172	1.802	3.23	1.007	145.7	34.6	15.9	0.954
4-2080	4-2480	0.578	144.2	13.2	-1.65	0.714	40.0	0.777	1.295	149.7	231.6	---	2.301	-1.70	1.115	40.3	5.2	1.3	0.911
4-2080	4-2490	0.538	146.4	12.4	-1.46	0.725	43.6	0.735	1.322	146.2	238.0	---	2.293	-1.09	1.119	44.4	11.6	3.9	0.846
4-2080	4-2500	0.500	148.5	11.6	-1.27	0.735	46.8	0.694	1.348	142.7	244.4	---	2.284	-1.11	1.123	48.2	18.0	6.4	0.783
4-2080	4-2510	0.464	150.5	11.0	-1.07	0.744	49.8	0.654	1.374	139.3	250.9	---	2.271	-1.17	1.127	51.8	24.4	8.6	0.722
4-2080	4-2520	0.431	152.4	10.4	-0.84	0.753	52.6	0.615	1.398	136.0	257.4	---	2.258	-1.27	1.130	55.3	30.8	10.6	0.664
4-2080	4-2530	0.399	154.3	10.0	-0.55	0.761	55.1	0.578	1.421	132.9	264.0	---	2.243	-1.44	1.133	58.5	37.3	12.3	0.608
4-2080	4-2540	0.371	156.3	9.8	-0.17	0.767	57.4	0.544	1.442	129.9	270.7	---	2.227	-1.72	1.135	61.6	43.7	13.4	0.554
4-2080	4-2550	0.344	158.3	10.2	0.42	0.773	59.4	0.512	1.462	127.0	277.5	---	2.211	-2.20	1.137	64.6	50.2	13.8	0.504
4-2080	4-2560	0.321	160.7	11.8	1.50	0.779	61.3	0.483	1.480	124.3	284.4	---	2.194	-3.19	1.139	67.3	56.7	12.4	0.457
4-2080	4-2570	0.304	164.7	17.8	4.45	0.783	63.0	0.456	1.496	121.8	291.5	---	2.178	-6.05	1.141	70.0	64.3	5.6	0.421
4-2080	4-2590	0.285	153.5	-12.4	-8.48	0.791	65.7	0.411	1.522	117.4	306.3	---	2.148	7.07	1.145	75.1	67.5	45.3	0.346
4-2080	4-2600	0.256	158.7	-5.7	-4.77	0.793	66.8	0.394	1.532	115.6	314.0	---	2.135	3.45	1.146	77.5	72.2	35.9	0.290
4-2080	4-2610	0.240	161.0	-3.6	-3.55	0.796	67.8	0.379	1.540	114.0	321.9	---	2.124	2.32	1.148	79.8	76.7	33.2	0.252
4-2080	4-2620	0.229	162.4	-2.6	-2.92	0.797	68.5	0.367	1.547	112.7	330.1	---	2.115	1.79	1.150	82.1	75.0	32.1	0.220
4-2080	4-2630	0.221	163.5	-2.0	-2.51	0.799	69.0	0.358	1.552	111.7	338.7	---	2.109	1.48	1.152	84.4	72.5	31.4	0.193
4-2080	4-2640	0.217	164.2	-1.4	-2.21	0.800	69.3	0.353	1.556	111.0	347.6	---	2.106	1.30	1.154	86.8	66.9	30.4	0.176
4-2080	4-2650	0.215	164.8	-0.8	-1.98	0.800	69.4	0.352	1.559	110.7	356.9	---	2.107	1.19	1.156	89.2	58.7	28.7	0.169
4-2080	4-2660	0.218	165.1	-0.1	-1.77	0.801	69.2	0.355	1.560	110.7	366.6	1.007	2.114	1.12	1.159	91.7	50.2	26.1	0.175
4-2080	4-2670	0.224	165.2	0.8	-1.58	0.801	68.7	0.363	1.561	111.2	376.8	0.995	2.127	1.09	1.161	94.4	43.5	23.4	0.196
4-2080	4-2680	0.236	165.0	1.8	-1.40	0.801	67.9	0.377	1.560	112.1	387.4	0.972	2.148	1.09	1.163	97.4	39.5	21.2	0.230
4-2080	4-2690	0.254	164.5	3.0	-1.20	0.801	66.5	0.399	1.559	113.5	398.7	0.938	2.181	1.12	1.165	100.8	38.2	19.9	0.277
4-2080	4-2690	0.309	43.5	14.8	-1.20	0.572	103.4	0.529	1.047	192.6	837.7	0.493	1.602	1.12	1.022	121.9	356.6	0.4	0.572
4-2080	4-2700	0.281	163.7	4.3	-0.99	0.800	64.5	0.430	1.558	115.6	410.7	0.888	2.228	1.20	1.168	104.7	38.6	19.4	0.338
4-2080	4-2700	0.259	59.9	18.9	-0.99	0.556	94.0	0.522	1.027	183.7	838.7	0.491	1.563	1.20	1.016	121.4	5.0	4.2	0.565
4-2080	4-2710	0.320	162.5	5.9	-0.74	0.800	61.6	0.475	1.556	118.6	423.6	0.817	2.296	1.32	1.170	109.4	40.2	19.3	0.416
4-2080	4-2710	0.247	79.6	22.0	-0.74	0.544	85.4	0.542	1.014	176.1	841.1	0.464	1.564	1.32	1.012	122.8	12.9	7.6	0.586
4-2080	4-2720	0.376	160.6	7.6	-0.41	0.799	57.5	0.538	1.555	122.8	437.8	0.718	2.391	1.53	1.172	115.3	42.4	19.6	0.518
4-2080	4-2720	0.273	99.3	22.9	-0.41	0.536	76.3	0.586	1.005	169.9	844.8	0.416	1.594	1.53	1.011	125.9	20.4	10.7	0.636
4-2080	4-2730	0.458	157.8	9.6	0.05	0.799	51.3	0.625	1.554	129.0	453.9	0.583	2.525	1.89	1.174	123.1	44.5	19.9	0.655
4-2080	4-2730	0.339	114.4	22.1	0.05	0.530	65.7	0.657	0.998	165.5	850.5	0.342	1.653	1.89	1.010	131.1	27.1	13.3	0.722
4-2080	4-2740	0.578	153.6	12.0	0.84	0.799	42.2	0.741	1.554	138.0	473.1	0.402	2.706	2.58	1.176	133.9	45.7	19.9	0.843
4-2080	4-2740	0.449	123.3	21.2	0.84	0.526	52.2	0.760	0.994	164.1	859.1	0.239	1.750	2.58	1.010	139.5	32.7	15.3	0.857
4-2080	4-2790	0.558	101.9	21.9	-3.73	0.323	50.0	0.908	0.849	174.9	920.9	0.078	1.620	-2.48	0.925	25.1	330.2	-13.1	1.047
4-2080	4-2790	0.494	51.4	16.2	-3.73	0.439	118.2	0.786	0.911	188.8	934.7	0.195	1.627	-2.48	0.967	38.3	322.8	-16.5	0.869
4-2080	4-2800	0.574	14.3	2.8	-2.99	0.780	127.6	0.612	1.484	228.6	624.7	0.576	2.392	-1.84	1.166	57.2	307.7	-21.8	0.639
4-2080	4-2800	0.420	88.0	21.4	-2.99	0.378	77.7	0.789	0.878	176.6	932.8	0.185	1.570	-1.84	0.945	38.2	333.8	-12.2	0.863
4-2080	4-2800	0.396	74.9	20.2	-2.99	0.400	90.6	0.751	0.891	180.2	936.3	0.222	1.560	-1.84	0.954	41.6	332.0	-13.0	0.814
4-2080	4-2810	0.496	11.8	1.5	-2.54	0.779	121.5	0.525	1.482	233.6	639.9	0.704	2.260	-1.50	1.164	64.6	310.6	-21.4	0.509
4-2080	4-2820	0.440	10.1	0.7	-2.22	0.779	117.3	0.461	1.480	236.8	653.2	0.798	2.162	-1.30	1.162	70.3	313.7	-21.0	0.412
4-2080	4-2830	0.556	136.8	15.4	-1.97	0.636	40.6	0.796	1.140	156.9	583.4	0.232	2.047	-1.18	1.070	37.6	355.1	-3.0	0.932
4-2080	4-2830	0.399	9.0	0.2	-1.97	0.778	114.2	0.414	1.478	238.7	665.2	0.867	2.089	-1.18	1.160	74.7	316.6	-20.7	0.337
4-2080	4-2840	0.498	138.4	14.7	-1.76	0.646	45.9	0.739	1.157	153.9	590.4	0.301	2.012	-1.12	1.074	42.9	1.2	-0.5	0.849
4-2080	4-2840	0.370	8.2	-0.1	-1.76	0.777	112.0	0.379	1.475	239.9	676.4	0.916	2.084	-1.12	1.157	78.4	318.8	-20.7	0.277
4-2080	4-2850	0.441	139.7	14.1	-1.56	0.656	51.0	0.679	1.175	151.1	597.6	0.377	1.973	-1.09	1.077	48.0	7.2	1.9	0.766
4-2080	4-2850	0.348	7.6	-0.2	-1.56	0.777	110.4	0.353	1.473	240.6	687.1	0.952	1.994	-1.09	1.155	81.6	319.5	-21.4	0.230
4-2080	4-2860	0.386	140.7	13.7	-1.37	0.666	55.7	0.618	1.193	148.6	605.1	0.456	1.929	-1.09	1.081	52.9	13.1	4.1	0.684
4-2080	4-2860	0.333	7.2	-0.1	-1.37	0.776	109.3	0.336	1.471	241.0	697.5	0.978	1.965	-1.09	1.152	84.4	318.2	-22.9	0.194
4-2080	4-2870	0.332	141.3	13.3	-1.18	0.675	60.2	0.556	1.211	140.5	612.9	0.538	1.884	-1.13	1.084	57.6	18.9	6.1	0.604
4-2080	4-2870	0.324	6.8	0.1	-1.18	0.776	108.6	0.324	1.471	241.2	707.6	0.994	1.948	-1.13	1.149	87.0	314.1	-25.4	0.168
4-2080	4-2880	0.282	141.4	13.3	-0.96	0.684	64.4	0.496	1.229	145.0	621.2	0.619	1.838	-1.21	1.087	62.1	24.4	7.8	0.527
4-2080	4-2880	0.319	6.5	0.4	-0.96	0.776	108.3	0.319	1.471	241.4	717.6	1.002	1.941	-1.21	1.147	89.4	306.6	-28.5	0.154
4-2090	4-2250	0.581	15.0	2.0	-3.68	0.822	127.1	0.605	1.678	237.7	445.6	0.662	---	2.58	1.171	120.0	302.2	-15.6	0.593
4-2090	4-2260	0.527	17.2	3.6	-2.98	0.778	124.3	0.564	1.501	231.7	449.3	0.654	---	1.99	1.142	119.3	310.2	-14.7	0.566
4-2090	4-2270	0.477	19.9	5.0	-2.52	0.739	121.2	0.532	1.378	225.7	452.8	0.644	---	1.65	1.117	118.6	318.1	-13.1	0.545
4-2090	4-2280	0.431	23.0	6.5	-2.19	0.704	118.0	0.508	1.289	219.5	456.2	0.634	---	1.45	1.096	118.1	325.8	-10.9	0.529
4-2090	4-2290	0.388	26.8	8.1	-1.93	0.673	114.5	0.491	1.221	213.3	459.6	0.622	---	1.32	1.078	117.8	333.5	-8.4	0.518
4-2090	4-2300	0.348	31.5	10.0	-1.70	0.645	110.8	0.480	1.168	206.9	462.9	0.607	---	1.25	1.065	117.7	341.0	-5.6	0.512
4-2090	4-2310	0.311	37.6	12.2	-1.49	0.620	106.7	0.476	1.126	200.5	466.2	0.590	---	1.21	1.050	117.8	348.5	-2.6	0.511
4-2090	4-2320	0.279	45.5	14.8	-1.28	0.597	102.2	0.479	1.092	194.0	469.6	0.568	---	1.22	1.040	118.3	355.9	0.6	0.516
4-2090	4-2330	0.254	56.2	17.8	-1.07	0.576	97.2	0.491	1.063	187.6	473.0	0.542	---	1.26	1.031	119.2	3.2	3.7	0.530
4-2090	4-2340	0.240	70.3	20.8	-0.83	0.557	91.4	0.512	1.040	181.4	476.7	0.507	---	1.34	1.023	120.7	10.6	6.9	0.554
4-2090	4-2350	0.245	87.3	22.8	-0.54	0.540	84.6	0.547	1.020	175.5	480.8	0.463	1.578	1.48	1.017	123.1	17.8	9.9	0.592
4-2090	4-2360	0.276	104.4	23.0	-0.18	0.526	76.4	0.598	1.004	170.4	485.7	0.403	1.605	1.72	1.011	126.7	24.8	12.6	0.651

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2090	4-2370	0.343	118.2	21.9	0.35	0.513	65.9	0.673	0.991	166.7	492.1	0.325	1.658	2.13	1.007	132.3	31.3	15.0	0.740
4-2090	4-2380	0.452	126.7	20.8	1.25	0.505	52.2	0.774	0.983	165.5	500.9	0.222	1.744	2.91	1.005	140.8	36.8	16	0.875
4-2090	4-2480	0.588	147.9	12.0	-1.68	0.699	38.7	0.794	1.277	151.8	228.7	---	2.290	-1.24	1.110	36.6	6.5	1.0	0.937
4-2090	4-2490	0.548	150.1	11.2	-1.47	0.711	42.4	0.752	1.304	148.2	235.1	---	2.284	-1.27	1.115	42.8	12.9	4.4	0.871
4-2090	4-2500	0.509	152.2	10.4	-1.26	0.722	45.8	0.710	1.331	144.8	241.6	---	2.275	-1.22	1.119	46.7	19.3	6.8	0.806
4-2090	4-2510	0.473	154.2	9.7	-1.04	0.732	48.9	0.668	1.357	141.4	248.0	---	2.264	-1.26	1.123	50.4	25.7	9.1	0.744
4-2090	4-2520	0.438	156.2	9.0	-0.80	0.741	51.7	0.629	1.382	138.1	254.6	---	2.251	-1.35	1.126	54.0	32.1	11.1	0.685
4-2090	4-2530	0.406	158.1	8.6	-0.59	0.749	54.3	0.591	1.406	135.0	261.2	---	2.237	-1.50	1.130	57.3	38.6	12.7	0.627
4-2090	4-2540	0.377	160.1	8.3	-0.15	0.756	56.7	0.555	1.428	132.0	267.9	---	2.221	-1.74	1.132	60.5	45.1	13.9	0.573
4-2090	4-2550	0.350	162.1	8.5	0.37	0.763	58.9	0.522	1.449	129.1	274.7	---	2.205	-2.14	1.135	63.5	51.5	14.4	0.521
4-2090	4-2560	0.326	164.4	9.6	1.22	0.769	60.8	0.492	1.468	126.4	281.6	---	2.189	-2.88	1.137	66.3	58.0	13.7	0.472
4-2090	4-2570	0.306	167.5	13.0	3.03	0.774	62.5	0.464	1.485	123.9	288.6	---	2.173	-4.59	1.139	69.0	64.8	9.8	0.430
4-2090	4-2580	0.314	174.7	28.9	10.58	0.778	64.1	0.439	1.499	121.6	295.8	---	2.158	-12.04	1.141	71.6	75.2	-8.7	0.435
4-2090	4-2590	0.360	144.5	-27.9	-18.80	0.782	65.5	0.416	1.512	119.4	303.5	---	2.142	17.44	1.143	74.2	74.6	68.9	0.459
4-2090	4-2600	0.264	160.6	-11.0	-6.47	0.785	66.6	0.398	1.523	117.6	311.0	---	2.129	5.21	1.145	76.6	74.8	41.9	0.310
4-2090	4-2610	0.244	164.1	-7.0	-4.26	0.787	67.6	0.382	1.533	116.0	318.9	---	2.118	3.11	1.147	79.0	78.0	36.3	0.265
4-2090	4-2620	0.231	166.0	-5.3	-3.30	0.789	68.4	0.369	1.540	114.6	327.1	---	2.108	2.25	1.149	81.3	79.0	34.3	0.230
4-2090	4-2630	0.222	167.3	-4.4	-2.74	0.791	69.0	0.359	1.546	113.6	335.6	---	2.101	1.81	1.151	83.6	77.4	33.3	0.201
4-2090	4-2640	0.216	168.2	-3.6	-2.36	0.792	69.4	0.353	1.550	112.8	344.4	---	2.097	1.54	1.153	86.0	72.7	32.5	0.180
4-2090	4-2650	0.214	168.9	-2.9	-2.06	0.793	69.5	0.350	1.553	112.4	353.6	---	2.097	1.38	1.155	88.3	65.1	31.1	0.169
4-2090	4-2660	0.215	169.4	-2.2	-1.82	0.793	69.4	0.352	1.555	112.3	363.2	1.008	2.102	1.28	1.158	90.8	56.2	28.8	0.171
4-2090	4-2670	0.220	169.6	-1.8	-1.60	0.793	69.0	0.358	1.556	112.5	373.2	0.999	2.112	1.23	1.160	93.5	48.6	26.0	0.186
4-2090	4-2680	0.229	169.5	-0.3	-1.39	0.793	68.3	0.370	1.555	113.2	383.6	0.981	2.130	1.21	1.162	96.3	43.8	23.5	0.215
4-2090	4-2690	0.245	169.2	0.9	-1.18	0.793	67.2	0.388	1.555	114.4	394.6	0.951	2.158	1.23	1.165	99.5	41.7	21.8	0.257
4-2090	4-2690	0.400	38.4	13.8	-1.18	0.586	114.6	0.591	1.076	200.2	840.5	0.441	1.712	1.23	1.035	126.0	355.5	-0.2	0.646
4-2090	4-2690	0.518	33.1	12.5	-1.18	0.616	126.2	0.674	1.121	205.0	845.2	0.365	1.876	1.23	1.052	142.0	353.1	-1.4	0.753
4-2090	4-2700	0.268	168.6	2.2	-0.96	0.793	65.4	0.416	1.553	116.1	406.2	0.907	2.199	1.29	1.167	103.1	41.7	21.0	0.312
4-2090	4-2700	0.290	54.4	18.0	-0.96	0.554	100.3	0.539	1.036	189.1	839.2	0.478	1.595	1.29	1.020	122.6	4.8	4.1	0.584
4-2090	4-2710	0.301	167.6	3.7	-0.70	0.792	63.0	0.455	1.551	118.5	418.6	0.846	2.257	1.40	1.169	107.4	43.2	20.8	0.383
4-2090	4-2710	0.255	72.9	21.6	-0.70	0.539	90.9	0.543	1.019	180.7	840.8	0.465	1.572	1.40	1.015	122.9	13.0	7.8	0.587
4-2090	4-2720	0.349	166.1	5.3	-0.38	0.792	59.4	0.509	1.550	122.0	432.0	0.761	2.338	1.58	1.171	112.7	45.4	20.9	0.473
4-2090	4-2720	0.259	93.7	23.2	-0.38	0.528	81.7	0.573	1.007	173.7	843.8	0.430	1.585	1.58	1.012	125.0	20.8	11.0	0.622
4-2090	4-2730	0.417	163.8	7.2	0.05	0.791	54.3	0.584	1.548	127.0	447.0	0.644	2.453	1.89	1.173	119.5	47.8	21.2	0.592
4-2090	4-2730	0.303	111.9	22.5	0.05	0.520	71.6	0.630	0.999	168.3	848.4	0.370	1.627	1.89	1.010	129.0	28.1	13.8	0.688
4-2090	4-2740	0.517	160.3	9.4	0.71	0.791	46.7	0.686	1.548	134.3	464.4	0.486	2.610	2.43	1.174	128.7	49.7	21.4	0.753
4-2090	4-2740	0.390	124.1	21.1	0.71	0.515	59.4	0.715	0.993	165.2	855.3	0.283	1.703	2.43	1.009	133.6	34.4	16.1	0.795
4-2090	4-2750	0.524	129.8	20.2	1.97	0.512	43.7	0.829	0.990	165.6	865.9	0.169	1.811	2.58	1.009	146.0	39.2	17.5	0.960
4-2090	4-2790	0.595	106.2	21.6	-4.55	0.288	44.7	0.937	0.841	176.0	917.0	0.053	1.629	-3.38	0.918	20.7	832.3	-12.4	1.106
4-2090	4-2790	0.555	55.2	17.3	-4.55	0.411	127.1	0.841	0.906	188.7	929.8	0.144	1.668	-3.38	0.965	32.9	325.4	-15.8	0.951
4-2090	4-2800	0.474	98.9	21.5	-3.40	0.335	68.6	0.849	0.862	176.0	927.2	0.130	1.594	-2.34	0.934	32.3	336.7	-11.1	0.949
4-2090	4-2800	0.429	69.6	19.6	-3.40	0.392	102.5	0.771	0.894	183.8	935.0	0.205	1.584	-2.34	0.956	39.8	332.7	-13.1	0.844
4-2090	4-2810	0.526	17.9	4.1	-2.77	0.771	124.4	0.568	1.474	230.1	631.4	0.637	2.311	-1.83	1.162	60.8	315.0	-20.4	0.577
4-2090	4-2820	0.460	15.8	3.2	-2.36	0.770	119.3	0.492	1.472	233.8	645.3	0.747	2.196	-1.55	1.161	67.2	318.2	-19.9	0.465
4-2090	4-2830	0.574	140.6	14.3	-2.05	0.622	38.6	0.819	1.129	158.8	580.4	0.204	2.054	-1.38	1.066	35.3	356.5	-2.5	0.967
4-2090	4-2830	0.411	14.5	2.4	-2.05	0.769	115.6	0.436	1.469	236.1	657.7	0.828	2.110	-1.38	1.158	72.2	321.5	-19.3	0.379
4-2090	4-2840	0.515	142.2	13.6	-1.80	0.632	44.1	0.763	1.146	155.7	587.3	0.271	2.021	-1.28	1.070	40.7	2.6	0.0	0.883
4-2090	4-2840	0.376	13.5	2.2	-1.80	0.768	112.9	0.395	1.466	237.4	669.0	0.887	2.045	-1.28	1.156	76.2	324.3	-19.0	0.312
4-2090	4-2850	0.457	143.7	13.0	-1.58	0.643	49.3	0.704	1.164	152.9	594.5	0.345	1.983	-1.22	1.074	45.9	8.6	2.4	0.7
4-2090	4-2850	0.350	12.8	2.1	-1.58	0.767	110.9	0.364	1.464	238.1	679.7	0.931	1.996	-1.22	1.153	79.6	326.3	-19.2	0.259
4-2090	4-2860	0.401	144.8	12.5	-1.37	0.653	54.3	0.642	1.182	150.3	601.9	0.424	1.941	-1.21	1.077	51.0	14.5	4.7	0.715
4-2090	4-2860	0.331	12.3	2.2	-1.37	0.767	109.5	0.341	1.461	238.4	690.0	0.963	1.960	-1.21	1.150	82.5	326.9	-20.1	0.217
4-2090	4-2870	0.346	145.5	12.1	-1.15	0.663	59.1	0.579	1.201	148.2	609.7	0.506	1.895	-1.24	1.081	55.8	20.3	6.7	0.633
4-2090	4-2870	0.317	11.9	2.4	-1.15	0.766	108.5	0.325	1.460	238.6	700.0	0.985	1.935	-1.24	1.147	85.1	325.3	-22.0	0.184
4-2090	4-2880	0.294	145.7	12.1	-0.93	0.672	63.5	0.516	1.219	146.6	617.9	0.590	1.849	-1.30	1.084	60.5	25.9	8.4	0.554
4-2090	4-2880	0.309	11.5	2.7	-0.93	0.766	107.9	0.316	1.459	238.7	710.0	0.999	1.920	-1.30	1.145	87.6	320.8	-25.1	0.162
4-2090	4-2890	0.245	145.2	12.4	-0.67	0.681	67.5	0.457	1.237	145.6	626.7	0.672	1.803	-1.41	1.087	64.9	31.3	9.6	0.478
4-2090	4-2890	0.306	11.2	3.2	-0.67	0.766	107.6	0.312	1.460	238.8	719.9	1.005	1.915	-1.41	1.142	90.0	313.1	-28.8	0.151
4-2100	4-2330	0.277	53.8	17.5	-1.04	0.579	101.5	0.501	1.078	191.9	472.5	0.538	---	1.35	1.031	119.8	3.4	3.9	0.542
4-2100	4-2340	0.254	66.1	20.4	-0.80	0.557	95.9	0.516	1.050	18546	476.0	0.508	---	1.41	1.027	120.9	10.8	7.1	0.559
4-2100	4-2350	0.246	81.8	22.6	-0.51	0.537	89.4	0.543	1.027	179.5	479.9	0.470	1.584	1.54	1.020	122.8	18.2	10.1	0.588
4-2100	4-2360	0.262	99.5	23.4	-0.16	0.520	81.7	0.584	1.007	174.0	484.4	0.419	1.596	1.74	1.013	125.7	25.4	13.0	0.634
4-2100	4-2580	0.297	175.1	17.0	5.78	0.769	63.8	0.446	1.489	123.6	293.0	---	2.153	-7.20	1.139	70.7	73.2	3.4	0.412
4-2100	4-2600	0.284	159.7	-19.4	-10.06	0.776	66.4	0.402	1.514	119.6	308.2	---	2.123	8.87	1.143	75.8	78.2	52.6	0.347
4-2100	4-2610	0.249	166.6	-11.1	-5.35	0.779	67.4	0.385	1.524	117.9	316.0	---	2.113	4.27	1.145	78.2	81.2	40.5	0.280
4-2100	4-2620	0.234	169.3	-8.3	-3.82	0.781	68.3	0.371	1.532	116.5	324.1	---	2.101	2.86	1.147	80.5	82.8	36.8	0.241
4-2100	4-2630	0.224	171.0	-6.9	-3.04	0.783	68.9	0.360	1.539	115.4	332.6	---	2.093	2.19	1.150	82.8	82.1	35.3	0.210
4-2100	4-2640	0.217	172.1	-5.9	-2.54	0.784	69.4	0.353	1.544	114.5	341.3	---	2.088	1.82	1.152	85.2	78.3	34.4	0.186
4-2100	4-2650	0.213	173.0	-5.1	-2.17	0.785	69.6	0.349	1.547	114.0	350.4	---	2.087	1.59	1.154	87.5	71.3	33.2	0.171
4-2100	4-2660	0.213	173.5	-4.3	-1.88	0.786	69.6	0.349	1.549	113.8	359.9	---	2.090	1.45	1.157	90.0	62.4	31.2	0.168
4-2100	4-2670	0.216	173.9	-3.3	-1.63	0.786	69.3	0.354	1.550	113.9	369.7	1.002	2.098	1.37	1.159	92.5	54.1	28.5	0.179
4-2100	4-2680	0.224	173.9	-2.3	-1.39	0.786	68.7	0.363	1.550	114.4	380.0	0.987	2.113	1.33	1.161	95.3	48.3	25.8	0.203
4-2100	4-2690	0.237	173.8	-1.2	-1.17	0.786	67.7	0.379	1.549	115.3	390.7	0.962	2.137	1.33	1.164	98.3	45.4	23.8	0.241
4-2100	4-2700	0.257	173.3	0.1	-0.93	0.785	66.3	0.403	1.548	116.7	402.0	0.924	2.172	1.37	1.166	101.7	44.9	22.7	0.290
4-2100	4-2710	0.286	172.5	1.5	-0.67	0.785	64.1	0.437	1.546	118.7	413.9	0.870	2.222	1.46	1.168	105.7	46.1	22.2	0.354
4-2100	4-2710	0.277	66.6	20.9	-0.67	0.537	97.0	0.553	1.026	185.8	840.9	0.458	1.593	1.46	1.018	123.5	13.0	7.8	0.600
4-2100	4-2720	0.257	87.1	23.2	-0.36	0.523	87.3	0.569	1.010	178.0	843.1	0.436	1.585	1.62	1.013	124.6	21.1	11.2	0.616
4-2100	4-2730	0.280	107.6	23.1	0.04	0.513	77.4	0.610	1.000	171.7	846.8	0.390	1.610	1.88	1.010	127.6	28.8	14.2	0.664
4-2100	4-2850	0.353	18.1	4.4	-1.60	0.759	111.6	0.377	1.454	235.8	672.5	0.906	2.003	-1.36	1.151	77.5	331.9	-17.2	0.291
4-2100	4-2860	0.330	17.5	4.4	-1.37	0.758	109.8	0.350	1.452	236.0	682.7	0.944	1.959	-1.33	1.148	80.6	333.8	-17.5	0.243
4-2100	4-2870	0.319	17.1	4.6	-1.14	0.757	108.3	0.329	1.449	236.0	692.6	0.972	1.927	-1.33	1.145	83.3	334.1	-18.7	0.205

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2100	4-2880	0.300	16.7	4.9	+0.90	0.757	107.4	0.315	1.448	235.9	702.4	0.991	1.905	-1.38	1.142	85.8	332.3	-21.0	0.175
4-2100	4-2890	0.255	149.5	11.1	-0.64	0.670	66.7	0.476	1.228	147.2	623.4	0.644	1.813	-1.48	1.084	93.4	32.8	10.2	0.502
4-2100	4-2890	0.293	16.3	5.4	-0.64	0.756	107.1	0.307	1.448	235.9	712.1	1.003	1.892	-1.48	1.140	88.1	327.5	-[illegible].6	0.156
4-2100	4-2900	0.209	148.2	12.1	-0.33	0.679	76.7	0.418	1.247	147.0	632.9	0.726	1.767	-1.64	1.087	67.8	37.9	9	0.427
4-2100	4-2900	0.291	15.9	6.1	-0.33	0.757	106.9	0.304	1.449	236.1	722.0	1.008	1.890	-1.64	1.138	90.5	319.6	-[illegible].9	0.149
4-2150	4-2370	0.296	91.5	24.4	0.23	0.503	101.0	0.607	1.028	187.3	484.4	0.404	---	1.94	1.025	127.3	35.1	16.5	0.665
4-2150	4-2380	0.289	108.2	24.0	0.65	0.473	92.6	0.636	0.998	181.5	488.7	0.363	---	2.17	1.013	129.5	42.8	19.0	0.695
4-2150	4-2590	0.295	192.5	2.1	3.14	0.731	63.9	0.455	1.447	130.8	286.3	---	2.100	-4.18	1.130	68.8	84.7	12.9	0.423
4-2150	4-2600	0.283	196.2	8.0	5.82	0.736	65.4	0.429	1.463	128.8	293.8	---	2.091	-6.71	1.133	71.5	90.4	4.7	0.390
4-2150	4-2650	0.250	183.9	-25.7	-7.67	0.747	68.9	0.370	1.499	124.1	318.0	---	2.054	7.22	1.142	79.0	105.9	52.8	0.282
4-2150	4-2640	0.229	189.0	-19.7	-4.65	0.749	69.6	0.357	1.507	123.0	326.4	---	2.045	4.38	1.045	81.3	103.8	44.7	0.231
4-2150	4-2650	0.219	191.5	-16.8	-3.32	0.751	70.1	0.348	1.515	122.2	335.2	---	2.039	3.17	1.048	83.7	100.9	41.7	0.199
4-2150	4-2660	0.213	193.0	-15.0	-2.53	0.752	70.5	0.342	1.517	121.6	344.3	---	2.036	2.55	1.051	86.0	95.0	40.2	0.176
4-2150	4-2670	0.210	194.1	-13.5	-1.99	0.753	70.6	0.339	1.520	121.2	353.6	---	2.036	2.18	1.053	88.4	86.1	38.8	0.165
4-2150	4-2660	0.211	194.8	-12.2	-1.57	0.754	70.5	0.341	1.522	121.1	363.3	1.003	2.041	1.95	1.056	90.8	76.3	36.6	0.167
4-2150	4-2690	0.216	195.2	-11.0	-1.22	0.754	70.1	0.347	1.522	121.2	373.2	0.994	2.050	1.82	1.059	93.4	68.4	33.7	0.182
4-2150	4-2700	0.225	195.3	-9.8	-0.91	0.754	69.4	0.359	1.521	121.6	383.4	0.976	2.067	1.75	1.061	96.1	63.7	31.8	0.209
4-2150	4-2710	0.239	195.1	-8.5	-0.61	0.753	68.3	0.376	1.520	122.2	394.0	0.948	2.092	1.73	1.063	99.1	62.1	29.1	0.248
4-2150	4-2720	0.259	194.7	-7.3	-0.30	0.753	66.7	0.401	1.518	123.2	405.0	0.909	2.127	1.77	1.065	102.5	62.8	28.0	0.298
4-2150	4-2730	0.287	194.9	-6.0	0.03	0.752	64.5	0.436	1.515	124.7	416.5	0.855	2.175	1.86	1.067	106.3	65.1	27.4	0.360
4-2150	4-2750	0.289	119.2	22.7	0.90	0.465	86.4	0.648	0.991	178.1	850.1	0.348	1.634	2.33	1.010	130.4	46.9	20.2	0.709
4-2150	4-2880	0.283	43.7	14.9	-0.87	0.714	108.5	0.355	1.398	224.9	668.0	0.901	1.895	-1.74	1.131	77.1	2.9	-6.0	0.292
4-2150	4-2890	0.258	43.7	15.5	-0.57	0.712	106.5	0.328	1.393	223.4	676.2	0.936	1.856	-1.73	1.128	79.6	6.5	-5.6	0.250
4-2150	4-2900	0.269	169.3	4.1	-0.27	0.626	66.7	0.516	1.199	153.3	615.8	0.581	1.818	-1.77	1.073	60.2	45.7	14.1	0.552
4-2150	4-2900	0.236	43.9	16.3	-0.27	0.711	104.8	0.306	1.388	221.6	684.1	0.963	1.814	-1.77	1.124	81.8	9.5	-5.9	0.215
4-2150	4-2910	0.212	167.5	5.6	0.05	0.638	71.8	0.446	1.222	153.8	626.0	0.677	1.767	-1.87	1.078	65.3	50.6	14.4	0.464
4-2150	4-2910	0.219	44.2	17.4	0.05	0.709	103.3	0.289	1.384	219.6	691.8	0.983	1.784	-1.87	1.121	83.8	11.7	-7.1	0.187
4-2150	4-2920	0.160	163.1	9.1	0.41	0.650	76.6	0.381	1.245	156.0	637.9	0.771	1.719	-2.03	1.083	70.3	54.5	13.8	0.380
4-2150	4-2920	0.204	44.5	18.8	0.41	0.708	102.2	0.277	1.380	217.6	699.4	0.998	1.762	-2.03	1.119	85.6	12.7	-9.7	0.165
4-2150	4-2930	0.115	153.3	16.6	0.87	0.661	81.2	0.323	1.268	160.4	651.8	0.859	1.677	-2.31	1.088	75.0	57.0	11.7	0.300
4-2150	4-2930	0.194	44.7	20.6	0.87	0.707	101.3	0.267	1.377	215.9	707.3	1.009	1.745	-2.31	1.116	87.3	11.9	-14.0	0.149
4-2150	4-2940	0.087	133.2	29.8	1.48	0.671	85.2	0.278	1.289	167.2	668.2	0.933	1.648	-2.75	1.093	79.5	57.0	6.7	0.231
4-2150	4-2940	0.189	44.3	22.9	1.48	0.706	100.9	0.263	1.376	215.1	716.1	1.015	1.738	-2.75	1.115	89.2	8.6	-20.6	0.141
4-2150	4-2950	0.085	103.6	43.1	2.40	0.679	88.4	0.256	1.308	175.2	685.7	0.981	1.638	-3.52	1.097	83.4	53.8	-3.2	0.180
4-2150	4-2950	0.194	42.8	25.8	2.40	0.707	101.2	0.264	1.380	216.0	726.5	1.015	1.744	-3.52	1.115	91.4	1.9	-29.5	0.147
4-2200	4-2610	0.288	213.2	-5.2	3.57	0.707	66.0	0.436	1.418	135.0	287.3	---	2.036	-3.98	1.124	69.8	103.1	12.3	0.398
4-2200	4-2620	0.276	216.1	-0.2	5.69	0.712	67.4	0.410	1.434	133.3	295.1	---	2.023	-5.94	1.128	72.4	107.5	4.5	0.382
4-2200	4-2630	0.293	220.3	14.4	12.19	0.717	68.7	0.388	1.448	131.9	303.1	---	2.011	-12.28	1.132	75.6	111.1	-16.5	0.377
4-2200	4-2650	0.258	202.0	-38.2	-9.56	0.724	70.6	0.353	1.470	129.6	320.4	---	1.989	9.88	1.139	80.0	137.4	60.0	0.292
4-2200	4-2660	0.229	210.0	-28.5	-4.93	0.726	71.3	0.342	1.477	128.8	329.2	---	1.982	5.30	1.143	82.7	126.4	48.4	0.221
4-2200	4-2670	0.218	212.9	-24.2	-3.14	0.728	71.7	0.334	1.483	128.2	338.3	---	1.978	3.69	1.146	84.6	120.3	44.2	0.187
4-2200	4-2680	0.214	214.5	-21.6	-2.17	0.729	71.9	0.329	1.487	127.8	347.6	---	1.976	2.89	1.149	86.9	112.1	42.4	0.167
4-2200	4-2690	0.213	215.5	-19.8	-1.52	0.730	72.0	0.328	1.489	127.5	357.2	---	1.978	2.43	1.152	89.3	101.8	40.9	0.159
4-2200	4-2700	0.215	216.1	-18.3	-1.04	0.730	71.7	0.332	1.490	127.4	366.9	0.996	1.984	2.15	1.155	91.7	91.8	38.6	0.165
4-2200	4-2710	0.221	216.4	-16.9	-0.65	0.730	71.2	0.340	1.490	127.4	376.9	0.984	1.995	1.97	1.157	94.3	84.8	35.8	0.184
4-2200	4-2720	0.232	216.4	-15.7	-0.30	0.730	70.4	0.352	1.488	127.6	387.1	0.964	2.013	1.88	1.159	97.0	81.3	33.4	0.214
4-2200	4-2730	0.246	216.2	-14.6	0.03	0.729	69.2	0.371	1.486	128.0	397.5	0.934	2.038	1.85	1.161	99.9	80.9	31.6	0.253
4-2200	4-2740	0.267	215.7	-13.6	0.36	0.728	67.6	0.397	1.483	128.6	408.1	0.894	2.072	1.88	1.162	103.2	82.6	30.3	0.303
4-2200	4-2750	0.296	214.9	-12.6	0.71	0.727	65.3	0.432	1.480	129.5	419.2	0.840	2.120	1.96	1.163	106.9	85.6	29.4	0.363
4-2200	4-2890	0.270	72.7	21.6	-0.61	0.682	109.9	0.402	1.351	217.8	648.3	0.807	1.895	-1.96	1.118	71.3	22.0	3.4	0.382
4-2200	4-2900	0.232	74.0	22.4	-0.27	0.679	106.6	0.365	1.344	215.1	655.4	0.854	1.834	-1.88	1.114	74.1	27.4	4.8	0.331
4-2200	4-2910	0.198	76.4	23.5	0.04	0.675	103.7	0.335	1.336	211.4	661.4	0.889	1.783	-1.85	1.110	76.3	33.1	6.0	0.291
4-2200	4-2920	0.234	187.2	-2.2	0.36	0.604	72.2	0.484	1.191	158.6	618.2	0.615	1.767	-1.88	1.066	62.3	64.0	17.8	0.510
4-2200	4-2920	0.167	80.5	25.1	0.36	0.671	100.9	0.311	1.326	206.5	666.0	0.913	1.739	-1.88	1.105	78.0	39.3	7.2	0.261
4-2200	4-2930	0.164	180.8	2.4	0.69	0.621	79.0	0.401	1.222	162.5	631.7	0.732	1.712	-1.96	1.074	68.4	67.2	16.9	0.406
4-2200	4-2930	0.135	88.9	27.3	0.69	0.666	97.7	0.294	1.313	199.4	668.5	0.927	1.699	-1.96	1.100	79.0	46.8	8.4	0.247
4-2250	4-2630	0.286	233.9	-11.3	3.62	0.692	68.3	0.415	1.385	138.6	288.2	---	1.959	-3.36	1.118	70.8	121.6	10.5	0.372
4-2250	4-2640	0.273	236.0	-7.4	5.19	0.698	69.6	0.390	1.401	137.2	296.4	---	1.947	-4.77	1.123	73.4	124.9	3.6	0.334
4-2250	4-2650	0.276	238.3	2.6	9.26	0.704	70.8	0.369	1.415	136.0	304.7	---	1.937	-8.70	1.128	75.9	126.0	-12.5	0.323
4-2250	4-2670	0.267	224.0	-47.3	-10.90	0.711	72.5	0.336	1.436	134.3	322.7	---	1.918	11.75	1.137	80.9	169.0	60.4	0.301
4-2250	4-2680	0.231	233.4	-33.5	-4.49	0.713	73.1	0.325	1.443	133.7	331.7	---	1.913	5.49	1.141	83.2	147.9	46.7	0.207
4-2250	4-2690	0.222	235.9	-28.2	-2.49	0.715	73.5	0.318	1.448	133.2	341.1	---	1.909	3.64	1.144	85.5	139.2	41.9	0.173
4-2250	4-2700	0.218	237.2	-25.2	-1.47	0.716	73.6	0.315	1.452	132.9	350.6	---	1.909	2.78	1.147	87.8	129.7	40.1	0.156
4-2250	4-2710	0.219	237.8	-23.3	-0.82	0.717	73.5	0.316	1.453	132.7	360.3	0.995	1.912	2.30	1.150	90.1	118.9	38.8	0.152
4-2250	4-2720	0.222	238.2	-21.8	-0.35	0.717	73.2	0.320	1.454	132.5	370.1	0.988	1.919	2.01	1.153	92.4	109.5	36.9	0.162
4-2250	4-2730	0.230	238.3	-20.6	0.03	0.716	72.7	0.329	1.453	132.4	380.0	0.975	1.931	1.84	1.154	94.9	103.5	34.6	0.183
4-2250	4-2740	0.241	238.1	-19.6	0.36	0.716	71.8	0.343	1.451	132.3	390.1	0.954	1.948	1.74	1.156	97.5	101.1	32.5	0.213
4-2250	4-2750	0.256	237.8	-18.8	0.67	0.715	70.5	0.362	1.448	132.4	400.2	0.924	1.972	1.70	1.157	100.4	101.5	30.7	0.252
4-2250	4-2760	0.277	237.2	-18.1	0.97	0.714	68.8	0.388	1.445	132.6	410.6	0.884	2.005	1.72	1.157	103.5	103.7	29.3	0.309
4-2250	4-2900	0.279	102.7	22.8	-0.31	0.662	112.9	0.462	1.310	214.4	632.8	0.705	1.914	-2.00	1.105	65.7	38.1	10.5	0.470
4-2250	4-2910	0.229	105.3	23.4	0.05	0.658	108.4	0.412	1.302	211.7	639.8	0.765	1.839	-1.83	1.101	69.2	44.0	11.9	0.407
4-2250	4-2920	0.187	110.3	23.9	0.36	0.654	104.5	0.374	1.293	207.4	645.1	0.809	1.777	-1.74	1.096	71.8	50.4	13.3	0.360
4-2250	4-2930	0.285	208.6	-10.7	0.65	0.575	70.1	0.542	1.149	161.0	608.3	0.521	1.772	-1.70	1.050	57.8	79.0	20.4	0.578
4-2250	4-2930	0.149	119.7	24.0	0.65	0.649	100.6	0.347	1.291	201.3	648.6	0.836	1.725	-1.70	1.092	73.5	58.2	14.6	0.326
4-2250	4-2940	0.201	203.6	-7.2	0.94	0.598	78.4	0.445	1.114	164.8	621.6	0.657	1.711	-1.71	1.061	64.8	82.1	19.7	0.460
4-2250	4-2940	0.116	140.6	21.2	0.94	0.640	95.7	0.332	1.262	191.7	648.5	0.843	1.682	-1.71	1.085	74.1	67.8	16.1	0.311
4-2300	4-2650	0.288	255.3	-15.8	3.30	0.688	70.5	0.395	1.345	141.6	288.3	---	1.876	-2.37	1.112	71.6	140.7	7.8	0.348
4-2300	4-2660	0.274	256.8	-13.0	4.29	0.694	71.8	0.369	1.361	140.4	296.8	---	1.866	-3.24	1.118	74.2	143.7	2.3	0.307
4-2300	4-2670	0.268	257.9	-6.9	6.56	0.700	72.9	0.348	1.376	139.4	305.5	---	1.856	-5.40	1.123	76.7	144.1	-8.6	0.280
4-2300	4-2690	0.275	251.2	-52.6	-11.47	0.707	74.5	0.317	1.397	138.0	323.9	---	1.840	12.85	1.133	81.5	193.7	56.4	0.305

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2300	4-2700	0.233	258.7	-33.4	-3.33	0.710	75.0	0.307	1.404	137.6	333.2	---	1.835	4.83	1.137	83.8	166.2	39.0	0.189
4-2300	4-2710	0.227	259.9	-27.9	-1.40	0.712	75.3	0.301	1.409	137.2	342.8	---	1.833	3.01	1.141	86.0	157.0	33.8	0.157
4-2300	4-2720	0.225	260.5	-25.2	-0.50	0.713	75.4	0.299	1.412	136.9	352.4	---	1.833	2.24	1.144	86.3	147.6	32.5	0.145
4-2300	4-2730	0.226	260.7	-23.6	0.04	0.713	75.3	0.300	1.413	136.7	362.2	0.989	1.836	1.82	1.146	90.5	137.5	31.9	0.142
4-2300	4-2740	0.230	260.8	-22.4	0.43	0.713	74.9	0.305	1.413	136.4	372.0	0.982	1.843	1.57	1.148	92.8	129.0	30.9	0.153
4-2300	4-2750	0.238	260.7	-21.6	0.73	0.713	74.3	0.314	1.411	136.1	381.9	0.969	1.854	1.43	1.149	95.2	123.9	29.5	0.174
4-2300	4-2760	0.248	260.5	-21.0	0.99	0.712	73.4	0.327	1.409	135.8	391.8	0.948	1.870	1.34	1.150	97.7	122.1	27.9	0.204
4-2300	4-2770	0.265	260.1	-20.5	1.23	0.711	72.2	0.346	1.406	135.6	401.7	0.920	1.892	1.30	1.150	100.4	122.8	26.3	0.241
4-2300	4-2780	0.285	259.6	-20.2	1.46	0.709	70.5	0.371	1.402	135.5	411.8	0.882	1.923	1.31	1.149	103.3	125.3	24.8	0.285
4-2300	4-2920	0.253	133.4	19.0	0.43	0.653	112.2	0.468	1.267	211.7	627.3	0.674	1.859	-1.57	1.089	64.5	59.4	17.2	0.481
4-2300	4-2930	0.202	138.9	18.6	0.72	0.649	107.3	0.418	1.258	208.1	633.4	0.733	1.784	-1.43	1.085	67.9	66.1	18.1	0.419
4-2300	4-2940	0.160	148.6	17.1	0.96	0.644	102.8	0.381	1.247	202.7	637.5	0.772	1.723	-1.35	1.081	70.2	73.7	18.9	0.375
4-2300	4-2950	0.289	230.5	-16.6	1.19	0.573	72.6	0.531	1.127	163.1	607.4	0.529	1.724	-1.31	1.039	58.4	99.6	21.1	0.558
4-2300	4-2950	0.129	166.8	12.1	1.19	0.636	97.9	0.359	1.232	194.6	639.0	0.790	1.674	-1.31	1.075	71.4	82.8	19.5	0.349
4-2300	4-3090	0.442	273.2	-24.3	-0.22	0.827	60.7	0.501	1.879	106.7	327.0	---	2.820	2.01	1.219	79.1	186.9	6.1	0.289
4-2300	4-3090	0.112	155.9	8.9	-0.22	0.660	98.4	0.317	1.280	199.0	779.3	0.874	1.686	2.01	1.112	103.2	56.2	27.8	0.280
4-2300	4-3100	0.433	274.0	-23.5	0.24	0.828	61.5	0.491	1.884	105.4	335.7	---	2.809	1.69	1.222	82.1	186.2	6.1	0.255
4-2300	4-3100	0.098	180.2	1.6	0.24	0.652	94.3	0.310	1.263	189.7	780.0	0.872	1.655	1.69	1.110	103.1	66.8	28.5	0.274
4-2350	4-2670	0.293	277.7	-17.8	2.63	0.692	72.3	0.376	1.300	143.8	287.0	---	1.788	-1.14	1.104	72.1	161.0	4.1	0.330
4-2350	4-2680	0.277	278.9	-16.3	3.06	0.699	73.6	0.350	1.317	142.7	295.7	---	1.778	-1.50	1.111	74.7	164.5	0.6	0.289
4-2350	4-2690	0.266	279.6	-13.6	3.92	0.705	74.7	0.329	1.331	141.9	304.6	---	1.769	-2.31	1.117	77.2	166.3	-5.0	0.252
4-2350	4-2700	0.266	279.1	-5.3	7.00	0.710	75.5	0.312	1.343	141.2	313.8	---	1.762	-5.33	1.123	79.5	162.8	-20.9	0.235
4-2350	4-2710	0.293	281.2	-56.1	-13.12	0.713	76.2	0.298	1.352	140.8	323.4	---	1.755	14.85	1.128	81.9	217.0	52.8	0.329
4-2350	4-2720	0.236	283.3	-27.4	-1.34	0.716	76.7	0.288	1.359	140.4	333.0	---	1.751	3.14	1.132	84.1	181.5	23.2	0.167
4-2350	4-2730	0.232	283.4	-23.2	0.00	0.718	77.0	0.282	1.364	140.1	342.7	---	1.748	1.78	1.135	86.2	174.0	18.4	0.141
4-2350	4-2740	0.230	283.4	-21.4	0.65	0.719	77.1	0.279	1.367	139.8	352.5	---	1.748	1.27	1.138	88.4	166.0	18.2	0.128
4-2350	4-2750	0.232	283.5	-20.4	0.98	0.719	77.0	0.280	1.368	139.5	362.3	0.986	1.751	1.01	1.139	90.5	157.2	19.2	0.128
4-2350	4-2760	0.236	283.5	-19.8	1.20	0.719	76.7	0.284	1.368	139.1	372.1	0.980	1.757	0.86	1.141	92.7	149.7	19.9	0.138
4-2350	4-2770	0.243	283.4	-19.4	1.37	0.719	76.1	0.292	1.367	138.7	381.9	0.968	1.766	0.77	1.141	94.9	145.0	19.8	0.158
4-2350	4-2780	0.254	283.2	-19.2	1.41	0.718	75.3	0.304	1.365	138.3	391.6	0.949	1.780	0.71	1.141	97.2	143.4	19.1	0.184
4-2350	4-2790	0.268	283.0	-19.2	1.64	0.717	74.2	0.321	1.361	137.8	401.3	0.924	1.799	0.69	1.140	99.7	144.1	18.0	0.218
4-2350	4-2800	0.287	282.8	-19.2	1.76	0.716	72.7	0.344	1.358	137.3	411.0	0.891	1.825	0.69	1.138	102.4	146.5	16.6	0.258
4-2350	4-2940	0.246	161.6	11.2	1.18	0.660	112.2	0.470	1.230	211.3	623.1	0.652	1.809	-0.87	1.076	63.7	81.3	21.5	0.484
4-2350	4-2950	0.194	161.8	9.7	1.35	0.656	107.1	0.418	1.222	207.6	629.0	0.711	1.733	-0.78	1.072	67.2	88.3	21.6	0.420
4-2350	4-2960	0.155	180.9	6.3	1.48	0.650	102.4	0.381	1.211	201.9	632.8	0.750	1.673	-0.72	1.069	69.5	96.3	21.4	0.376
4-2350	4-2970	0.137	201.2	-0.8	1.60	0.642	97.3	0.360	1.196	193.4	633.9	0.766	1.627	-0.69	1.064	70.7	105.8	20.7	0.351
4-2350	4-3110	0.134	173.3	7.5	0.83	0.678	102.2	0.333	1.268	207.1	784.6	0.846	1.690	1.12	1.113	104.7	75.6	26.8	0.301
4-2350	4-3110	0.249	151.3	14.3	0.83	0.704	113.2	0.438	1.327	221.0	798.5	0.746	1.909	1.12	1.129	111.5	67.8	24.7	0.427
4-2350	4-3120	0.457	297.6	-19.7	1.10	0.640	61.9	0.485	1.842	104.5	332.1	---	2.735	0.93	1.220	81.0	208.8	-7.3	0.265
4-2350	4-3120	0.107	201.6	-2.0	1.10	0.666	96.6	0.309	1.243	195.1	782.8	0.859	1.627	0.93	1.167	103.5	87.9	27.1	0.274
4-2350	4-3130	0.449	298.2	-19.2	1.29	0.641	62.5	0.476	1.847	103.2	341.0	---	2.726	0.81	1.221	83.9	207.1	-6.7	0.235
4-2350	4-3130	0.113	222.4	-8.8	1.29	0.660	93.0	0.307	1.229	186.8	784.6	0.852	1.607	0.81	1.104	103.8	98.1	26.4	0.274
4-2350	4-3140	0.444	298.5	-18.9	1.44	0.841	62.9	0.471	1.850	102.4	350.4	---	2.722	0.74	1.222	86.9	202.8	-5.0	0.214
4-2350	4-3140	0.129	237.1	-13.0	1.44	0.655	89.9	0.313	1.220	179.8	787.8	0.837	1.602	0.74	1.102	104.5	107.4	25.3	0.283
4-2350	4-3150	0.443	298.6	-18.6	1.58	0.842	63.0	0.469	1.853	102.1	360.2	0.983	2.723	0.70	1.222	90.1	195.9	-2.3	0.206
4-2350	4-3150	0.152	247.3	-15.5	1.58	0.651	87.0	0.326	1.212	173.7	791.9	0.817	1.607	0.70	1.099	105.7	116.1	23.8	0.300
4-2400	4-2690	0.297	300.9	-16.8	1.75	0.703	73.8	0.360	1.248	145.4	283.7	---	1.698	0.13	1.095	72.1	182.8	-0.7	0.322
4-2400	4-2700	0.280	302.1	-16.4	1.70	0.711	75.1	0.334	1.266	144.3	292.5	---	1.688	0.17	1.102	74.7	187.3	-2.5	0.281
4-2400	4-2710	0.266	303.0	-16.1	1.63	0.718	76.1	0.311	1.281	143.5	301.7	---	1.680	0.24	1.109	77.2	191.5	-3.7	0.243
4-2400	4-2720	0.254	303.9	-16.2	1.42	0.723	77.0	0.293	1.294	142.9	311.1	---	1.673	0.43	1.115	79.5	194.7	-3.8	0.208
4-2400	4-2730	0.244	306.2	-22.5	-0.93	0.727	77.7	0.278	1.304	142.5	320.7	---	1.667	2.78	1.120	81.7	202.2	8.9	0.184
4-2400	4-2740	0.239	304.1	-12.6	2.46	0.730	78.2	0.260	1.311	142.2	330.4	---	1.662	-0.62	1.124	83.9	193.2	-10.7	0.151
4-2400	4-2750	0.234	304.7	-13.4	2.12	0.732	78.6	0.260	1.316	141.9	340.3	---	1.659	-0.28	1.127	86.0	191.1	-7.4	0.130
4-2400	4-2760	0.232	305.0	-13.6	2.01	0.734	78.7	0.256	1.320	141.7	350.2	---	1.658	-0.19	1.129	88.0	185.7	-4.4	0.117
4-2400	4-2770	0.232	305.2	-13.7	1.94	0.734	78.7	0.256	1.322	141.4	360.1	0.984	1.659	-0.14	1.130	90.0	178.4	-0.9	0.113
4-2400	4-2780	0.235	305.4	-13.8	1.93	0.734	78.5	0.258	1.322	141.0	369.9	0.980	1.663	-0.12	1.130	92.0	171.5	2.4	0.120
4-2400	4-2790	0.240	305.6	-14.0	1.90	0.734	78.1	0.264	1.321	140.5	379.6	0.972	1.670	-0.10	1.130	94.1	166.9	4.7	0.135
4-2400	4-2800	0.249	305.7	-14.3	1.88	0.733	77.4	0.274	1.319	139.9	389.1	0.957	1.681	-0.10	1.129	96.1	164.9	5.7	0.157
4-2400	4-2810	0.261	305.8	-14.6	1.86	0.732	76.5	0.288	1.316	139.2	398.6	0.937	1.696	-0.09	1.127	98.3	165.3	5.7	0.185
4-2400	4-2820	0.277	305.9	-14.9	1.85	0.731	75.2	0.307	1.313	138.4	408.0	0.911	1.716	-0.09	1.125	100.7	167.4	4.9	0.219
4-2400	4-2830	0.298	306.0	-15.4	1.83	0.729	73.6	0.331	1.309	137.6	417.3	0.876	1.743	-0.09	1.122	103.3	170.6	3.6	0.258
4-2400	4-2960	0.261	186.6	2.2	1.93	0.680	113.3	0.475	1.200	213.1	619.6	0.630	1.770	0.12	1.065	62.9	1 .8	23.1	0.487
4-2400	4-2970	0.205	193.7	0.5	1.91	0.676	108.0	0.416	1.193	209.9	625.9	0.696	1.690	0.11	1.063	66.8	110.6	22.4	0.417
4-2400	4-2980	0.166	205.0	-2.6	1.89	0.672	103.4	0.375	1.184	206.7	630.3	0.740	1.628	0.10	1.060	69.5	118.3	21.2	0.367
4-2400	4-2990	0.143	222.3	-7.6	1.87	0.666	98.8	0.348	1.173	197.4	632.5	0.764	1.581	0.09	1.057	71.1	127.0	19.4	0.336
4-2400	4-3000	0.149	248.2	-14.2	1.86	0.655	93.1	0.342	1.153	186.1	630.8	0.759	1.548	0.09	1.052	71.2	137.7	16.6	0.330
4-2400	4-3140	0.477	320.9	-12.4	1.94	0.860	62.2	0.483	1.797	102.8	326.3	---	2.664	-0.13	1.215	79.2	235.1	-20.1	0.287
4-2400	4-3140	0.119	222.2	-4.8	1.94	0.690	98.3	0.299	1.221	200.5	784.1	0.856	1.585	-0.13	1.102	103.4	109.2	21.7	0.263
4-2400	4-3150	0.466	321.6	-12.1	1.91	0.961	63.0	0.471	1.803	101.2	334.9	---	2.652	-0.11	1.216	82.0	235.5	-20.2	0.253
4-2400	4-3150	0.120	243.7	-10.6	1.91	0.683	94.5	0.290	1.206	191.2	784.9	0.856	1.555	-0.11	1.098	103.2	119.5	20.2	0.254
4-2400	4-3160	0.458	322.1	-11.9	1.89	0.862	63.7	0.463	1.808	99.9	343.8	---	2.644	-0.10	1.217	84.9	233.3	-19.7	0.225
4-2400	4-3160	0.134	258.8	-13.9	1.89	0.678	91.5	0.292	1.196	183.6	787.5	0.846	1.545	-0.10	1.094	103.7	128.6	18.3	0.258
4-2400	4-3170	0.453	322.4	-11.8	1.87	0.862	64.0	0.457	1.811	99.1	353.2	---	2.640	-0.09	1.216	87.9	226.2	-18.5	0.207
4-2400	4-3170	0.153	269.5	-15.7	1.87	0.674	88.7	0.300	1.188	177.0	791.1	0.831	1.544	-0.09	1.090	104.5	137.0	16.1	0.270
4-2400	4-3180	0.452	322.6	-11.8	1.86	0.863	64.1	0.456	1.814	98.8	363.1	0.986	2.641	-0.09	1.215	91.0	220.5	-16.3	0.201
4-2400	4-3180	0.178	277.3	-16.8	1.86	0.670	86.0	0.314	1.181	171.1	795.4	0.810	1.552	-0.09	1.087	105.7	145.0	13.6	0.287
4-2400	4-3190	0.455	322.4	-11.9	1.84	0.863	63.9	0.461	1.815	99.2	373.5	0.979	2.651	-0.09	1.214	94.3	212.4	-13.6	0.213
4-2400	4-3190	0.206	283.2	-17.5	1.84	0.667	83.1	0.334	1.175	165.8	800.1	0.783	1.567	-0.09	1.083	107.3	152.5	11.0	0.311
4-2400	4-3200	0.465	322.0	-12.1	1.82	0.863	63.2	0.471	1.816	100.3	384.7	0.961	2.671	-0.09	1.212	97.9	205.7	-11.2	0.244
4-2400	4-3200	0.234	287.7	-17.9	1.82	0.664	79.9	0.360	1.170	161.0	805.4	0.749	1.591	-0.09	1.080	109.2	159.6	8.3	0.342

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2450	4-2710	0.297	324.0	-12.7	0.81	0.716	74.8	0.350	1.192	146.8	278.4	---	1.609	1.21	1.082	71.7	205.7	-6.5	0.325
4-2450	4-2720	0.278	325.3	-12.9	0.47	0.726	76.1	0.321	1.212	145.7	287.2	---	1.601	1.46	1.091	74.3	211.2	-6.9	0.284
4-2450	4-2730	0.262	326.6	-13.9	-0.06	0.734	77.3	0.297	1.228	144.8	296.4	---	1.593	1.90	1.099	76.8	216.8	-5.8	0.247
4-2450	4-2740	0.249	328.4	-16.6	-1.13	0.740	78.2	0.276	1.242	144.2	305.9	---	1.585	2.88	1.105	79.1	222.7	-1.1	0.217
4-2450	4-2750	0.246	332.6	-26.6	-4.68	0.745	79.0	0.260	1.253	143.8	315.6	---	1.579	6.36	1.110	81.3	232.6	16.7	0.214
4-2450	4-2770	0.237	321.4	3.9	5.80	0.751	80.0	0.238	1.268	143.3	335.5	---	1.570	-4.28	1.116	85.4	207.5	-47.2	0.152
4-2450	4-2780	0.226	324.0	-1.3	3.81	0.753	80.3	0.232	1.273	143.1	345.5	---	1.568	-2.38	1.117	87.3	208.0	-35.7	0.121
4-2450	4-2790	0.222	325.1	-3.5	3.03	0.754	80.4	0.229	1.275	142.9	355.4	---	1.566	-1.68	1.118	89.2	202.8	-28.7	0.108
4-2450	4-2800	0.222	325.9	-4.8	2.54	0.754	80.3	0.230	1.277	142.5	365.3	0.986	1.570	-1.33	1.118	91.0	196.2	-22.4	0.105
4-2450	4-2810	0.225	326.5	-5.7	2.30	0.754	80.0	0.233	1.277	142.0	374.9	0.979	1.574	-1.13	1.116	92.8	190.8	-18.9	0.113
4-2450	4-2820	0.230	327.0	-6.5	2.07	0.754	79.6	0.239	1.275	141.3	384.4	0.970	1.581	-1.02	1.115	94.6	187.9	-13.1	0.128
4-2450	4-2830	0.239	327.6	-7.2	1.89	0.753	78.9	0.249	1.273	140.5	393.6	0.956	1.591	-0.95	1.112	96.5	187.5	-10.9	0.149
4-2450	4-2840	0.251	328.2	-7.8	1.72	0.752	78.0	0.263	1.271	139.5	402.7	0.937	1.605	-0.91	1.109	98.5	189.1	-10.1	0.175
4-2450	4-2850	0.267	328.8	-8.4	1.56	0.751	76.7	0.281	1.268	138.5	411.7	0.911	1.624	-0.91	1.106	100.6	191.9	-10.3	0.206
4-2450	4-2860	0.288	329.4	-9.0	1.40	0.749	75.1	0.305	1.264	137.4	420.6	0.878	1.650	-0.94	1.103	103.0	195.7	-11.1	0.243
4-2450	4-2870	0.316	329.9	-9.6	1.23	0.748	72.9	0.337	1.261	136.5	429.5	0.836	1.685	-0.98	1.099	105.8	199.9	-12.3	0.288
4-2450	4-2990	0.240	215.4	-7.4	2.43	0.705	110.0	0.423	1.169	214.0	622.6	0.674	1.664	1.21	1.056	66.0	133.1	20.4	0.423
4-2450	4-3000	0.193	224.2	-9.2	2.18	0.702	105.4	0.373	1.163	209.9	628.1	0.729	1.596	1.07	1.055	69.3	140.0	18.6	0.363
4-2450	4-3010	0.162	237.0	-11.9	1.98	0.697	101.3	0.338	1.154	204.0	631.8	0.764	1.544	0.98	1.054	71.5	147.7	16.3	0.323
4-2450	4-3020	0.148	255.3	-14.8	1.82	0.691	97.1	0.317	1.143	199.9	633.3	0.781	1.505	0.93	1.052	72.8	156.4	13.2	0.299
4-2450	4-3030	0.162	280.3	-16.6	1.66	0.680	91.7	0.317	1.124	183.6	630.7	0.768	1.480	0.91	1.047	72.5	167.0	8.8	0.301
4-2450	4-3160	0.139	236.8	-5.6	2.80	0.722	100.4	0.289	1.202	208.1	785.5	0.855	1.550	-1.49	1.096	103.2	128.2	12.3	0.253
4-2450	4-3160	0.284	202.3	-2.3	2.80	0.755	114.6	0.441	1.278	226.5	803.9	0.715	1.842	-1.49	1.118	112.7	119.3	17.1	0.429
4-2450	4-3170	0.473	345.0	-2.1	2.44	0.885	63.4	0.470	1.759	98.9	326.5	---	2.506	-1.23	1.209	79.5	268.8	-28.5	0.288
4-2450	4-3170	0.127	259.5	-9.8	2.44	0.713	96.1	0.470	1.184	197.2	784.8	0.865	1.503	-1.23	1.089	102.3	138.9	10.0	0.232
4-2450	4-3180	0.461	345.8	-2.1	2.19	0.887	64.3	0.458	1.765	97.1	334.8	---	2.574	-1.07	1.209	82.2	269.7	-28.5	0.254
4-2450	4-3180	0.133	275.7	-12.2	2.19	0.707	93.2	0.266	1.173	188.9	786.6	0.861	1.485	-1.07	1.084	102.5	148.0	7.7	0.230
4-2450	4-3190	0.451	346.4	-2.1	1.98	0.887	64.9	0.449	1.770	95.7	343.5	---	2.564	-0.98	1.208	84.9	268.0	-28.6	0.226
4-2450	4-3190	0.147	287.7	-13.3	1.98	0.703	90.7	0.269	1.165	181.8	789.6	0.851	1.479	-0.98	1.080	103.0	156.4	5.2	0.235
4-2450	4-3200	0.445	346.9	-2.2	1.81	0.888	65.4	0.443	1.773	94.7	352.6	---	2.559	-0.93	1.207	87.7	263.0	-28.7	0.206
4-2450	4-3200	0.165	296.7	-13.8	1.81	0.700	88.2	0.278	1.159	175.4	793.3	0.837	1.481	-0.93	1.076	103.8	164.2	2.5	0.247
4-2450	4-3210	0.443	347.2	-2.4	1.65	0.889	65.5	0.441	1.776	94.3	362.2	0.992	2.560	-0.91	1.205	90.7	255.0	-28.3	0.198
4-2450	4-3210	0.187	303.7	-14.0	1.65	0.697	87.6	0.291	1.153	169.5	797.5	0.817	1.489	-0.91	1.071	105.0	171.7	-0.3	0.264
4-2450	4-3220	0.446	347.2	-2.7	1.49	0.889	65.3	0.444	1.778	94.5	372.4	0.988	2.568	-0.91	1.203	93.8	245.6	-26.9	0.207
4-2450	4-3220	0.213	309.3	-14.0	1.49	0.694	83.1	0.310	1.148	164.1	802.0	0.792	1.504	-0.91	1.067	106.4	178.9	-3.1	0.286
4-2450	4-3230	0.455	347.0	-3.2	1.32	0.889	64.7	0.453	1.779	95.6	383.5	0.972	2.586	-0.95	1.201	97.3	237.6	-25.1	0.233
4-2450	4-3230	0.244	313.8	-14.0	1.32	0.692	80.2	0.335	1.144	159.2	807.0	0.760	1.527	-0.95	1.063	108.2	185.9	-5.5	0.316
4-2450	4-3240	0.472	346.4	-3.9	1.14	0.889	63.5	0.471	1.780	97.7	395.5	0.942	2.618	-1.02	1.198	101.2	232.2	-23.4	0.279
4-2450	4-3240	0.282	317.4	-13.9	1.14	0.689	76.7	0.369	1.140	154.8	812.5	0.719	1.561	-1.02	1.059	110.6	192.7	-8.5	0.365
4-2500	4-2730	0.284	345.9	-6.3	-0.04	0.726	75.8	0.346	1.136	149.0	271.8	---	1.529	1.87	1.068	71.1	229.4	-12.4	0.334
4-2500	4-2740	0.264	347.3	-7.0	-0.48	0.737	77.2	0.313	1.158	147.8	280.7	---	1.521	2.14	1.078	73.8	235.5	-11.9	0.293
4-2500	4-2750	0.246	348.7	-8.6	-0.11	0.747	78.4	0.285	1.177	146.9	289.9	---	1.513	2.61	1.086	76.2	241.5	-11.9	0.257
4-2500	4-2760	0.232	350.6	-11.6	-2.12	0.754	79.4	0.262	1.193	146.3	299.4	---	1.506	3.48	1.093	78.6	247.3	-5.0	0.227
4-2500	4-2770	0.226	353.7	-18.4	-4.25	0.760	80.3	0.243	1.206	145.9	309.1	---	1.500	5.46	1.097	80.7	253.6	6.8	0.211
4-2500	4-2780	0.273	2.7	-40.1	-12.58	0.765	80.9	0.229	1.217	145.6	318.9	---	1.495	13.64	1.101	82.7	265.9	37.0	0.296
4-2500	4-2800	0.220	336.5	18.4	7.31	0.771	81.9	0.209	1.230	145.6	339.5	---	1.487	-6.52	1.104	86.5	236.4	-70.9	0.165
4-2500	4-2810	0.201	341.2	10.7	4.49	0.772	82.1	0.204	1.234	145.4	349.5	---	1.486	-3.85	1.104	88.2	234.7	-58.3	0.122
4-2500	4-2820	0.195	343.4	6.9	3.29	0.773	82.1	0.202	1.236	145.2	359.4	---	1.486	-2.80	1.103	89.9	227.6	-50.0	0.105
4-2500	4-2830	0.194	344.9	4.5	2.59	0.774	82.0	0.202	1.237	144.7	369.0	0.997	1.487	-2.35	1.102	91.5	220.1	-42.4	0.101
4-2500	4-2840	0.196	346.1	2.8	2.10	0.774	81.8	0.206	1.237	144.1	378.4	0.983	1.491	-1.93	1.100	93.1	214.9	-35.6	0.106
4-2500	4-2850	0.201	347.2	1.6	1.73	0.773	81.3	0.212	1.236	143.2	387.6	0.974	1.497	-1.74	1.097	94.7	212.9	-30.5	0.119
4-2500	4-2860	0.209	348.4	0.5	1.42	0.772	80.7	0.221	1.234	142.1	396.4	0.962	1.506	-1.63	1.094	96.3	213.3	-27.2	0.137
4-2500	4-2870	0.220	349.7	-0.3	1.14	0.771	79.8	0.233	1.231	140.8	405.0	0.951	1.519	-1.58	1.090	98.1	215.6	-25.5	0.160
4-2500	4-2880	0.235	350.9	-1.0	0.87	0.770	78.6	0.250	1.228	139.4	413.4	0.940	1.535	-1.58	1.087	99.9	219.2	-24.8	0.188
4-2500	4-2890	0.255	352.2	-1.6	0.59	0.769	77.1	0.272	1.225	137.9	421.7	0.892	1.558	-1.62	1.083	102.0	223.6	-24.8	0.221
4-2500	4-2900	0.281	353.4	-2.1	0.29	0.767	75.2	0.301	1.222	136.5	430.0	0.854	1.589	-1.71	1.080	104.4	228.5	-25.1	0.261
4-2500	4-3020	0.247	243.3	-14.9	2.36	0.729	108.4	0.391	1.142	215.3	623.8	0.695	1.589	2.10	1.051	67.9	162.2	13.3	0.384
4-2500	4-3030	0.202	251.8	-16.0	1.95	0.726	104.1	0.344	1.136	210.9	629.1	0.746	1.527	1.85	1.051	70.9	168.9	10.1	0.330
4-2500	4-3040	0.172	263.8	-17.2	1.61	0.722	100.3	0.311	1.129	204.7	632.7	0.777	1.480	1.70	1.051	72.9	176.4	7.9	0.294
4-2500	4-3050	0.156	280.2	-17.6	1.32	0.716	96.5	0.292	1.118	196.4	634.2	0.792	1.445	1.65	1.050	74.1	185.0	4.3	0.273
4-2500	4-3060	0.162	302.8	-15.9	1.04	0.707	91.8	0.291	1.102	184.3	631.9	0.781	1.423	1.57	1.046	73.9	195.3	-0.3	0.275
4-2500	4-3190	0.150	263.7	-9.4	2.92	0.744	99.2	0.264	1.172	208.0	787.0	0.862	1.481	-2.50	1.082	102.4	155.0	-2.0	0.230
4-2500	4-3200	0.452	10.6	9.3	2.34	0.910	64.4	0.460	1.725	95.4	324.4	---	2.517	-2.08	1.200	79.0	306.2	-27.8	0.298
4-2500	4-3200	0.137	281.7	-10.8	2.34	0.737	95.7	0.248	1.157	198.0	787.0	0.870	1.444	-2.08	1.075	101.8	164.9	-4.8	0.213
4-2500	4-3210	0.438	11.6	9.1	1.92	0.911	65.4	0.447	1.731	93.3	332.4	---	2.504	-1.85	1.199	81.6	308.0	-27.4	0.264
4-2500	4-3210	0.137	296.1	-11.4	1.92	0.732	93.2	0.244	1.148	189.9	789.0	0.868	1.428	-1.83	1.070	101.8	173.9	-5.3	0.211
4-2500	4-3220	0.426	12.5	8.8	1.58	0.912	66.2	0.436	1.736	91.5	340.6	---	2.493	-1.68	1.197	84.1	307.7	-27.8	0.234
4-2500	4-3220	0.145	307.8	-11.2	1.58	0.728	90.9	0.246	1.141	182.7	791.8	0.860	1.422	-1.68	1.065	102.3	182.2	-9.9	0.215
4-2500	4-3230	0.418	13.1	8.6	1.28	0.912	66.7	0.429	1.740	90.2	349.2	---	2.487	-1.60	1.195	86.8	304.5	-29.0	0.212
4-2500	4-3230	0.158	317.3	-10.6	1.28	0.725	88.7	0.253	1.135	176.2	795.2	0.848	1.422	-1.60	1.060	102.9	190.2	-12.4	0.225
4-2500	4-3240	0.414	13.6	8.2	1.01	0.913	67.0	0.426	1.743	89.5	358.3	---	2.484	-1.57	1.194	89.5	299.0	-30.6	0.199
4-2500	4-3240	0.176	325.1	-9.9	1.01	0.723	86.5	0.264	1.130	170.1	799.0	0.832	1.429	-1.57	1.055	103.9	198.1	-14.9	0.239
4-2500	4-3250	0.414	13.9	7.7	0.74	0.913	67.0	0.426	1.745	89.4	368.1	1.001	2.489	-1.59	1.191	92.4	288.9	-31.9	0.199
4-2500	4-3250	0.197	331.6	-9.1	0.74	0.720	84.1	0.280	1.126	164.5	803.1	0.810	1.442	-1.59	1.051	105.1	205.7	-17.3	0.259
4-2500	4-3260	0.421	13.9	7.1	0.45	0.913	66.6	0.433	1.746	90.2	378.6	0.991	2.502	-1.66	1.189	95.6	279.2	-32.2	0.217
4-2500	4-3260	0.225	337.0	-8.3	0.45	0.718	81.5	0.303	1.122	159.2	807.6	0.783	1.463	-1.66	1.047	106.6	213.3	-19.6	0.286
4-2500	4-3270	0.435	13.5	6.2	0.14	0.914	65.6	0.447	1.747	92.0	390.2	0.967	2.528	-1.78	1.187	99.2	271.5	-31.7	0.255
4-2500	4-3270	0.259	341.5	-7.6	0.14	0.716	78.4	0.333	1.119	154.4	812.5	0.746	1.491	-1.78	1.043	108.7	220.8	-21.6	0.321
4-2550	4-2740	0.279	3.8	0.7	-0.36	0.706	76.0	0.385	1.060	155.1	257.1	---	1.467	1.85	1.040	67.7	246.8	-17.0	0.388
4-2550	4-2750	0.252	5.0	-0.0	-0.72	0.724	77.7	0.342	1.089	153.7	265.8	---	1.461	2.00	1.054	70.7	253.2	-16.7	0.341

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL
4-2550	4-2760	0.229	6.0	-1.3	-1.14	0.738	79.1	0.405	1.114	152.7	275.0	---	1.455
4-2550	4-2770	0.210	7.0	-3.3	-1.66	0.750	80.4	0.274	1.136	152.0	284.4	---	1.448
4-2550	4-2780	0.195	8.2	-6.5	-2.39	0.759	81.4	0.249	1.155	151.6	294.2	---	1.442
4-2550	4-2790	0.185	10.0	-11.7	-3.57	0.767	82.3	0.227	1.170	151.5	304.3	---	1.436
4-2550	4-2800	0.188	13.7	-21.6	-6.01	0.772	83.0	0.211	1.182	151.5	314.5	---	1.431
4-2550	4-2810	0.270	22.9	-43.8	-15.11	0.777	83.5	0.198	1.191	151.6	324.6	---	1.428
4-2550	4-2830	0.186	345.4	31.4	7.73	0.782	84.2	0.182	1.203	152.2	345.8	---	1.422
4-2550	4-2840	0.159	353.0	20.5	4.28	0.783	84.3	0.178	1.206	152.1	355.6	---	1.422
4-2550	4-2850	0.152	356.6	14.4	2.83	0.784	84.3	0.178	1.208	151.7	365.3	0.993	1.422
4-2550	4-2860	0.150	359.1	10.3	1.98	0.784	84.1	0.179	1.208	151.1	374.6	0.992	1.424
4-2550	4-2870	0.153	1.4	8.5	1.41	0.784	83.8	0.183	1.207	150.1	383.5	0.987	1.428
4-2550	4-2880	0.157	3.6	6.8	0.97	0.783	83.4	0.189	1.206	148.8	392.0	0.978	1.433
4-2550	4-2890	0.165	5.8	5.7	0.60	0.782	82.7	0.197	1.203	147.2	400.2	0.966	1.441
4-2550	4-2900	0.175	8.2	4.9	0.27	0.781	81.9	0.209	1.201	145.4	408.1	0.950	1.451
4-2550	4-2910	0.188	10.6	4.5	-0.04	0.779	80.8	0.224	1.198	143.3	415.7	0.930	1.466
4-2550	4-2920	0.206	13.1	4.3	-0.36	0.778	79.5	0.243	1.194	141.2	423.2	0.904	1.485
4-2550	4-2930	0.230	15.5	4.3	-0.70	0.776	77.5	0.269	1.191	139.1	430.7	0.870	1.511
4-2550	4-2940	0.261	17.8	4.4	-1.09	0.775	75.1	0.304	1.187	137.2	438.3	0.827	1.548
4-2550	4-3050	0.277	271.8	-19.5	1.76	0.739	108.0	0.386	1.176	215.2	622.1	0.684	1.546
4-2550	4-3060	0.222	279.3	-19.8	1.24	0.735	103.6	0.338	1.169	210.4	627.2	0.734	1.484
4-2550	4-3070	0.194	289.8	-19.6	0.83	0.731	99.7	0.306	1.161	203.8	630.4	0.765	1.438
4-2550	4-3080	0.173	304.6	-18.1	0.47	0.725	95.8	0.288	1.091	194.8	631.4	0.777	1.405
4-2550	4-3090	0.172	327.0	-13.0	0.18	0.714	90.6	0.292	1.073	181.5	628.2	0.760	1.387
4-2550	4-3220	0.200	275.5	-15.6	2.38	0.765	102.2	0.282	1.153	216.2	794.4	0.835	1.492
4-2550	4-3230	0.181	291.5	-14.6	1.60	0.753	97.6	0.249	1.143	204.5	792.7	0.858	1.428
4-2550	4-3240	0.397	40.7	18.8	1.19	0.924	66.2	0.437	1.701	91.0	329.0	---	2.445
4-2550	4-3240	0.148	305.0	-13.8	1.19	0.748	94.8	0.239	1.132	195.7	793.7	0.862	1.403
4-2550	4-3250	0.384	41.7	18.3	0.79	0.925	67.1	0.426	1.707	89.0	336.8	---	2.434
4-2550	4-3250	0.144	317.4	-12.5	0.79	0.744	92.5	0.236	1.125	188.0	795.8	0.859	1.391
4-2550	4-3260	0.375	42.6	17.8	0.44	0.926	67.7	0.418	1.711	87.4	345.0	---	2.425
4-2550	4-3260	0.147	328.8	-10.6	0.44	0.741	90.3	0.239	1.119	180.9	798.5	0.851	1.387
4-2550	4-3270	0.368	43.2	17.2	0.12	0.927	68.1	0.412	1.714	86.4	353.7	---	2.421
4-2550	4-3270	0.156	336.9	-8.5	0.12	0.738	88.1	0.247	1.114	174.2	801.5	0.839	1.389
4-2550	4-3280	0.367	43.8	16.6	-0.19	0.927	68.3	0.411	1.717	86.0	362.9	1.011	2.423
4-2550	4-3280	0.170	347.7	-6.3	-0.19	0.735	85.9	0.259	1.109	168.0	804.9	0.821	1.397
4-2550	4-3290	0.370	43.7	15.8	-0.53	0.929	68.0	0.415	1.719	86.4	372.9	1.006	2.432
4-2550	4-3290	0.191	355.4	-4.2	-0.52	0.733	83.4	0.278	1.106	162.0	808.6	0.798	1.413
4-2550	4-3300	0.382	43.4	14.9	-0.87	0.928	67.3	0.425	1.720	87.8	383.9	0.989	2.451
4-2550	4-3300	0.219	2.0	-2.3	-0.87	0.731	80.5	0.304	1.102	156.5	812.7	0.768	1.437
4-2550	4-3310	0.403	42.6	13.9	-1.30	0.928	65.9	0.445	1.721	90.6	396.3	0.955	2.486
4-2550	4-3310	0.256	7.5	-0.6	-1.30	0.730	77.0	0.360	1.099	151.6	817.3	0.726	1.472
4-2600	4-2740	0.300	14.0	5.3	-0.39	0.927	77.3	0.495	0.952	166.3	236.7	---	1.424
4-2600	4-2750	0.260	14.9	4.7	-0.98	0.861	79.1	0.431	0.993	164.9	245.4	---	1.421
4-2600	4-2760	0.227	15.2	3.6	-0.96	0.688	80.7	0.375	1.031	163.9	254.5	---	1.418
4-2600	4-2770	0.200	15.1	1.8	-1.25	0.710	82.2	0.328	1.065	163.3	264.1	---	1.414
4-2600	4-2780	0.178	14.7	-0.6	-1.55	0.728	83.4	0.288	1.095	163.1	274.1	---	1.409
4-2600	4-2790	0.160	13.7	-3.7	-1.91	0.742	84.5	0.255	1.119	163.4	284.5	---	1.405
4-2600	4-2800	0.147	12.6	-7.6	-2.34	0.753	85.4	0.229	1.140	164.0	295.3	---	1.401
4-2600	4-2810	0.138	12.0	-12.6	-2.94	0.761	86.1	0.208	1.157	164.9	306.4	---	1.398
4-2600	4-2820	0.136	12.4	-19.2	-3.89	0.768	86.7	0.192	1.170	165.8	317.4	---	1.395
4-2600	4-2830	0.144	15.3	-29.0	-5.76	0.772	87.1	0.181	1.180	166.7	328.4	---	1.393
4-2600	4-2840	0.206	25.5	-45.5	-11.85	0.775	87.4	0.173	1.187	167.3	339.0	---	1.392
4-2600	4-2860	0.146	340.7	33.5	6.65	0.779	87.6	0.165	1.194	167.9	359.8	---	1.391
4-2600	4-2870	0.118	350.5	18.3	3.06	0.779	87.5	0.165	1.193	167.3	369.0	0.998	1.392
4-2600	4-2880	0.113	355.9	10.7	1.68	0.779	87.3	0.166	1.194	166.3	377.8	0.996	1.393
4-2600	4-2890	0.113	2.3	6.7	0.87	0.778	87.0	0.170	1.193	164.8	386.1	0.990	1.395
4-2600	4-2900	0.115	4.6	4.6	0.34	0.777	86.5	0.175	1.190	162.9	393.9	0.982	1.398
4-2600	4-2910	0.120	7.0	3.6	-0.05	0.776	85.8	0.181	1.187	160.6	401.3	0.972	1.403
4-2600	4-2920	0.126	9.3	3.5	-0.37	0.774	85.0	0.190	1.184	157.9	408.3	0.958	1.409
4-2600	4-2930	0.134	11.6	4.0	-0.66	0.772	84.0	0.202	1.180	155.1	415.0	0.942	1.418
4-2600	4-2940	0.146	13.8	4.8	-0.93	0.770	82.8	0.216	1.176	152.0	421.5	0.921	1.430
4-2600	4-2950	0.161	16.0	6.0	-1.20	0.768	81.3	0.235	1.171	148.8	427.9	0.896	1.447
4-2600	4-2960	0.182	18.4	7.3	-1.48	0.766	79.5	0.259	1.167	145.7	434.3	0.864	1.470
4-2600	4-2970	0.210	20.0	8.6	-1.79	0.764	77.1	0.291	1.163	142.8	440.8	0.824	1.501
4-2600	4-2980	0.248	42.0	9.9	-2.17	0.762	73.9	0.335	1.158	140.3	447.9	0.771	1.546
4-2600	4-3090	0.264	309.9	-18.4	0.17	0.717	103.2	0.362	1.076	206.0	621.0	0.686	1.465
4-2600	4-3100	0.222	320.4	-16.5	-0.20	0.711	98.5	0.331	1.066	198.0	623.0	0.713	1.419
4-2600	4-3110	0.196	337.1	-11.8	-0.52	0.707	93.2	0.323	1.051	186.7	621.8	0.712	1.390
4-2600	4-3260	0.263	298.6	-19.6	0.60	0.761	104.9	0.320	1.157	218.5	804.4	0.786	1.527
4-2600	4-3270	0.348	73.3	23.4	0.15	0.921	66.6	0.427	1.677	91.4	327.0	---	2.394
4-2600	4-3270	0.203	311.1	-18.0	0.15	0.748	99.1	0.273	1.131	206.5	802.1	0.823	1.440
4-2600	4-3280	0.335	74.3	22.6	-0.21	0.922	67.5	0.416	1.683	89.4	334.6	---	2.383
4-2600	4-3280	0.177	322.2	-16.2	-0.21	0.742	95.8	0.257	1.119	197.4	802.6	0.831	1.407
4-2600	4-3290	0.326	75.1	21.9	-0.61	0.923	68.2	0.407	1.687	87.8	342.6	---	2.375
4-2600	4-3290	0.162	333.3	-13.8	-0.51	0.737	93.1	0.253	1.110	189.3	804.1	0.830	1.391
4-2600	4-3300	0.319	75.7	21.2	-0.79	0.923	68.6	0.402	1.691	86.7	351.1	---	2.370
4-2600	4-3300	0.157	344.7	-10.7	-0.79	0.733	90.6	0.255	1.104	181.7	806.2	0.822	1.385
4-2600	4-3310	0.317	76.0	20.5	-1.06	0.924	68.8	0.400	1.693	86.2	360.2	1.016	2.371
4-2600	4-3310	0.156	356.1	-7.1	-1.06	0.730	88.1	0.263	1.098	174.6	808.6	0.809	1.387
4-2600	4-3320	0.320	15.9	19.8	-1.33	0.924	68.8	0.403	1.695	86.4	370.0	1.012	2.379

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2550	4-2760	2.19	1.065	71.5	259.3	-15.6	0.299
4-2550	4-2770	2.51	1.074	76.0	265.2	-13.3	0.261
4-2550	4-2780	3.05	1.081	78.4	270.4	-9.2	0.228
4-2550	4-2790	4.05	1.086	80.5	274.8	-1.5	0.203
4-2550	4-2800	6.32	1.089	82.5	278.2	13.8	0.198
4-2550	4-2810	15.25	1.091	84.3	283.7	45.0	0.210
4-2550	4-2830	-7.92	1.091	87.8	307.0	-81.8	0.174
4-2550	4-2840	-4.63	1.090	89.3	271.7	-70.3	0.121
4-2550	4-2850	-3.35	1.088	90.8	257.0	-61.5	0.102
4-2550	4-2860	-2.69	1.086	92.2	247.6	-53.3	0.099
4-2550	4-2870	-2.31	1.083	93.6	242.2	-46.2	0.104
4-2550	4-2880	-2.07	1.080	94.9	240.8	-40.8	0.116
4-2550	4-2890	-1.93	1.076	96.3	242.2	-37.2	0.132
4-2550	4-2900	-1.86	1.073	97.8	245.4	-34.8	0.152
4-2550	4-2910	-1.85	1.070	99.3	249.7	-33.4	0.176
4-2550	4-2920	-1.89	1.067	101.1	254.9	-32.5	0.205
4-2550	4-2930	-1.99	1.064	103.1	260.6	-31.8	0.241
4-2550	4-2940	-2.14	1.062	105.7	266.5	-31.2	0.285
4-2550	4-3050	2.53	1.049	68.0	181.0	2.3	0.380
4-2550	4-3060	2.21	1.049	71.1	198.0	-0.3	0.326
4-2550	4-3070	2.01	1.049	73.0	205.9	-3.3	0.292
4-2550	4-3080	1.90	1.047	74.0	215.0	-6.6	0.274
4-2550	4-3090	1.85	1.042	73.6	226.3	-10.6	0.283
4-2550	4-3220	-2.99	1.072	104.2	178.9	-12.9	0.255
4-2550	4-3230	-2.48	1.063	102.5	189.7	-17.0	0.221
4-2550	4-3240	-2.18	1.188	80.7	342.7	-17.7	0.274
4-2550	4-3240	-2.18	1.056	102.1	199.4	-19.7	0.211
4-2550	4-3250	-2.00	1.186	83.1	342.7	-17.8	0.244
4-2550	4-3250	-2.00	1.051	102.2	208.5	-22.1	0.211
4-2550	4-3260	-1.89	1.184	85.6	341.2	-19.1	0.218
4-2550	4-3260	-1.89	1.046	102.6	217.5	-24.2	0.217
4-2550	4-3270	-1.85	1.183	88.1	337.0	-21.4	0.201
4-2550	4-3270	-1.85	1.041	103.3	226.3	-26.0	0.228
4-2550	4-3280	-1.86	1.181	90.8	330.0	-24.3	0.196
4-2550	4-3280	-1.86	1.037	104.2	235.0	-27.5	0.245
4-2550	4-3290	-1.93	1.180	93.8	321.3	-26.9	0.205
4-2550	4-3290	-1.93	1.034	105.4	243.7	-28.6	0.267
4-2550	4-3300	-2.06	1.179	97.1	313.0	-28.4	0.233
4-2550	4-3300	-2.06	1.031	107.1	252.1	-29.3	0.298
4-2550	4-3310	-2.28	1.178	101.0	306.7	-28.8	0.282
4-2550	4-3310	-2.28	1.029	109.4	260.3	-29.7	0.339
4-2600	4-2740	1.69	0.988	60.4	257.4	-20.0	0.501
4-2600	4-2750	1.61	1.011	64.5	263.5	-20.0	0.440
4-2600	4-2760	1.59	1.030	68.1	269.6	-19.5	0.384
4-2600	4-2770	1.62	1.046	71.3	275.5	-18.5	0.333
4-2600	4-2780	1.70	1.058	74.3	281.1	-17.0	0.288
4-2600	4-2790	1.86	1.068	76.9	286.1	-14.7	0.248
4-2600	4-2800	2.12	1.075	79.3	290.4	-11.4	0.212
4-2600	4-2810	2.56	1.080	81.5	293.5	-6.3	0.182
4-2600	4-2820	3.35	1.083	83.5	294.8	2.1	0.159
4-2600	4-2830	5.07	1.084	85.3	293.5	17.3	0.154
4-2600	4-2840	11.02	1.084	86.9	289.0	45.3	0.226
4-2600	4-2860	-7.76	1.067	90.0	348.3	-83.1	0.162
4-2600	4-2870	-4.31	1.079	91.3	282.2	-70.2	0.111
4-2600	4-2880	-3.04	1.076	92.5	269.1	-58.3	0.100
4-2600	4-2890	-2.41	1.073	93.7	264.1	-49.4	0.103
4-2600	4-2900	-2.05	1.070	94.9	263.3	-43.2	0.112
4-2600	4-2910	-1.82	1.067	96.0	265.2	-39.0	0.126
4-2600	4-2920	-1.69	1.063	97.2	268.8	-36.1	0.142
4-2600	4-2930	-1.62	1.061	98.4	273.6	-33.9	0.162
4-2600	4-2940	-1.59	1.058	99.8	279.0	-32.2	0.185
4-2600	4-2950	-1.61	1.056	101.3	285.0	-30.7	0.212
4-2600	4-2960	-1.68	1.054	103.1	291.2	-29.2	0.244
4-2600	4-2970	-1.80	1.052	105.4	297.4	-27.6	0.284
4-2600	4-2980	-2.01	1.051	108.3	303.5	-26.0	0.336
4-2600	4-3090	1.94	1.044	69.2	229.4	-12.7	0.359
4-2600	4-3100	1.76	1.042	71.4	238.6	-14.9	0.328
4-2600	4-3110	1.65	1.037	74.5	249.7	-17.0	0.322
4-2600	4-3260	-2.22	1.060	101.2	214.3	-21.7	0.301
4-2600	4-3270	-1.93	1.177	80.3	9.8	-4.7	0.271
4-2600	4-3270	-1.93	1.048	104.6	226.0	-25.4	0.253
4-2600	4-3280	-1.75	1.176	82.6	10.5	-4.6	0.244
4-2600	4-3280	-1.75	1.041	103.9	236.5	-27.4	0.241
4-2600	4-3290	-1.65	1.175	85.0	9.4	-5.6	0.218
4-2600	4-3290	-1.65	1.036	103.8	246.5	-28.7	0.239
4-2600	4-3300	-1.60	1.175	87.5	5.7	-7.8	0.200
4-2600	4-3300	-1.60	1.032	104.0	256.3	-29.4	0.245
4-2600	4-3310	-1.60	1.174	90.0	359.6	-10.9	0.192
4-2600	4-3310	-1.60	1.029	104.6	265.8	-29.6	0.257
4-2600	4-3320	-1.64	1.174	92.9	351.8	-14.1	0.199

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2600	4-3320	0.167	7.0	-3.2	-1.33	0.728	85.4	0.277	1.094	167.9	831.4	0.790	1.397	-1.64	1.026	105.6	275.1	-29.3	0.275
4-2600	4-3330	0.330	75.5	19.1	-1.62	0.924	68.0	0.412	1.697	87.7	380.7	0.998	2.396	-1.73	1.174	96.0	344.3	-16.5	0.224
4-2600	4-3330	0.186	17.0	0.6	-1.62	0.725	82.5	0.299	1.090	161.5	814.6	0.764	1.416	-1.73	1.024	107.0	283.9	-28.5	0.301
4-2600	4-3340	0.350	74.5	18.4	-1.96	0.925	66.7	0.430	1.697	90.1	392.7	0.968	2.427	-1.89	1.174	99.7	338.4	-17.9	0.268
4-2600	4-3340	0.215	25.8	4.0	-1.96	0.723	79.0	0.331	1.086	155.8	818.4	0.727	1.445	-1.89	1.023	109.0	292.2	-27.4	0.338
4-2600	4-3350	0.259	33.2	6.9	-2.38	0.721	74.7	0.377	1.083	150.9	823.0	0.675	1.491	-2.15	1.023	111.9	299.9	-25.9	0.390
4-2610	4-2700	0.574	5.2	3.6	2.21	0.336	70.9	0.862	0.754	176.8	200.8	---	1.403	3.63	0.823	32.4	238.1	-18.3	0.881
4-2610	4-2710	0.488	8.5	4.7	1.08	0.426	72.7	0.773	0.795	174.7	208.6	---	1.410	2.65	0.868	40.9	242.9	-19.1	0.775
4-2610	4-2720	0.417	11.2	5.5	0.42	0.499	74.7	0.684	0.840	172.6	216.5	---	1.414	2.13	0.908	47.9	248.2	-19.8	0.683
4-2610	4-2730	0.357	13.3	5.8	-0.04	0.557	76.6	0.600	0.886	170.7	224.6	---	1.417	1.82	0.945	53.7	253.7	-20.3	0.601
4-2610	4-2740	0.307	14.8	5.6	-0.39	0.605	78.4	0.522	0.931	169.0	233.0	---	1.417	1.64	0.975	58.7	259.5	-20.5	0.528
4-2610	4-2750	0.265	15.5	5.0	-0.69	0.643	80.1	0.453	0.975	167.6	241.8	---	1.416	1.54	1.001	63.1	265.4	-20.4	0.461
4-2610	4-2760	0.229	15.6	3.8	-0.97	0.674	81.7	0.392	1.015	166.7	251.0	---	1.413	1.49	1.023	67.0	271.4	-20.0	0.402
4-2610	4-2770	0.200	15.1	2.0	-1.23	0.699	83.1	0.341	1.052	166.2	260.7	---	1.410	1.48	1.040	70.4	277.2	-19.1	0.348
4-2610	4-2780	0.176	14.0	-0.5	-1.50	0.719	84.3	0.298	1.084	166.2	270.9	---	1.406	1.53	1.054	73.5	282.7	-17.8	0.300
4-2610	4-2790	0.158	12.4	-3.7	-1.80	0.735	85.4	0.262	1.111	166.6	281.5	---	1.403	1.63	1.065	76.3	287.8	-15.8	0.257
4-2610	4-2800	0.144	10.7	-7.5	-2.15	0.747	86.2	0.234	1.134	167.5	292.5	---	1.399	1.81	1.073	78.8	292.2	-13.1	0.219
4-2610	4-2810	0.135	9.2	-12.0	-2.60	0.756	87.0	0.211	1.153	168.6	303.8	---	1.396	2.10	1.078	81.1	295.4	-9.1	0.187
4-2610	4-2820	0.130	8.5	-17.5	-3.25	0.764	87.6	0.194	1.167	169.8	315.2	---	1.394	2.60	1.082	83.1	297.1	-3.1	0.160
4-2610	4-2830	0.132	9.3	-24.6	-4.35	0.769	88.0	0.182	1.178	171.0	326.4	---	1.393	3.55	1.083	85.0	296.5	7.2	0.143
4-2610	4-2840	0.149	14.0	-35.7	-6.81	0.772	88.3	0.174	1.186	171.9	337.3	---	1.392	5.89	1.084	86.7	292.5	26.2	0.151
4-2610	4-2850	0.299	31.4	-53.0	-19.29	0.775	88.4	0.168	1.191	172.2	347.5	---	1.392	18.24	1.083	88.2	285.9	60.7	0.343
4-2610	4-2860	0.229	328.3	46.5	14.00	0.776	88.6	0.165	1.196	172.7	358.4	---	1.391	-15.18	1.081	89.8	73.9	-73.9	0.287
4-2610	4-2870	0.125	343.5	22.8	4.26	0.776	88.5	0.165	1.195	172.1	367.5	0.998	1.392	-5.57	1.079	91.1	294.8	-77.6	0.128
4-2610	4-2880	0.113	350.7	11.3	2.03	0.776	88.2	0.166	1.195	171.1	376.3	0.997	1.392	-3.47	1.076	92.3	273.5	-62.4	0.103
4-2610	4-2890	0.111	355.8	5.8	1.00	0.776	87.9	0.168	1.193	169.6	384.6	0.992	1.394	-2.58	1.073	93.5	267.2	-51.6	0.102
4-2610	4-2900	0.111	0.5	3.1	0.38	0.774	87.4	0.173	1.190	167.6	392.3	0.985	1.396	-2.10	1.070	94.6	265.9	-44.3	0.110
4-2610	4-2910	0.114	5.4	2.0	-0.05	0.773	86.8	0.179	1.187	165.2	399.6	0.975	1.399	-1.82	1.067	95.7	267.4	-39.5	0.122
4-2610	4-2920	0.118	10.5	1.9	-0.39	0.771	86.1	0.186	1.183	162.5	406.5	0.963	1.404	-1.64	1.063	96.8	270.8	-36.2	0.137
4-2610	4-2930	0.124	15.9	2.4	-0.68	0.769	85.2	0.196	1.179	159.5	413.1	0.950	1.411	-1.54	1.060	98.0	275.4	-33.9	0.155
4-2610	4-2940	0.133	21.6	3.5	-0.94	0.767	84.0	0.209	1.175	156.2	419.4	0.929	1.420	-1.49	1.058	99.2	280.8	-32.0	0.176
4-2610	4-2950	0.145	27.3	4.9	-1.18	0.765	82.7	0.225	1.170	152.8	425.6	0.907	1.434	-1.48	1.055	100.6	286.7	-30.3	0.200
4-2610	4-2960	0.162	33.0	6.5	-1.43	0.763	81.0	0.246	1.166	149.4	431.7	0.879	1.452	-1.51	1.053	102.2	292.9	-28.7	0.228
4-2610	4-2970	0.184	38.4	8.2	-1.70	0.760	78.9	0.273	1.161	146.1	437.9	0.844	1.477	-1.59	1.052	104.2	299.2	-27.0	0.263
4-2610	4-2980	0.216	43.4	9.8	-2.01	0.758	76.2	0.308	1.156	143.1	444.5	0.800	1.513	-1.73	1.051	106.6	305.4	-25.3	0.307
4-2610	4-2990	0.259	47.8	11.3	-2.39	0.756	72.6	0.357	1.152	140.7	451.6	0.741	1.564	-1.95	1.050	109.8	311.3	-23.5	0.365
4-2610	4-3000	0.322	51.2	12.6	-2.90	0.754	67.7	0.426	1.148	139.4	459.8	0.659	1.638	-2.32	1.050	114.4	316.7	-21.8	0.445
4-2610	4-3010	0.416	53.0	13.6	-3.68	0.753	60.5	0.526	1.146	140.1	470.1	0.543	1.748	-2.96	1.051	121.1	321.1	-20.2	0.563
4-2610	4-3010	0.566	339.6	-11.3	-3.68	0.398	116.1	0.827	0.781	186.1	876.1	0.135	1.426	-2.96	0.954	143.9	292.3	-23.6	0.848
4-2610	4-3020	0.565	52.4	14.1	-5.11	0.752	49.2	0.673	1.145	144.7	484.4	0.374	1.915	-4.26	1.052	131.9	323.6	-19.1	0.748
4-2610	4-3020	0.552	0.4	-3.2	-5.11	0.337	83.6	0.844	0.754	178.8	878.5	0.118	1.391	-4.26	0.809	145.3	390.5	-22.8	0.862
4-2610	4-3070	0.477	303.9	-18.2	1.59	0.719	120.7	0.566	1.083	213.9	602.6	0.470	1.696	3.08	1.042	55.8	218.2	-10.3	0.588
4-2610	4-3080	0.374	306.6	-18.3	0.73	0.716	112.4	0.465	1.079	212.7	611.4	0.577	1.580	2.37	1.042	62.6	223.8	-11.9	0.472
4-2610	4-3090	0.590	32.3	13.5	0.19	0.562	47.3	0.794	0.890	164.0	572.7	0.183	1.596	1.97	0.946	37.7	254.2	-21.3	0.851
4-2610	4-3090	0.303	311.9	-17.9	0.19	0.712	106.2	0.398	1.072	208.4	617.0	0.645	1.500	1.97	1.042	66.9	231.1	-13.8	0.399
4-2610	4-3100	0.500	32.7	13.3	-0.22	0.587	55.9	0.707	0.913	161.7	588.4	0.267	1.559	1.73	0.963	45.2	260.5	-21.6	0.744
4-2610	4-3100	0.251	320.3	-16.5	-0.22	0.707	101.0	0.356	1.064	201.5	620.2	0.685	1.443	1.73	1.041	69.5	239.8	-15.7	0.355
4-2610	4-3110	0.402	31.2	12.2	-0.54	0.615	65.0	0.603	0.942	160.5	589.4	0.374	1.510	1.58	0.983	53.0	266.3	-21.4	0.625
4-2610	4-3110	0.214	333.4	-13.2	-0.54	0.699	95.8	0.336	1.051	191.8	620.6	0.698	1.404	1.58	1.037	70.7	250.2	-17.5	0.336
4-2610	4-3120	0.276	22.1	7.5	-0.82	0.652	77.2	0.458	0.985	163.8	602.8	0.534	1.436	1.51	1.008	62.8	270.0	-20.6	0.470
4-2610	4-3120	0.204	358.8	-3.5	-0.82	0.681	87.8	0.357	1.025	176.1	615.1	0.659	1.391	1.51	1.027	69.2	263.7	-19.3	0.362
4-2610	4-3180	0.581	66.4	18.7	-2.88	0.892	50.2	0.645	1.551	122.7	262.7	---	2.553	2.30	1.176	55.1	321.8	-11.6	0.685
4-2610	4-3190	0.548	68.3	17.6	-3.69	0.896	52.6	0.615	1.570	118.9	269.0	---	2.535	2.97	1.178	58.2	328.1	-7.9	0.636
4-2610	4-3200	0.519	70.1	15.2	-5.22	0.900	54.8	0.585	1.587	115.1	275.3	---	2.516	4.36	1.179	61.1	333.7	-2.7	0.589
4-2610	4-3210	0.503	71.8	11.2	-9.66	0.903	56.9	0.558	1.603	111.5	281.7	---	2.497	8.67	1.180	63.9	337.3	8.4	0.559
4-2610	4-3230	0.441	71.5	35.8	7.08	0.909	60.6	0.507	1.631	104.6	294.9	---	2.458	-8.32	1.179	69.2	3.4	-20.1	0.472
4-2610	4-3240	0.408	74.8	29.1	2.94	0.912	62.2	0.486	1.642	101.5	301.5	---	2.440	-4.31	1.179	71.7	4.2	-11.0	0.412
4-2610	4-3250	0.384	76.6	26.5	1.46	0.914	63.7	0.466	1.653	98.5	308.3	---	2.423	-2.97	1.178	74.2	7.5	-5.7	0.368
4-2610	4-3260	0.365	78.0	25.1	0.67	0.915	65.0	0.448	1.662	95.7	315.3	---	2.407	-2.32	1.177	76.6	10.9	-4.1	0.329
4-2610	4-3270	0.348	79.3	24.0	0.16	0.917	66.1	0.433	1.669	93.2	322.5	---	2.392	-1.95	1.176	78.9	13.6	-2.5	0.293
4-2610	4-3270	0.262	306.0	-19.4	0.16	0.755	104.2	0.318	1.150	216.4	805.7	0.784	1.515	-1.95	1.055	107.2	224.2	-23.6	0.300
4-2610	4-3270	0.413	295.8	-21.6	0.16	0.784	116.1	0.459	1.211	227.2	816.5	0.656	1.767	-1.95	1.075	115.7	218.9	-19.6	0.454
4-2610	4-3280	0.333	80.4	23.1	-0.22	0.918	67.1	0.420	1.675	91.0	329.9	---	2.380	-1.73	1.175	81.2	15.2	-1.9	0.260
4-2610	4-3280	0.207	317.3	-17.6	-0.22	0.743	98.9	0.277	1.127	205.1	804.0	0.815	1.439	-1.73	1.044	105.0	235.7	-26.6	0.261
4-2610	4-3280	0.527	294.6	-22.3	-0.22	0.803	124.2	0.568	1.258	227.1	825.1	0.543	1.974	-1.73	1.088	122.9	224.4	-19.7	0.585
4-2610	4-3290	0.322	81.2	22.3	-0.53	0.919	67.8	0.410	1.680	89.1	337.7	---	2.370	-1.59	1.174	83.6	15.2	-2.2	
4-2610	4-3290	0.181	327.9	-15.6	-0.53	0.737	95.6	0.263	1.115	196.1	804.7	0.822	1.409	-1.56	1.030	104.4	246.2	-28.4	
4-2610	4-3300	0.313	81.9	21.6	-0.80	0.920	68.4	0.403	1.685	87.7	345.9	---	2.363	-1.51	1.174	84.0	12.9	-3.7	
4-2610	4-3300	0.166	338.9	-12.9	-0.80	0.732	92.8	0.259	1.107	188.0	806.2	0.820	1.394	-1.51	1.033	104.2	256.3	-29.4	
4-2610	4-3310	0.309	82.3	20.9	-1.05	0.920	68.7	0.399	1.688	86.9	354.6	---	2.361	-1.48	1.174	84.5	8.2	-6.4	
4-2610	4-3310	0.160	350.3	-9.5	-1.05	0.729	90.2	0.263	1.100	180.5	808.2	0.811	1.389	-1.48	1.030	104.8	266.1	-29.2	0.256
4-2610	4-3320	0.309	82.5	20.2	-1.30	0.921	68.7	0.399	1.690	86.7	364.0	1.016	2.364	-1.49	1.173	91.1	1.2	-9.4	0.192
4-2610	4-3320	0.161	1.9	-5.6	-1.30	0.725	87.5	0.272	1.095	173.3	810.6	0.797	1.393	-1.49	1.027	105.3	275.6	-28.8	0.269
4-2610	4-3330	0.314	82.2	19.5	-1.56	0.921	68.4	0.404	1.692	87.3	374.1	1.008	2.375	-1.54	1.173	94.1	353.4	-12.4	0.206
4-2610	4-3330	0.171	13.1	-1.4	-1.56	0.723	84.7	0.288	1.090	166.6	813.4	0.776	1.404	-1.54	1.025	108.3	284.6	-28.0	0.289
4-2610	4-3340	0.328	81.6	19.0	-1.84	0.921	67.5	0.416	1.693	89.0	385.3	0.988	2.398	-1.65	1.173	97.4	346.6	-14.5	0.239
4-2610	4-3340	0.191	23.4	2.6	-1.84	0.720	81.5	0.313	1.086	160.3	816.7	0.746	1.426	-1.65	1.023	107.9	293.2	-26.8	0.319
4-2610	4-3350	0.352	80.3	18.4	-2.18	0.921	66.0	0.439	1.693	92.1	397.9	0.950	2.436	-1.82	1.174	101.3	341.7	-15.5	0.291
4-2610	4-3350	0.224	32.5	6.1	-2.18	0.718	77.7	0.349	1.082	154.7	820.6	0.705	1.460	-1.82	1.022	110.1	301.3	-25.3	0.360
4-2610	4-3360	0.393	78.3	18.0	-2.61	0.922	63.4	0.476	1.694	96.9	412.3	0.887	2.500	-2.11	1.175	106.3	338.8	-15.9	0.368

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2610	4-3360	0.273	34.9	9.0	-2.61	0.716	72.9	0.402	1.079	150.1	825.6	0.646	1.513	-2.11	1.022	113.4	308.6	-23.6	0.419
4-2610	4-3360	0.418	339.2	-12.3	-2.61	0.514	104.4	0.662	0.850	187.7	1223.1	0.287	1.414	-2.11	0.892	130.2	285.6	-24.9	0.659
4-2610	4-3370	0.459	75.2	17.7	-3.22	0.922	59.1	0.537	1.694	104.2	429.2	0.786	2.604	-2.58	1.177	112.9	337.0	-15.9	0.480
4-2610	4-3370	0.348	45.4	11.2	-3.22	0.715	66.5	0.479	1.077	147.2	832.2	0.561	1.593	-2.58	1.023	118.5	315.0	-21.8	0.507
4-2610	4-3370	0.391	256.7	-5.1	-3.22	0.496	87.8	0.659	0.838	178.9	1223.8	0.286	1.390	-2.58	0.884	129.7	295.4	-24.1	0.653
4-2610	4-3380	0.570	70.4	17.4	-4.23	0.922	51.7	0.635	1.695	115.4	450.0	0.619	2.772	-3.45	1.178	122.4	335.2	-16.0	0.647
4-2610	4-3380	0.463	48.4	12.7	-4.23	0.734	57.1	0.596	1.075	147.2	841.8	0.435	1.716	-3.45	1.024	126.4	319.7	-20.3	0.645
4-2610	4-3380	0.445	15.1	1.9	-4.23	0.486	71.5	0.712	0.831	172.0	1226.6	0.240	1.422	-3.45	0.880	134.0	304.1	-22.9	0.720
4-2610	4-3390	0.585	25.7	6.6	-5.36	0.481	50.9	0.822	0.823	169.0	1233.2	0.148	1.508	-5.45	0.880	144.3	310.5	-21.6	0.874
4-2620	4-2710	0.522	8.7	4.8	1.30	0.377	76.5	0.819	0.772	176.9	204.6	---	1.404	2.90	0.846	36.8	245.7	-19.8	0.828
4-2620	4-2720	0.440	11.5	5.6	0.48	0.457	77.3	0.725	0.816	175.1	212.7	---	1.408	2.21	0.889	44.8	250.7	-20.3	0.725
4-2620	4-2730	0.373	13.6	5.9	-0.04	0.525	78.6	0.635	0.863	173.3	221.0	---	1.411	1.82	0.929	51.4	256.0	-20.7	0.635
4-2620	4-2740	0.317	15.0	5.7	-0.42	0.580	80.1	0.551	0.911	171.7	229.5	---	1.412	1.59	0.963	56.9	261.6	-20.9	0.555
4-2620	4-2750	0.271	15.6	5.0	-0.72	0.624	81.6	0.476	0.957	170.5	238.5	---	1.412	1.45	0.992	61.6	267.3	-20.8	0.484
4-2620	4-2760	0.232	15.4	3.7	-0.98	0.659	83.0	0.410	1.000	169.7	247.7	---	1.410	1.38	1.016	65.8	273.1	-20.4	0.421
4-2620	4-2770	0.201	14.4	1.8	-1.23	0.687	84.3	0.354	1.039	169.4	257.6	---	1.408	1.35	1.035	69.5	278.8	-19.6	0.364
4-2620	4-2780	0.177	12.7	-0.8	-1.47	0.709	85.4	0.308	1.074	169.6	268.0	---	1.405	1.36	1.050	72.7	284.2	-18.4	0.313
4-2620	4-2790	0.158	10.5	-4.0	-1.72	0.727	86.5	0.269	1.104	170.3	278.9	---	1.402	1.42	1.062	75.7	289.3	-16.7	0.267
4-2620	4-2800	0.144	8.0	-7.8	-2.01	0.741	87.3	0.239	1.130	171.4	290.2	---	1.399	1.54	1.071	78.3	293.6	-14.4	0.227
4-2620	4-2810	0.135	5.7	-12.0	-2.36	0.751	88.0	0.215	1.150	172.8	301.8	---	1.397	1.73	1.077	80.7	297.0	-11.3	0.192
4-2620	4-2820	0.130	3.9	-16.7	-2.82	0.759	88.6	0.197	1.166	174.4	313.4	---	1.396	2.06	1.081	82.8	298.9	-6.8	0.162
4-2620	4-2830	0.129	3.3	-22.1	-3.53	0.765	89.0	0.184	1.178	175.8	325.0	---	1.395	2.63	1.083	84.7	298.7	0.4	0.139
4-2620	4-2840	0.134	5.1	-29.1	-4.82	0.769	89.3	0.175	1.187	176.9	336.1	---	1.395	3.80	1.084	86.5	295.6	13.0	0.129
4-2620	4-2850	0.155	13.1	-41.9	-8.33	0.772	89.5	0.170	1.192	177.6	346.7	---	1.395	7.19	1.083	88.1	288.7	36.1	0.160
4-2620	4-2870	0.151	333.9	31.7	7.09	0.774	89.5	0.165	1.197	177.4	366.6	0.999	1.395	-8.47	1.080	90.9	11.6	-85.7	0.173
4-2620	4-2880	0.117	344.8	12.8	2.66	0.773	89.3	0.166	1.196	176.3	375.3	0.997	1.395	-3.15	1.077	92.2	276.9	-67.8	0.111
4-2620	4-2890	0.112	350.8	4.9	1.19	0.773	88.9	0.168	1.194	174.8	383.5	0.993	1.396	-2.60	1.075	93.3	269.5	-54.0	0.103
4-2620	4-2900	0.111	355.8	1.4	0.43	0.771	88.5	0.172	1.192	172.7	391.2	0.987	1.397	-2.17	1.070	94.4	267.8	-45.3	0.109
4-2620	4-2910	0.112	0.9	-0.0	-0.06	0.770	87.9	0.177	1.188	170.2	398.4	0.977	1.399	-1.81	1.067	95.5	269.1	-39.8	0.119
4-2620	4-2920	0.115	6.3	-0.3	-0.42	0.768	87.2	0.184	1.184	167.4	405.1	0.966	1.402	-1.59	1.064	96.6	272.3	-36.1	0.134
4-2620	4-2930	0.118	12.1	0.4	-0.70	0.766	86.3	0.193	1.180	164.2	411.6	0.952	1.407	-1.46	1.060	97.7	276.8	-33.6	0.150
4-2620	4-2940	0.124	18.3	1.6	-0.95	0.764	85.3	0.204	1.175	160.8	417.7	0.935	1.414	-1.38	1.058	98.8	282.2	-31.6	0.169
4-2620	4-2950	0.133	24.8	3.3	-1.18	0.761	84.0	0.218	1.170	157.3	423.7	0.915	1.425	-1.35	1.055	100.1	288.1	-29.8	0.191
4-2620	4-2960	0.146	31.3	5.2	-1.41	0.759	82.4	0.236	1.165	153.6	429.6	0.890	1.439	-1.36	1.053	101.5	294.3	-28.1	0.216
4-2620	4-2970	0.164	37.7	7.3	-1.64	0.756	80.5	0.258	1.160	150.0	435.5	0.860	1.460	-1.40	1.051	103.2	300.6	-26.4	0.247
4-2620	4-2980	0.189	43.7	9.5	-1.90	0.754	78.2	0.288	1.155	146.6	441.6	0.822	1.488	-1.49	1.050	105.3	307.0	-24.6	0.285
4-2620	4-2990	0.224	49.1	11.2	-2.20	0.752	75.1	0.329	1.150	142.5	448.1	0.772	1.528	-1.64	1.049	108.0	313.1	-22.7	0.333
4-2620	4-3000	0.273	53.7	12.8	-2.58	0.749	71.0	0.384	1.146	141.2	455.4	0.706	1.586	-1.88	1.049	111.6	318.9	-20.7	0.398
4-2620	4-3010	0.346	57.0	14.2	-3.11	0.747	65.3	0.463	1.142	140.3	464.1	0.613	1.671	-2.28	1.049	116.9	324.0	-18.9	0.490
4-2620	4-3020	0.456	58.4	15.2	-3.96	0.746	56.8	0.578	1.140	142.1	475.5	0.480	1.799	-3.02	1.050	124.8	327.8	-17.4	0.628
4-2620	4-3020	0.555	350.9	-6.7	-3.96	0.364	107.8	0.834	0.768	183.7	877.1	0.127	1.409	-3.02	0.824	144.5	301.7	-22.0	0.855
4-2620	4-3030	0.586	9.7	1.1	-5.71	0.312	73.9	0.875	0.748	177.6	880.7	0.093	1.403	-4.64	0.866	149.0	309.2	-20.7	0.913
4-2620	4-3070	0.575	310.4	-16.7	1.99	0.711	128.3	0.661	1.077	211.3	593.7	0.365	1.789	3.53	1.039	48.8	222.2	-12.1	0.706
4-2620	4-3080	0.440	311.2	-17.2	0.86	0.709	117.4	0.531	1.074	212.7	605.1	0.504	1.644	2.51	1.040	58.2	226.6	-13.3	0.548
4-2620	4-3090	0.310	315.0	-17.0	0.21	0.706	109.8	0.444	1.069	209.9	612.4	0.594	1.583	2.00	1.041	63.9	233.2	-14.9	0.451
4-2620	4-3100	0.539	37.4	14.9	-0.23	0.564	51.8	0.757	0.896	163.4	575.9	0.217	1.575	1.70	0.953	41.0	263.1	-22.0	0.805
4-2620	4-3100	0.286	321.6	-16.0	-0.23	0.701	103.9	0.389	1.061	204.3	616.8	0.649	1.473	1.70	1.040	67.5	241.4	-16.6	0.391
4-2620	4-3110	0.444	36.7	14.2	-0.57	0.592	60.8	0.661	0.923	161.7	584.3	0.313	1.533	1.52	0.971	48.8	269.2	-21.8	0.691
4-2620	4-3110	0.238	331.9	-13.6	-0.57	0.694	98.5	0.356	1.050	195.9	618.5	0.676	1.424	1.52	1.037	69.4	251.1	-18.2	0.358
4-2620	4-3120	0.331	32.0	11.7	-0.85	0.624	71.3	0.538	0.957	162.2	594.9	0.442	1.473	1.41	0.993	57.5	274.2	-21.3	0.556
4-2620	4-3120	0.209	350.1	-7.4	-0.85	0.682	92.0	0.353	1.032	183.6	616.3	0.667	1.396	1.41	1.030	69.5	263.0	-19.5	0.358
4-2620	4-3180	0.590	71.5	20.0	-2.56	0.885	48.8	0.662	1.535	125.2	259.0	---	2.552	1.87	1.173	53.3	323.7	-11.8	0.714
4-2620	4-3190	0.556	73.4	19.2	-3.11	0.889	51.3	0.631	1.555	121.4	265.3	---	2.535	2.29	1.175	56.5	330.2	-8.6	0.663
4-2620	4-3200	0.524	75.2	17.7	-4.03	0.894	53.6	0.600	1.573	117.6	271.6	---	2.517	3.07	1.177	59.5	336.2	-4.5	0.614
4-2620	4-3210	0.497	76.9	14.5	-5.96	0.897	55.8	0.571	1.590	114.0	277.9	---	2.498	4.88	1.177	62.3	341.2	1.7	0.570
4-2620	4-3220	0.502	77.5	2.1	-13.84	0.901	57.8	0.545	1.605	110.5	284.3	---	2.479	12.65	1.178	65.1	1.0	19.4	0.565
4-2620	4-3230	0.503	76.1	51.2	17.74	0.904	59.7	0.518	1.619	106.9	291.1	---	2.458	-19.07	1.177	67.8	19.4	-33.0	0.583
4-2620	4-3240	0.413	80.4	31.8	4.22	0.906	61.4	0.496	1.632	103.7	297.6	---	2.440	-5.65	1.177	70.3	7.8	-12.3	0.440
4-2620	4-3250	0.387	82.4	27.6	1.82	0.909	62.9	0.475	1.643	100.6	304.3	---	2.423	-3.37	1.176	72.8	10.3	-6.1	0.391
4-2620	4-3260	0.366	84.0	25.6	0.78	0.910	64.3	0.456	1.652	97.8	311.1	---	2.406	-2.45	1.176	75.2	13.8	-2.8	0.350
4-2620	4-3270	0.347	85.3	24.3	0.18	0.912	65.5	0.440	1.661	95.1	318.2	---	2.391	-1.97	1.175	77.6	16.9	-0.7	0.312
4-2620	4-3280	0.332	86.4	23.3	-0.24	0.914	66.5	0.425	1.668	92.8	325.5	---	2.377	-1.69	1.174	79.9	19.2	0.5	0.277
4-2620	4-3280	0.263	312.9	-18.7	-0.24	0.748	103.8	0.319	1.144	214.4	807.2	0.779	1.509	-1.69	1.051	107.4	234.0	-25.1	0.304
4-2620	4-3280	0.443	301.8	-21.1	-7.24	0.782	117.8	0.484	1.217	226.7	819.4	0.627	1.806	-1.69	1.075	117.4	227.7	-21.2	0.485
4-2620	4-3290	0.319	87.3	2.5	-0.56	0.915	67.4	0.414	1.673	90.8	333.1	---	2.366	-1.52	1.173	82.2	20.1	0.7	0.245
4-2620	4-3290	0.211	323.5	-16.9	0.56	0.737	98.7	0.283	1.123	203.7	806.0	0.805	1.441	-1.52	1.041	105.5	245.5	-27.3	0.269
4-2620	4-3290	0.551	301.2	-21.5	-0.56	0.801	125.6	0.588	1.262	226.1	828.4	0.520	2.004	-1.52	1.087	124.4	233.4	-21.5	0.612
4-2620	4-3300	0.309	88.1	21.7	-0.83	0.916	68.1	0.405	1.678	89.1	341.0	---	2.357	-1.42	1.173	84.6	19.1	-0.1	0.219
4-2620	4-3300	0.185	333.8	-14.6	-0.83	0.731	95.3	0.270	1.112	194.8	806.7	0.811	1.412	-1.42	1.035	104.9	256.0	-28.3	0.259
4-2620	4-3310	0.302	88.6	21.0	-1.06	0.916	68.5	0.399	1.682	88.0	349.4	---	2.352	-1.36	1.172	87.0	15.7	-2.0	0.200
4-2620	4-3310	0.169	344.6	-11.7	-1.06	0.726	92.4	0.267	1.103	186.7	808.2	0.808	1.398	-1.36	1.031	104.8	266.1	-28.6	0.260
4-2620	4-3320	0.300	88.9	20.3	-1.29	0.917	68.7	0.397	1.685	87.4	358.4	---	2.353	-1.35	1.172	89.5	9.8	-4.8	0.191
4-2620	4-3320	0.163	356.1	-8.0	-1.29	0.723	89.7	0.272	1.097	179.2	810.2	0.799	1.395	-1.35	1.027	105.2	275.8	-28.3	0.268
4-2620	4-3330	0.302	88.8	19.7	-1.52	0.917	68.6	0.399	1.687	87.6	368.1	1.014	2.359	-1.37	1.172	92.3	2.3	-8.8	0.195
4-2620	4-3330	0.164	7.9	-3.8	-1.52	0.720	86.9	0.283	1.091	172.0	812.6	0.783	1.400	-1.37	1.025	106.0	285.1	-27.5	0.283
4-2620	4-3340	0.311	88.4	19.2	-1.76	0.917	68.1	0.407	1.688	88.6	378.7	1.001	2.375	-1.44	1.173	95.4	354.8	-10.7	0.217
4-2620	4-3340	0.176	19.5	0.7	-1.76	0.717	83.8	0.302	1.086	165.3	815.4	0.759	1.414	-1.44	1.023	107.2	293.9	-26.3	0.306
4-2620	4-3350	0.328	87.5	18.7	-2.03	0.918	66.9	0.423	1.689	90.8	390.4	0.974	2.403	-1.55	1.173	98.9	349.0	-12.3	0.258
4-2620	4-3350	0.198	30.2	4.9	-2.03	0.714	80.4	0.330	1.082	159.2	818.8	0.725	1.439	-1.55	1.022	108.9	302.2	-24.7	0.339
4-2620	4-3360	0.358	85.9	18.4	-2.37	0.918	65.0	0.451	1.689	94.5	403.6	0.928	2.451	-1.74	1.174	103.2	345.2	-13.1	0.320

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2620	4-3360	0.235	39.4	8.4	-2.37	0.712	76.2	0.371	1.079	153.8	822.9	0.678	1.479	-1.74	1.022	111.5	310.0	-22.8	0.386
4-2620	4-3370	0.407	83.5	18.3	-2.80	0.918	61.8	0.496	1.689	100.1	418.9	0.851	2.529	-2.04	1.176	108.7	343.0	-13.2	0.402
4-2620	4-3370	0.292	46.8	11.2	-2.80	0.710	70.8	0.432	1.076	149.6	828.3	0.611	1.540	-2.04	1.022	115.4	316.9	-20.9	0.454
4-2620	4-3370	0.407	350.0	-8.1	-2.80	0.499	99.4	0.664	0.844	184.8	1223.6	0.284	1.404	-2.04	0.889	130.3	295.6	-23.5	0.662
4-2620	4-3380	0.488	79.8	18.2	-3.46	0.918	56.6	0.570	1.690	108.6	437.0	0.727	2.453	-2.57	1.178	116.2	341.6	-13.2	0.539
4-2620	4-3380	0.379	51.9	13.3	-3.46	0.709	83.4	0.522	1.074	147.4	835.8	0.513	1.634	-2.57	1.023	121.3	322.6	-19.0	0.557
4-2620	4-3380	0.404	8.8	-0.6	-3.46	0.484	82.8	0.679	0.833	176.6	1224.9	0.267	1.400	-2.57	0.882	131.3	305.0	-22.1	0.680
4-2620	4-3390	0.515	54.0	14.6	-4.61	0.708	52.3	0.656	1.072	149.0	847.0	0.369	1.776	-3.60	1.025	130.9	326.6	-17.5	0.721
4-2620	4-3390	0.483	24.1	5.8	-4.61	0.476	65.0	0.751	0.828	170.7	1228.8	0.206	1.449	-3.60	0.880	137.4	312.9	-20.5	0.773
4-2630	4-2710	0.568	8.5	4.7	1.65	0.331	83.6	0.866	0.752	179.0	200.5	---	1.402	3.29	0.825	31.9	248.6	-20.4	0.891
4-2630	4-2720	0.471	11.3	5.5	0.56	0.411	81.6	0.770	0.794	177.5	208.9	---	1.406	2.31	0.870	41.2	253.2	-20.8	0.774
4-2630	4-2730	0.394	13.4	5.8	-0.05	0.490	81.7	0.673	0.842	175.9	217.4	---	1.408	1.82	0.913	48.7	258.3	-21.2	0.673
4-2630	4-2740	0.331	14.7	5.6	-0.45	0.552	82.5	0.582	0.891	174.5	226.1	---	1.410	1.54	0.950	54.9	263.6	-21.3	0.586
4-2630	4-2750	0.280	15.1	4.8	-0.76	0.603	83.5	0.501	0.940	173.5	235.2	---	1.410	1.37	0.982	60.1	269.1	-21.2	0.509
4-2630	4-2760	0.238	14.5	3.4	-1.01	0.645	84.7	0.430	0.986	172.9	244.7	---	1.409	1.27	1.009	64.6	274.7	-20.8	0.440
4-2630	4-2770	0.205	13.0	1.3	-1.24	0.675	85.8	0.369	1.028	172.8	254.8	---	1.408	1.22	1.030	68.5	280.2	-20.0	0.379
4-2630	4-2780	0.179	10.7	-1.4	-1.45	0.700	86.9	0.318	1.066	173.2	265.5	---	1.406	1.20	1.047	72.0	285.5	-19.0	0.325
4-2630	4-2790	0.160	7.8	-4.8	-1.67	0.720	87.8	0.277	1.099	174.3	276.7	---	1.404	1.23	1.060	75.1	290.5	-17.5	0.276
4-2630	4-2800	0.147	4.6	-8.4	-1.91	0.735	88.6	0.244	1.127	175.7	288.3	---	1.402	1.30	1.070	77.9	298.8	-15.6	0.234
4-2630	4-2810	0.138	1.5	-12.3	-2.18	0.747	89.3	0.219	1.150	177.5	300.3	---	1.401	1.43	1.077	80.3	298.1	-13.0	0.197
4-2630	4-2820	0.133	359.0	-16.3	-2.52	0.755	89.9	0.200	1.167	179.4	312.3	---	1.401	1.64	1.082	82.6	300.1	-9.6	0.165
4-2630	4-2830	0.131	357.5	-20.5	-3.00	0.762	90.3	0.187	1.180	181.2	324.1	---	---	2.00	1.084	84.6	300.2	-4.5	0.139
4-2630	4-2840	0.133	357.6	-25.6	-3.77	0.766	90.5	0.178	1.190	182.5	335.5	---	---	2.65	1.085	86.4	297.6	3.8	0.121
4-2630	4-2850	0.142	0.8	-33.1	-5.35	0.769	90.7	0.172	1.196	183.3	346.3	---	---	4.12	1.084	88.0	291.6	18.8	0.121
4-2630	4-2860	0.198	14.9	-42.9	-11.12	0.770	90.7	0.169	1.199	183.5	356.4	---	---	9.78	1.083	89.5	282.2	47.0	0.197
4-2630	4-2870	0.324	321.2	49.2	21.14	0.771	90.7	0.168	1.200	183.4	366.5	0.999	---	-22.58	1.081	90.9	90.5	-66.2	0.415
4-2630	4-2880	0.129	338.2	16.6	3.91	0.771	90.4	0.168	1.199	182.1	374.9	0.998	---	-5.44	1.078	92.1	279.9	-75.9	0.129
4-2630	4-2890	0.118	345.7	4.4	1.50	0.770	90.1	0.170	1.197	180.4	383.0	0.994	---	-3.14	1.075	93.3	270.5	-56.9	0.107
4-2630	4-2900	0.115	351.1	-0.3	0.50	0.768	89.6	0.173	1.194	178.2	390.5	0.987	1.401	-2.25	1.071	94.4	268.8	-46.1	0.109
4-2630	4-2910	0.115	356.2	-2.2	-0.07	0.766	89.1	0.178	1.190	175.6	397.6	0.979	1.402	-1.80	1.068	95.4	270.2	-39.8	0.119
4-2630	4-2920	0.115	1.6	-2.5	-0.45	0.764	88.3	0.184	1.186	172.6	404.2	0.968	1.404	-1.54	1.064	96.5	273.4	-35.8	0.132
4-2630	4-2930	0.117	7.6	-1.9	-0.74	0.762	87.5	0.191	1.181	169.3	410.5	0.955	1.407	-1.37	1.061	97.5	277.9	-33.1	0.147
4-2630	4-2940	0.120	14.1	-0.6	-0.98	0.759	86.5	0.201	1.176	165.8	416.5	0.939	1.412	-1.27	1.058	98.6	283.2	-31.0	0.165
4-2630	4-2950	0.126	21.0	1.3	-1.20	0.757	85.3	0.213	1.170	162.0	422.3	0.921	1.420	-1.22	1.055	99.7	289.1	-29.2	0.185
4-2630	4-2960	0.135	28.3	3.5	-1.40	0.754	83.8	0.228	1.165	158.1	427.9	0.899	1.431	-1.20	1.053	101.0	295.3	-27.5	0.208
4-2630	4-2970	0.148	35.6	5.9	-1.60	0.752	82.3	0.248	1.159	154.2	433.6	0.872	1.447	-1.22	1.051	102.5	301.8	-25.7	0.235
4-2630	4-2980	0.168	42.7	8.4	-1.82	0.749	80.0	0.274	1.154	150.4	439.3	0.838	1.470	-1.27	1.050	104.4	308.2	-23.8	0.268
4-2630	4-2990	0.195	49.3	10.7	-2.06	0.746	77.3	0.307	1.149	146.9	445.3	0.796	1.502	-1.37	1.049	106.6	314.5	-21.8	0.309
4-2630	4-3000	0.235	55.1	12.7	-2.35	0.744	73.8	0.353	1.144	143.9	451.9	0.741	1.547	-1.53	1.048	108.5	320.6	-19.8	0.363
4-2630	4-3010	0.291	59.8	14.4	-2.72	0.742	69.1	0.416	1.140	141.9	459.5	0.666	1.614	-1.78	1.048	113.8	326.2	-17.7	0.436
4-2630	4-3020	0.376	62.9	15.8	-3.28	0.740	62.4	0.507	1.136	141.6	468.9	0.560	1.712	-2.22	1.049	119.9	330.9	-15.9	0.543
4-2630	4-3030	0.507	63.6	16.8	-4.23	0.739	52.2	0.640	1.134	144.7	481.6	0.408	1.860	-3.07	1.051	129.4	334.1	-14.5	0.706
4-2630	4-3030	0.561	1.4	-2.1	-4.23	0.331	99.6	0.851	0.759	181.7	878.6	0.113	1.405	-3.07	0.817	146.3	310.6	-19.9	0.680
4-2630	4-3080	0.524	316.9	-15.7	1.04	0.701	123.9	0.614	1.068	211.2	597.5	0.412	1.725	2.72	1.038	52.3	230.1	-14.8	0.648
4-2630	4-3090	0.408	319.0	-15.9	0.24	0.698	114.3	0.503	1.064	210.6	606.9	0.329	1.599	2.04	1.039	60.1	235.7	-16.1	0.517
4-2630	4-3100	0.577	41.8	16.3	-0.25	0.540	47.6	0.804	0.881	165.3	571.6	0.173	1.588	1.66	0.942	36.9	265.7	-22.3	0.866
4-2630	4-3100	0.327	324.0	-15.2	-0.25	0.694	107.2	0.429	1.057	206.4	632.7	0.603	1.511	1.66	1.038	64.8	243.3	-17.5	0.436
4-2630	4-3110	0.484	41.8	15.9	-0.61	0.568	56.8	0.715	0.905	183.2	579.5	0.258	1.552	1.44	0.960	44.6	271.9	-22.1	0.754
4-2630	4-3110	0.269	332.2	-13.3	-0.61	0.687	101.3	0.385	1.047	199.2	615.6	0.645	1.450	1.44	1.036	67.6	252.5	-18.9	0.389
4-2630	4-3120	0.380	39.0	14.3	-0.88	0.599	66.8	0.604	0.936	162.4	589.0	0.371	1.501	1.31	0.981	53.0	277.5	-21.6	0.628
4-2630	4-3120	0.227	346.2	-8.9	-0.88	0.677	95.0	0.366	1.032	188.8	615.4	0.654	1.411	1.31	1.030	68.7	263.4	-19.9	0.372
4-2630	4-3180	0.600	76.6	20.9	-2.33	0.877	47.4	0.680	1.519	127.8	255.4	---	2.551	1.52	1.170	51.6	325.5	-11.8	0.744
4-2630	4-3190	0.564	78.6	20.3	-2.73	0.882	50.0	0.647	1.539	124.0	261.6	---	2.534	1.79	1.173	54.8	332.1	-8.8	0.691
4-2630	4-3200	0.531	80.4	19.3	-3.31	0.886	52.4	0.615	1.558	120.2	267.9	---	2.517	2.26	1.174	57.8	338.3	-5.3	0.640
4-2630	4-3210	0.500	82.1	17.5	-4.35	0.890	54.7	0.585	1.576	116.5	274.2	---	2.498	3.18	1.175	60.8	344.0	-0.8	0.592
4-2630	4-3220	0.477	83.6	12.9	-6.94	0.894	56.7	0.557	1.592	112.9	280.6	---	2.479	5.67	1.175	63.6	348.3	6.8	0.551
4-2630	4-3240	0.427	85.5	37.9	7.58	0.900	60.5	0.506	1.620	106.1	293.7	---	2.441	-9.06	1.175	68.9	13.6	-17.2	0.479
4-2630	4-3250	0.390	88.3	29.0	2.43	0.903	62.1	0.484	1.632	102.9	300.3	---	2.423	-4.02	1.175	71.4	13.2	-6.2	0.414
4-2630	4-3260	0.368	89.6	26.1	0.94	0.905	63.6	0.464	1.643	100.0	307.1	---	2.406	-2.64	1.174	73.9	16.5	-1.7	0.370
4-2630	4-3270	0.348	91.1	24.5	0.20	0.907	64.9	0.447	1.652	97.2	314.1	---	2.389	-2.01	1.173	76.2	19.9	0.9	0.331
4-2630	4-3280	0.331	92.3	23.3	-0.26	0.908	66.0	0.431	1.660	94.7	321.2	---	2.375	-1.66	1.173	78.6	22.1	2.5	0.294
4-2630	4-3290	0.317	93.3	22.4	-0.60	0.910	66.9	0.418	1.669	92.6	328.7	---	2.362	-1.45	1.172	80.9	24.4	3.2	0.261
4-2630	4-3290	0.265	319.6	-17.8	-0.60	0.741	108.4	0.323	1.139	212.6	808.7	0.771	1.506	-1.45	1.047	107.8	243.9	-26.0	0.310
4-2630	4-3290	0.469	308.0	-20.2	-0.60	0.780	119.5	0.508	1.221	225.9	822.1	0.600	1.842	-3.45	1.075	119.1	236.7	-22.6	0.515
4-2630	4-3300	0.306	94.1	21.6	-0.86	0.911	67.7	0.407	1.671	90.7	336.4	---	2.352	-1.32	1.172	83.2	24.4	3.0	0.232
4-2630	4-3300	0.216	329.6	-15.8	-0.86	0.731	98.5	0.290	1.119	202.2	807.9	0.795	1.443	-1.32	1.038	106.0	255.3	-27.5	0.279
4-2630	4-3300	0.575	307.7	-20.4	-0.86	0.798	127.0	0.608	1.265	224.9	830.6	0.496	2.035	-1.32	1.087	125.9	242.6	-22.9	0.638
4-2630	4-3310	0.297	94.8	20.8	-1.09	0.911	68.3	0.400	1.676	89.3	344.6	---	2.346	-1.24	1.171	85.6	22.3	1.8	0.208
4-2630	4-3310	0.189	339.7	-13.3	-1.09	0.724	95.1	0.278	1.108	193.4	808.7	0.800	1.416	-1.24	1.033	105.4	265.8	-28.0	0.271
4-2630	4-3320	0.293	95.2	20.1	-1.30	0.912	68.6	0.396	1.679	88.5	353.3	---	2.343	-1.21	1.171	88.1	17.6	-0.5	0.193
4-2630	4-3320	0.173	350.5	-10.1	-1.30	0.720	92.0	0.276	1.100	185.4	810.2	0.796	1.403	-1.21	1.029	105.5	275.7	-27.7	0.273
4-2630	4-3330	0.292	95.3	19.5	-1.50	0.913	68.7	0.395	1.681	88.2	362.5	1.017	2.346	-1.21	1.171	90.7	10.7	-3.5	0.190
4-2630	4-3330	0.166	2.2	-8.1	-1.50	0.716	89.1	0.282	1.093	177.8	812.1	0.785	1.401	-1.21	1.026	105.9	285.3	-26.9	0.282
4-2630	4-3340	0.297	95.0	19.0	-1.70	0.913	68.4	0.400	1.683	88.7	372.6	1.010	2.356	-1.24	1.172	93.6	3.0	-6.5	0.202
4-2630	4-3340	0.168	14.3	-1.6	-1.70	0.718	86.1	0.295	1.088	178.7	814.5	0.766	1.407	-1.24	1.024	106.8	294.3	-25.7	0.299
4-2630	4-3350	0.309	94.3	18.7	-1.95	0.913	67.6	0.412	1.684	90.2	383.7	0.991	2.377	-1.31	1.173	96.8	356.3	-8.8	0.233
4-2630	4-3350	0.181	26.3	3.1	41.93	0.710	82.8	0.317	1.083	164.0	817.4	0.740	1.426	-1.31	1.023	108.2	302.9	-24.0	0.325
4-2630	4-3360	0.331	93.1	18.0	-2.19	0.913	66.2	0.432	1.685	93.0	395.9	0.956	2.413	-1.43	1.174	100.6	351.6	-10.0	0.262
4-2630	4-3360	0.207	37.2	7.3	-2.19	0.707	79.0	0.350	1.079	158.0	821.0	0.702	1.456	-1.43	1.022	110.2	310.9	-22.1	0.363
4-2630	4-3370	0.368	91.2	18.4	-2.51	0.913	63.8	0.467	1.685	97.3	409.9	0.898	2.471	-1.63	1.175	105.4	348.8	-10.5	0.355

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2630	4-3370	0.250	46.6	10.8	-2.51	0.705	74.4	0.397	1.075	152.9	825.5	0.648	1.502	-1.63	1.022	113.2	318.2	-20.0	0.416
4-2630	4-3380	0.428	88.3	18.5	-2.96	0.913	59.9	0.523	1.685	103.9	426.1	0.805	2.566	-1.96	1.177	111.5	347.3	-10.5	0.458
4-2630	4-3380	0.316	53.7	13.4	-2.96	0.704	68.2	0.467	1.072	149.3	831.5	0.571	1.574	-1.96	1.023	117.7	324.7	-17.9	0.496
4-2630	4-3380	0.403	0.6	-3.6	-2.96	0.484	90.4	0.674	0.838	182.1	1224.3	0.274	1.403	-1.96	0.886	131.0	305.3	-21.5	0.675
4-2630	4-3390	0.525	83.9	18.8	-3.65	0.913	53.4	0.611	1.686	113.8	445.6	0.655	2.716	-2.55	1.179	120.2	346.0	-10.6	0.610
4-2630	4-3390	0.418	58.3	15.3	-3.65	0.702	59.6	0.572	1.070	148.2	840.0	0.458	1.683	-2.55	1.024	124.8	329.9	-16.0	0.618
4-2630	4-3390	0.424	18.9	3.9	-3.65	0.471	77.2	0.707	0.830	174.6	1226.4	0.243	1.416	-2.55	0.882	133.6	314.1	-19.7	0.717
4-2630	4-3400	0.579	59.1	16.4	-5.01	0.702	46.4	0.725	1.070	151.6	853.2	0.294	1.845	-3.80	1.026	136.4	332.8	-14.7	0.813
4-2630	4-3400	0.532	32.5	9.5	-5.01	0.464	57.3	0.798	0.625	170.1	1231.7	0.166	1.483	-3.80	0.881	141.9	321.0	-17.9	0.841
4-2640	4-2720	0.513	10.7	5.2	0.68	0.361	88.9	0.817	0.776	179.8	205.1	---	1.409	2.45	0.893	36.9	255.9	-21.3	0.831
4-2640	4-2730	0.422	12.7	5.5	-0.05	0.451	86.3	0.774	0.823	178.5	213.9	---	1.410	1.81	0.897	45.6	260.5	-21.5	0.717
4-2640	4-2740	0.350	13.8	5.3	-0.50	0.524	85.9	0.618	0.873	177.4	223.9	---	1.411	1.47	0.938	52.6	263.6	-21.6	0.620
4-2640	4-2750	0.293	14.0	4.4	-0.81	0.581	86.2	0.528	0.924	176.6	232.2	---	1.412	1.27	0.973	58.4	270.8	-21.5	0.535
4-2640	4-2760	0.248	13.0	2.8	-1.05	0.626	86.9	0.450	0.973	176.3	242.0	---	1.413	1.15	1.002	64.3	276.2	-21.1	0.461
4-2640	4-2770	0.212	11.0	0.6	-1.26	0.662	87.8	0.384	1.019	176.5	252.4	---	1.411	1.08	1.026	67.5	281.5	-20.4	0.395
4-2640	4-2780	0.186	8.1	-2.3	-1.45	0.691	88.7	0.329	1.061	177.3	263.4	---	1.410	1.05	1.045	71.2	286.6	-19.5	0.337
4-2640	4-2790	0.167	4.5	-5.7	-1.64	0.713	89.5	0.285	1.097	178.7	275.0	---	1.409	1.05	1.059	74.5	291.4	-18.2	0.286
4-2640	4-2800	0.154	0.8	-9.2	-1.83	0.730	90.2	0.250	1.127	180.6	287.1	---	---	1.09	1.070	77.4	295.6	-16.6	0.241
4-2640	4-2810	0.146	357.1	-12.8	-2.05	0.742	90.8	0.224	1.152	182.9	299.5	---	---	1.17	1.078	80.0	298.8	-14.5	0.201
4-2640	4-2820	0.141	354.2	-16.2	-2.31	0.752	91.3	0.204	1.171	185.2	311.9	---	---	1.31	1.083	82.4	300.8	-11.8	0.167
4-2640	4-2830	0.139	352.1	-19.4	-2.64	0.759	91.7	0.191	1.185	187.2	324.0	---	---	1.53	1.086	84.5	300.9	-8.2	0.139
4-2640	4-2840	0.139	351.4	-22.9	-3.15	0.763	91.9	0.182	1.195	188.8	335.7	---	---	1.92	1.087	86.3	298.4	-2.7	0.119
4-2640	4-2850	0.142	352.4	-27.4	-3.98	0.766	92.1	0.176	1.202	189.7	346.6	---	---	2.67	1.086	88.0	293.0	6.6	0.108
4-2640	4-2860	0.155	357.6	-35.5	-6.00	0.768	92.0	0.173	1.205	189.9	356.7	---	---	4.60	1.085	89.5	284.9	24.2	0.120
4-2640	4-2870	0.304	25.4	-53.6	-19.40	0.768	91.9	0.172	1.206	189.2	365.8	0.999	---	17.91	1.082	90.9	272.3	61.6	0.334
4-2640	4-2880	0.165	329.8	27.3	7.45	0.768	91.7	0.172	1.205	188.3	375.0	0.998	---	-5.03	1.079	92.2	34.2	-89.3	0.184
4-2640	4-2890	0.128	341.0	5.0	2.03	0.767	91.4	0.173	1.202	186.5	382.9	0.994	---	-3.71	1.076	93.3	270.1	-61.0	0.114
4-2640	4-2900	0.123	346.8	-1.7	0.61	0.765	90.9	0.176	1.198	184.2	390.3	0.987	---	-2.38	1.072	94.4	269.1	-46.9	0.111
4-2640	4-2910	0.121	351.9	-4.1	-0.07	0.763	90.3	0.180	1.194	181.4	397.2	0.979	---	-1.75	1.069	95.4	270.6	-39.6	0.120
4-2640	4-2920	0.120	357.1	-4.7	-0.49	0.761	89.6	0.185	1.189	178.2	403.7	0.969	1.409	-1.47	1.065	96.4	274.0	-35.3	0.132
4-2640	4-2930	0.119	2.9	-4.2	-0.79	0.758	88.8	0.192	1.183	174.7	409.8	0.956	1.410	-1.28	1.062	97.4	278.5	-32.5	0.146
4-2640	4-2940	0.120	9.4	-2.9	-1.03	0.755	87.8	0.200	1.177	171.0	415.6	0.942	1.413	-1.16	1.059	98.4	283.9	-30.3	0.163
4-2640	4-2950	0.123	16.5	-1.0	-1.23	0.752	86.6	0.211	1.172	167.1	421.2	0.925	1.416	-1.09	1.056	99.5	289.8	-28.5	0.181
4-2640	4-2960	0.128	24.2	1.4	-1.41	0.749	85.2	0.224	1.166	163.0	426.7	0.904	1.427	-1.05	1.053	100.7	296.1	-26.8	0.202
4-2640	4-2970	0.137	32.3	4.2	-1.58	0.746	83.6	0.241	1.160	158.8	432.0	0.880	1.439	-1.05	1.051	102.0	302.6	-24.9	0.226
4-2640	4-2980	0.151	40.4	7.0	-1.76	0.744	81.6	0.263	1.154	154.7	437.5	0.851	1.457	-1.07	1.050	103.6	309.2	-23.0	0.255
4-2640	4-2990	0.173	48.2	9.8	-1.95	0.741	79.2	0.291	1.148	150.8	443.1	0.814	1.482	-1.13	1.048	105.6	315.6	-21.0	0.291
4-2640	4-3000	0.204	55.3	12.2	-2.18	0.738	76.2	0.329	1.143	147.3	449.1	0.767	1.519	-1.23	1.048	108.1	321.9	-18.8	0.336
4-2640	4-3010	0.249	61.4	14.3	-2.45	0.735	72.2	0.381	1.138	144.4	455.9	0.704	1.571	-1.40	1.048	111.5	327.8	-16.7	0.397
4-2640	4-3020	0.315	66.0	16.0	-2.82	0.733	66.7	0.454	1.133	142.8	463.9	0.619	1.648	-1.67	1.048	116.3	333.1	-15.6	0.482
4-2640	4-3030	0.415	68.7	17.3	-3.40	0.731	58.8	0.559	1.130	143.4	474.2	0.498	1.762	-2.15	1.049	123.5	337.4	-12.8	0.606
4-2640	4-3040	0.571	68.3	18.2	-4.49	0.731	46.6	0.711	1.129	148.1	488.6	0.327	1.931	-3.14	1.051	134.9	339.8	-11.7	0.800
4-2640	4-3040	0.580	11.4	2.5	-4.49	0.296	90.4	0.876	0.751	180.1	880.6	0.093	1.409	-3.14	0.812	149.2	319.2	-17.3	0.920
4-2640	4-3090	0.479	323.9	-14.3	0.28	0.689	119.9	0.575	1.058	210.2	600.3	0.449	1.667	2.09	1.036	55.0	238.9	-17.4	0.602
4-2640	4-3100	0.378	327.3	-14.0	-0.29	0.685	111.3	0.481	1.053	207.7	607.9	0.547	1.558	1.62	1.036	61.5	245.6	-18.5	0.494
4-2640	4-3110	0.522	46.5	17.3	-0.66	0.542	52.7	0.764	0.889	164.8	575.1	0.210	1.567	1.36	0.950	40.5	274.6	-22.3	0.816
4-2640	4-3110	0.305	333.7	-12.7	-0.66	0.679	104.4	0.420	1.044	201.9	612.2	0.605	1.483	1.36	1.034	65.3	254.1	-19.6	0.428
4-2640	4-3120	0.422	44.9	16.3	-0.93	0.573	62.6	0.662	0.916	165.4	583.8	0.309	1.524	1.20	0.969	48.7	280.4	-21.8	0.694
4-2640	4-3120	0.252	344.7	-9.3	-0.93	0.671	98.0	0.389	1.031	193.0	613.4	0.630	1.432	1.20	1.030	67.3	264.4	-20.5	0.396
4-2640	4-3130	0.298	35.6	12.1	-1.16	0.613	75.5	0.520	0.958	165.7	596.2	0.460	1.456	1.11	0.995	58.7	284.4	-21.0	0.538
4-2640	4-3130	0.224	7.6	-0.3	-1.16	0.652	89.0	0.402	1.005	178.8	609.1	0.602	1.409	1.11	1.019	66.3	277.5	-28.8	0.413
4-2640	4-3190	0.573	83.7	21.0	-2.45	0.873	48.6	0.663	1.523	126.5	258.1	---	2.533	1.40	1.170	51.0	333.9	-8.9	0.719
4-2640	4-3200	0.538	85.6	20.3	-2.85	0.878	51.1	0.631	1.543	122.7	254.7	---	2.516	1.69	1.171	56.2	340.3	-5.7	0.667
4-2640	4-3210	0.506	87.4	19.1	-3.47	0.883	53.5	0.600	1.561	119.0	270.6	---	2.498	2.20	1.172	59.2	346.3	-2.0	0.617
4-2640	4-3220	0.477	89.0	16.8	-4.68	0.887	55.7	0.571	1.579	115.4	277.0	---	2.479	3.32	1.173	62.1	351.6	2.9	0.569
4-2640	4-3230	0.460	89.8	9.9	-8.55	0.890	57.7	0.543	1.594	111.9	283.4	---	2.461	7.10	1.173	64.8	354.8	13.3	0.534
4-2640	4-3250	0.396	94.1	31.3	3.72	0.896	61.3	0.494	1.622	105.3	296.6	---	2.423	-5.35	1.173	70.1	16.6	-7.6	0.440
4-2640	4-3260	0.370	95.6	26.5	1.20	0.898	62.8	0.473	1.633	102.2	303.3	---	2.405	-2.92	1.173	72.6	19.0	-1.0	0.391
4-2640	4-3270	0.349	97.0	24.4	0.24	0.900	64.2	0.454	1.643	99.4	310.1	---	2.389	-2.05	1.172	75.0	22.6	2.3	0.350
4-2640	4-3280	0.331	98.1	23.0	-0.29	0.902	65.4	0.437	1.651	96.8	317.2	---	2.373	-1.62	1.171	77.3	25.8	4.3	0.312
4-2640	4-3290	0.316	99.2	22.0	-0.65	0.904	66.4	0.423	1.659	94.5	324.5	---	2.360	-1.37	1.171	79.6	28.1	5.5	0.277
4-2640	4-3300	0.303	100.1	21.1	-0.91	0.905	67.3	0.411	1.664	92.5	332.1	---	2.349	-1.21	1.171	82.0	29.0	5.8	0.245
4-2640	4-3300	0.267	326.1	-16.5	-0.91	0.733	103.1	0.327	1.134	210.8	810.4	0.763	1.506	-1.21	1.044	108.2	253.8	-26.4	0.318
4-2640	4-3300	0.495	314.2	-19.0	-0.91	0.777	121.1	0.532	1.226	225.0	824.6	0.574	1.878	-1.21	1.075	120.7	245.8	-23.7	0.545
4-2640	4-3310	0.294	100.8	20.4	-1.13	0.906	68.0	0.402	1.669	90.9	340.1	---	2.340	-1.12	1.170	84.3	28.0	5.1	0.218
4-2640	4-3310	0.219	335.8	-14.5	-1.13	0.723	98.3	0.297	1.116	200.7	809.8	0.784	1.447	-1.12	1.036	106.5	265.1	-27.2	0.290
4-2640	4-3310	0.497	314.2	-18.9	-1.13	0.795	128.4	0.627	1.269	223.6	832.8	0.473	2.064	-1.12	1.087	127.4	251.9	-23.9	0.666
4-2640	4-3320	0.197	101.2	19.7	-1.32	0.907	68.4	0.396	1.673	89.8	348.5	---	2.335	-1.07	1.170	86.7	24.6	3.5	0.198
4-2640	4-3320	0.192	345.7	-11.6	-1.32	0.717	94.7	0.287	1.104	192.0	810.6	0.787	1.421	-1.07	1.031	106.1	275.4	-27.1	0.283
4-2640	4-3330	0.285	101.3	19.1	-1.49	0.907	68.6	0.393	1.676	89.2	357.4	---	2.335	-1.05	1.171	89.3	18.6	0.9	0.189
4-2640	4-3330	0.175	356.6	-8.1	-1.49	0.712	91.6	0.287	1.096	183.9	812.1	0.782	1.410	-1.05	1.027	106.1	285.2	-26.3	0.286
4-2640	4-3340	0.287	101.4	18.6	-1.67	0.908	68.5	0.395	1.678	89.3	367.1	1.014	2.341	-1.06	1.171	92.0	11.1	-2.2	0.193
4-2640	4-3340	0.168	8.6	-3.9	-1.67	0.708	88.5	0.294	1.089	176.4	814.1	0.769	1.410	-1.06	1.025	106.7	294.5	-25.1	0.298
4-2640	4-3350	0.295	100.9	18.3	-1.85	0.908	68.0	0.403	1.679	90.3	377.5	1.002	2.356	-1.10	1.172	95.0	3.8	-4.9	0.214
4-2640	4-3350	0.172	21.2	0.9	-1.85	0.705	85.3	0.310	1.084	169.3	816.6	0.748	1.420	-1.10	1.023	107.7	303.3	-23.4	0.318
4-2640	4-3360	0.311	100.6	18.1	-2.06	0.908	67.0	0.419	1.680	92.3	389.1	0.977	2.383	-1.17	1.173	98.5	358.1	-6.7	0.253
4-2640	4-3360	0.188	33.5	5.7	-2.06	0.702	81.7	0.335	1.079	162.7	819.6	0.718	1.441	-1.17	1.022	109.3	311.5	-21.4	0.347
4-2640	4-3370	0.338	98.5	18.1	-2.30	0.908	65.2	0.445	1.680	95.6	402.0	0.933	2.428	-1.30	1.175	102.0	354.5	-7.6	0.312
4-2640	4-3370	0.218	44.7	9.8	-2.30	0.700	77.5	0.373	1.075	156.9	823.3	0.674	1.476	-1.30	1.022	111.6	319.2	-19.1	0.390
4-2640	4-3380	0.382	96.2	18.4	-2.61	0.908	62.2	0.488	1.680	100.7	416.8	0.861	2.500	-1.51	1.176	107.8	352.6	-7.8	0.396

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2640	4-3380	0.268	54.0	13.1	-2.61	0.697	72.2	0.428	1.072	152.2	828.3	0.613	1.530	-1.51	1.022	115.2	326.2	-16.8	0.452
4-2640	4-3380	0.463	350.7	-7.0	-2.61	0.493	109.9	0.706	0.850	188.9	1225.0	0.250	1.450	-1.51	0.896	133.8	305.0	-20.9	0.720
4-2640	4-3390	0.456	92.9	18.8	-3.06	0.908	57.4	0.555	1.681	108.4	434.1	0.747	2.614	-1.86	1.178	114.9	351.5	-7.8	0.517
4-2640	4-3390	0.345	60.8	15.5	-3.06	0.696	65.1	0.516	1.069	149.3	835.0	0.524	1.614	-1.86	1.023	120.5	332.1	-14.7	0.546
4-2640	4-3390	0.407	11.2	1.1	-3.06	0.469	89.1	0.691	0.833	179.6	1225.3	0.258	1.409	-1.86	0.885	132.3	314.6	-19.0	0.697
4-2640	4-3400	0.574	87.7	19.4	-3.81	0.908	48.5	0.662	1.682	119.8	455.2	0.569	3.795	-2.51	1.160	125.0	350.3	-8.0	0.695
4-2640	4-3400	0.466	64.4	17.1	-3.81	0.695	54.9	0.631	1.067	149.6	845.0	0.393	1.741	-2.51	1.025	129.0	336.6	-12.9	0.691
4-2640	4-3400	0.454	28.7	8.2	-3.81	0.457	70.8	0.743	0.826	172.9	1228.3	0.212	1.440	-2.51	0.882	136.7	322.6	-16.8	0.765
4-2640	4-3410	0.594	40.1	12.7	-5.48	0.451	48.3	0.852	0.822	170.4	1235.5	0.121	1.523	-4.09	0.882	147.8	328.4	-15.0	0.925
4-2650	4-2720	0.572	9.7	4.8	0.89	0.313	101.4	0.867	0.762	181.8	201.1	---	---	2.66	0.839	21.6	258.4	-21.7	0.902
4-2650	4-2730	0.461	11.6	5.1	-0.06	0.413	93.5	0.759	0.806	181.1	210.4	---	---	1.80	0.884	41.9	262.8	-21.9	0.769
4-2650	4-2740	0.377	12.6	4.7	-0.56	0.494	90.7	0.653	0.857	180.4	219.8	---	---	1.39	0.927	50.0	267.5	-21.9	0.659
4-2650	4-2750	0.312	12.4	3.7	-0.88	0.559	89.9	0.557	0.911	179.9	229.4	---	1.418	1.16	0.965	56.5	272.4	-21.8	0.565
4-2650	4-2760	0.262	11.8	2.8	-1.11	0.610	89.9	0.472	0.963	179.9	239.5	---	1.418	1.02	0.997	61.9	277.5	-21.4	0.484
4-2650	4-2770	0.224	8.5	2.4	-1.30	0.651	90.3	0.400	1.013	180.5	250.3	---	---	0.94	1.023	66.5	282.6	-20.8	0.412
4-2650	4-2780	0.197	5.0	-3.4	-1.47	0.682	90.9	0.340	1.058	181.7	261.8	---	---	0.89	1.043	70.5	287.5	-19.9	0.350
4-2650	4-2790	0.178	1.0	-6.7	-1.63	0.707	91.5	0.293	1.097	183.7	273.9	---	---	0.88	1.059	74.0	292.0	-18.2	0.295
4-2650	4-2800	0.165	356.8	-10.0	-1.79	0.725	92.1	0.257	1.130	186.1	285.5	---	---	0.89	1.071	77.1	296.0	-17.5	0.247
4-2650	4-2810	0.158	353.0	-13.2	-1.96	0.739	92.6	0.229	1.157	188.9	299.4	---	---	0.94	1.080	79.8	299.0	-15.8	0.209
4-2650	4-2820	0.154	349.8	-16.0	-2.15	0.750	93.0	0.210	1.176	191.6	312.3	---	---	1.02	1.085	82.3	300.8	-13.8	0.170
4-2650	4-2830	0.152	347.6	-18.5	-2.39	0.757	93.3	0.196	1.194	193.9	324.7	---	---	1.16	1.088	84.4	300.7	-11.3	0.140
4-2650	4-2840	0.152	346.5	-20.8	-2.71	0.762	93.5	0.187	1.204	195.7	336.5	---	---	1.35	1.090	86.3	298.2	-7.7	0.118
4-2650	4-2850	0.153	346.7	-23.6	-3.20	0.765	93.6	0.182	1.211	196.6	347.5	---	---	1.80	1.089	88.1	292.8	-2.9	0.103
4-2650	4-2860	0.156	348.8	-27.7	-4.15	0.766	93.6	0.179	1.214	196.8	357.5	---	---	2.67	1.088	89.6	285.2	1.9	0.100
4-2650	4-2870	0.174	356.4	-37.4	-6.98	0.766	93.4	0.178	1.214	196.1	366.8	0.999	---	5.42	1.085	91.0	276.8	28.9	0.130
4-2650	4-2890	0.145	336.5	8.3	3.19	0.764	92.8	0.179	1.209	192.9	383.3	0.993	---	-4.90	1.078	93.5	267.5	-68.4	0.130
4-2650	4-2900	0.136	343.5	-2.4	0.78	0.762	92.3	0.181	1.205	190.4	390.4	0.987	---	-2.56	1.074	94.5	268.4	-48.0	0.115
4-2650	4-2910	0.132	348.5	-5.6	-0.09	0.760	91.7	0.184	1.199	187.4	397.2	0.978	---	-1.77	1.071	95.5	270.5	-39.1	0.122
4-2650	4-2920	0.129	353.4	-6.5	-0.56	0.757	91.0	0.189	1.193	184.1	403.5	0.968	---	-1.39	1.067	96.5	274.1	-34.5	0.134
4-2650	4-2930	0.127	356.8	-6.2	-0.86	0.754	90.1	0.194	1.187	180.4	409.4	0.957	---	-1.17	1.063	97.5	278.8	-31.6	0.147
4-2650	4-2940	0.125	4.9	-5.0	-1.09	0.751	89.1	0.201	1.181	176.5	415.0	0.943	1.418	-1.03	1.060	98.4	284.3	-29.5	0.163
4-2650	4-2950	0.124	11.8	-3.2	-1.27	0.748	88.0	0.211	1.174	172.4	420.5	0.927	1.421	-0.93	1.056	99.4	290.3	-27.7	0.180
4-2650	4-2960	0.126	19.5	-0.8	-1.43	0.744	86.6	0.222	1.167	168.1	425.7	0.908	1.426	-0.90	1.054	100.5	296.7	-26.0	0.199
4-2650	4-2970	0.131	27.9	2.1	-1.58	0.741	85.1	0.237	1.161	163.7	430.9	0.886	1.435	-0.88	1.052	101.7	303.2	-24.1	0.221
4-2650	4-2980	0.140	36.8	5.3	-1.73	0.738	83.2	0.255	1.154	159.3	436.0	0.859	1.449	-0.89	1.050	103.1	309.9	-22.2	0.247
4-2650	4-2990	0.156	45.7	8.5	-1.88	0.735	81.0	0.280	1.148	155.1	441.3	0.827	1.469	-0.92	1.048	104.5	316.4	-20.1	0.278
4-2650	4-3000	0.180	54.1	11.4	-2.05	0.731	78.3	0.312	1.142	151.1	446.9	0.786	1.498	-0.98	1.047	107.0	322.9	-17.9	0.317
4-2650	4-3010	0.216	61.6	13.9	-2.25	0.728	74.8	0.355	1.136	147.6	453.0	0.733	1.539	-1.08	1.047	109.8	329.1	-15.6	0.368
4-2650	4-3020	0.268	67.9	15.9	-2.51	0.726	70.2	0.414	1.131	144.9	460.0	0.663	1.600	-1.24	1.047	113.7	334.8	-13.4	0.436
4-2650	4-3030	0.345	72.3	17.5	-2.87	0.723	63.8	0.498	1.127	143.9	468.6	0.565	1.689	-1.52	1.048	119.3	339.8	-11.3	0.535
4-2650	4-3040	0.463	74.3	18.8	-3.47	0.722	54.4	0.620	1.124	145.6	480.1	0.427	1.821	-2.04	1.049	127.9	343.6	-9.7	0.682
4-2650	4-3090	0.567	329.9	-12.2	0.35	0.678	127.1	0.664	1.052	208.2	592.2	0.353	1.751	2.16	1.033	48.5	242.8	-18.7	0.712
4-2650	4-3100	0.439	331.5	-12.5	-0.33	0.675	116.2	0.544	1.047	208.1	602.2	0.478	1.617	1.57	1.034	57.2	248.3	-19.5	0.567
4-2650	4-3110	0.559	51.0	18.6	-0.72	0.515	48.7	0.809	0.873	166.7	570.9	0.166	1.580	1.26	0.939	36.3	277.1	-22.5	0.876
4-2650	4-3110	0.349	336.3	-11.6	-0.72	0.670	108.1	0.485	1.040	203.9	608.0	0.557	1.523	1.26	1.032	62.4	256.1	-20.4	0.478
4-2650	4-3120	0.461	50.1	17.8	-1.00	0.546	58.7	0.716	0.899	164.8	579.1	0.255	1.543	1.08	0.958	44.5	283.1	-21.9	0.758
4-2650	4-3120	0.284	345.0	-9.1	-1.00	0.662	101.1	0.418	1.028	196.3	610.6	0.598	1.459	1.08	1.029	65.4	265.7	-21.0	0.429
4-2650	4-3130	0.349	44.7	15.4	-1.21	0.583	70.3	0.593	0.934	165.1	589.5	0.380	1.488	0.97	0.981	53.7	288.0	-21.2	0.618
4-2650	4-3130	0.238	1.6	-2.9	-1.21	0.648	93.2	0.408	1.009	184.6	609.1	0.597	1.421	0.97	1.021	65.9	277.5	-21.1	0.420
4-2650	4-3190	0.582	88.9	21.5	-2.25	0.864	47.2	0.680	1.507	129.1	254.6	---	2.531	1.08	1.167	51.3	335.6	-8.7	0.748
4-2650	4-3200	0.546	90.8	20.9	-2.52	0.869	49.9	0.647	1.527	125.3	260.8	---	2.515	1.26	1.168	54.6	342.1	-5.7	0.694
4-2650	4-3210	0.513	92.6	20.0	-2.91	0.874	52.5	0.615	1.547	121.5	267.1	---	2.498	1.56	1.170	57.6	348.3	-2.4	0.642
4-2650	4-3220	0.482	94.3	18.6	-3.56	0.878	54.6	0.584	1.565	117.9	273.4	---	2.479	2.13	1.171	60.6	354.0	1.4	0.592
4-2650	4-3230	0.455	95.6	15.7	-5.02	0.882	56.7	0.556	1.581	114.3	279.8	---	2.461	3.51	1.171	63.4	358.9	6.9	0.546
4-2650	4-3240	0.456	94.8	3.1	-12.35	0.886	58.6	0.529	1.597	111.0	286.2	---	2.442	10.76	1.171	66.1	360.0	24.1	0.533
4-2650	4-3250	0.412	99.7	38.8	7.98	0.889	60.4	0.504	1.610	107.7	292.9	---	2.423	-9.65	1.171	68.8	23.2	-14.3	0.483
4-2650	4-3260	0.373	103.4	27.1	1.67	0.891	62.0	0.482	1.623	104.6	299.5	---	2.405	-3.41	1.171	71.3	21.6	-0.8	0.413
4-2650	4-3270	0.351	102.6	24.1	0.29	0.894	63.5	0.462	1.633	101.7	306.3	---	2.388	-2.11	1.171	73.7	25.0	3.5	0.369
4-2650	4-3280	0.332	103.8	22.5	-0.34	0.896	64.8	0.444	1.643	99.0	313.3	---	2.372	-1.56	1.170	76.1	28.5	6.0	0.329
4-2650	4-3290	0.316	104.9	21.4	-0.71	0.897	65.9	0.428	1.651	96.6	320.5	---	2.358	-1.27	1.170	78.4	31.4	7.4	0.293
4-2650	4-3300	0.302	105.8	20.5	-0.58	0.899	66.8	0.415	1.657	94.5	328.0	---	2.345	-1.09	1.169	80.8	33.1	8.1	0.259
4-2650	4-3310	0.291	106.6	19.7	-1.18	0.900	67.6	0.405	1.663	92.7	335.8	---	2.335	-0.99	1.169	83.1	33.0	8.0	0.230
4-2650	4-3310	0.269	332.6	-14.9	-1.18	0.725	102.8	0.333	1.130	208.9	812.0	0.753	3.506	-0.99	1.041	108.6	263.7	-26.3	0.328
4-2650	4-3310	0.519	320.3	-17.4	-1.18	0.773	122.7	0.555	1.230	223.9	827.0	0.547	1.912	-0.99	1.075	122.4	255.0	-24.3	0.575
4-2650	4-3320	0.283	107.1	19.0	-1.35	0.900	68.2	0.397	1.667	91.4	344.0	---	2.329	-0.92	1.169	85.5	30.8	7.0	0.206
4-2650	4-3320	0.222	341.9	-12.5	-1.35	0.715	98.0	0.306	1.112	199.0	811.6	0.772	1.452	-0.92	1.033	107.1	274.7	-26.4	0.303
4-2650	4-3330	0.279	107.5	18.4	-1.51	0.901	68.5	0.393	1.670	90.5	352.6	---	2.326	-0.89	1.170	87.9	25.9	4.9	0.191
4-2650	4-3330	0.194	351.9	-9.6	-1.51	0.709	94.3	0.297	1.101	190.4	812.5	0.774	1.427	-0.89	1.029	106.7	284.8	-25.7	0.297
4-2650	4-3340	0.278	107.6	18.0	-1.65	0.902	68.5	0.392	1.673	90.3	361.9	1.016	2.329	-0.88	1.170	90.5	18.9	2.1	0.188
4-2650	4-3340	0.178	3.0	-5.8	-1.65	0.704	91.0	0.298	1.092	182.4	814.0	0.766	1.418	-0.88	1.026	106.9	294.4	-24.5	0.302
4-2650	4-3350	0.283	107.3	17.6	-1.80	0.902	68.2	0.397	1.674	90.8	372.0	1.009	2.339	-0.90	1.171	93.4	11.2	-0.9	0.200
4-2650	4-3350	0.171	15.4	-1.3	-1.80	0.700	87.7	0.308	1.086	174.9	816.1	0.751	1.420	-0.90	1.024	107.6	303.4	-22.7	0.315
4-2650	4-3360	0.294	106.6	17.5	-1.96	0.902	67.5	0.408	1.675	92.1	382.9	0.991	2.359	-0.94	1.172	96.6	4.7	-3.2	0.230
4-2650	4-3360	0.177	28.5	3.7	-1.96	0.696	84.2	0.327	1.080	167.8	818.6	0.727	1.433	-0.94	1.023	108.8	311.9	-20.7	0.338
4-2650	4-3370	0.315	105.5	17.6	-2.14	0.902	66.1	0.428	1.676	94.7	395.0	0.958	2.394	-1.02	1.174	100.3	0.3	-4.5	0.278
4-2650	4-3370	0.196	41.2	8.5	-2.14	0.693	80.3	0.356	1.075	161.4	821.8	0.692	1.458	-1.02	1.022	110.6	319.8	-18.4	0.372
4-2650	4-3380	0.349	103.7	17.9	-2.37	0.902	63.9	0.461	1.676	98.7	408.7	0.903	2.449	-1.15	1.175	304.9	357.8	-5.1	0.348
4-2650	4-3380	0.232	52.6	12.4	-2.37	0.691	75.6	0.400	1.071	155.9	825.1	0.643	1.500	-1.15	1.022	113.4	327.2	-15.9	0.421
4-2650	4-3390	0.404	101.0	18.4	-2.66	0.902	60.2	0.514	1.676	104.7	424.3	0.815	2.537	-1.36	1.177	110.7	356.6	-5.1	0.446
4-2650	4-3390	0.291	61.6	15.3	-2.66	0.689	69.6	0.464	1.068	151.8	831.4	0.572	1.564	-1.36	1.023	117.0	333.7	-13.5	0.494

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2650	4-3390	0.439	2.0	-2.2	-2.66	0.472	103.2	0.704	0.842	185.7	1225.3	0.249	1.434	-1.36	0.892	133.6	314.6	-18.4	0.718
4-2650	4-3400	0.492	97.0	19.2	-3.11	0.902	54.3	0.596	1.676	113.5	442.9	0.677	2.676	-1.73	1.180	118.8	355.8	-5.1	0.587
4-2650	4-3400	0.383	67.7	17.4	-3.11	0.687	61.4	0.560	1.066	149.8	839.2	0.469	1.662	-1.73	1.024	123.9	339.1	-11.4	0.605
4-2650	4-3400	0.419	21.9	5.8	-3.11	0.452	83.3	0.715	0.829	177.3	1226.7	0.236	1.422	-1.73	0.884	134.3	323.4	-16.1	0.729
4-2650	4-3410	0.527	70.0	18.8	-3.93	0.686	49.2	0.700	1.064	151.8	850.9	0.320	1.809	-2.47	1.027	134.3	342.7	-9.8	0.780
4-2650	4-3410	0.496	38.1	12.1	-3.93	0.442	63.2	0.788	0.823	171.9	1231.0	0.175	1.471	-2.47	0.882	140.8	330.6	-13.8	0.827
4-2650	4-3430	0.575	7.5	3.9	0.96	0.321	105.6	0.865	0.765	182.5	1281.3	0.103	1.426	2.73	0.842	31.7	257.7	-21.6	0.902
4-2660	4-2730	0.516	10.3	4.5	-0.08	0.380	104.4	0.808	0.796	183.5	206.8	---	---	1.78	0.874	37.4	265.0	-22.2	0.834
4-2660	4-2740	0.415	11.0	4.1	-0.64	0.468	97.5	0.694	0.846	183.3	216.7	---	---	1.26	0.918	46.9	269.3	-22.2	0.705
4-2660	4-2750	0.340	10.4	2.9	-0.97	0.540	94.7	0.588	0.901	183.3	226.8	---	---	1.02	0.959	54.3	273.9	-22.1	0.599
4-2660	4-2760	0.283	8.7	1.1	-1.19	0.597	93.7	0.495	0.957	183.8	237.4	---	---	0.87	0.993	60.4	278.6	-21.7	0.509
4-2660	4-2770	0.242	5.7	-1.4	-1.36	0.641	93.4	0.417	1.010	184.8	248.7	---	---	0.79	1.028	65.4	283.4	-21.2	0.431
4-2660	4-2780	0.213	1.8	-4.4	-1.51	0.676	93.6	0.353	1.059	186.7	260.7	---	---	0.73	1.044	69.7	288.0	-20.4	0.363
4-2660	4-2790	0.194	357.5	-7.6	-1.64	0.703	93.9	0.302	1.102	189.2	273.5	---	---	0.71	1.061	73.5	292.3	-19.5	0.304
4-2660	4-2800	0.182	353.2	-10.7	-1.76	0.723	94.3	0.264	1.138	192.3	286.7	---	---	0.71	1.074	76.8	296.0	-18.3	0.253
4-2660	4-2810	0.176	349.3	-13.4	-1.89	0.738	94.7	0.236	1.168	195.6	300.2	---	---	0.73	1.083	79.7	298.7	-17.0	0.209
4-2660	4-2820	0.172	346.3	-15.7	-2.03	0.749	95.0	0.217	1.190	198.8	313.6	---	---	0.78	1.089	82.2	300.1	-15.6	0.172
4-2660	4-2830	0.170	344.2	-17.5	-2.20	0.757	95.2	0.204	1.207	201.4	326.2	---	---	0.86	1.093	84.5	299.6	-13.9	0.142
4-2660	4-2840	0.170	343.1	-19.2	-2.41	0.761	95.4	0.195	1.218	203.2	338.1	---	---	0.99	1.094	86.5	296.7	-11.8	0.118
4-2660	4-2850	0.169	342.9	-20.8	-2.71	0.764	95.4	0.190	1.224	204.1	349.0	---	---	1.22	1.093	88.2	291.0	-8.7	0.102
4-2660	4-2860	0.169	343.9	-22.9	-3.21	0.765	95.3	0.187	1.226	204.1	358.9	---	---	1.66	1.091	89.1	283.5	-3.5	0.095
4-2660	4-2870	0.172	346.9	-26.9	-4.29	0.765	95.1	0.186	1.226	203.3	368.0	0.998	---	2.67	1.089	91.3	276.0	6.9	0.101
4-2660	4-2880	0.203	359.2	-40.5	-9.05	0.764	94.8	0.186	1.223	201.7	376.2	0.996	---	7.38	1.085	92.5	269.7	35.5	0.163
4-2660	4-2890	0.188	325.8	21.8	7.52	0.762	94.4	0.187	1.219	199.7	384.0	0.992	---	-9.26	1.081	93.7	230.2	-85.4	0.495
4-2660	4-2900	0.152	348.0	-2.3	1.10	0.760	93.8	0.188	1.213	196.9	391.0	0.985	---	-2.90	1.077	94.8	267.0	-49.8	0.122
4-2660	4-2910	0.146	346.1	-6.7	-0.11	0.757	93.2	0.191	1.207	193.7	397.5	0.977	---	-1.75	1.073	95.8	269.9	-38.4	0.126
4-2660	4-2920	0.142	350.7	-7.8	-0.64	0.753	92.4	0.194	1.200	190.2	403.6	0.967	---	-1.28	1.069	96.7	273.8	-33.4	0.137
4-2660	4-2930	0.138	355.6	-7.7	-0.95	0.750	91.6	0.199	1.193	186.4	409.3	0.956	---	-1.03	1.065	97.6	278.7	-30.5	0.150
4-2660	4-2940	0.134	1.1	-6.7	-1.17	0.746	90.6	0.205	1.185	182.2	414.8	0.942	---	-0.89	1.061	98.5	284.3	-28.5	0.165
4-2660	4-2950	0.131	7.4	-5.0	-1.34	0.745	89.4	0.213	1.177	177.9	420.0	0.927	1.428	-0.80	1.056	99.5	290.5	-26.8	0.180
4-2660	4-2960	0.129	14.8	-2.8	-1.48	0.739	88.1	0.222	1.170	173.4	424.1	0.910	1.430	-0.74	1.055	100.4	296.9	-25.1	0.198
4-2660	4-2970	0.130	23.1	0.1	-1.60	0.735	86.6	0.235	1.163	168.9	430.0	0.889	1.436	-0.71	1.052	101.6	303.6	-23.8	0.218
4-2660	4-2980	0.134	32.3	3.4	-1.72	0.732	84.9	0.251	1.155	164.2	434.9	0.865	1.445	-0.70	1.050	102.8	310.3	-21.4	0.241
4-2660	4-2990	0.144	41.9	6.9	-1.84	0.728	82.8	0.272	1.148	159.7	439.9	0.836	1.461	-0.72	1.049	104.3	317.0	-19.3	0.269
4-2660	4-3000	0.162	51.6	10.2	-1.96	0.725	80.3	0.299	1.142	153.3	445.1	0.800	1.483	-0.75	1.047	106.2	323.6	-17.1	0.305
4-2660	4-3010	0.190	60.6	13.2	-2.11	0.721	77.1	0.335	1.135	151.6	450.7	0.755	1.516	-0.81	1.047	108.6	330.0	-16.7	0.346
4-2660	4-3020	0.231	68.4	15.6	-2.28	0.718	73.1	0.384	1.130	147.9	457.0	0.696	1.564	-0.91	1.047	111.8	336.0	-12.3	0.403
4-2660	4-3030	0.292	74.5	17.5	-2.51	0.715	67.8	0.453	1.125	145.6	464.4	0.615	1.634	-1.07	1.047	116.3	341.6	-10.0	0.482
4-2660	4-3040	0.383	78.5	18.9	-2.86	0.713	60.2	0.551	1.121	145.4	473.9	0.504	1.738	-1.35	1.048	122.9	346.2	-8.1	0.598
4-2660	4-3050	0.524	79.4	20.0	-3.48	0.712	48.9	0.690	1.119	148.7	487.0	0.347	1.891	-1.91	1.050	133.3	349.3	-6.7	0.773
4-2660	4-3100	0.513	336.6	-10.5	-0.39	0.664	122.4	0.621	1.041	207.3	595.4	0.395	1.687	1.50	1.031	51.7	251.7	-20.5	0.659
4-2660	4-3110	0.594	55.2	19.6	-0.81	0.486	44.5	0.851	0.959	168.6	566.8	0.128	1.589	1.14	0.929	32.1	279.6	-22.5	0.935
4-2660	4-3110	0.401	339.7	-10.1	-0.81	0.659	112.5	0.519	1.035	205.0	603.2	0.497	1.572	1.14	1.030	58.8	258.5	-21.2	0.540
4-2660	4-3120	0.498	55.0	19.1	-1.08	0.518	54.9	0.766	0.883	166.4	574.7	0.207	1.558	0.94	0.947	40.4	285.7	-21.9	0.819
4-2660	4-3120	0.321	346.5	-8.2	-1.08	0.652	104.6	0.456	1.025	198.9	607.3	0.557	1.492	0.94	1.027	62.9	267.4	-21.6	0.471
4-2660	4-3130	0.392	51.4	17.5	-1.28	0.554	66.1	0.655	0.914	165.7	584.2	0.315	1.512	0.83	0.969	49.3	291.1	-23.1	0.688
4-2660	4-3130	0.263	359.3	-3.7	-1.28	0.640	96.7	0.429	1.008	189.1	607.6	0.576	1.441	0.83	1.020	64.6	278.3	-21.5	0.442
4-2660	4-3190	0.597	94.0	21.7	-2.11	0.854	45.8	0.697	1.490	131.7	251.2	---	2.529	0.81	1.163	49.6	337.2	-8.5	0.776
4-2660	4-3200	0.554	95.9	21.2	-2.29	0.860	48.6	0.663	1.513	127.8	257.4	---	2.513	0.91	1.166	52.9	343.8	-5.6	0.721
4-2660	4-3210	0.520	97.8	20.5	-2.54	0.865	51.1	0.630	1.532	124.1	263.7	---	2.496	1.09	1.167	56.1	350.1	-2.6	0.668
4-2660	4-3220	0.487	99.5	19.5	-2.91	0.870	53.5	0.599	1.551	120.4	270.0	---	2.479	1.35	1.168	59.1	356.1	0.8	0.617
4-2660	4-3230	0.458	101.0	17.9	-3.60	0.874	55.7	0.569	1.568	116.8	276.3	---	2.460	2.01	1.169	62.0	1.7	4.7	0.567
4-2660	4-3240	0.433	102.1	14.1	-5.47	0.877	57.7	0.541	1.584	113.4	282.8	---	2.442	3.82	1.169	64.8	6.1	11.1	0.523
4-2660	4-3260	0.378	107.2	28.7	2.76	0.884	61.2	0.491	1.612	107.0	295.9	---	2.405	-4.52	1.169	70.0	24.6	-2.1	0.436
4-2660	4-3270	0.364	108.2	23.8	0.38	0.886	62.8	0.470	1.624	104.0	302.7	---	2.387	-2.20	1.169	72.5	27.3	4.5	0.388
4-2660	4-3280	0.334	109.3	21.8	-0.40	0.888	64.1	0.451	1.634	101.3	309.6	---	2.371	-1.49	1.169	74.9	31.0	7.5	0.347
4-2660	4-3290	0.317	110.4	20.6	-0.81	0.890	65.3	0.434	1.643	98.8	316.7	---	2.356	-1.15	1.168	77.3	34.3	9.3	0.309
4-2660	4-3300	0.302	111.4	19.6	-1.07	0.892	66.4	0.420	1.650	96.5	324.0	---	2.342	-0.96	1.168	79.6	36.6	10.3	0.274
4-2660	4-3310	0.290	112.2	18.8	-1.25	0.893	67.2	0.408	1.656	94.6	331.7	---	2.331	-0.84	1.168	81.9	37.5	10.6	0.242
4-2660	4-3320	0.280	112.8	18.1	-1.41	0.894	67.9	0.399	1.661	93.1	339.7	---	2.323	-0.77	1.169	84.3	36.3	10.0	0.216
4-2660	4-3320	0.269	339.0	-13.0	-1.41	0.716	102.5	0.340	1.125	207.0	813.6	0.742	1.507	-0.77	1.039	109.1	273.4	-25.6	0.338
4-2660	4-3320	0.542	326.2	-15.6	-1.41	0.769	124.3	0.578	1.234	222.8	829.4	0.521	1.947	-0.77	1.076	124.9	264.3	-24.5	0.606
4-2660	4-3330	0.274	113.3	17.5	-1.54	0.895	68.3	0.393	1.665	92.0	348.2	---	2.318	-0.73	1.169	86.7	32.5	8.5	0.196
4-2660	4-3330	0.223	348.2	-10.4	-1.54	0.706	97.6	0.345	1.108	197.3	813.4	0.758	1.497	-0.73	1.032	107.8	284.2	-25.1	0.316
4-2660	4-3340	0.272	113.5	17.0	-1.66	0.895	68.5	0.391	1.667	91.5	357.2	---	2.319	-0.71	1.170	89.2	26.3	6.1	0.187
4-2660	4-3340	0.196	358.3	-7.2	-1.66	0.699	98.8	0.308	1.097	188.7	814.4	0.759	1.435	-0.71	1.028	107.5	294.1	-23.9	0.312
4-2660	4-3350	0.274	113.4	16.7	-1.77	0.896	68.3	0.393	1.669	91.6	366.8	1.014	2.325	-0.71	1.171	91.9	18.7	3.2	0.191
4-2660	4-3350	0.180	9.8	-3.2	-1.77	0.695	90.3	0.311	1.088	180.7	816.0	0.749	1.428	-0.71	1.025	107.8	303.3	-22.1	0.319
4-2660	4-3360	0.282	112.9	16.5	-1.90	0.896	67.8	0.401	1.671	92.5	377.3	1.001	2.340	-0.73	1.172	94.9	11.5	0.6	0.212
4-2660	4-3360	0.175	22.8	1.7	-1.90	0.690	86.8	0.324	1.082	173.3	818.1	0.732	1.432	-0.73	1.023	108.6	312.0	-20.0	0.335
4-2660	4-3370	0.297	112.1	16.7	-2.03	0.896	66.8	0.416	1.671	94.4	388.8	0.976	2.366	-0.77	1.173	98.3	6.1	-1.3	0.251
4-2660	4-3370	0.183	36.4	6.7	-2.03	0.687	83.0	0.346	1.076	166.4	820.8	0.704	1.449	-0.77	1.022	110.0	320.2	-17.7	0.361
4-2660	4-3380	0.323	110.7	17.0	-2.19	0.896	65.1	0.442	1.671	97.5	401.5	0.933	2.410	-0.85	1.175	102.4	2.9	-2.2	0.309
4-2660	4-3380	0.207	49.5	11.3	-2.19	0.684	78.7	0.380	1.672	160.2	824.2	0.664	1.479	-0.85	1.022	112.1	327.8	-15.1	0.400
4-2660	4-3390	0.365	108.5	17.7	-2.38	0.896	62.3	0.483	1.671	102.2	415.9	0.864	2.478	-0.97	1.177	107.5	1.3	-2.5	0.390
4-2660	4-3390	0.250	60.7	14.9	-2.38	0.681	73.4	0.432	1.068	155.1	828.7	0.607	1.528	-0.97	1.023	115.4	334.8	-12.6	0.458
4-2660	4-3400	0.432	105.4	18.5	-2.66	0.896	57.8	0.547	1.672	109.2	432.5	0.757	2.586	-1.18	1.179	114.1	0.6	-2.5	0.505
4-2660	4-3400	0.321	69.2	17.4	-2.66	0.679	66.5	0.507	1.664	151.6	835.0	0.525	1.604	-1.18	1.024	120.3	340.9	-10.5	0.544
4-2660	4-3400	0.429	13.1	2.7	-2.66	0.451	97.0	0.714	0.835	182.8	1226.2	0.239	1.432	-1.18	0.889	134.4	323.6	-15.5	0.731
4-2660	4-3410	0.640	100.7	19.6	-3.10	0.896	50.5	0.646	1.672	119.4	452.6	0.592	2.753	-1.56	1.181	123.6	359.9	-2.5	0.671

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2660	4-3410	0.430	74.3	19.1	-3.10	0.678	56.8	0.619	1.062	150.9	844.1	0.405	1.719	-1.56	1.026	128.1	345.7	-0.1	0.677
4-2660	4-3410	0.442	32.5	10.3	-3.10	0.434	76.7	0.748	0.825	175.4	1228.5	0.208	1.441	-1.56	0.884	137.1	331.8	-12.9	0.773
4-2660	4-3420	0.551	46.9	15.4	-4.01	0.426	54.1	0.839	0.820	171.6	1234.5	0.132	1.508	-2.40	0.883	146.1	338.0	-10.6	0.906
4-2660	4-3460	0.583	337.7	-9.6	-0.03	0.649	128.5	0.696	1.021	204.9	947.7	0.310	1.732	1.82	1.020	45.9	250.1	-20.4	0.751
4-2670	4-2730	0.595	8.8	3.8	-0.10	0.366	120.6	0.862	0.796	185.6	203.0	---	---	1.75	0.874	31.5	267.1	-22.5	0.918
4-2670	4-2740	0.469	9.2	3.2	-0.77	0.449	107.1	0.740	0.841	186.3	213.8	---	---	1.14	0.914	43.1	270.9	-22.5	0.763
4-2670	4-2750	0.378	8.3	2.1	-1.09	0.525	101.2	0.624	0.896	186.9	224.6	---	---	0.86	0.956	51.8	275.1	-22.3	0.640
4-2670	4-2760	0.314	6.2	0.1	-1.30	0.586	98.5	0.521	0.955	188.0	235.8	---	---	0.71	0.992	58.6	279.5	-22.0	0.538
4-2670	4-2770	0.268	2.9	-2.4	-1.45	0.635	97.3	0.436	1.013	189.7	247.6	---	---	0.62	1.023	64.2	283.9	-21.6	0.452
4-2670	4-2780	0.237	358.8	-5.4	-1.56	0.673	96.9	0.366	1.066	192.2	260.4	---	---	0.57	1.047	68.9	288.2	-20.9	0.378
4-2670	4-2790	0.217	354.3	-8.4	-1.67	0.702	96.8	0.313	1.113	195.5	273.9	---	---	0.54	1.066	73.0	292.1	-20.1	0.315
4-2670	4-2800	0.205	350.1	-11.1	-1.76	0.724	97.0	0.274	1.153	199.3	287.8	---	---	0.53	1.079	76.5	295.4	-19.2	0.260
4-2670	4-2810	0.199	346.5	-13.4	-1.85	0.739	97.1	0.246	1.185	203.3	301.9	---	---	0.53	1.089	79.5	297.7	-18.3	0.214
4-2670	4-2820	0.196	343.8	-15.2	-1.95	0.751	97.3	0.227	1.209	206.8	315.6	---	---	0.55	1.095	82.2	298.6	-17.3	0.175
4-2670	4-2830	0.194	341.9	-16.6	-2.06	0.758	97.4	0.214	1.226	209.6	328.5	---	---	0.60	1.099	84.6	297.5	-16.4	0.143
4-2670	4-2840	0.192	340.9	-17.7	-2.20	0.763	97.4	0.207	1.237	211.3	340.3	---	---	0.68	1.100	86.7	293.9	-15.3	0.119
4-2670	4-2850	0.191	340.7	-18.6	-2.38	0.766	97.4	0.202	1.243	212.1	351.1	---	---	0.80	1.099	88.5	287.7	-13.9	0.104
4-2670	4-2860	0.190	341.3	-19.7	-2.65	0.766	97.2	0.199	1.244	211.9	360.8	0.997	---	1.02	1.097	90.1	280.2	-11.4	0.096
4-2670	4-2870	0.188	342.9	-21.3	-3.13	0.765	96.9	0.197	1.243	210.8	369.0	0.997	---	1.45	1.094	91.6	273.2	-6.9	0.090
4-2670	4-2880	0.190	346.6	-25.4	-4.39	0.764	96.6	0.197	1.238	209.0	377.6	0.995	---	2.67	1.090	92.9	268.6	4.0	0.110
4-2670	4-2890	0.333	19.8	-50.0	-20.26	0.761	96.1	0.197	1.233	206.5	384.8	0.990	---	18.50	1.086	94.0	259.7	56.4	0.350
4-2670	4-2900	0.172	339.0	-0.1	1.88	0.758	95.5	0.198	1.225	203.6	391.8	0.983	---	-3.70	1.081	95.3	264.5	-54.3	0.135
4-2670	4-2910	0.164	344.9	-7.3	-0.14	0.754	94.9	0.199	1.217	200.2	398.1	0.975	---	-1.71	1.076	96.1	268.9	-37.4	0.133
4-2670	4-2920	0.158	349.1	-8.7	-0.76	0.751	94.1	0.202	1.209	196.5	404.0	0.965	---	-1.14	1.072	97.0	273.2	-31.9	0.143
4-2670	4-2930	0.152	353.4	-8.7	-1.08	0.747	93.2	0.205	1.200	192.4	409.5	0.954	---	-0.87	1.067	97.9	278.3	-29.2	0.155
4-2670	4-2940	0.146	358.3	-7.8	-1.28	0.743	92.2	0.210	1.191	188.1	414.8	0.941	---	-0.72	1.063	98.7	284.1	-27.3	0.169
4-2670	4-2950	0.141	4.0	-6.4	-1.42	0.738	91.0	0.217	1.183	183.6	419.8	0.926	---	-0.63	1.059	99.6	290.4	-25.8	0.183
4-2670	4-2960	0.136	10.6	-4.4	-1.54	0.734	89.7	0.225	1.174	179.0	424.7	0.910	1.438	-0.58	1.056	100.5	297.0	-24.2	0.200
4-2670	4-2970	0.134	18.4	-1.7	-1.64	0.730	88.2	0.236	1.166	174.2	429.4	0.891	1.440	-0.54	1.053	101.5	303.8	-22.5	0.218
4-2670	4-2980	0.134	27.4	1.5	-1.73	0.726	86.5	0.250	1.158	169.3	434.1	0.869	1.446	-0.53	1.051	102.7	310.6	-20.6	0.239
4-2670	4-2990	0.138	37.3	5.1	-1.81	0.722	84.5	0.267	1.150	164.5	438.9	0.842	1.457	-0.53	1.049	104.0	317.4	-18.5	0.263
4-2670	4-3000	0.150	47.8	8.8	-1.90	0.718	82.1	0.291	1.142	159.8	443.7	0.810	1.474	-0.54	1.048	105.6	324.1	-16.2	0.293
4-2670	4-3010	0.170	58.1	12.2	-2.00	0.714	79.3	0.321	1.135	155.4	448.9	0.771	1.500	-0.57	1.047	107.7	330.7	-13.8	0.330
4-2670	4-3020	0.202	67.6	15.0	-2.12	0.710	75.7	0.362	1.129	151.4	454.6	0.720	1.538	-0.63	1.046	110.4	337.0	-11.4	0.379
4-2670	4-3030	0.250	75.4	17.2	-2.26	0.707	71.1	0.419	1.123	148.3	461.1	0.653	1.593	-0.72	1.046	114.1	342.9	-8.9	0.444
4-2670	4-3040	0.322	81.3	18.9	-2.46	0.704	64.8	0.498	1.118	146.5	469.1	0.561	1.675	-0.86	1.047	119.4	348.2	-6.7	0.536
4-2670	4-3050	0.431	84.5	20.1	-2.78	0.702	55.8	0.611	1.114	147.3	479.7	0.433	1.796	-1.13	1.048	127.3	352.3	-4.8	0.672
4-2670	4-3060	0.598	83.9	21.2	-3.41	0.702	42.1	0.767	1.114	152.7	494.9	0.259	1.968	-1.72	1.051	139.9	354.5	-3.8	0.882
4-2670	4-3110	0.463	344.0	-8.2	-0.94	0.647	117.9	0.586	1.029	205.2	597.5	0.426	1.631	0.98	1.027	54.2	261.4	-21.9	0.618
4-2670	4-3120	0.534	59.5	20.1	-1.20	0.488	51.0	0.811	0.867	168.4	570.5	0.164	1.571	0.78	0.937	36.2	288.3	-21.9	0.879
4-2670	4-3120	0.366	349.0	-7.0	-1.20	0.641	108.6	0.503	1.020	200.8	603.2	0.507	1.533	0.78	1.025	59.9	269.5	-22.1	0.523
4-2670	4-3130	0.431	57.1	19.0	-1.37	0.524	62.2	0.710	0.896	166.8	579.4	0.260	1.532	0.66	0.957	45.0	293.9	-21.0	0.752
4-2670	4-3130	0.294	359.0	-3.6	-1.37	0.630	100.2	0.458	1.006	192.6	605.2	0.545	1.467	0.66	1.019	62.7	279.5	-21.9	0.475
4-2670	4-3140	0.297	43.1	13.9	-1.50	0.575	78.2	0.552	0.943	170.1	592.9	0.422	1.465	0.59	0.987	56.5	297.0	-20.3	0.576
4-2670	4-3140	0.256	24.7	6.7	-1.50	0.603	87.8	0.479	0.973	177.5	600.3	0.508	1.439	0.59	1.003	61.4	293.0	-20.7	0.497
4-2670	4-3200	0.563	100.9	21.2	-2.12	0.850	47.3	0.679	1.495	130.4	254.1	---	2.511	0.63	1.163	51.2	345.4	-5.4	0.749
4-2670	4-3210	0.527	102.8	20.6	-2.28	0.855	49.9	0.645	1.516	126.6	260.3	---	2.495	0.73	1.164	54.5	351.7	-2.5	0.694
4-2670	4-3220	0.494	104.6	19.8	-2.49	0.860	52.4	0.613	1.536	122.9	266.6	---	2.478	0.89	1.166	57.6	357.9	0.6	0.641
4-2670	4-3230	0.463	106.3	18.8	-2.83	0.865	54.6	0.582	1.555	119.3	273.0	---	2.460	1.18	1.167	60.6	3.8	3.9	0.590
4-2670	4-3240	0.435	107.7	17.0	-3.54	0.869	56.7	0.553	1.572	115.9	279.4	---	2.441	1.85	1.167	63.4	9.3	7.9	0.542
4-2670	4-3250	0.414	108.2	11.6	-6.23	0.872	58.7	0.526	1.587	112.6	285.8	---	2.422	4.49	1.167	66.1	13.0	16.0	0.500
4-2670	4-3260	0.396	113.6	37.9	7.98	0.875	60.4	0.501	1.601	109.4	292.5	---	2.404	-9.77	1.167	68.8	31.9	-11.1	0.482
4-2670	4-3270	0.357	113.7	23.4	0.54	0.878	62.0	0.479	1.614	106.4	299.1	---	2.386	-2.38	1.167	71.3	29.5	5.2	0.408
4-2670	4-3280	0.336	114.7	20.8	-0.50	0.880	63.5	0.458	1.625	103.6	306.0	---	2.369	-1.38	1.167	73.7	33.2	8.9	0.365
4-2670	4-3290	0.318	115.7	19.5	-0.93	0.882	64.7	0.440	1.634	101.0	313.0	---	2.354	-0.99	1.167	76.1	36.9	11.0	0.326
4-2670	4-3300	0.302	116.7	18.5	-1.18	0.884	65.8	0.425	1.642	98.7	320.3	---	2.340	-0.79	1.167	78.4	39.8	12.2	0.289
4-2670	4-3310	0.289	117.6	17.6	-1.35	0.886	66.8	0.411	1.649	96.6	327.8	---	2.328	-0.67	1.167	80.8	41.4	12.8	0.256
4-2670	4-3320	0.278	118.3	16.9	-1.48	0.887	67.5	0.403	1.654	95.0	335.7	---	2.318	-0.60	1.168	83.1	41.1	12.7	0.226
4-2670	4-3330	0.271	118.9	16.4	-1.59	0.888	68.0	0.394	1.659	93.7	344.0	---	2.312	-0.56	1.168	85.5	38.5	11.7	0.203
4-2670	4-3330	0.269	345.4	-10.8	-1.59	0.706	102.1	0.347	1.120	204.9	815.2	0.731	1.509	-0.56	1.037	109.7	283.0	-24.5	0.349
4-2670	4-3330	0.565	332.1	-13.6	-1.59	0.764	125.9	0.601	1.238	221.5	831.7	0.493	1.983	-0.56	1.077	125.7	273.5	-24.2	0.638
4-2670	4-3340	0.267	119.2	15.9	-1.68	0.888	68.3	0.390	1.662	92.9	352.7	---	2.310	-0.53	1.169	88.0	33.3	9.9	0.189
4-2670	4-3340	0.224	354.6	-8.0	-1.68	0.696	97.2	0.326	1.104	195.4	815.2	0.744	1.463	-0.53	1.030	108.5	293.4	-23.3	0.330
4-2670	4-3350	0.267	119.2	15.6	-1.77	0.889	66.4	0.390	1.664	92.7	362.1	1.016	2.313	-0.53	1.170	90.6	26.0	7.2	0.186
4-2670	4-3350	0.197	5.0	-4.6	-1.77	0.690	93.2	0.321	1.093	186.9	816.2	0.743	1.443	-0.53	1.027	108.3	303.0	-21.6	0.328
4-2670	4-3360	0.271	119.0	15.5	-1.86	0.889	68.0	0.395	1.666	93.2	372.1	1.008	2.323	-0.53	1.171	93.4	18.3	4.4	0.200
4-2670	4-3360	0.181	17.1	-0.2	-1.86	0.685	89.5	0.326	1.085	179.0	817.9	0.731	1.438	-0.53	1.024	108.7	311.9	-19.5	0.337
4-2670	4-3370	0.283	118.3	15.6	-1.95	0.889	67.3	0.406	1.667	94.6	383.1	0.990	2.304	-0.55	1.172	96.6	12.1	2.1	0.230
4-2670	4-3370	0.178	30.7	4.9	-1.95	0.680	85.7	0.342	1.078	171.6	820.1	0.710	1.446	-0.55	1.023	109.7	320.3	-17.0	0.356
4-2670	4-3380	0.303	117.2	16.0	-2.05	0.889	65.9	0.426	1.667	97.0	395.1	0.956	2.378	-0.60	1.174	100.3	8.0	0.8	0.278
4-2670	4-3380	0.190	44.9	9.9	-2.05	0.677	81.5	0.368	1.072	164.9	823.0	0.678	1.467	-0.60	1.023	111.4	328.2	-14.4	0.387
4-2670	4-3390	0.336	115.6	16.6	-2.18	0.889	63.8	0.459	1.667	100.7	408.5	0.902	2.432	-0.66	1.176	104.8	5.9	0.2	0.346
4-2670	4-3390	0.220	58.2	14.0	-2.18	0.6[illegible]4	76.7	0.409	1.068	159.0	826.8	0.631	1.484	-0.66	1.023	113.9	335.5	-11.7	0.433
4-2670	4-3400	0.387	113.1	17.5	-2.35	0.889	60.3	0.510	1.667	106.2	423.7	0.817	2.517	-0.78	1.178	110.5	5.1	0.1	0.441
4-2670	4-3400	0.273	69.1	17.1	-2.35	0.671	76.7	0.469	1.044	154.4	831.9	0.565	1.562	-0.78	1.024	117.8	342.2	-9.1	0.505
4-2670	4-3410	0.469	109.4	18.7	-2.59	0.889	58.7	0.588	1.6	114.3	441.5	0.686	2.648	-0.97	1.181	118.2	4.7	0.1	0.476
4-2670	4-3410	0.358	76.8	19.1	-2.59	0.669	62.7	0.557	1.061	151.9	839.1	0.469	1.652	-0.97	1.025	123.8	341.8	-6.7	0.604
4-2670	4-3410	0.431	24.4	7.6	-2.59	0.430	90.5	0.734	0.829	180.2	1227.4	0.221	1.438	-0.97	0.888	136.0	332.3	-12.2	0.757
4-2670	4-3420	0.489	80.5	20.5	-3.01	0.668	51.2	0.686	1.059	152.8	849.9	0.332	1.786	-1.35	1.027	133.2	351.9	-4.9	0.763
4-2670	4-3420	0.476	43.0	14.3	-3.01	0.415	68.9	0.788	0.821	173.9	1231.0	0.174	1.468	-1.35	0.884	140.9	339.7	-9.5	0.831

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2670	4-3470	0.524	344.1	-7.8	-0.74	0.637	123.3	0.650	1.015	204.3	951.3	0.355	1.675	1.16	1.020	49.5	259.0	-21.8	0.693
4-2680	4-2740	0.545	7.4	2.5	-0.96	0.448	120.1	0.792	0.848	189.2	210.9	---	---	0.93	0.920	38.2	272.4	-22.8	0.838
4-2680	4-2750	0.433	6.3	1.2	-1.27	0.520	109.6	0.664	0.901	190.7	222.6	---	---	0.65	0.959	48.6	276.1	-22.6	0.691
4-2680	4-2760	0.356	3.8	-0.8	-1.44	0.583	104.6	0.551	0.962	192.6	234.5	---	---	0.51	0.996	56.6	280.1	-22.4	0.573
4-2680	4-2770	0.303	0.3	-3.4	-1.55	0.635	102.0	0.457	1.024	195.1	247.3	---	---	0.43	1.028	62.9	284.1	-22.0	0.476
4-2680	4-2780	0.269	356.1	-6.2	-1.64	0.675	100.8	0.383	1.082	198.5	260.9	---	---	0.39	1.053	68.1	288.0	-21.5	0.395
4-2680	4-2790	0.248	351.7	-8.9	-1.71	0.705	100.2	0.327	1.134	202.7	275.2	---	---	0.36	1.073	72.5	291.4	-20.8	0.326
4-2680	4-2800	0.235	347.7	-11.3	-1.77	0.728	100.0	0.286	1.177	207.3	290.0	---	---	0.35	1.088	76.2	294.2	-20.2	0.267
4-2680	4-2810	0.228	344.5	-13.2	-1.84	0.745	99.9	0.259	1.212	211.8	304.7	---	---	0.34	1.098	79.5	295.9	-19.6	0.218
4-2680	4-2820	0.225	342.1	-14.6	-1.90	0.756	99.9	0.241	1.237	215.6	318.6	---	---	0.35	1.104	82.3	296.1	-19.1	0.178
4-2680	4-2830	0.222	340.6	-15.6	-1.96	0.765	99.9	0.230	1.255	218.4	331.5	---	---	0.37	1.107	84.8	294.1	-18.7	0.146
4-2680	4-2840	0.220	339.8	-16.4	-2.04	0.768	99.8	0.222	1.265	220.0	343.1	---	---	0.41	1.108	87.0	289.7	-18.5	0.122
4-2680	4-2850	0.218	339.7	-16.9	-2.14	0.769	99.6	0.218	1.269	220.4	353.6	---	---	0.47	1.107	88.9	283.0	-18.0	0.108
4-2680	4-2860	0.215	340.2	-17.3	-2.27	0.769	99.4	0.215	1.269	219.9	363.0	0.997	---	0.57	1.104	90.5	275.5	-17.1	0.101
4-2680	4-2870	0.211	341.3	-17.8	-2.49	0.768	99.0	0.213	1.265	218.5	371.5	0.996	---	0.76	1.100	92.0	269.2	-15.3	0.103
4-2680	4-2880	0.208	343.2	-19.0	-2.93	0.765	98.6	0.211	1.259	216.4	379.2	0.993	---	1.16	1.096	93.3	265.5	-11.7	0.109
4-2680	4-2890	0.208	347.5	-23.4	-4.46	0.762	98.1	0.211	1.251	213.6	386.2	0.987	---	2.67	1.091	94.5	264.6	0.4	0.126
4-2680	4-2900	0.212	333.9	14.4	6.48	0.758	97.4	0.211	1.241	210.4	392.8	0.980	---	-8.31	1.086	95.5	249.1	-75.6	0.196
4-2680	4-2910	0.185	344.6	-7.7	-0.21	0.753	96.7	0.211	1.231	206.8	398.9	0.971	---	-1.64	1.081	96.5	267.6	-36.1	0.141
4-2680	4-2920	0.178	348.6	-9.4	-0.35	0.749	95.9	0.212	1.221	202.9	404.5	0.961	---	-0.93	1.075	97.4	272.4	-30.0	0.150
4-2680	4-2930	0.170	352.4	-9.3	-1.15	0.744	94.9	0.215	1.210	198.6	409.9	0.950	---	-0.66	1.071	98.2	277.8	-27.6	0.162
4-2680	4-2940	0.163	356.7	-8.5	-1.42	0.739	93.9	0.218	1.200	194.1	415.0	0.938	---	-0.52	1.066	99.0	283.8	-26.0	0.175
4-2680	4-2950	0.155	1.6	-7.2	-1.53	0.734	92.7	0.223	1.190	189.4	419.8	0.924	---	-0.45	1.062	99.8	290.2	-24.5	0.188
4-2680	4-2960	0.148	7.5	-5.4	-1.61	0.729	91.4	0.230	1.180	184.6	424.5	0.908	---	-0.40	1.058	100.7	296.9	-23.2	0.203
4-2680	4-2970	0.142	14.4	-3.1	-1.65	0.725	89.9	0.239	1.170	179.6	429.1	0.891	1.449	-0.37	1.055	101.6	303.7	-21.6	0.220
4-2680	4-2980	0.138	22.7	-0.1	-1.75	0.720	88.2	0.250	1.161	174.6	433.6	0.870	1.452	-0.35	1.052	102.6	310.7	-19.8	0.239
4-2680	4-2990	0.138	32.3	3.4	-1.81	0.715	86.3	0.266	1.152	169.6	438.1	0.846	1.458	-0.34	1.050	103.8	317.6	-17.7	0.261
4-2680	4-3000	0.143	43.1	7.2	-1.87	0.711	84.0	0.286	1.144	164.6	442.7	0.817	1.470	-0.35	1.048	105.3	324.4	-15.4	0.287
4-2680	4-3010	0.156	54.4	11.0	-1.93	0.707	81.3	0.312	1.136	159.8	447.5	0.782	1.490	-0.36	1.047	107.1	331.1	-13.0	0.319
4-2680	4-3020	0.180	65.3	14.3	-2.00	0.703	78.1	0.346	1.128	155.4	452.7	0.738	1.519	-0.39	1.046	109.4	337.6	-10.5	0.361
4-2680	4-3030	0.218	75.0	16.8	-2.08	0.699	74.0	0.394	1.122	151.5	458.6	0.680	1.563	-0.43	1.046	112.5	343.8	-8.0	0.416
4-2680	4-3040	0.275	82.7	18.7	-2.18	0.695	68.6	0.459	1.116	148.8	465.6	0.604	1.628	-0.50	1.046	116.7	349.6	-5.5	0.491
4-2680	4-3050	0.360	87.9	20.0	-2.34	0.693	61.2	0.551	1.111	147.8	474.4	0.499	1.723	-0.62	1.047	123.0	354.5	-3.4	0.599
4-2680	4-3060	0.490	90.0	21.2	-2.60	0.691	50.3	0.687	1.108	150.0	486.5	0.354	1.863	-0.86	1.049	132.6	358.1	-1.9	0.762
4-2680	4-3110	0.538	349.2	-6.0	-1.13	0.633	124.6	0.664	1.021	204.1	590.6	0.343	1.700	0.77	1.024	48.4	265.0	-22.5	0.714
4-2680	4-3120	0.569	63.7	20.9	-1.36	0.456	47.2	0.852	0.853	169.9	566.5	0.126	1.580	0.57	0.926	32.0	290.7	-21.8	0.938
4-2680	4-3120	0.418	352.4	-5.4	-1.36	0.628	113.4	0.559	1.014	201.9	598.5	0.447	1.582	0.57	1.022	56.0	271.9	-22.6	0.588
4-2680	4-3130	0.488	62.2	20.1	-1.50	0.492	56.6	0.761	0.879	168.2	574.9	0.210	1.548	0.47	0.946	40.8	296.5	-20.9	0.814
4-2680	4-3130	0.331	0.2	-2.9	-1.50	0.618	104.1	0.497	1.002	195.3	602.1	0.505	1.500	0.47	1.017	60.2	281.1	-22.2	0.518
4-2680	4-3140	0.349	54.2	17.4	-1.60	0.438	72.4	0.631	0.917	169.0	585.9	0.338	1.495	0.41	0.971	51.1	300.8	-19.9	0.662
4-2680	4-3140	0.272	17.7	3.9	-1.60	0.599	93.4	0.483	0.979	183.7	600.6	0.506	1.452	0.41	1.006	61.1	292.8	-21.1	0.503
4-2680	4-3200	0.571	105.9	21.0	-2.00	0.819	45.9	0.696	1.479	132.9	250.8	---	2.508	0.39	1.159	49.6	346.9	-5.1	0.776
4-2680	4-3210	0.535	107.8	20.5	-2.08	0.815	48.7	0.661	1.501	129.1	257.0	---	2.493	0.43	1.161	52.9	353.3	-2.3	0.720
4-2680	4-3220	0.501	109.7	19.8	-2.20	0.810	51.2	0.627	1.521	125.4	263.3	---	2.476	0.51	1.163	56.1	359.6	0.6	0.666
4-2680	4-3230	0.469	111.4	19.0	-2.36	0.805	53.6	0.596	1.541	121.8	269.6	---	2.458	0.64	1.164	59.1	5.7	3.6	0.614
4-2680	4-3240	0.439	113.0	17.9	-2.65	0.851	55.8	0.565	1.559	118.3	276.0	---	2.440	0.90	1.165	62.0	11.5	6.7	0.564
4-2680	4-3250	0.412	114.3	16.0	-3.36	0.861	57.8	0.537	1.575	115.0	282.5	---	2.422	1.58	1.165	64.8	16.9	10.7	0.516
4-2680	4-3260	0.403	112.9	5.4	-8.90	0.867	59.6	0.511	1.590	111.8	289.0	---	2.403	7.09	1.165	67.5	18.4	25.0	0.486
4-2680	4-3270	0.360	119.1	23.4	0.99	0.870	61.3	0.488	1.603	108.7	295.7	---	2.385	-2.83	1.166	70.1	31.8	5.1	0.428
4-2680	4-3280	0.339	119.8	19.5	-0.67	0.872	62.8	0.466	1.615	105.9	302.5	---	2.368	-1.20	1.166	72.6	35.3	10.4	0.384
4-2680	4-3290	0.320	120.9	18.1	-1.12	0.874	64.1	0.447	1.626	103.3	309.5	---	2.352	-0.78	1.166	75.0	39.2	12.7	0.342
4-2680	4-3300	0.303	121.9	17.1	-1.34	0.876	65.3	0.430	1.634	100.9	316.7	---	2.337	-0.59	1.166	77.3	42.6	14.1	0.304
4-2680	4-3310	0.289	122.8	16.3	-1.48	0.878	66.3	0.416	1.642	98.7	324.1	---	2.324	-0.48	1.166	79.7	44.9	14.9	0.269
4-2680	4-3320	0.277	123.6	15.6	-1.58	0.879	67.1	0.404	1.648	96.9	331.8	---	2.313	-0.42	1.166	82.0	45.5	15.1	0.258
4-2680	4-3330	0.269	124.2	15.0	-1.65	0.880	67.8	0.395	1.653	95.5	340.0	---	2.306	-0.38	1.167	84.4	43.9	14.6	0.212
4-2680	4-3330	0.385	341.3	-11.2	-1.65	0.719	112.2	0.443	1.160	216.3	820.8	0.647	1.673	-0.38	1.051	115.4	279.6	-24.0	0.452
4-2680	4-3330	0.420	339.9	-11.5	-1.65	0.726	115.0	0.473	1.174	218.2	822.7	0.619	1.728	-0.38	1.056	117.2	278.5	-24.0	0.486
4-2680	4-3340	0.263	124.7	14.6	-1.72	0.881	68.2	0.390	1.656	94.5	348.5	---	2.302	-0.36	1.168	86.8	39.7	13.2	0.193
4-2680	4-3340	0.267	351.9	-8.4	-1.72	0.695	01.6	0.355	1.115	202.7	816.7	0.719	1.512	-0.36	1.065	110.2	292.4	-22.8	0.361
4-2680	4-3340	0.586	337.9	-11.4	-1.72	0.758	127.7	0.625	1.242	220.1	834.1	0.468	2.019	-0.36	1.078	127.5	282.6	-23.4	0.671
4-2680	4-3350	0.261	124.8	14.3	-1.78	0.881	68.3	0.388	1.659	94.1	357.6	---	2.302	-0.35	1.169	89.3	33.0	11.0	0.185
4-2680	4-3350	0.223	1.3	-5.4	-1.78	0.686	96.6	0.337	1.099	193.4	816.9	0.729	1.469	-0.35	1.029	109.2	302.4	-21.1	0.345
4-2680	4-3360	0.263	124.8	14.2	-1.84	0.882	68.4	0.391	1.661	94.3	367.3	1.012	2.309	-0.34	1.170	92.1	25.2	8.2	0.191
4-2680	4-3360	0.197	12.1	-1.6	-1.84	0.679	92.5	0.334	1.089	185.0	818.1	0.725	1.452	-0.34	1.026	109.1	311.7	-18.9	0.345
4-2680	4-3370	0.272	124.3	14.3	-1.89	0.882	67.6	0.399	1.662	95.2	377.8	0.999	2.325	-0.35	1.172	95.1	18.2	5.6	0.213
4-2680	4-3370	0.183	24.9	3.1	-1.89	0.674	98.5	0.342	1.080	177.2	819.8	0.710	1.450	-0.35	1.024	109.7	320.3	-17.5	0.397
4-2680	4-3380	0.287	123.5	14.7	-1.96	0.882	66.6	0.415	1.662	97.0	389.3	0.973	2.352	-0.37	1.173	98.5	13.2	5.8	0.253
4-2680	4-3380	0.183	39.3	8.2	-1.96	0.670	94.4	0.362	1.074	170.0	822.3	0.685	1.462	-0.37	1.023	110.9	328.4	-13.8	0.380
4-2680	4-3390	0.313	122.2	15.3	-2.03	0.882	64.8	0.441	1.662	99.9	401.9	0.930	2.395	-0.40	1.175	102.5	10.5	2.9	0.311
4-2680	4-3390	0.200	54.0	12.9	-2.03	0.666	96.8	0.393	1.068	163.5	825.4	0.648	1.488	-0.40	1.023	112.9	336.0	-11.0	0.416
4-2680	4-3400	0.353	120.2	16.2	-2.12	0.882	62.1	0.481	1.662	104.3	416.0	0.862	2.462	-0.46	1.177	107.5	9.3	2.6	0.391
4-2680	4-3400	0.238	67.2	16.5	-2.12	0.663	94.4	0.441	1.064	158.0	829.7	0.594	1.533	-0.46	1.024	116.0	343.0	-8.2	0.470
4-2680	4-3410	0.416	117.3	17.5	-2.25	0.882	57.8	0.544	1.662	110.7	432.2	0.758	2.586	-0.55	1.180	113.9	9.1	2.6	0.502
4-2680	4-3410	0.303	77.5	18.9	-2.25	0.661	87.5	0.512	1.060	154.1	835.5	0.512	1.603	-0.55	1.025	120.7	349.3	-5.6	0.551
4-2680	4-3410	0.485	13.7	3.9	-2.25	0.438	119.4	0.758	0.842	186.6	1228.0	0.204	1.480	-0.55	0.897	138.3	332.1	-11.9	0.795
4-2680	4-3420	0.516	113.0	19.0	-2.44	0.882	60.9	0.638	1.663	120.1	451.4	0.601	2.724	-0.71	1.182	123.0	8.9	2.7	0.660
4-2680	4-3420	0.404	84.0	20.5	-2.44	0.659	88.0	0.616	1.057	152.7	844.0	0.406	1.708	-0.71	1.026	127.9	354.4	-3.4	0.675
4-2680	4-3420	0.484	35.9	12.2	-2.44	0.408	103.4	0.762	0.824	177.9	1229.2	0.196	1.453	-0.71	0.887	138.5	340.5	-8.8	0.795
4-2680	4-3430	0.560	86.0	21.6	-2.82	0.658	84.3	0.761	1.056	155.7	856.8	0.252	1.660	-1.06	1.029	139.5	357.6	-1.9	0.866
4-2680	4-3430	0.524	52.9	17.6	-2.82	0.396	99.7	0.837	0.818	173.2	1234.3	0.134	1.502	-1.06	0.884	145.8	347.0	-6.2	0.903

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2680	4-3480	0.473	351.1	-5.5	-1.25	0.623	118.5	0.612	1.009	202.7	954.0	0.391	1.626	0.66	1.019	52.3	268.5	-22.6	0.649
4-2690	4-2750	0.510	4.3	0.4	-1.52	0.534	120.3	0.713	0.923	194.8	220.8	---	---	0.36	0.972	44.7	276.8	-23.0	0.758
4-2690	4-2760	0.414	1.7	-1.6	-1.62	0.593	112.0	0.587	0.983	197.7	234.0	---	---	0.27	1.007	54.1	280.3	-22.8	0.618
4-2690	4-2770	0.351	358.0	-4.1	-1.69	0.644	107.7	0.483	1.048	201.3	247.7	---	---	0.22	1.039	61.3	283.8	-22.4	0.507
4-2690	4-2780	0.311	353.9	-6.8	-1.74	0.685	105.4	0.403	1.111	205.7	262.4	---	---	0.19	1.065	67.1	287.2	-22.1	0.415
4-2690	4-2790	0.287	349.7	-9.2	-1.77	0.716	104.1	0.345	1.168	210.9	277.7	---	---	0.17	1.085	71.9	290.1	-21.6	0.340
4-2690	4-2800	0.273	346.1	-11.3	-1.81	0.739	103.4	0.305	1.215	216.3	293.3	---	---	0.16	1.100	76.0	292.2	-21.2	0.277
4-2690	4-2810	0.265	343.3	-12.8	-1.84	0.755	103.1	0.278	1.252	221.2	308.4	---	---	0.16	1.110	79.5	293.2	-20.9	0.224
4-2690	4-2820	0.260	341.3	-13.9	-1.86	0.766	102.8	0.262	1.279	225.1	322.4	---	---	0.15	1.116	82.5	292.5	-20.8	0.182
4-2690	4-2830	0.256	340.1	-14.7	-1.89	0.773	102.6	0.251	1.296	227.7	335.1	---	---	0.17	1.118	85.1	289.5	-21.0	0.150
4-2690	4-2840	0.253	339.5	-15.1	-1.93	0.776	102.4	0.244	1.305	228.9	346.4	---	---	0.18	1.119	87.3	284.1	-21.2	0.127
4-2690	4-2850	0.249	339.5	-15.3	-1.97	0.777	102.1	0.240	1.307	229.0	356.4	---	---	0.20	1.117	89.3	277.0	-21.3	0.114
4-2690	4-2860	0.245	340.1	-15.4	-2.02	0.775	101.8	0.236	1.303	228.0	365.4	0.996	---	0.24	1.113	91.0	269.8	-21.1	0.110
4-2690	4-2870	0.240	341.0	-15.4	-2.09	0.773	101.3	0.233	1.296	226.2	373.5	0.994	---	0.30	1.109	92.5	264.5	-20.4	0.112
4-2690	4-2880	0.234	342.4	-15.5	-2.22	0.769	100.8	0.230	1.286	223.8	380.9	0.990	---	0.41	1.104	93.9	261.8	-19.4	0.119
4-2690	4-2890	0.227	344.4	-16.0	-2.53	0.764	100.2	0.228	1.275	220.7	387.6	0.984	---	0.71	1.098	95.0	261.7	-17.2	0.128
4-2690	4-2900	0.226	349.5	-21.4	-4.56	0.759	99.5	0.227	1.263	217.3	393.9	0.976	---	2.72	1.092	96.1	263.9	-2.7	0.146
4-2690	4-2910	0.209	345.3	-8.0	-0.40	0.754	98.7	0.226	1.250	213.4	399.7	0.967	---	-1.46	1.086	97.0	266.4	-33.9	0.151
4-2690	4-2920	0.200	349.1	-10.0	-1.28	0.748	97.8	0.226	1.237	209.3	405.2	0.957	---	-0.58	1.080	97.9	271.5	-27.3	0.160
4-2690	4-2930	0.191	352.4	-9.7	-1.51	0.742	96.8	0.227	1.224	204.8	410.4	0.946	---	-0.37	1.075	98.7	277.1	-25.6	0.171
4-2690	4-2940	0.182	356.1	-8.9	-1.62	0.737	95.7	0.229	1.211	200.2	415.3	0.934	---	-0.28	1.070	99.4	283.2	-24.5	0.183
4-2690	4-2950	0.172	0.4	-7.7	-1.68	0.731	94.5	0.232	1.199	195.3	420.0	0.921	---	-0.23	1.065	100.2	289.8	-23.4	0.196
4-2690	4-2960	0.163	5.4	-6.6	-1.73	0.725	93.2	0.237	1.187	190.3	424.5	0.906	---	-0.20	1.061	101.0	296.6	-22.2	0.209
4-2690	4-2970	0.154	11.5	-4.8	-1.76	0.720	91.7	0.244	1.176	185.2	428.9	0.889	---	-0.18	1.057	101.8	303.6	-20.7	0.224
4-2690	4-2980	0.147	18.8	-1.3	-1.79	0.715	90.0	0.254	1.166	180.0	433.3	0.870	1.461	-0.17	1.054	102.8	310.6	-19.0	0.241
4-2690	4-2990	0.142	27.7	1.9	-1.82	0.709	88.1	0.267	1.156	174.7	437.6	0.848	1.464	-0.16	1.051	103.8	317.7	-16.9	0.261
4-2690	4-3000	0.142	38.1	5.7	-1.85	0.704	85.9	0.282	1.142	169.5	441.9	0.821	1.471	-0.16	1.049	105.1	324.6	-14.7	0.284
4-2690	4-3010	0.149	49.7	9.6	-1.88	0.699	83.4	0.306	1.127	164.5	446.5	0.790	1.485	-0.16	1.047	106.7	331.4	-12.3	0.313
4-2690	4-3020	0.164	61.7	13.3	-1.91	0.695	80.3	0.335	1.129	159.6	451.3	0.750	1.507	-0.17	1.046	108.7	338.1	-9.7	0.348
4-2690	4-3030	0.193	73.0	16.2	-1.94	0.690	76.6	0.375	1.121	155.3	456.6	0.701	1.542	-0.19	1.046	111.3	344.5	-7.1	0.395
4-2690	4-3040	0.238	82.7	18.4	-1.98	0.686	71.9	0.429	1.114	151.7	462.8	0.636	1.593	-0.21	1.046	114.8	350.6	-4.5	0.457
4-2690	4-3050	0.305	89.9	19.8	-2.04	0.683	65.6	0.505	1.109	149.4	470.3	0.549	1.668	-0.25	1.046	119.9	356.1	-2.1	0.545
4-2690	4-3060	0.407	94.2	21.0	-2.13	0.680	56.7	0.612	1.104	149.5	480.2	0.429	1.780	-0.33	1.047	127.4	0.7	-0.2	0.674
4-2690	4-3070	0.562	94.8	22.0	-2.30	0.680	43.6	0.758	1.103	153.6	494.2	0.267	1.938	-0.48	1.049	139.0	3.5	1.1	0.868
4-2690	4-3120	0.480	356.6	-3.4	-1.58	0.613	119.2	0.626	1.008	201.9	592.9	0.377	1.639	0.31	1.019	91.2	274.9	-23.0	0.668
4-2690	4-3130	0.504	66.9	21.0	-1.66	0.459	55.0	0.807	0.864	169.7	570.7	0.167	1.560	0.24	0.935	36.7	298.9	-20.6	0.875
4-2690	4-3130	0.375	2.4	-1.7	-1.66	0.605	108.5	0.543	0.997	197.2	598.3	0.456	1.539	0.24	1.015	57.1	283.1	-22.5	0.571
4-2690	4-3140	0.391	61.5	19.2	-1.71	0.503	66.3	0.692	0.897	169.4	580.7	0.276	1.618	0.21	0.958	46.5	303.8	-19.6	0.733
4-2690	4-3140	0.300	15.6	3.2	-1.71	0.589	97.8	0.508	0.978	187.7	599.0	0.482	1.475	0.21	1.006	59.5	293.7	-21.3	0.530
4-2690	4-3200	0.580	110.7	20.7	-1.91	0.828	44.6	0.712	1.462	135.4	247.5	---	2.504	0.17	1.156	47.9	348.3	-4.8	0.803
4-2690	4-3210	0.543	112.7	20.1	-1.94	0.834	47.4	0.677	1.485	131.6	253.8	---	2.490	0.19	1.158	51.3	354.8	-2.0	0.746
4-2690	4-3220	0.508	114.6	19.5	-1.99	0.839	50.1	0.642	1.506	127.9	260.1	---	2.474	0.22	1.160	54.6	1.2	0.8	0.691
4-2690	4-3230	0.475	116.3	18.8	-2.05	0.845	52.5	0.609	1.527	124.3	266.4	---	2.457	0.26	1.161	57.7	7.4	3.6	0.638
4-2690	4-3240	0.445	118.0	18.0	-2.14	0.849	54.8	0.578	1.545	120.8	272.8	---	2.439	0.34	1.162	60.7	13.4	6.4	0.586
4-2690	4-3250	0.416	119.6	17.1	-2.33	0.854	56.9	0.549	1.563	117.4	279.2	---	2.420	0.51	1.163	63.5	19.3	9.2	0.537
4-2690	4-3260	0.390	120.8	15.3	-2.92	0.857	58.8	0.522	1.579	114.2	285.7	---	2.402	1.09	1.163	66.3	24.6	12.8	0.490
4-2690	4-3270	0.372	126.1	31.4	5.57	0.861	60.6	0.497	1.593	111.1	292.4	---	2.384	-7.41	1.164	68.9	38.0	-3.6	0.463
4-2690	4-3280	0.342	124.7	17.8	-1.01	0.864	62.1	0.474	1.605	108.2	299.1	---	2.366	-0.85	1.164	71.4	37.0	12.2	0.400
4-2690	4-3290	0.322	125.7	16.3	-1.41	0.866	63.5	0.454	1.616	105.5	306.0	---	2.350	-0.46	1.164	73.9	41.3	14.5	0.359
4-2690	4-3300	0.305	126.8	15.4	-1.57	0.868	64.8	0.436	1.626	103.1	313.2	---	2.334	-0.32	1.164	76.2	45.2	15.9	0.320
4-2690	4-3310	0.290	127.8	14.7	-1.65	0.870	65.9	0.420	1.634	100.9	320.5	---	2.321	-0.25	1.165	78.6	48.0	16.8	0.283
4-2690	4-3320	0.277	128.7	14.1	-1.70	0.871	66.7	0.407	1.641	99.0	328.2	---	2.309	-0.21	1.165	80.9	49.4	17.2	0.250
4-2690	4-3330	0.267	129.4	13.5	-1.75	0.872	67.4	0.397	1.646	97.4	336.2	---	2.300	-0.19	1.166	83.3	48.8	17.1	0.221
4-2690	4-3340	0.260	129.9	13.1	-1.78	0.873	67.9	0.390	1.650	96.3	344.6	---	2.295	-0.17	1.167	85.7	45.7	16.2	0.199
4-2690	4-3340	0.353	308.9	-8.6	-1.78	0.703	109.4	0.424	1.143	212.3	820.5	0.659	1.627	-0.17	1.045	114.3	290.1	-22.5	0.434
4-2690	4-3340	0.472	344.3	-9.5	-1.78	0.727	119.1	0.525	1.190	218.6	826.9	0.565	1.814	-0.17	1.062	120.7	286.5	-22.9	0.549
4-2690	4-3350	0.257	130.2	12.8	-1.81	0.874	66.2	0.387	1.654	95.6	353.4	---	2.293	-0.16	1.168	88.2	39.8	14.4	0.186
4-2690	4-3350	0.264	358.5	-5.7	-1.81	0.684	100.9	0.366	1.110	200.4	818.3	0.706	1.514	-0.16	1.034	110.8	301.5	-20.7	0.374
4-2690	4-3360	0.257	130.3	12.7	-1.84	0.874	66.2	0.387	1.656	95.5	362.9	1.014	2.297	-0.16	1.169	90.8	32.1	11.9	0.185
4-2690	4-3360	0.222	8.2	-2.5	-1.84	0.675	95.9	0.349	1.095	191.3	818.6	0.713	1.476	-0.16	1.029	110.0	311.2	-18.5	0.361
4-2690	4-3370	0.263	130.0	12.9	-1.86	0.875	67.8	0.393	1.657	96.0	373.0	1.006	2.309	-0.16	1.171	93.7	24.5	9.2	0.200
4-2690	4-3370	0.196	19.7	1.7	-1.86	0.668	91.6	0.349	1.094	183.0	819.9	0.706	1.462	-0.16	1.026	110.1	320.1	-16.0	0.364
4-2690	4-3380	0.274	129.4	13.2	-1.89	0.875	67.0	0.405	1.658	97.4	384.0	0.986	2.330	-0.17	1.173	96.9	18.7	7.0	0.232
4-2690	4-3380	0.185	33.4	6.5	-1.89	0.663	87.3	0.361	1.076	175.3	821.9	0.688	1.464	-0.17	1.024	110.9	328.4	-13.2	0.379
4-2690	4-3390	0.294	128.4	13.8	-1.92	0.875	65.6	0.426	1.658	99.7	395.9	0.991	2.364	-0.18	1.175	100.5	15.1	5.7	0.281
4-2690	4-3390	0.190	48.6	11.6	-1.92	0.658	82.9	0.384	1.069	168.3	824.5	0.658	1.480	-0.18	1.024	112.4	336.3	-10.3	0.407
4-2690	4-3400	0.326	126.8	14.8	-1.96	0.875	63.5	0.459	1.658	103.2	409.2	0.896	2.419	-0.20	1.177	105.0	13.5	5.1	0.350
4-2690	4-3400	0.214	63.7	15.8	-1.96	0.655	77.8	0.422	1.064	162.1	828.1	0.615	1.513	-0.20	1.024	113.8	343.6	-7.4	0.449
4-2690	4-3410	0.376	124.5	16.0	-2.01	0.875	60.0	0.510	1.657	108.4	424.1	0.813	2.502	-0.23	1.179	110.6	13.1	5.0	0.444
4-2690	4-3410	0.262	76.5	18.6	-2.01	0.652	71.6	0.479	1.059	157.1	832.9	0.552	1.567	-0.23	1.025	118.5	350.3	-4.6	0.514
4-2690	4-3420	0.454	121.2	17.5	-2.08	0.875	54.7	0.586	1.657	115.8	441.4	0.686	2.628	-0.28	1.181	118.0	13.3	5.1	0.574
4-2690	4-3420	0.340	85.7	20.4	-2.08	0.649	68.6	0.562	1.056	154.1	839.7	0.462	1.650	-0.28	1.026	124.1	356.1	-2.1	0.611
4-2690	4-3420	0.463	26.2	9.2	-2.08	0.409	100.6	0.765	0.833	183.3	1228.9	0.196	1.469	-0.28	0.893	138.9	340.7	-8.4	0.803
4-2690	4-3430	0.576	116.1	19.3	-2.19	0.875	46.1	0.698	1.658	126.8	462.2	0.501	2.816	-0.38	1.184	128.7	12.9	5.0	0.761
4-2690	4-3430	0.462	90.7	21.5	-2.19	0.648	52.4	0.683	1.054	154.3	849.7	0.334	1.773	-0.38	1.028	133.0	0.6	-0.2	0.759
4-2690	4-3430	0.469	47.3	16.3	-2.19	0.386	75.2	0.798	0.820	176.1	1231.6	0.165	1.475	-0.38	0.886	181.9	348.3	-5.3	0.847
4-2690	4-3440	0.586	61.7	20.2	-2.46	0.376	88.7	0.889	0.815	173.4	1238.7	0.090	1.540	-0.63	0.885	152.1	353.8	-3.0	0.993
4-2690	4-3480	0.548	355.9	-3.3	-1.51	0.611	125.6	0.689	1.005	202.0	947.6	0.312	1.698	0.37	1.017	46.4	271.9	-23.1	0.745
4-2690	4-3480	0.588	332.2	-13.8	-1.62	0.865	125.3	0.584	1.614	242.3	638.0	0.672	2.556	0.27	1.188	61.9	255.6	-22.3	0.555
4-2690	4-3490	0.425	359.0	-2.8	-1.62	0.708	113.8	0.582	1.002	200.0	955.8	0.419	1.585	0.27	1.016	54.4	278.6	-22.8	0.615

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2700	4-2760	0.495	359.9	-2.3	-1.89	0.622	120.9	0.632	1.031	203.5	234.1	---	---	-0.04	1.031	50.9	279.9	-23.2	0.679
4-2700	4-2770	0.415	356.2	-4.7	-1.87	0.667	114.3	0.517	1.096	208.4	249.2	---	---	-0.03	1.059	59.3	282.9	-23.0	0.547
4-2700	4-2780	0.366	352.2	-7.1	-1.87	0.706	110.6	0.432	1.164	214.1	265.1	---	---	-0.03	1.084	65.9	285.7	-22.7	0.442
4-2700	4-2790	0.337	348.4	-9.3	-1.86	0.735	108.5	0.371	1.225	220.3	281.5	---	---	-0.02	1.103	71.3	288.0	-22.5	0.358
4-2700	4-2800	0.319	345.2	-11.1	-1.86	0.757	107.3	0.332	1.277	226.3	297.7	---	---	-0.02	1.118	75.7	289.4	-22.3	0.289
4-2700	4-2810	0.309	342.7	-12.4	-1.85	0.773	106.5	0.307	1.315	231.4	312.9	---	---	-0.02	1.127	79.5	289.5	-22.3	0.233
4-2700	4-2820	0.302	341.1	-13.2	-1.85	0.782	106.0	0.292	1.342	235.1	326.8	---	---	-0.02	1.132	82.7	287.7	-22.6	0.190
4-2700	4-2830	0.296	340.2	-13.7	-1.85	0.787	105.6	0.282	1.357	237.2	339.0	---	---	-0.02	1.134	85.4	283.7	-23.0	0.157
4-2700	4-2840	0.291	339.9	-13.9	-1.84	0.789	105.2	0.275	1.362	238.0	349.8	---	---	-0.02	1.133	87.8	277.4	-23.5	0.136
4-2700	4-2850	0.286	340.1	-13.9	-1.84	0.788	104.8	0.269	1.359	237.5	359.4	---	---	-0.03	1.130	89.9	270.2	-23.7	0.125
4-2700	4-2860	0.279	340.7	-13.8	-1.83	0.785	104.4	0.264	1.351	236.1	367.9	0.995	---	-0.03	1.125	91.6	263.8	-23.6	0.123
4-2700	4-2870	0.272	341.6	-13.5	-1.82	0.781	103.9	0.259	1.339	233.9	375.6	0.992	---	-0.03	1.120	93.2	259.6	-23.4	0.126
4-2700	4-2880	0.265	342.8	-13.1	-1.81	0.776	103.3	0.255	1.324	231.1	382.6	0.987	---	-0.04	1.114	94.5	258.1	-23.4	0.133
4-2700	4-2890	0.256	344.3	-12.6	-1.79	0.770	102.6	0.251	1.308	227.8	389.0	0.980	---	-0.07	1.107	95.7	258.8	-23.6	0.142
4-2700	4-2900	0.246	345.9	-11.8	-1.72	0.763	101.8	0.247	1.291	224.0	395.0	0.972	---	-0.14	1.100	96.7	261.4	-24.2	0.152
4-2700	4-2910	0.240	350.7	-16.4	-3.61	0.756	100.9	0.244	1.274	220.0	400.7	0.962	---	1.76	1.093	97.7	265.7	-11.8	0.165
4-2700	4-2920	0.226	350.7	-11.1	-1.97	0.749	100.0	0.243	1.257	215.6	405.9	0.952	---	0.12	1.086	98.5	270.5	-22.7	0.173
4-2700	4-2930	0.215	353.3	-10.1	-1.91	0.742	98.9	0.242	1.241	211.0	410.9	0.941	---	0.06	1.080	99.2	276.3	-23.0	0.183
4-2700	4-2940	0.204	356.4	-9.0	-1.89	0.736	97.8	0.242	1.226	206.2	415.7	0.929	---	0.04	1.074	100.0	282.6	-22.7	0.194
4-2700	4-2950	0.192	0.0	-7.7	-1.88	0.729	96.5	0.243	1.211	201.2	420.2	0.916	---	0.03	1.069	100.7	289.3	-22.1	0.205
4-2700	4-2960	0.181	4.4	-6.2	-1.87	0.722	95.1	0.247	1.197	196.0	424.6	0.902	---	0.03	1.064	101.4	296.3	-21.1	0.218
4-2700	4-2970	0.170	9.6	-4.3	-1.86	0.716	93.6	0.252	1.184	190.8	428.9	0.886	---	0.03	1.060	102.2	302.3	-19.8	0.231
4-2700	4-2980	0.160	16.0	-2.0	-1.86	0.710	91.9	0.260	1.172	185.4	433.1	0.868	---	0.02	1.056	103.0	310.5	-18.2	0.246
4-2700	4-2990	0.151	23.8	0.9	-1.85	0.704	90.0	0.270	1.160	180.0	437.2	0.847	---	0.02	1.053	104.0	317.6	-16.2	0.264
4-2700	4-3000	0.146	33.3	4.3	-1.85	0.698	87.9	0.284	1.150	174.6	441.4	0.823	1.476	0.02	1.050	105.1	324.7	-14.0	0.284
4-2700	4-3010	0.147	44.6	8.2	-1.85	0.692	85.4	0.303	1.140	169.3	445.7	0.794	1.485	0.02	1.048	106.5	331.6	-11.6	0.309
4-2700	4-3020	0.155	57.1	12.2	-1.84	0.687	82.5	0.328	1.130	164.2	450.2	0.759	1.501	0.02	1.047	108.2	338.4	-9.0	0.340
4-2700	4-3030	0.175	69.8	15.5	-1.84	0.682	79.1	0.362	1.122	159.4	455.1	0.716	1.527	0.02	1.046	110.4	345.0	-6.3	0.380
4-2700	4-3040	0.209	81.3	18.0	-1.83	0.678	74.8	0.407	1.114	155.2	460.6	0.660	1.567	0.03	1.045	113.4	351.4	-3.7	0.433
4-2700	4-3050	0.273	90.5	19.6	-1.83	0.673	69.3	0.470	1.107	152.0	467.2	0.587	1.627	0.03	1.045	117.5	357.3	-1.1	0.505
4-2700	4-3060	0.344	97.0	20.7	-1.82	0.670	61.9	0.558	1.101	150.4	475.6	0.487	1.716	0.04	1.046	123.5	2.5	1.2	0.609
4-2700	4-3070	0.466	100.1	21.6	-1.80	0.668	51.2	0.681	1.098	151.9	486.9	0.351	1.845	0.05	1.047	132.6	6.5	2.9	0.762
4-2700	4-3120	0.553	1.8	-1.0	-1.89	0.597	126.2	0.703	1.000	200.9	586.2	0.296	1.703	-0.05	1.015	45.3	278.5	-23.3	0.765
4-2700	4-3130	0.538	71.1	21.7	-1.88	0.424	51.3	0.848	0.850	171.2	566.7	0.129	1.570	-0.04	0.925	32.4	301.4	-20.3	0.934
4-2700	4-3130	0.427	5.6	-0.1	-1.88	0.590	113.6	0.599	0.991	198.3	593.8	0.397	1.585	-0.04	1.012	53.2	285.5	-22.7	0.636
4-2700	4-3140	0.430	67.3	20.5	-1.87	0.469	64.7	0.746	0.879	170.3	576.0	0.223	1.535	-0.03	0.947	42.1	306.5	-19.2	0.798
4-2700	4-3140	0.335	15.7	3.5	-1.87	0.576	102.3	0.543	0.975	190.8	596.4	0.446	1.505	-0.03	1.004	57.1	295.1	-21.5	0.570
4-2700	4-3200	0.590	115.4	20.1	-1.84	0.816	43.2	0.729	1.446	137.8	244.4	---	2.499	-0.02	1.153	46.2	349.8	-4.4	0.831
4-2700	4-3210	0.552	117.4	19.5	-1.84	0.822	46.2	0.693	1.469	134.0	250.6	---	2.486	-0.02	1.155	49.7	356.3	-1.6	0.773
4-2700	4-3220	0.516	119.3	18.9	-1.83	0.825	48.9	0.657	1.491	130.3	256.9	---	2.471	-0.03	1.157	53.0	2.7	1.1	0.716
4-2700	4-3230	0.482	121.2	18.3	-1.83	0.834	51.5	0.623	1.512	126.7	263.2	---	2.454	-0.03	1.159	56.2	9.0	3.8	0.662
4-2700	4-3240	0.451	122.9	17.7	-1.82	0.839	53.8	0.591	1.532	123.2	269.6	---	2.437	-0.04	1.160	59.3	15.2	6.4	0.609
4-2700	4-3250	0.421	124.6	17.0	-1.80	0.844	56.0	0.561	1.550	119.8	276.0	---	2.419	-0.05	1.161	62.2	21.2	8.8	0.558
4-2700	4-3260	0.394	126.2	16.4	-1.77	0.848	58.0	0.532	1.567	116.6	282.5	---	2.401	-0.09	1.161	65.0	27.2	11.0	0.509
4-2700	4-3270	0.369	127.8	16.1	-1.57	0.851	59.8	0.506	1.582	113.5	289.1	---	2.382	-0.28	1.162	67.7	33.0	12.8	0.463
4-2700	4-3280	0.346	128.9	14.4	-2.08	0.854	61.5	0.482	1.595	110.6	295.8	---	2.365	0.23	1.162	70.3	38.0	15.6	0.418
4-2700	4-3290	0.326	130.3	14.1	-1.93	0.857	62.9	0.461	1.607	107.8	302.7	---	2.348	0.08	1.163	72.8	43.1	16.8	0.376
4-2700	4-3300	0.307	131.5	13.5	-1.90	0.860	64.2	0.442	1.617	105.3	309.8	---	2.332	0.05	1.163	75.2	47.4	17.9	0.335
4-2700	4-3310	0.291	132.6	12.9	-1.88	0.861	65.4	0.425	1.626	103.1	317.1	---	2.318	0.04	1.164	77.6	50.8	18.7	0.298
4-2700	4-3320	0.278	133.5	12.3	-1.87	0.863	66.3	0.411	1.634	101.1	324.6	---	2.305	0.03	1.164	79.9	52.9	19.2	0.263
4-2700	4-3330	0.267	134.3	11.8	-1.87	0.864	67.1	0.400	1.640	99.4	332.5	---	2.295	0.03	1.165	82.2	53.2	19.3	0.232
4-2700	4-3340	0.259	134.9	11.5	-1.86	0.865	67.7	0.391	1.644	98.1	340.6	---	2.288	0.02	1.166	84.6	51.1	18.8	0.207
4-2700	4-3350	0.254	135.4	11.2	-1.86	0.866	68.0	0.386	1.648	97.3	349.5	---	2.285	0.02	1.167	87.1	46.2	17.5	0.189
4-2700	4-3350	0.336	355.8	-5.8	-1.86	0.688	107.8	0.420	1.132	209.0	821.2	0.657	1.608	0.02	1.042	114.2	299.7	-20.6	0.493
4-2700	4-3350	0.507	349.4	-7.2	-1.86	0.723	121.9	0.563	1.200	217.9	830.1	0.524	1.875	0.02	1.066	123.3	294.9	-21.4	0.597
4-2700	4-3360	0.253	135.6	11.1	-1.85	0.867	68.1	0.385	1.650	96.9	358.7	---	2.286	0.02	1.169	89.6	39.0	15.4	0.183
4-2700	4-3360	0.259	5.2	-2.9	-1.85	0.672	100.2	0.374	1.104	198.0	819.8	0.692	1.517	0.02	1.032	111.5	310.4	-18.2	0.387
4-2700	4-3370	0.256	135.5	11.2	-1.85	0.867	67.9	0.389	1.652	97.2	368.5	1.010	2.294	0.02	1.170	92.4	31.0	12.7	0.191
4-2700	4-3370	0.219	15.5	0.7	-1.85	0.663	95.1	0.362	1.090	189.0	820.4	0.695	1.484	0.02	1.028	110.9	319.7	-15.6	0.377
4-2700	4-3380	0.264	135.1	11.6	-1.85	0.867	67.3	0.398	1.653	98.1	379.1	0.995	2.311	0.02	1.172	95.4	24.3	10.2	0.216
4-2700	4-3380	0.196	27.9	5.1	-1.85	0.656	90.5	0.365	1.079	180.9	821.8	0.685	1.474	0.02	1.026	111.1	328.3	-12.8	0.384
4-2700	4-3390	0.280	134.3	12.2	-1.84	0.867	66.3	0.415	1.653	99.9	390.5	0.968	2.339	0.02	1.174	98.8	19.9	8.5	0.257
4-2700	4-3390	0.188	42.7	10.1	-1.84	0.651	85.9	0.381	1.071	173.4	824.0	0.663	1.480	0.02	1.025	112.2	336.3	-9.8	0.403
4-2700	4-3400	0.306	133.1	13.1	-1.84	0.867	64.5	0.442	1.653	102.7	403.0	0.923	2.383	0.02	1.176	102.8	17.6	7.6	0.316
4-2700	4-3400	0.199	58.7	14.8	-1.84	0.646	81.0	0.410	1.065	166.6	826.9	0.628	1.502	0.02	1.024	114.0	348.9	-6.8	0.436
4-2700	4-3410	0.345	131.2	14.3	-1.83	0.867	61.7	0.483	1.653	106.9	417.0	0.855	2.451	0.03	1.178	107.8	17.0	7.3	0.396
4-2700	4-3410	0.231	73.7	18.2	-1.83	0.643	75.3	0.455	1.060	160.8	831.0	0.577	1.542	0.03	1.025	116.9	351.0	-3.8	0.487
4-2700	4-3420	0.407	128.6	15.8	-1.82	0.867	57.5	0.545	1.652	112.9	432.8	0.752	2.553	0.03	1.181	114.1	17.2	7.4	0.506
4-2700	4-3420	0.291	85.7	20.2	-1.82	0.640	68.2	0.523	1.055	156.6	836.5	0.504	1.607	0.03	1.027	121.4	357.4	-1.1	0.564
4-2700	4-3430	0.501	124.6	17.6	-1.81	0.867	50.9	0.637	1.653	121.6	451.4	0.600	2.705	0.04	1.183	122.9	17.5	7.5	0.659
4-2700	4-3430	0.386	93.5	21.4	-1.81	0.638	58.9	0.621	1.052	154.7	844.5	0.399	1.705	0.04	1.027	128.3	2.7	1.2	0.681
4-2700	4-3430	0.461	38.6	13.9	-1.81	0.382	92.2	0.785	0.826	180.6	1230.4	0.177	1.474	0.04	0.851	140.7	348.9	-4.8	0.851
4-2700	4-3440	0.532	96.6	22.3	-1.79	0.637	45.5	0.757	1.051	156.8	856.5	0.255	1.846	0.06	1.029	139.1	6.4	2.8	0.861
4-2700	4-3440	0.510	50.3	19.5	-1.79	0.363	65.5	0.843	0.816	175.0	1234.7	0.128	1.504	0.06	0.886	146.5	355.7	-1.8	0.914
4-2700	4-3490	0.488	2.8	-0.9	-1.89	0.596	119.9	0.648	0.998	200.5	950.6	0.352	1.645	-0.04	1.015	49.6	281.4	-23.1	0.694
4-2700	4-3500	0.555	336.7	-12.6	-1.87	0.857	123.2	0.552	1.606	244.0	644.3	0.720	3.492	-0.05	1.188	64.8	263.0	-23.4	0.505
4-2700	4-3500	0.578	81.1	22.6	-1.87	0.494	42.7	0.854	0.898	167.9	928.2	0.131	1.666	-0.03	0.959	31.5	304.8	-19.6	0.964
4-2700	4-3500	0.382	8.0	0.6	-1.87	0.592	108.9	0.561	0.993	196.4	956.7	0.436	1.551	-0.03	1.013	55.9	289.2	-22.3	0.592
4-2710	4-2770	0.503	354.9	-5.1	-2.12	0.713	121.0	0.567	1.295	216.7	252.0	---	---	-0.35	1.094	56.8	281.3	-23.6	0.603
4-2710	4-2780	0.438	351.1	-7.3	-2.04	0.743	116.5	0.475	1.260	223.7	269.2	---	---	-0.28	1.114	64.5	283.5	-23.5	0.480

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2710	4-2720	0.[illegible]	[illegible]	[illegible]	-1.99	[illegible]58	113.4	0.413	1.324	230.8	286.5	---	---	-0.24	1.131	70.5	285.0	-23.4	0.384
4-2710	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]87	111.5	0.374	1.378	237.1	303.0	---	---	-0.22	1.143	75.4	285.6	-23.5	0.307
4-2710	[illegible]	[illegible]62	[illegible]	[illegible]	[illegible]	[illegible]799	110.3	0.350	1.416	242.0	318.0	---	---	-0.21	1.150	79.5	284.7	-23.7	0.248
4-2710	[illegible]	0.352	[illegible]	[illegible]	[illegible]	0.807	109.5	0.335	1.439	245.2	331.3	---	---	-0.20	1.154	82.9	281.8	-24.1	0.202
4-2710	[illegible]	[illegible]340	[illegible]	[illegible]	[illegible]	0.809	108.9	0.325	1.449	246.7	343.0	---	---	-0.20	1.154	85.9	276.8	-24.7	0.170
4-2710	[illegible]	[illegible]	340.1	-12.8	-1.78	0.809	108.3	0.316	1.446	246.9	353.2	---	---	-0.21	1.152	88.4	270.1	-25.0	0.150
4-2710	[illegible]	[illegible]	341.1	-12.6	-1.74	0.805	107.8	0.308	1.435	245.9	362.2	0.994	---	-0.22	1.147	90.5	263.3	-25.1	0.141
4-2710	4-2900	0.319	341.8	-12.3	-1.69	0.800	107.2	0.300	1.419	244.0	370.2	0.993	---	-0.25	1.141	92.4	258.0	-25.0	0.140
4-2710	4-2870	0.310	342.8	-11.9	-1.63	0.794	106.6	0.292	1.398	241.4	377.5	0.989	---	-0.29	1.134	93.9	255.1	-25.0	0.145
4-2710	4-2880	0.301	343.9	-11.3	-1.54	0.786	105.9	0.285	1.375	238.2	384.2	0.983	---	-0.36	1.126	95.3	254.7	-25.3	0.852
4-2710	4-2890	0.289	345.3	-10.4	-1.40	0.778	105.2	0.279	1.352	234.6	390.4	0.975	---	-0.49	1.118	96.5	256.2	-26.2	0.160
4-2710	4-2900	0.277	346.6	-9.0	-1.07	0.770	104.3	0.273	1.328	230.7	396.2	0.966	---	-0.80	1.110	97.5	259.4	-28.3	0.170
4-2710	4-2910	0.265	346.7	-4.5	0.52	0.761	103.4	0.267	1.306	226.4	401.6	0.957	---	-2.36	1.102	98.4	263.2	-37.5	0.184
4-2710	4-2920	0.259	354.7	-15.5	-4.21	0.753	102.3	0.263	1.284	221.9	406.7	0.946	---	2.38	1.094	99.2	269.4	-10.0	0.193
4-2710	4-2930	0.242	355.0	-10.9	-2.62	0.744	101.2	0.260	1.264	217.1	411.5	0.935	---	0.80	1.087	99.9	275.4	-19.0	0.198
4-2710	4-2940	0.229	357.4	-9.1	-2.29	0.736	100.0	0.258	1.245	212.2	416.1	0.923	---	0.49	1.080	100.6	281.9	-20.5	0.207
4-2710	4-2950	0.215	0.5	-7.6	-2.14	0.728	98.7	0.258	1.227	207.0	420.6	0.910	---	0.36	1.074	101.3	288.7	-20.6	0.217
4-2710	4-2960	0.201	4.2	-6.1	-2.05	0.720	97.2	0.259	1.210	201.8	424.8	0.897	---	0.29	1.068	101.9	295.8	-20.0	0.228
4-2710	4-2970	0.188	8.7	-4.4	-1.99	0.713	95.6	0.262	1.195	196.4	429.0	0.881	---	0.25	1.063	102.6	303.0	-18.9	0.240
4-2710	4-2980	0.176	14.2	-2.3	-1.94	0.706	93.9	0.268	1.180	190.9	433.0	0.864	---	0.23	1.059	103.4	310.2	-17.4	0.253
4-2710	4-2990	0.164	21.0	0.3	-1.91	0.699	92.0	0.276	1.167	185.3	437.0	0.845	---	0.21	1.055	104.2	317.5	-15.5	0.269
4-2710	4-3000	0.155	29.4	3.4	-1.87	0.692	89.9	0.287	1.155	179.8	441.0	0.823	1.487	0.20	1.052	105.2	324.6	-13.3	0.287
4-2710	4-3010	0.150	39.8	7.0	-1.84	0.686	87.5	0.303	1.143	174.2	445.1	0.797	1.490	0.20	1.050	106.4	331.7	-10.9	0.309
4-2710	4-3020	0.152	52.0	11.0	-1.80	0.680	84.7	0.324	1.133	168.9	449.4	0.765	1.500	0.20	1.048	107.9	338.6	-8.3	0.336
4-2710	4-3030	0.163	65.3	14.7	-1.77	0.674	81.5	0.353	1.123	163.7	453.9	0.727	1.519	0.21	1.046	109.8	345.4	-5.6	0.370
4-2710	4-3040	0.188	78.4	17.5	-1.72	0.669	77.6	0.391	1.114	159.0	459.0	0.678	1.550	0.23	1.046	112.4	351.9	-2.9	0.415
4-2710	4-3050	0.230	89.7	19.4	-1.67	0.664	72.6	0.444	1.106	155.1	464.8	0.615	1.597	0.26	1.045	115.8	358.2	-0.2	0.476
4-2710	4-3060	0.285	98.3	20.5	-1.61	0.660	66.2	0.517	1.099	152.4	472.0	0.531	1.667	0.31	1.045	120.7	3.9	2.2	0.560
4-2710	4-3070	0.392	103.7	21.3	-1.50	0.657	57.3	0.619	1.094	151.9	481.4	0.417	1.771	0.39	1.046	127.9	8.8	4.3	0.683
4-2710	4-3080	0.538	105.2	22.1	-1.31	0.655	44.5	0.757	1.092	155.1	494.5	0.265	1.918	0.57	1.048	139.0	12.1	5.7	0.867
4-2710	4-3130	0.573	75.0	22.2	-2.19	0.387	47.6	0.886	0.836	172.8	562.7	0.096	1.577	-0.40	0.915	28.1	303.8	-20.0	0.992
4-2710	4-3130	0.486	9.7	1.8	-2.19	0.574	119.6	0.664	0.984	198.5	588.4	0.331	1.638	-0.40	1.008	48.4	288.4	-22.8	0.715
4-2710	4-3140	0.467	72.4	21.3	-2.08	0.432	61.4	0.794	0.863	171.5	571.7	0.177	1.549	-0.31	0.936	37.8	309.0	-18.8	0.860
4-2710	4-3140	0.377	17.3	4.3	-2.08	0.562	107.1	0.586	0.971	193.0	593.1	0.402	1.540	-0.31	1.002	54.1	296.9	-21.6	0.620
4-2710	4-3150	0.329	54.4	16.2	-2.00	0.500	82.1	0.633	0.915	175.4	585.7	0.336	1.495	-0.26	0.970	50.9	311.6	-18.3	0.667
4-2710	4-3150	0.311	43.8	13.6	-2.00	0.523	88.8	0.594	0.933	179.2	589.5	0.379	1.487	-0.26	0.981	53.7	309.5	-18.8	0.624
4-2710	4-3200	0.599	119.9	19.4	-1.80	0.803	41.9	0.745	1.429	140.2	241.2	---	2.494	-0.20	1.149	44.5	351.2	-4.0	0.858
4-2710	4-3210	0.561	122.0	18.8	-1.76	0.810	44.9	0.709	1.452	136.4	247.5	---	2.481	-0.21	1.152	48.1	357.7	-1.3	0.799
4-2710	4-3220	0.524	123.9	18.2	-1.72	0.817	47.7	0.672	1.475	132.7	253.8	---	2.467	-0.23	1.154	51.5	4.1	1.5	0.741
4-2710	4-3230	0.490	125.8	17.6	-1.67	0.823	50.4	0.638	1.497	129.1	260.1	---	2.451	-0.26	1.156	54.8	10.4	4.1	0.685
4-2710	4-3240	0.458	127.6	17.0	-1.59	0.828	52.8	0.604	1.518	125.6	266.4	---	2.435	-0.32	1.157	57.9	16.7	6.6	0.632
4-2710	4-3250	0.427	129.4	16.5	-1.48	0.833	55.1	0.573	1.537	122.2	272.9	---	2.417	-0.41	1.158	60.9	22.9	8.8	0.580
4-2710	4-3260	0.399	131.1	16.2	-1.28	0.838	57.2	0.543	1.554	119.0	279.3	---	2.399	-0.59	1.159	63.8	29.1	10.7	0.530
4-2710	4-3270	0.373	133.0	16.6	-0.70	0.842	59.1	0.516	1.570	115.9	285.9	---	2.381	-1.16	1.160	66.5	35.4	11.4	0.482
4-2710	4-3280	0.594	133.5	67.1	35.87	0.845	50.8	0.491	1.585	112.9	292.6	---	2.363	-37.71	1.160	69.1	78.3	-33.4	0.799
4-2710	4-3290	0.331	134.1	10.5	-3.05	0.848	62.3	0.468	1.597	110.1	299.5	---	2.346	1.23	1.161	71.7	44.3	20.4	0.393
4-2710	4-3300	0.311	135.8	11.9	-2.42	0.851	63.7	0.448	1.608	107.6	306.5	---	2.329	0.61	1.162	74.1	49.4	20.2	0.351
4-2710	4-3310	0.294	137.1	10.8	-2.21	0.853	64.9	0.430	1.618	105.2	313.8	---	2.314	0.42	1.162	76.5	53.4	20.7	0.312
4-2710	4-3320	0.279	138.1	10.4	-2.09	0.855	65.9	0.415	1.626	103.2	321.2	---	2.301	0.32	1.163	78.9	56.1	21.2	0.276
4-2710	4-3330	0.267	139.0	10.0	-2.02	0.856	66.8	0.403	1.633	101.4	329.0	---	2.290	0.27	1.164	81.2	57.2	21.3	0.243
4-2710	4-3340	0.258	139.8	9.7	-1.97	0.857	67.4	0.393	1.638	100.0	337.1	---	2.282	0.24	1.165	83.6	56.1	21.1	0.215
4-2710	4-3350	0.252	140.3	9.5	-1.93	0.858	67.9	0.387	1.642	99.0	345.7	---	2.277	0.22	1.166	86.0	52.2	20.3	0.194
4-2710	4-3360	0.249	140.6	9.4	-1.89	0.859	68.1	0.384	1.645	98.5	354.7	---	2.277	0.21	1.168	88.5	45.6	18.6	0.183
4-2710	4-3360	0.322	2.7	-3.0	-1.89	0.677	106.5	0.420	1.123	205.9	822.2	0.651	1.595	0.21	1.040	114.3	309.0	-18.2	0.437
4-2710	4-3360	0.537	354.5	-4.7	-1.89	0.719	124.5	0.598	1.208	216.9	833.2	0.486	1.930	0.21	1.069	125.7	303.3	-19.6	0.643
4-2710	4-3370	0.250	140.7	9.5	-1.85	0.859	68.0	0.385	1.647	98.5	364.3	1.012	2.282	0.20	1.169	91.2	37.6	16.2	0.185
4-2710	4-3370	0.253	12.3	0.2	-1.85	0.660	99.3	0.384	1.098	195.5	821.3	0.677	1.520	0.20	1.032	112.2	319.0	-15.4	0.401
4-2710	4-3380	0.256	140.5	9.9	-1.82	0.859	67.6	0.392	1.648	99.1	374.5	1.002	2.294	0.20	1.171	94.3	30.2	13.9	0.203
4-2710	4-3380	0.216	23.3	4.1	-1.82	0.651	94.0	0.376	1.085	186.7	822.1	0.676	1.493	0.20	1.028	111.8	327.9	-12.4	0.396
4-2710	4-3390	0.269	139.9	10.5	-1.79	0.860	66.7	0.405	1.649	100.4	385.5	0.980	2.317	0.21	1.173	97.3	24.8	11.4	0.237
4-2710	4-3390	0.196	36.9	8.7	-1.79	0.644	89.2	0.384	1.074	178.7	823.8	0.662	1.487	0.21	1.026	112.3	336.3	-9.4	0.406
4-2710	4-3400	0.289	138.9	11.3	-1.75	0.860	65.3	0.427	1.648	102.7	397.5	0.944	2.353	0.22	1.175	101.0	21.9	10.1	0.288
4-2710	4-3400	0.193	52.8	13.6	-1.75	0.639	84.3	0.404	1.067	171.4	826.2	0.635	1.498	0.22	1.025	113.6	344.1	-6.3	0.430
4-2710	4-3410	0.321	137.5	12.5	-1.70	0.859	63.1	0.461	1.648	106.0	410.6	0.888	2.409	0.24	1.178	105.4	20.8	9.6	0.358
4-2710	4-3410	0.211	69.4	17.5	-1.70	0.634	78.8	0.439	1.060	165.0	829.6	0.594	1.526	0.24	1.025	115.9	351.4	-3.2	0.470
4-2710	4-3420	0.370	135.3	13.9	-1.64	0.859	59.6	0.513	1.647	110.9	425.3	0.803	2.492	0.28	1.180	111.0	21.0	9.6	0.451
4-2710	4-3420	0.255	83.9	20.3	-1.64	0.631	72.4	0.593	1.055	159.8	834.2	0.534	1.576	0.28	1.025	119.4	358.2	-0.2	0.531
4-2710	4-3430	0.445	132.2	15.7	-1.56	0.859	54.4	0.588	1.647	117.9	442.2	0.678	2.616	0.34	1.182	118.3	21.5	9.7	0.579
4-2710	4-3430	0.329	94.6	21.2	-1.56	0.628	64.2	0.573	1.051	156.4	840.7	0.449	1.653	0.34	1.026	124.9	4.3	2.4	0.624
4-2710	4-3440	0.561	127.5	17.8	-1.43	0.859	46.1	0.697	1.648	128.1	462.3	0.499	2.797	0.46	1.185	128.7	21.6	9.7	0.761
4-2710	4-3440	0.444	100.6	22.0	-1.42	0.626	53.1	0.687	1.048	156.0	850.2	0.328	1.769	0.46	1.028	133.3	9.0	4.4	0.766
4-2710	4-3440	0.476	51.1	18.0	-1.43	0.355	83.0	0.816	0.820	178.4	1232.6	0.151	1.489	0.46	0.889	143.7	356.7	-1.1	0.876
4-2710	4-3450	0.566	68.2	21.9	-1.14	0.339	54.0	0.892	0.813	174.8	1239.0	0.088	1.538	0.73	0.886	152.4	2.6	1.4	0.993
4-2710	4-3490	0.562	7.6	1.3	-2.27	0.583	127.3	0.723	0.994	199.7	944.3	0.276	1.713	-0.48	1.013	43.7	284.8	-23.2	0.791
4-2710	4-3500	0.604	343.9	-9.6	-2.13	0.848	126.9	0.604	1.599	238.4	633.2	0.634	2.563	-0.35	1.187	59.7	269.4	-24.0	0.594
4-2710	4-3500	0.484	10.9	2.0	-2.13	0.578	91.4	0.615	0.990	197.8	952.5	0.381	1.600	-0.28	1.012	52.0	291.4	-22.4	0.657
4-2710	4-3510	0.526	341.2	-11.2	-2.04	0.348	121.7	0.523	1.530	245.2	650.2	0.762	2.434	-0.20	1.187	82.4	270.6	-24.1	0.462
4-2710	4-3510	0.513	84.8	22.4	-2.04	0.490	149.9	0.811	0.905	167.5	932.4	0.171	1.639	-0.28	0.964	36.0	312.9	-17.8	0.930
4-2710	4-3510	0.342	19.0	4.7	-2.04	0.573	113.6	0.550	0.983	191.7	956.7	0.443	1.524	-0.28	1.009	56.6	300.1	-21.0	0.681
4-2720	4-2780	0.534	350.4	-7.4	-2.26	0.805	122.9	0.544	1.459	234.6	274.7	---	---	-0.58	1.161	62.5	280.4	-24.2	0.539

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2720	4-2790	0.481	347.2	-9.1	-2.12	0.820	118.7	0.480	1.512	242.2	292.4	---	---	-0.48	1.171	69.4	281.2	-24.3	0.422
4-2720	4-2800	0.448	344.8	-10.3	-2.02	0.832	116.1	0.441	1.558	248.3	308.7	---	---	-0.43	1.179	74.9	280.9	-24.5	0.335
4-2720	4-2810	0.426	343.1	-11.2	-1.94	0.839	114.4	0.416	1.588	252.6	323.2	---	---	-0.40	1.183	79.4	279.0	-24.9	0.270
4-2720	4-2820	0.411	342.1	-11.6	-1.87	0.842	113.2	0.398	1.599	255.1	335.8	---	---	-0.38	1.184	83.2	275.1	-25.4	0.222
4-2720	4-2830	0.399	341.8	-11.7	-1.81	0.841	112.4	0.384	1.595	256.9	346.7	---	---	-0.37	1.181	86.3	269.5	-25.8	0.190
4-2720	4-2840	0.387	341.9	-11.6	-1.74	0.836	111.6	0.372	1.577	255.4	356.3	---	---	-0.38	1.176	89.0	262.9	-25.9	0.171
4-2720	4-2850	0.376	342.5	-11.4	-1.67	0.830	111.0	0.359	1.550	253.9	364.7	0.993	---	-0.40	1.169	91.2	257.0	-25.8	0.163
4-2720	4-2860	0.365	343.3	-10.9	-1.59	0.821	110.3	0.347	1.518	251.5	372.4	0.991	---	-0.43	1.161	93.2	253.0	-25.6	0.163
4-2720	4-2870	0.355	344.3	-10.4	-1.49	0.812	109.6	0.335	1.483	248.6	379.3	0.986	---	-0.49	1.152	94.8	251.3	-25.7	0.168
4-2720	4-2880	0.340	345.5	-9.7	-1.36	0.802	108.8	0.324	1.447	245.1	385.7	0.978	---	-0.59	1.142	96.2	251.8	-26.2	0.175
4-2720	4-2890	0.327	346.8	-8.7	-1.16	0.791	107.9	0.313	1.412	241.3	391.6	0.970	---	-0.75	1.132	97.4	254.0	-27.3	0.183
4-2720	4-2900	0.313	348.7	-7.3	-0.79	0.780	107.0	0.304	1.379	237.1	397.2	0.960	---	-1.09	1.122	98.4	257.7	-29.3	0.191
4-2720	4-2910	0.298	348.8	-4.3	0.24	0.770	106.0	0.295	1.348	232.6	402.4	0.950	---	-2.09	1.113	99.3	262.3	-34.7	0.202
4-2720	4-2920	0.479	340.5	44.6	28.83	0.759	104.8	0.288	1.320	228.0	407.2	0.940	---	-30.65	1.104	100.0	143.5	-73.2	0.585
4-2720	4-2930	0.275	358.2	-13.0	-4.17	0.749	103.7	0.282	1.293	223.1	412.1	0.928	---	2.39	1.095	100.7	274.3	-11.6	0.219
4-2720	4-2940	0.257	359.2	-9.4	-2.92	0.739	102.4	0.278	1.269	218.0	416.6	0.916	---	1.17	1.087	101.4	281.1	-17.5	0.224
4-2720	4-2950	0.241	1.7	-7.4	-2.51	0.729	101.0	0.275	1.247	212.8	420.9	0.904	---	0.79	1.080	102.0	288.1	-18.8	0.232
4-2720	4-2960	0.225	4.8	-5.8	-2.30	0.720	99.5	0.274	1.227	207.4	425.0	0.890	---	0.61	1.073	102.4	295.3	-18.7	0.241
4-2720	4-2970	0.210	8.7	-4.1	-2.16	0.711	97.8	0.275	1.208	201.9	429.1	0.876	---	0.51	1.068	103.2	302.6	-17.9	0.251
4-2720	4-2980	0.195	13.4	-2.2	-2.06	0.703	96.1	0.278	1.191	196.3	433.0	0.860	---	0.45	1.062	103.8	310.0	-16.6	0.263
4-2720	4-2990	0.181	19.2	0.1	-1.98	0.695	94.2	0.284	1.176	190.6	436.4	0.841	---	0.41	1.058	104.6	317.3	-14.8	0.276
4-2720	4-3000	0.168	26.5	2.8	-1.91	0.687	92.0	0.293	1.161	184.9	440.8	0.821	---	0.38	1.054	105.5	324.5	-12.7	0.292
4-2720	4-3010	0.159	35.6	6.1	-1.84	0.680	89.7	0.306	1.148	179.3	446.7	0.797	1.500	0.37	1.051	106.5	331.7	-10.3	0.311
4-2720	4-3020	0.154	47.0	9.9	-1.78	0.673	87.0	0.324	1.136	173.7	448.7	0.768	1.504	0.37	1.049	107.8	338.7	-7.8	0.335
4-2720	4-3030	0.158	60.2	13.8	-1.71	0.667	83.9	0.348	1.125	168.3	453.0	0.734	1.516	0.39	1.047	109.5	345.6	-5.0	0.364
4-2720	4-3040	0.174	74.3	17.0	-1.64	0.661	80.2	0.380	1.115	163.2	457.7	0.691	1.539	0.41	1.046	111.7	352.3	-2.2	0.403
4-2720	4-3050	0.205	87.5	19.1	-1.56	0.655	75.7	0.425	1.106	158.7	463.0	0.636	1.575	0.45	1.045	114.6	358.8	0.5	0.454
4-2720	4-3060	0.256	98.3	20.3	-1.45	0.650	69.9	0.486	1.098	155.1	469.3	0.565	1.631	0.52	1.045	118.6	5.0	3.1	0.524
4-2720	4-3070	0.334	105.8	20.9	-1.30	0.646	62.3	0.571	1.091	153.2	477.2	0.469	1.714	0.63	1.045	124.5	10.4	5.4	0.624
4-2720	4-3080	0.451	109.7	21.5	-1.05	0.643	51.7	0.688	1.087	154.0	488.0	0.340	1.835	0.85	1.046	133.2	14.8	7.2	0.771
4-2720	4-3130	0.555	114.7	4.2	-2.63	0.556	126.8	0.738	0.976	197.5	582.0	0.256	1.695	-0.9	1.004	42.5	291.9	-22.7	0.810
4-2720	4-3140	0.503	76.9	21.9	-2.35	0.394	58.2	0.838	0.849	172.8	567.5	0.137	1.560	-0.65	0.925	33.5	311.4	-18.4	0.920
4-2720	4-3140	0.426	20.0	5.7	-2.35	0.545	112.5	0.639	0.965	194.3	589.0	0.348	1.582	-0.65	0.999	50.3	299.1	-21.5	0.683
4-2720	4-3150	0.380	66.6	19.6	-2.19	0.456	75.8	0.711	0.888	174.0	578.9	0.257	1.520	-0.53	0.953	45.0	315.3	-17.5	0.757
4-2720	4-3150	0.335	37.0	11.4	-2.19	0.519	96.8	0.604	0.939	184.5	589.4	0.372	1.507	-0.53	0.984	52.9	309.6	-19.1	0.638
4-2720	4-3210	0.570	126.4	18.0	-1.71	0.798	43.6	0.725	1.436	138.8	244.4	---	2.476	-0.39	1.148	46.4	359.0	-0.8	0.825
4-2720	4-3220	0.533	128.4	17.4	-1.63	0.805	46.6	0.688	1.459	135.1	250.7	---	2.463	-0.41	1.151	50.0	5.5	1.9	0.766
4-2720	4-3230	0.498	130.3	16.8	-1.55	0.812	49.3	0.652	1.482	131.5	257.0	---	2.448	-0.46	1.153	53.3	11.9	4.4	0.709
4-2720	4-3240	0.465	132.2	16.2	-1.43	0.818	51.8	0.618	1.503	128.0	263.4	---	2.432	-0.53	1.155	56.5	18.2	6.9	0.654
4-2720	4-3250	0.434	134.0	15.7	-1.28	0.823	54.2	0.585	1.523	124.6	269.8	---	2.414	-0.65	1.156	59.6	24.5	9.0	0.601
4-2720	4-3260	0.405	135.8	15.4	-1.01	0.828	56.3	0.555	1.542	121.3	276.3	---	2.397	-0.88	1.157	62.5	30.8	10.8	0.550
4-2720	4-3270	0.378	137.7	15.8	-0.45	0.832	58.3	0.526	1.558	118.2	282.8	---	2.378	-1.41	1.158	65.3	37.1	11.6	0.502
4-2720	4-3280	0.355	140.8	19.9	1.92	0.836	60.1	0.500	1.574	115.2	289.5	---	2.361	-3.75	1.159	68.0	44.8	7.8	0.459
4-2720	4-3290	0.346	135.3	1.1	-7.22	0.839	61.7	0.476	1.587	112.4	296.4	---	2.343	5.42	1.159	70.6	43.5	31.5	0.421
4-2720	4-3300	0.315	139.6	7.6	-3.36	0.842	63.2	0.455	1.599	109.8	303.3	---	2.327	1.59	1.160	73.1	51.0	23.6	0.368
4-2720	4-3310	0.297	141.2	8.3	-2.69	0.844	64.4	0.436	1.609	107.4	310.5	---	2.311	0.95	1.161	75.5	55.7	23.1	0.327
4-2720	4-3320	0.281	142.5	8.2	-2.39	0.846	65.5	0.420	1.618	105.3	317.9	---	2.297	0.69	1.162	77.9	59.1	23.2	0.290
4-2720	4-3330	0.268	143.5	8.0	-2.22	0.848	66.4	0.406	1.626	103.5	325.6	---	2.285	0.56	1.163	80.3	60.9	23.3	0.255
4-2720	4-3340	0.258	144.4	7.8	-2.11	0.849	67.2	0.395	1.631	102.0	333.7	---	2.276	0.47	1.164	82.6	60.7	23.2	0.225
4-2720	4-3350	0.251	145.0	7.6	-2.02	0.850	67.7	0.388	1.636	100.8	342.1	---	2.270	0.43	1.165	85.0	57.8	22.7	0.201
4-2720	4-3360	0.247	145.5	7.6	-1.94	0.851	68.0	0.383	1.639	100.1	350.9	---	2.268	0.35	1.167	87.5	52.1	21.4	0.185
4-2720	4-3370	0.246	145.7	7.7	-1.88	0.851	68.0	0.383	1.642	99.9	360.3	1.013	2.270	0.38	1.169	90.1	44.3	19.4	0.182
4-2720	4-3370	0.308	9.7	0.0	-1.88	0.661	105.1	0.423	1.114	202.9	823.3	0.643	1.586	0.38	1.038	114.5	317.9	-15.4	0.444
4-2720	4-3370	0.565	359.7	-2.2	-1.88	0.715	127.1	0.631	1.216	215.8	636.1	0.448	1.983	0.38	1.073	128.1	311.6	-17.5	0.688
4-2720	4-3380	0.250	145.6	8.0	-1.81	0.852	67.7	0.387	1.643	100.2	370.2	1.006	2.280	0.37	1.170	92.9	36.3	16.8	0.193
4-2720	4-3380	0.247	19.8	3.5	-1.81	0.647	98.2	0.395	1.042	192.9	822.9	0.660	1.524	0.37	1.031	112.9	327.4	-12.2	0.416
4-2720	4-3390	0.260	145.3	8.6	-1.75	0.852	67.1	0.398	1.644	101.2	380.9	0.990	2.298	0.38	1.172	95.9	30.0	14.4	0.221
4-2720	4-3390	0.212	31.9	7.6	-1.75	0.638	92.8	0.392	1.070	184.3	824.0	0.656	1.502	0.38	1.028	112.8	336.0	-9.1	0.415
4-2720	4-3400	0.276	144.5	9.5	-1.68	0.852	65.9	0.416	1.644	103.0	392.4	0.960	2.327	0.39	1.175	99.4	26.2	12.7	0.264
4-2720	4-3400	0.196	46.8	12.3	-1.68	0.631	87.6	0.404	1.069	176.5	825.9	0.637	1.501	0.39	1.026	113.5	344.1	-5.8	0.430
4-2720	4-3410	0.302	143.4	10.6	-1.60	0.852	64.1	0.444	1.643	105.7	404.9	0.913	2.373	0.43	1.177	103.4	24.7	11.9	0.325
4-2720	4-3410	0.200	63.9	16.7	-1.60	0.626	82.3	0.430	1.062	169.5	828.7	0.605	1.518	0.43	1.025	115.3	351.7	-2.6	0.460
4-2720	4-3420	0.342	141.6	12.0	-1.51	0.851	61.3	0.487	1.643	109.7	418.6	0.843	2.442	0.48	1.179	108.3	24.6	11.6	0.406
4-2720	4-3420	0.228	80.5	19.7	-1.51	0.621	76.2	0.473	1.055	163.5	832.5	0.556	1.555	0.48	1.026	118.1	358.8	0.4	0.508
4-2720	4-3430	0.402	139.1	13.7	-1.39	0.851	57.0	0.549	1.642	115.4	434.2	0.740	2.544	0.57	1.182	114.7	25.2	11.7	0.515
4-2720	4-3430	0.285	94.0	21.1	-1.39	0.618	68.8	0.537	1.050	159.0	837.9	0.486	1.615	0.57	1.026	122.4	5.4	3.2	0.583
4-2720	4-3440	0.494	135.4	15.7	-1.20	0.851	56.5	0.640	1.642	123.5	452.3	0.591	2.693	0.72	1.184	123.3	25.9	11.9	0.666
4-2720	4-3440	0.376	102.8	21.8	-1.20	0.615	59.5	0.631	1.047	156.8	845.5	0.386	1.708	0.72	1.027	129.0	11.0	5.6	0.695
4-2720	4-3440	0.506	39.7	15.0	-1.20	0.361	106.5	0.822	0.831	183.7	1232.5	0.148	1.514	0.72	0.898	144.5	356.9	-0.9	0.890
4-2720	4-3450	0.514	106.7	22.3	-0.85	0.614	46.1	0.761	1.045	158.2	857.0	0.250	1.840	1.03	1.029	139.4	15.0	7.5	0.866
4-2720	4-3450	0.508	63.2	21.1	-0.85	0.327	72.5	0.855	0.815	176.9	1235.7	0.118	1.512	1.03	0.888	147.9	4.1	2.3	0.937
4-2720	4-3500	0.495	14.7	3.8	-2.48	0.566	120.8	0.679	0.987	198.1	947.5	0.317	1.657	-0.76	1.010	47.3	294.1	-22.4	0.735
4-2720	4-3510	0.565	347.9	-8.3	-2.26	0.840	124.4	0.567	1.590	240.4	639.9	0.689	2.492	-0.59	1.185	63.0	276.6	-24.4	0.539
4-2720	4-3510	0.548	89.8	22.6	-2.26	0.466	45.6	0.850	0.896	169.0	928.5	0.135	1.656	-0.59	0.958	32.0	315.1	-17.4	0.958
4-2720	4-3510	0.385	20.7	5.5	-2.26	0.561	108.6	0.594	0.981	193.9	953.4	0.399	1.564	-0.59	1.007	53.6	301.8	-21.0	0.632
4-2720	4-3520	0.501	345.7	-9.7	-2.13	0.839	119.7	0.498	1.589	246.0	655.7	0.798	2.381	-0.49	1.185	69.7	278.4	-24.5	0.424
4-2720	4-3520	0.438	86.2	21.9	-2.13	0.490	58.9	0.753	0.914	167.8	937.5	0.226	1.603	-0.49	0.970	41.3	320.4	-15.8	0.822
4-2720	4-3520	0.308	34.2	10.0	-2.13	0.551	96.8	0.554	0.971	185.5	955.3	0.433	1.508	-0.49	1.002	56.4	311.4	-18.8	0.586
4-2730	4-2790	0.587	347.2	-8.8	-2.31	0.899	124.2	0.592	1.945	253.8	298.7	---	---	-0.76	1.233	68.0	276.5	-25.1	0.481
4-2730	4-2800	0.538	345.1	-9.9	-2.15	0.897	120.8	0.545	1.935	259.3	314.4	---	---	-0.66	1.231	74.2	275.4	-25.4	0.379

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2730	4-2810	0.506	343.7	-10.5	-2.[illegible]	0.895	118.6	0.514	1.921	262.7	328.0	---	---	-0.59	1.229	79.[illegible]	272.7	-25.8	0.305
4-2730	4-2820	0.483	340.1	-10.8	-1.[illegible]	0.891	117.1	0.489	1.892	264.4	339.7	---	---	-0.56	1.224	83.4	268.3	-26.1	0.254
4-2730	4-2830	0.464	343.0	-10.8	-1.81	0.884	116.0	0.468	1.848	264.5	349.9	---	---	-0.54	1.217	86.8	262.5	-26.3	0.220
4-2730	4-2840	0.448	343.4	-10.6	-1.72	0.874	115.1	0.447	1.793	263.4	358.9	---	---	-0.54	1.208	89.7	256.[illegible]	-26.1	0.201
4-2730	4-2850	0.432	344.1	-10.2	-1.62	0.863	114.3	0.427	1.732	261.4	366.9	0.992	---	-0.56	1.19[illegible]	92.1	251.7	-25.9	0.193
4-2730	4-2860	0.417	345.0	-9.6	-1.51	0.850	113.5	0.408	1.669	258.7	374.1	0.988	---	-0.60	1.186	94.1	248.9	-25.7	0.193
4-2730	4-2870	0.401	346.1	-9.0	-1.39	0.837	112.7	0.390	1.608	255.4	380.8	0.981	---	-0.66	1.174	95.8	[illegible].2	-25.9	0.197
4-2730	4-2880	0.386	347.4	-8.2	-1.23	0.823	111.8	0.373	1.551	251.7	386.9	0.973	---	-0.77	1.162	97.2	249.5	-26.5	0.203
4-2730	4-2890	0.369	348.7	-7.2	-1.00	0.809	110.9	0.357	1.498	247.6	392.6	0.964	---	-0.94	1.150	98.4	232.3	-27.6	0.210
4-2730	4-2900	0.352	350.0	-5.9	-0.63	0.795	109.9	0.342	1.450	243.3	398.0	0.953	---	-1.26	1.138	99.4	256.4	-29.4	0.217
4-2730	4-2910	0.335	351.0	-3.6	0.16	0.782	108.8	0.330	1.406	238.7	403.1	0.943	---	-2.01	1.126	100.3	261.4	-33.1	0.225
4-2730	4-2920	0.321	350.1	4.1	3.38	0.769	107.6	0.318	1.367	233.9	407.9	0.932	---	-5.18	1.116	101.0	266.3	-47.0	0.247
4-2730	4-2930	0.331	6.8	-22.1	-10.21	0.756	106.3	0.309	1.332	228.9	412.6	0.928	---	8.45	1.105	101.7	271.1	11.1	0.280
4-2730	4-2940	0.289	1.9	-10.3	-4.07	0.744	104.9	0.302	1.301	223.7	416.9	0.908	---	2.36	1.096	102.3	280.2	-12.7	0.246
4-2730	4-2950	0.269	3.5	-7.3	-3.06	0.733	103.5	0.296	1.273	218.4	421.2	0.896	---	1.38	1.087	102.8	287.5	-[illegible].5	0.250
4-2730	4-2960	0.251	6.1	-5.4	-2.62	0.722	101.9	0.293	1.248	213.0	425.3	0.883	---	1.01	1.080	103.3	294.8	-17.3	0.257
4-2730	4-2970	0.234	9.3	-3.7	-2.37	0.712	100.2	0.291	1.225	207.4	429.2	0.869	---	0.81	1.073	103.9	302.2	-16.9	0.265
4-2730	4-2980	0.216	13.4	-1.8	-2.20	0.702	98.4	0.292	1.205	201.7	433.1	0.854	---	0.69	1.067	104.4	309.6	-15.8	0.275
4-2730	4-2990	0.200	18.4	0.2	-2.07	0.692	96.5	0.295	1.187	195.9	436.9	0.836	---	0.62	1.062	105.1	317.0	-14.2	0.286
4-2730	4-3000	0.183	24.6	2.7	-1.96	0.684	94.3	0.302	1.170	190.1	440.6	0.817	---	0.57	1.057	105.8	324.3	-12.1	0.300
4-2730	4-3010	0.171	32.6	5.6	-1.86	0.675	91.9	0.312	1.155	184.3	444.4	0.795	---	0.55	1.054	106.8	331.6	-9.8	0.316
4-2730	4-3020	0.162	42.6	9.1	-1.77	0.668	89.3	0.326	1.141	178.5	448.3	0.769	1.513	0.54	1.051	107.9	338.7	-7.2	0.337
4-2730	4-3030	0.159	55.1	12.9	-1.68	0.660	86.3	0.346	1.128	172.9	452.3	0.738	1.519	0.55	1.048	109.3	345.7	-4.5	0.362
4-2730	4-3040	0.166	69.4	16.3	-1.58	0.653	82.8	0.374	1.117	167.5	456.7	0.700	1.534	0.57	1.047	111.2	352.6	-1.7	0.395
4-2730	4-3050	0.187	83.9	18.9	-1.47	0.647	78.6	0.411	1.106	162.6	461.5	0.652	1.561	0.62	1.045	113.7	359.3	1.2	0.439
4-2730	4-3060	0.226	96.8	20.2	-1.34	0.641	73.4	0.462	1.097	158.4	[illegible].2	0.590	1.604	0.69	1.044	117.1	5.7	3.9	0.498
4-2730	4-3070	0.289	106.6	20.7	-1.16	0.636	66.7	0.533	1.089	155.3	474.1	0.508	[illegible]70	0.82	1.044	121.9	11.7	6.4	0.580
4-2730	4-3080	0.383	112.8	21.1	-0.88	0.632	57.6	0.632	1.083	154.4	483.0	0.399	1.768	1.04	1.044	128.9	16.8	8.5	0.699
4-2730	4-3090	0.523	115.0	21.6	-0.39	0.630	44.8	0.763	1.080	156.9	495.5	0.256	1.905	1.48	1.046	139.6	20.5	9.9	0.875
4-2730	4-3140	0.538	30.8	22.2	-2.73	0.354	55.1	0.877	0.835	174.2	563.5	0.103	1.568	-1.10	0.[illegible]15	29.2	313.8	-17.9	0.980
4-2730	4-3140	0.482	23.8	7.4	-2.73	0.527	118.7	0.700	0.957	194.7	584.0	0.287	1.627	-1.10	0.995	[illegible]5.6	301.8	-21.3	0.759
4-2730	4-3150	0.421	73.7	20.8	-2.42	0.415	72.2	0.768	0.869	174.4	573.9	0.202	1.537	-0.85	0.940	[illegible]0.2	318.1	-16.8	0.827
4-2730	4-3150	0.372	36.2	11.3	-2.42	0.505	102.7	0.638	0.937	187.5	587.0	0.339	1.535	-0.85	0.983	50.4	310.9	-19.1	0.679
4-2730	4-3210	0.579	130.7	17.1	-1.67	0.786	42.3	0.741	1.419	141.1	241.4	---	2.470	-0.55	1.145	[illegible]4.8	0.3	-0.4	0.[illegible]52
4-2730	4-3220	0.542	132.7	16.4	-1.57	0.793	45.4	0.703	1.443	137.4	247.7	---	2.458	-0.58	1.147	48.4	6.8	2.3	0.792
4-2730	4-3230	0.506	134.7	15.8	-1.46	0.800	48.2	0.667	1.466	133.8	254.0	---	2.444	-0.62	1.150	51.9	13.2	4.8	0.733
4-2730	4-3240	0.47[illegible]	136.6	15.2	-1.52	0.806	50.9	0.631	1.498	130.3	260.3	---	2.428	-0.70	1.152	55.2	19.6	7.2	0.677
4-2730	4-3250	0.440	138.4	14.7	-1.13	0.812	53.3	0.598	1.509	126.9	266.7	---	2.411	-0.84	1.153	58.3	26.0	9.3	0.623
4-2730	4-3260	0.411	140.3	14.4	-0.85	0.817	55.5	0.566	1.528	123.6	273.2	---	2.394	-1.07	1.155	61.3	32.3	11.0	0.571
4-2730	4-3270	0.384	142.2	14.6	-0.[illegible]4	0.822	57.6	0.537	1.546	120.5	279.8	---	2.376	-1.[illegible]3	1.156	64.1	38.7	12.0	0.521
4-2730	4-3280	0.359	144.7	16.5	1.00	0.826	59.4	0.509	1.562	117.5	286.4	---	2.358	-2.82	1.157	66.9	45.6	10.6	0.475
4-2730	4-3290	0.423	154.3	48.3	19.18	0.829	61.1	0.485	1.577	114.7	293.2	---	2.341	-20.96	1.158	69.5	[illegible]7.8	-21.7	0.569
4-2730	4-3300	0.324	142.1	1.9	-5.52	0.833	62.6	0.462	1.590	112.0	300.2	---	2.324	3.79	1.158	72.1	51.8	30.0	0.389
4-2730	4-3310	0.301	145.0	5.2	-3.46	0.835	64.0	0.442	1.601	109.6	307.4	---	2.308	1.77	1.159	74.5	57.7	26.0	0.343
4-2730	4-3320	0.284	146.6	5.7	-2.82	0.837	65.1	0.424	1.610	107.4	314.7	---	2.293	1.[illegible]8	1.160	76.9	61.7	[illegible]4	0.304
4-2730	4-3330	0.270	147.8	5.8	-2.49	0.839	66.1	0.410	1.618	105.5	322.4	---	2.281	0.90	1.162	79.3	64.2	25.2	0.268
4-2730	4-3340	0.259	148.8	5.7	-2.28	0.841	66.9	0.398	1.625	103.9	330.3	---	2.270	0.75	1.163	81.7	64.9	25.1	0.235
4-2730	4-3350	0.251	149.5	5.6	-2.13	0.842	67.5	0.389	1.630	102.7	338.6	---	2.263	0.65	1.164	84.1	63.0	24.8	0.209
4-2730	4-3360	0.245	150.1	5.6	-2.02	0.843	67.9	0.383	1.632	101.8	347.3	---	2.259	0.59	1.166	[illegible]6.5	58.3	24.0	0.189
4-2730	4-3370	0.244	150.5	5.8	-1.91	0.843	68.0	0.381	1.636	101.4	356.5	---	2.260	0.56	1.168	89.0	50.9	22.3	0.181
4-2730	4-3380	0.246	150.5	6.1	-1.82	0.844	67.8	0.384	1.638	101.5	366.2	1.009	2.267	0.54	1.170	93.7	42.6	19.9	0.186
4-2730	4-3380	0.295	17.0	3.2	-1.82	0.646	103.7	0.428	1.106	199.8	824.5	0.632	1.580	0.54	1.036	134.9	326.5	-12.3	0.452
4-2730	4-3380	0.592	4.9	0.3	-1.82	0.710	129.6	0.663	1.223	214.4	839.1	0.412	2.035	0.54	1.077	[illegible]0.6	319.7	-15.0	0.733
4-2730	4-3390	0.253	150.4	6.7	-1.73	0.844	67.3	0.392	1.639	102.2	376.5	0.997	2.281	0.[illegible]9	1.172	94.6	39.5	17.5	0.208
4-2730	4-3390	0.239	27.8	6.9	-1.73	0.634	96.9	0.408	1.086	190.2	824.6	0.643	1.529	0.54	1.031	[illegible]3.8	335.[illegible]	-8.9	0.432
4-2730	4-3400	0.266	149.8	7.5	-1.63	0.844	66.4	0.406	1.639	103.6	387.6	0.973	2.305	0.56	1.174	97.9	30.[illegible]	15.3	0.245
4-2730	4-3400	0.209	41.3	11.2	-1.63	0.625	91.3	0.410	1.073	181.9	825.9	0.633	1.[illegible]13	0.56	1.028	113.[illegible]	343.9	-5.5	0.436
4-2730	4-3410	0.287	148.9	8.6	-1.53	0.844	64.9	0.430	1.639	105.8	399.6	0.934	2.343	0.59	[illegible]176	101.6	28.6	[illegible]1	0.297
4-2730	4-3410	0.199	57.8	15.8	-1.53	0.618	85.8	0.427	1.064	174.3	828.1	0.610	1.518	0.59	1.026	115.1	351.6	[illegible].2	0.456
4-2730	4-3420	0.320	147.5	9.9	-1.41	0.844	62.6	0.466	1.638	109.0	412.7	0.875	2.400	0.65	1.178	106.1	28.1	[illegible].7	0.369
4-2730	4-3420	0.212	75.6	19.3	-1.41	0.613	79.9	0.460	1.056	167.7	831.3	0.571	1.542	0.65	1.[illegible]6	117.2	358.2	1.0	0.494
4-2730	4-3430	0.369	145.5	11.5	-1.26	0.843	59.1	0.518	1.637	113.7	427.2	0.789	2.485	0.74	1.[illegible]61	111.7	28.8	13.7	0.493
4-2730	4-3430	0.252	91.7	21.1	-1.26	0.609	73.1	0.511	1.050	162.3	835.0	0.513	1.588	0.74	1.026	120.6	6.2	4.0	0.556
4-2730	4-3440	0.443	142.5	13.5	-1.04	0.843	53.8	0.594	1.637	120.3	443.7	0.665	2.609	0.91	[illegible].884	119.0	29.7	13.8	0.491
4-2730	4-3440	0.323	103.4	21.6	-1.04	0.605	64.7	0.588	1.046	158.6	842.1	0.431	1.661	0.[illegible]1	1.027	125.9	12.4	6.6	0.643
4-2730	4-3450	0.555	138.1	15.8	-0.69	0.843	45.6	0.702	1.637	129.9	463.4	0.489	2.786	1.21	1.185	129.2	30.3	13.9	0.769
4-2730	4-3450	0.434	110.2	21.9	-0.69	0.603	53.4	0.697	1.045	157.8	851.3	0.316	1.770	1.21	1.028	134.1	11.4	8.6	0.779
4-2730	4-3450	0.499	53.9	19.3	-0.69	0.325	94.5	0.841	0.822	180.8	1238.3	0.131	1.513	1.21	0.894	146.4	[illegible].9	2.8	0.917
4-2730	4-3460	0.598	111.7	22.5	0.05	0.602	37.7	0.838	1.042	161.5	865.0	0.169	1.915	1.89	1.030	146.9	21.5	9.8	0.984
4-2730	4-3460	0.558	74.[illegible]	23.2	0.05	0.299	60.2	0.900	0.891	176.3	1239.7	0.081	1.541	1.89	0.888	153.5	11.2	5.6	1.014
4-2730	4-3500	0.565	19.5	5.9	-2.98	0.552	128.2	0.750	0.983	197.4	941.4	0.246	1.720	-1.33	1.008	41.4	297.3	-22.2	0.830
4-2730	4-3510	0.581	94.3	22.6	-2.56	0.441	41.2	0.884	0.887	170.5	924.7	0.103	1.671	-0.96	0.952	28.0	317.2	-16.9	1.015
4-2730	4-3510	0.435	23.4	6.8	-2.56	0.548	114.2	0.646	0.978	195.3	949.4	0.347	1.610	-0.96	1.006	49.8	305.9	-20.9	0.695
4-2730	4-3520	0.532	352.0	-6.9	-2.32	0.431	122.2	0.535	1.582	241.7	646.1	0.736	2.427	-0.77	1.184	65.9	284.4	-24.5	0.490
4-2730	4-3520	0.477	92.2	22.1	-2.32	0.464	54.3	0.800	0.904	168.9	933.2	0.181	1.626	-0.77	0.963	37.1	312.7	-15.3	0.886
4-2730	4-3520	0.341	33.6	10.0	-2.32	0.639	101.8	0.585	0.970	188.7	953.1	0.402	1.537	-0.77	1.001	54.2	312.5	-18.8	0.623
4-2730	4-3530	0.477	350.1	-8.0	-2.15	0.830	118.5	0.475	1.580	246.3	660.[illegible]	0.630	2.331	-0.66	1.103	71.9	286.1	-24.5	0.399
4-2730	4-3530	0.326	74.6	20.0	-2.15	0.505	78.4	0.642	0.937	172.1	946.7	0.336	1.538	-0.46	0.982	50.1	325.8	-14.5	0.687
4-2730	4-3530	0.304	65.8	18.4	-2.15	0.514	82.0	0.610	0.945	174.8	949.4	0.368	1.522	-0.[illegible]	0.980	52.4	324.5	-15.0	0.650
4-2730	4-2780	0.732	347.4	-8.5	-2.56	1.020	130.0	0.784	3.691	265.1	304.7	---	---	-1.1[illegible]	1.388	66.0	271.4	-25.7	0.578

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2740	4-2800	0.655	345.6	-9.4	-2.30	0.993	125.6	0.713	3.083	269.5	319.4	---	---	-0.91	1.307	73.2	269.7	-26.0	0.449
4-2740	4-2810	0.606	344.5	-10.9	-2.12	0.975	122.9	0.662	2.776	272.0	332.0	---	---	-0.81	1.292	78.9	266.5	-26.2	0.361
4-2740	4-2820	0.571	344.2	-10.0	-1.97	0.959	121.0	0.620	2.555	272.8	343.0	---	---	-0.74	1.279	83.5	261.9	-26.4	0.301
4-2740	4-2830	0.543	344.4	-8.9	-1.83	0.943	119.7	0.584	2.368	272.3	352.5	---	---	-0.71	1.265	87.2	256.5	-26.3	0.263
4-2740	4-2840	0.520	344.9	-8.2	-1.71	0.926	118.6	0.550	2.201	270.7	361.0	0.991	---	-0.70	1.250	90.4	251.4	-26.0	0.242
4-2740	4-2850	0.498	345.2	-9.0	-1.59	0.908	117.7	0.518	2.053	268.3	368.6	0.990	---	-0.71	1.235	92.9	247.7	-25.7	0.233
4-2740	4-2860	0.478	346.9	-8.4	-1.46	0.889	116.8	0.488	1.922	265.3	375.5	0.985	---	-0.75	1.219	95.1	245.8	-25.6	0.231
4-2740	4-2870	0.457	348.1	-7.7	-1.31	0.870	116.0	0.460	1.807	261.8	381.9	0.977	---	-0.81	1.203	96.9	245.9	-25.8	0.233
4-2740	4-2880	0.437	349.4	-6.9	-1.13	0.852	115.0	0.434	1.708	257.9	387.9	0.967	---	-0.91	1.187	98.3	247.8	-26.0	0.237
4-2740	4-2890	0.417	350.8	-5.8	-0.89	0.834	114.0	0.410	1.623	253.7	393.4	0.957	---	-1.08	1.172	99.6	251.0	-27.5	0.241
4-2740	4-2900	0.397	352.2	-4.6	-0.53	0.816	112.9	0.390	1.550	249.2	398.7	0.944	---	-1.38	1.157	100.6	255.4	-29.2	0.247
4-2740	4-2910	0.377	353.4	-2.7	0.12	0.799	111.7	0.371	1.437	244.5	403.6	0.935	---	-1.96	1.143	101.4	260.7	-31.9	0.253
4-2740	4-2920	0.358	355.9	1.3	1.81	0.783	110.5	0.355	1.432	239.6	408.3	0.923	---	-2.96	1.130	102.1	266.6	-38.7	0.263
4-2740	4-2930	0.443	347.1	35.6	21.71	0.767	109.1	0.341	1.385	234.5	412.7	0.912	---	-2.23	1.118	102.7	207.9	-81.1	0.494
4-2740	4-2940	0.329	6.5	-13.3	-6.70	0.753	107.7	0.330	1.343	229.3	417.3	0.900	---	5.04	1.107	103.3	278.6	-3.4	0.279
4-2740	4-2950	0.302	5.9	-7.5	-3.93	0.739	106.2	0.321	1.307	223.9	421.4	0.888	---	2.32	1.097	103.7	286.7	-13.4	0.272
4-2740	4-2960	0.280	7.8	-9.0	-3.08	0.726	104.5	0.314	1.276	218.4	425.4	0.875	---	1.54	1.088	104.2	294.3	-15.6	0.276
4-2740	4-2970	0.260	10.6	-8.1	-2.65	0.714	102.8	0.310	1.248	212.7	429.3	0.861	---	1.17	1.080	104.7	301.8	-15.8	0.282
4-2740	4-2980	0.241	14.0	-7.5	-2.39	0.702	100.9	0.308	1.223	207.0	433.1	0.846	---	0.97	1.073	105.1	309.3	-15.0	0.290
4-2740	4-2990	0.222	18.3	-6.6	-2.19	0.692	98.9	0.309	1.201	201.2	436.8	0.830	---	0.85	1.067	105.7	316.8	-13.5	0.299
4-2740	4-3000	0.204	23.7	-5.8	-2.04	0.681	96.7	0.312	1.181	195.3	440.5	0.812	---	0.77	1.061	106.3	324.2	-11.6	0.310
4-2740	4-3010	0.187	30.5	-5.4	-1.90	0.672	94.3	0.320	1.163	189.4	444.2	0.792	---	0.72	1.057	107.1	331.5	-9.3	0.324
4-2740	4-3020	0.173	39.3	-5.5	-1.78	0.663	91.7	0.331	1.147	183.5	448.0	0.768	---	0.70	1.053	108.1	338.7	-6.7	0.341
4-2740	4-3030	0.165	50.4	-7.1	-1.66	0.654	88.8	0.347	1.133	177.7	451.5	0.739	1.520	0.70	1.050	109.3	345.8	-4.0	0.363
4-2740	4-3040	0.164	64.1	-9.7	-1.54	0.646	85.4	0.370	1.120	172.0	454.9	0.705	1.534	0.72	1.048	111.0	352.8	-1.2	0.391
4-2740	4-3050	0.176	79.3	-10.8	-1.41	0.639	81.4	0.402	1.108	166.7	460.4	0.663	1.553	0.76	1.046	113.1	359.6	1.7	0.428
4-2740	4-3060	0.204	93.9	-10.2	-1.25	0.632	78.6	0.445	1.097	162.0	465.5	0.609	1.586	0.84	1.044	116.0	6.3	4.5	0.478
4-2740	4-3070	0.253	103.9	-8.7	-1.05	0.626	76.5	0.505	1.088	158.1	471.6	0.539	1.637	0.96	1.044	120.0	12.6	7.2	0.547
4-2740	4-3080	0.330	114.4	-6.8	-0.77	0.621	62.6	0.587	1.081	155.9	479.3	0.446	1.715	1.17	1.043	125.7	18.4	9.5	0.645
4-2740	4-3090	0.443	119.0	-5.9	-0.31	0.618	51.8	0.700	1.076	156.0	489.6	0.323	1.829	1.56	1.044	134.3	23.1	11.2	0.787
4-2740	4-3140	0.574	84.4	-2.5	-3.27	0.510	91.9	0.912	0.823	175.5	559.6	0.073	1.574	-1.71	0.905	24.8	316.1	-17.4	1.039
4-2740	4-3140	0.545	28.6	9.4	-3.27	0.506	126.1	0.767	0.948	194.0	578.2	0.221	1.676	-1.71	0.990	39.9	304.9	-20.9	0.848
4-2740	4-3150	0.460	79.2	21.5	-2.74	0.373	69.5	0.817	0.853	175.1	569.4	0.156	1.550	-1.24	0.928	35.7	320.6	-16.2	0.892
4-2740	4-3150	0.416	37.6	12.0	-2.74	0.488	108.8	0.683	0.932	189.3	583.6	0.295	1.569	-1.24	0.981	47.0	312.7	-18.9	0.734
4-2740	4-3210	0.589	134.9	16.0	-1.65	0.773	41.0	0.757	1.402	143.4	238.4	---	2.463	-0.70	1.141	43.1	1.6	0.0	0.878
4-2740	4-3220	0.551	136.9	15.3	-1.53	0.781	44.2	0.719	1.426	139.7	244.7	---	2.452	-0.72	1.144	46.8	8.1	2.7	0.817
4-2740	4-3230	0.514	138.9	14.7	-1.39	0.788	47.1	0.681	1.450	136.1	251.0	---	2.439	-0.77	1.147	50.4	14.6	5.2	0.757
4-2740	4-3240	0.480	140.8	14.1	-1.27	0.795	49.9	0.646	1.473	132.6	257.4	---	2.424	-0.85	1.149	53.8	21.0	7.6	0.700
4-2740	4-3250	0.448	142.7	13.6	-1.02	0.801	52.4	0.611	1.495	129.2	263.8	---	2.408	-0.98	1.150	57.0	27.4	9.7	0.644
4-2740	4-3260	0.418	144.6	13.2	-0.74	0.807	54.7	0.578	1.515	125.9	270.2	---	2.390	-1.20	1.152	60.0	33.8	11.4	0.591
4-2740	4-3270	0.390	146.5	13.3	-0.28	0.812	56.8	0.547	1.534	422.7	276.8	---	2.373	-1.60	1.153	63.0	40.2	12.5	0.540
4-2740	4-3280	0.364	148.8	13.4	0.68	0.816	58.8	0.519	1.551	119.7	283.4	---	2.355	-2.49	1.155	65.8	46.9	12.0	0.493
4-2740	4-3290	0.345	152.8	21.0	4.26	0.820	60.5	0.493	1.566	116.9	290.2	---	2.338	-6.01	1.156	68.4	55.3	5.0	0.457
4-2740	4-3300	0.378	136.9	-14.9	-15.13	0.823	62.1	0.469	1.580	114.2	297.2	---	2.320	13.43	1.157	71.1	50.6	52.8	0.467
4-2740	4-3310	0.308	147.9	0.8	-4.87	0.826	63.5	0.448	1.591	111.8	304.3	---	2.304	3.23	1.158	73.5	59.3	30.6	0.361
4-2740	4-3320	0.288	150.3	2.8	-3.44	0.829	64.7	0.429	1.602	109.6	311.6	---	2.289	1.86	1.159	76.0	64.1	28.0	0.318
4-2740	4-3330	0.273	151.8	3.4	-2.85	0.831	65.7	0.413	1.610	107.6	319.2	---	2.276	1.34	1.160	78.4	67.3	27.3	0.280
4-2740	4-3340	0.261	153.0	3.5	-2.51	0.832	66.6	0.400	1.617	105.9	327.0	---	2.265	1.06	1.162	80.7	68.8	27.0	0.246
4-2740	4-3350	0.251	153.9	3.5	-2.29	0.834	67.3	0.390	1.623	104.6	335.2	---	2.257	0.90	1.163	83.1	67.9	26.8	0.217
4-2740	4-3360	0.245	154.6	3.6	-2.11	0.835	67.7	0.383	1.627	103.6	343.8	---	2.251	0.81	1.165	85.5	64.1	26.2	0.195
4-2740	4-3370	0.242	155.1	3.8	-1.97	0.835	67.9	0.380	1.631	103.0	352.8	---	2.250	0.75	1.167	88.0	57.4	25.0	0.182
4-2740	4-3380	0.242	155.3	4.2	-1.84	0.836	67.9	0.381	1.633	102.9	362.3	1.011	2.255	0.71	1.169	90.6	49.1	22.9	0.182
4-2740	4-3390	0.247	155.3	4.7	-1.72	0.836	67.6	0.387	1.634	103.3	372.4	1.002	2.265	0.70	1.171	93.5	41.2	20.3	0.197
4-2740	4-3395	0.253	24.7	6.4	-1.72	0.632	102.1	0.436	1.097	196.7	625.8	0.619	1.575	0.70	1.035	115.4	334.9	-8.9	0.462
4-2740	4-3400	0.257	154.9	5.5	-1.60	0.836	66.8	0.399	1.634	104.4	383.2	0.983	2.285	0.71	1.173	96.6	35.6	16.0	0.228
4-2740	4-3400	0.232	39.7	10.4	-1.60	0.620	95.4	0.422	1.079	187.5	826.3	0.623	1.535	0.71	1.030	114.7	343.6	-5.4	0.450
4-2740	4-3410	0.275	154.2	6.5	-1.48	0.836	65.6	0.418	1.634	106.1	394.7	0.951	2.317	0.74	1.175	100.1	32.6	16.5	0.274
4-2740	4-3410	0.207	51.8	14.8	-1.48	0.612	89.6	0.430	1.067	179.4	828.0	0.609	1.526	0.74	1.028	115.2	351.8	-1.9	0.459
4-2740	4-3420	0.302	153.1	7.8	-1.34	0.836	63.6	0.448	1.633	108.8	407.2	0.901	2.365	0.79	1.178	104.1	31.7	15.7	0.337
4-2740	4-3420	0.205	69.7	18.7	-1.34	0.605	83.6	0.453	1.058	172.2	830.6	0.579	1.537	0.79	1.027	116.8	359.4	1.4	0.486
4-2740	4-3430	0.342	151.5	9.4	-1.16	0.836	60.7	0.492	1.632	112.6	420.9	0.829	2.436	0.89	1.180	109.1	32.2	15.5	0.419
4-2740	4-3430	0.229	87.7	21.0	-1.16	0.600	77.1	0.492	1.051	166.0	834.3	0.532	1.570	0.89	1.026	119.4	6.4	4.5	0.532
4-2740	4-3440	0.403	149.8	11.2	-0.93	0.835	56.4	0.556	1.631	118.1	436.2	0.724	2.539	1.05	1.182	115.5	33.3	15.6	0.529
4-2740	4-3440	0.282	102.4	21.6	-0.93	0.595	69.4	0.556	1.045	161.3	839.5	0.465	1.626	1.05	1.027	123.7	13.4	7.4	0.604
4-2740	4-3450	0.493	145.7	13.3	-0.59	0.835	44.8	0.648	1.631	125.8	454.0	0.575	2.688	1.33	1.184	124.1	34.4	15.8	0.679
4-2740	4-3450	0.337	112.0	23.6	-0.59	0.592	59.6	0.646	1.041	158.8	847.6	0.369	1.714	1.33	1.027	130.2	19.2	9.7	0.714
4-2740	4-3460	0.504	116.4	21.8	0.04	0.590	46.3	0.770	1.039	159.8	858.0	0.239	1.839	1.88	1.029	140.3	23.6	11.3	0.879
4-2740	4-3460	0.518	67.3	32.3	0.04	0.291	82.4	0.893	0.815	178.9	1237.1	0.103	1.528	1.88	0.891	150.1	12.5	6.3	0.969
4-2740	4-3510	0.492	27.0	8.5	-2.48	0.534	120.7	0.705	0.975	195.7	944.6	0.287	1.662	-1.44	1.004	45.2	306.4	-20.6	0.771
4-2740	4-3520	0.569	358.5	-4.0	-2.57	0.822	125.4	0.579	1.574	237.1	636.2	0.662	2.485	-1.11	1.182	61.5	290.1	-24.2	0.567
4-2740	4-3520	0.514	97.4	22.1	-2.57	0.438	50.0	0.841	0.894	170.1	929.3	0.142	1.645	-1.11	0.956	33.0	324.8	-14.7	0.946
4-2740	4-3520	0.382	34.6	10.6	-2.57	0.527	107.2	0.625	0.968	191.0	950.1	0.363	1.572	-1.11	1.000	51.3	314.1	-18.7	0.671
4-2740	4-3530	0.501	356.2	-5.2	-2.31	0.822	120.4	0.506	1.572	242.5	651.9	0.777	2.368	-0.92	1.182	68.4	292.1	-24.2	0.448
4-2740	4-3530	0.390	29.4	21.4	-2.31	0.470	66.9	0.725	0.917	170.4	939.7	0.252	1.583	-0.92	0.971	43.6	329.1	-13.3	0.788
4-2740	4-3530	0.310	54.5	26.0	-2.31	0.511	91.9	0.602	0.953	181.2	950.5	0.379	1.526	-0.92	0.991	53.0	324.0	-15.9	0.642
4-2740	4-3540	0.455	354.6	-6.1	-2.12	0.821	117.0	0.454	1.571	246.3	665.8	0.857	2.285	-0.81	1.180	73.8	293.8	-24.2	0.359
4-2750	4-2800	0.815	346.2	-8.3	-2.50	1.135	130.5	0.990	90.990	278.5	323.2	---	---	-1.21	1.422	71.7	264.3	-26.2	0.562
4-2750	4-2810	0.735	345.5	-7.3	-2.24	1.008	127.1	0.890	8.598	280.2	335.0	---	---	-1.04	1.383	78.2	261.1	-26.3	0.447
4-2750	4-2820	0.660	345.4	-6.3	-2.04	1.052	124.9	0.813	5.199	280.3	345.3	---	---	-0.94	1.354	83.4	256.8	-26.3	0.372
4-2750	4-2830	0.639	345.8	-5.0	-1.87	1.022	123.4	0.748	3.911	279.5	354.4	---	---	-0.88	1.329	87.6	252.0	-26.0	0.325

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THETA1	THETA2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2750	4-2840	0.605	346.6	-8.5	-1.72	0.994	122.2	0.690	3.199	277.4	342.5	0.991	---	-0.85	1.306	91.0	247.8	-25.7	0.298
4-2750	4-2850	0.576	347.6	-7.9	-1.57	0.966	121.2	0.638	2.733	274.7	344.4	0.988	---	-0.85	1.283	93.8	244.9	-25.4	0.284
4-2750	4-2860	0.548	348.9	-7.2	-1.41	0.940	120.2	0.592	2.402	271.5	376.5	0.981	---	-0.88	1.261	96.1	243.8	-25.3	0.278
4-2750	4-2870	0.522	350.2	-6.4	-1.25	0.914	119.3	0.549	2.156	267.8	382.7	0.972	---	-0.94	1.240	98.0	244.5	-25.6	0.277
4-2750	4-2880	0.497	351.6	-5.5	-1.05	0.890	118.3	0.511	1.967	263.7	388.5	0.961	---	-1.04	1.224	99.6	246.7	-26.3	0.273
4-2750	4-2890	0.472	353.1	-4.5	-0.80	0.866	117.2	0.478	1.818	259.4	394.0	0.950	---	-1.19	1.200	100.8	250.2	-27.3	0.280
4-2750	4-2900	0.447	354.5	-3.3	-0.45	0.843	116.1	0.448	1.699	254.8	399.1	0.938	---	-1.46	1.181	101.8	254.8	-28.7	0.282
4-2750	4-2910	0.423	355.6	-1.7	0.10	0.822	114.9	0.422	1.602	250.0	404.0	0.926	---	-1.94	1.164	102.7	260.3	-30.9	0.285
4-2750	4-2920	0.400	356.8	1.1	1.25	0.802	113.5	0.399	1.522	245.0	408.7	0.914	---	-3.01	1.148	103.3	266.4	-35.1	0.290
4-2750	4-2930	0.383	355.8	9.5	5.48	0.783	112.1	0.380	1.456	239.9	413.1	0.903	---	-7.17	1.134	103.9	272.4	-49.3	0.315
4-2750	4-2940	0.430	20.6	-26.0	-18.53	0.765	110.6	0.364	1.400	234.6	417.5	0.890	---	16.91	1.120	104.4	270.4	25.2	0.420
4-2750	4-2950	0.339	9.1	-8.6	-5.52	0.749	109.0	0.351	1.352	229.2	421.6	0.878	---	3.97	1.108	104.8	285.6	-8.3	0.301
4-2750	4-2960	0.313	10.0	-4.8	-3.76	0.733	107.3	0.340	1.312	223.7	425.6	0.865	---	2.28	1.098	105.2	293.6	-13.6	0.299
4-2750	4-2970	0.290	12.3	-2.5	-3.03	0.719	105.5	0.332	1.277	218.0	429.4	0.852	---	1.63	1.088	105.6	301.3	-14.5	0.302
4-2750	4-2980	0.267	15.3	-0.6	-2.62	0.705	103.6	0.327	1.246	212.2	433.2	0.838	---	1.30	1.080	106.0	308.9	-14.1	0.307
4-2750	4-2990	0.246	19.0	1.2	-2.34	0.693	101.5	0.325	1.219	206.3	436.9	0.823	---	1.10	1.072	106.4	316.5	-12.9	0.314
4-2750	4-3000	0.225	23.6	3.2	-2.13	0.681	99.3	0.326	1.195	200.4	440.5	0.806	---	0.98	1.066	107.0	323.9	-11.0	0.323
4-2750	4-3010	0.206	29.4	5.6	-1.96	0.670	96.9	0.330	1.174	194.4	444.1	0.787	---	0.91	1.061	107.6	331.3	-8.8	0.334
4-2750	4-3020	0.189	36.9	8.3	-1.80	0.659	94.2	0.338	1.156	188.4	447.7	0.765	---	0.87	1.056	108.5	338.6	-6.3	0.348
4-2750	4-3030	0.175	46.7	11.5	-1.66	0.650	91.3	0.351	1.139	182.4	451.5	0.739	---	0.85	1.052	109.5	345.8	-5.6	0.361
4-2750	4-3040	0.168	59.1	15.0	-1.51	0.640	88.0	0.370	1.124	176.6	455.4	0.708	1.540	0.86	1.049	110.9	352.9	-4.8	0.391
4-2750	4-3050	0.171	74.1	18.1	-1.36	0.632	84.2	0.397	1.110	171.0	459.6	0.670	1.551	0.90	1.047	112.7	359.9	-4.2	0.422
4-2750	4-3060	0.199	89.8	20.1	-1.18	0.624	79.7	0.433	1.098	165.9	464.3	0.623	1.574	0.97	1.045	115.2	6.7	-3.8	0.465
4-2750	4-3070	0.226	103.9	20.8	-0.97	0.617	74.1	0.483	1.088	161.4	469.7	0.562	1.614	1.08	1.043	118.5	13.4	-3.7	0.515
4-2750	4-3080	0.287	114.7	20.6	-0.69	0.611	67.1	0.553	1.079	158.1	476.4	0.483	1.675	1.28	1.042	123.3	19.6	-3.3	0.584
4-2750	4-3090	0.380	121.5	20.4	-0.27	0.606	57.7	0.648	1.072	156.8	485.1	0.377	1.768	1.62	1.042	130.2	23.0	-3.2	0.673
4-2750	4-3100	0.515	124.2	20.6	0.50	0.603	44.7	0.775	1.069	158.8	497.1	0.241	1.867	2.30	1.043	140.7	29.0	-3.1	0.781
4-2750	4-3150	0.499	83.8	21.9	-3.17	0.329	67.5	0.860	0.839	176.1	565.2	0.117	1.561	-1.75	0.978	31.2	323.0	-18.3	0.723
4-2750	4-3150	0.467	40.5	13.1	-3.17	0.468	115.4	0.736	0.925	190.2	579.4	0.244	1.607	-1.75	0.976	42.7	315.0	-14.8	0.704
4-2750	4-3210	0.599	138.9	14.9	-1.64	0.760	39.7	0.773	1.385	145.6	235.5	---	2.455	-0.85	1.137	41.4	2.9	-0.5	0.604
4-2750	4-3220	0.560	141.0	14.2	-1.56	0.768	43.0	0.734	1.410	141.9	241.8	---	2.445	-0.86	1.140	45.2	9.4	3.1	0.842
4-2750	4-3230	0.523	143.0	13.5	-1.34	0.776	46.0	0.696	1.434	138.3	248.1	---	2.433	-0.90	1.143	48.9	15.9	5.7	0.781
4-2750	4-3240	0.488	144.9	12.9	-1.16	0.784	48.8	0.659	1.458	134.8	254.4	---	2.419	-0.98	1.146	52.3	22.3	8.0	0.723
4-2750	4-3250	0.455	146.9	12.3	-0.94	0.790	51.5	0.624	1.480	131.4	260.8	---	2.403	-1.10	1.148	55.6	28.8	10.1	0.666
4-2750	4-3260	0.425	148.7	11.9	-0.66	0.796	53.9	0.590	1.501	128.1	267.3	---	2.387	-1.30	1.149	58.8	35.2	11.8	0.612
4-2750	4-3270	0.396	150.7	11.9	-0.23	0.801	56.1	0.558	1.521	124.9	273.8	---	2.369	-1.65	1.151	61.8	41.7	13.0	0.560
4-2750	4-3280	0.370	152.8	12.5	0.02	0.806	58.1	0.529	1.538	121.9	280.5	---	2.352	-2.33	1.152	64.6	48.2	13.0	0.510
4-2750	4-3290	0.347	155.8	15.6	2.42	0.810	59.9	0.501	1.555	119.1	287.2	---	2.334	-4.15	1.154	67.4	55.4	9.9	0.467
4-2750	4-3300	0.411	165.6	44.9	19.23	0.814	61.5	0.477	1.569	116.4	294.0	---	2.318	-20.89	1.155	70.0	74.9	-21.3	0.560
4-2750	4-3310	0.323	348.7	-7.1	-8.22	0.817	63.0	0.454	1.582	113.9	301.3	---	2.300	6.64	1.156	72.6	60.3	40.1	0.390
4-2750	4-3320	0.293	152.5	-0.9	-4.44	0.820	64.3	0.435	1.593	111.6	308.5	---	2.285	2.93	1.157	75.1	66.3	31.4	0.335
4-2750	4-3330	0.276	155.5	0.6	-3.35	0.822	65.4	0.418	1.602	109.6	316.1	---	2.271	1.91	1.159	77.4	70.2	29.6	0.294
4-2750	4-3340	0.263	157.0	1.1	-2.82	0.824	66.3	0.404	1.610	107.9	323.8	---	2.260	1.45	1.160	79.8	72.4	28.9	0.258
4-2750	4-3350	0.253	158.0	1.4	-2.48	0.825	67.1	0.392	1.616	106.5	332.0	---	2.250	1.19	1.162	82.2	72.4	28.6	0.227
4-2750	4-3360	0.245	158.9	1.5	-2.24	0.826	67.6	0.384	1.621	105.4	340.4	---	2.244	1.04	1.164	84.6	69.6	28.2	0.201
4-2750	4-3370	0.241	159.5	1.8	-2.05	0.827	67.9	0.379	1.625	104.7	349.3	---	2.241	0.94	1.166	87.1	63.8	27.3	0.185
4-2750	4-3380	0.240	159.9	2.2	-1.88	0.828	68.0	0.379	1.627	104.4	358.7	---	2.243	0.88	1.168	89.6	55.7	25.6	0.180
4-2750	4-3390	0.243	160.0	2.7	-1.75	0.828	67.7	0.383	1.629	104.6	368.5	1.006	2.252	0.86	1.170	92.4	47.3	23.2	0.189
4-2750	4-3390	0.361	21.5	6.1	-1.73	0.640	110.6	0.494	1.123	204.8	828.7	0.568	1.677	0.86	1.045	119.1	333.5	-9.4	0.528
4-2750	4-3390	0.509	15.8	4.8	-1.73	0.673	123.8	0.610	1.181	211.9	835.8	0.460	1.901	0.86	1.066	126.8	330.4	-10.9	0.667
4-2750	4-3400	0.251	159.8	3.5	-1.59	0.828	67.1	0.392	1.629	105.4	379.0	0.991	2.268	0.85	1.172	95.3	40.7	20.7	0.214
4-2750	4-3400	0.268	33.0	9.8	-1.59	0.618	100.4	0.445	1.089	193.6	827.2	0.605	1.573	0.85	1.034	116.1	343.1	-5.4	0.475
4-2750	4-3410	0.265	159.3	4.5	-1.44	0.828	66.1	0.408	1.629	106.8	390.2	0.964	2.294	0.87	1.175	98.6	36.9	18.8	0.254
4-2750	4-3410	0.225	46.5	13.9	-1.44	0.606	93.7	0.439	1.072	184.8	828.2	0.602	1.543	0.87	1.030	115.8	351.6	-1.8	0.469
4-2750	4-3420	0.287	158.4	5.7	-1.28	0.828	64.5	0.434	1.628	108.9	402.1	0.922	2.334	0.93	1.177	102.4	35.3	17.7	0.309
4-2750	4-3420	0.208	63.5	18.0	-1.28	0.598	87.5	0.452	1.661	177.0	830.2	0.582	1.540	0.93	1.028	116.7	359.5	1.7	0.485
4-2750	4-3430	0.321	157.1	7.2	-1.09	0.828	62.0	0.471	1.627	112.1	415.2	0.861	2.334	1.02	1.179	107.0	35.5	17.3	0.382
4-2750	4-3430	0.216	82.4	20.8	-1.09	0.591	81.1	0.482	1.052	176.1	833.3	0.545	1.560	1.02	1.027	118.7	7.1	5.0	0.520
4-2750	4-3440	0.371	155.1	8.9	-0.85	0.828	58.4	0.525	1.626	116.5	429.0	0.772	2.481	1.16	1.181	112.6	36.7	17.3	0.478
4-2750	4-3440	0.252	99.7	21.8	-0.85	0.586	73.8	0.532	1.046	164.6	837.6	0.490	1.602	1.16	1.027	122.0	14.2	8.0	0.577
4-2750	4-3450	0.445	152.2	10.9	-0.51	0.828	53.0	0.603	1.626	122.9	445.9	0.646	2.606	1.41	1.184	120.0	38.1	17.5	0.607
4-2750	4-3450	0.322	112.3	21.5	-0.51	0.582	64.9	0.606	1.040	160.7	843.7	0.410	1.671	1.41	1.007	127.2	20.6	10.5	0.665
4-2750	4-3460	0.556	147.9	13.3	0.03	0.828	44.8	0.710	1.626	132.1	465.1	0.471	2.780	1.88	1.186	130.1	38.9	17.5	0.784
4-2750	4-3460	0.430	119.6	21.2	0.03	0.579	53.4	0.712	1.037	159.7	852.7	0.299	1.775	1.88	1.028	135.3	25.9	12.5	0.798
4-2750	4-3470	0.588	121.4	21	1.16	0.578	37.6	0.845	1.036	162.9	866.0	0.160	1.912	2.93	1.030	147.7	29.3	13.7	0.996
4-2750	4-3470	0.559	79.3	24.1	1.16	0.257	68.7	0.912	0.811	177.8	1240.9	0.071	1.550	2.93	0.890	155.2	19.7	9.5	1.039
4-2750	4-3510	0.557	31.7	10.4	-3.57	0.519	128.2	0.771	0.970	199.1	938.9	0.222	1.718	-2.11	1.002	39.6	309.4	-20.1	0.860
4-2750	4-3520	0.549	102.1	21.9	-2.90	0.412	45.6	0.877	0.885	171.4	925.4	0.109	1.660	-1.52	0.950	29.0	326.9	-14.1	1.003
4-2750	4-3520	0.428	36.9	11.6	-2.90	0.513	113.0	0.673	0.965	193.5	946.5	0.316	1.614	-1.52	0.999	47.7	315.9	-18.4	0.730
4-2750	4-3530	0.530	2.3	-2.5	-2.52	0.813	122.9	0.544	1.564	238.5	642.7	0.714	2.415	-1.22	1.180	64.6	297.6	-23.6	0.514
4-2750	4-3540	0.435	97.2	21.6	-2.52	0.441	61.3	0.780	0.905	170.7	934.9	0.199	1.610	-1.22	0.963	38.9	331.8	-12.5	0.859
4-2750	4-3540	0.337	51.3	15.3	-2.52	0.501	98.1	0.624	0.953	184.3	949.1	0.358	1.548	-1.22	0.992	51.4	324.8	-15.5	0.669
4-2750	4-3540	0.474	0.4	-3.5	-2.25	0.812	118.7	0.481	1.563	242.9	657.3	0.812	2.314	-1.05	1.179	70.7	299.8	-23.5	0.410
4-2750	4-3550	0.434	359.0	-4.2	-2.05	0.812	115.8	0.435	1.561	245.9	670.4	0.882	2.241	-0.94	1.177	75.5	301.4	-23.6	0.331
4-2760	4-2810	0.911	346.4	-8.7	-2.40	1.251	131.3	1.259	-3.434	287.1	336.9	---	---	-1.30	1.518	77.1	256.8	-26.3	0.581
4-2760	4-2820	0.823	346.6	-8.5	-2.14	1.182	128.7	1.105	-9.285	286.9	346.8	---	---	-1.15	1.461	83.1	253.1	-26.1	0.476
4-2760	4-2830	0.760	347.2	-8.1	-1.92	1.129	126.9	0.986	69.338	285.5	355.5	---	---	-1.06	1.417	87.8	249.0	-25.7	0.411
4-2760	4-2840	0.710	348.2	-7.5	-1.74	1.084	125.6	0.897	8.754	283.4	363.4	0.991	---	-1.01	1.380	91.6	245.6	-25.3	0.372
4-2760	4-2850	0.668	349.5	-6.8	-1.56	1.044	124.5	0.803	4.995	280.5	370.6	0.986	---	-0.99	1.346	94.7	243.4	-25.1	0.349
4-2760	4-2860	0.631	350.9	-6.0	-1.39	1.006	123.6	0.729	3.615	277.1	377.1	0.978	---	-1.01	1.315	97.2	242.8	-25.1	0.337

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THETA1	THETA2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2760	4-2870	0.597	352.4	-5.2	-1.20	0.971	122.6	0.666	2.894	273.3	533.2	0.962	---	-1.06	1.287	99.2	243.8	-25.4	0.390
4-2760	4-2880	0.565	353.9	-4.3	-0.99	0.939	121.6	0.610	2.450	269.2	508.9	0.955	---	-1.14	1.260	100.9	246.2	-26.0	0.327
4-2760	4-2890	0.534	355.4	-3.2	-0.74	0.908	120.5	0.562	2.152	264.8	394.3	0.942	---	-1.26	1.235	102.2	249.9	-27.0	0.325
4-2760	4-2900	0.505	356.9	-2.1	-0.41	0.879	119.4	0.520	1.937	260.1	399.4	0.930	---	-1.52	1.212	103.2	254.6	-28.3	0.324
4-2760	4-2910	0.476	358.3	-0.6	0.08	0.852	118.3	0.484	1.777	255.3	404.2	0.917	---	-1.92	1.190	104.1	260.1	-30.0	0.324
4-2760	4-2920	0.448	359.6	1.5	0.56	0.827	116.7	0.453	1.653	250.3	408.8	0.905	---	-2.71	1.171	104.7	266.3	-32.9	0.324
4-2760	4-2930	0.423	360.0	6.0	3.16	0.804	115.2	0.426	1.556	245.1	413.2	0.892	---	-4.82	1.153	105.2	273.1	-35.8	0.332
4-2760	4-2940	0.408	355.1	34.9	21.99	0.782	113.6	0.403	1.477	239.8	417.3	0.881	---	-23.57	1.137	105.6	249.9	-78.6	0.531
4-2760	4-2950	0.388	14.4	-12.3	-9.29	0.762	112.0	0.388	1.413	234.3	421.7	0.868	---	7.75	1.123	106.0	283.2	1.9	0.350
4-2760	4-2960	0.369	12.8	-5.0	-4.84	0.744	110.2	0.371	1.359	228.8	425.6	0.855	---	3.43	1.110	106.3	292.8	-10.4	0.327
4-2760	4-2970	0.322	14.4	-2.0	-3.56	0.727	108.4	0.359	1.314	225.1	429.4	0.842	---	2.24	1.098	106.6	300.8	-13.0	0.326
4-2760	4-2980	0.297	16.9	0.0	-2.93	0.711	106.9	0.350	1.275	217.3	433.2	0.829	---	1.65	1.088	106.9	308.6	-13.2	0.328
4-2760	4-2990	0.273	20.1	1.9	-2.54	0.696	105.3	0.345	1.242	211.4	436.8	0.814	---	1.36	1.080	107.2	316.2	-12.2	0.332
4-2760	4-3000	0.250	24.1	3.8	-2.26	0.682	102.0	0.342	1.214	205.6	440.4	0.798	---	1.21	1.072	107.7	323.7	-10.5	0.338
4-2760	4-3010	0.228	29.2	5.5	-2.03	0.669	99.6	0.344	1.189	199.3	444.0	0.780	---	1.10	1.066	108.2	331.2	-8.4	0.347
4-2760	4-3020	0.208	35.6	8.4	-1.84	0.657	96.9	0.349	1.167	193.3	447.5	0.760	---	1.02	1.060	108.9	338.5	-5.9	0.358
4-2760	4-3030	0.190	44.0	11.3	-1.67	0.646	94.0	0.358	1.147	187.2	451.2	0.736	---	1.00	1.055	109.8	345.8	-3.2	0.374
4-2760	4-3040	0.177	55.0	14.5	-1.50	0.636	90.7	0.373	1.130	181.2	454.9	0.708	---	0.99	1.052	111.0	352.9	-0.4	0.394
4-2760	4-3050	0.173	68.8	17.7	-1.32	0.626	87.0	0.395	1.114	175.4	458.9	0.674	1.558	1.02	1.048	112.6	0.0	2.6	0.420
4-2760	4-3060	0.181	84.8	20.1	-1.13	0.617	82.7	0.425	1.101	169.9	463.3	0.632	1.569	1.06	1.046	114.7	7.1	5.5	0.456
4-2760	4-3070	0.207	100.5	21.0	-0.91	0.609	77.5	0.468	1.089	165.0	468.2	0.579	1.598	1.19	1.044	117.5	13.9	8.3	0.505
4-2760	4-3080	0.254	113.6	20.8	-0.63	0.601	71.1	0.526	1.078	161.0	474.1	0.511	1.646	1.36	1.042	121.5	20.5	10.9	0.572
4-2760	4-3090	0.329	122.8	20.1	-0.23	0.595	62.8	0.607	1.070	158.4	481.6	0.420	1.719	1.66	1.041	127.2	26.5	13.1	0.668
4-2760	4-3100	0.481	127.8	19.8	0.41	0.591	51.7	0.717	1.064	158.4	491.7	0.302	1.826	2.21	1.041	135.6	37.4	14.9	0.809
4-2760	4-3110	0.600	128.4	20.3	1.76	0.590	36.2	0.852	1.063	162.4	505.8	0.158	1.967	3.47	1.042	148.3	34.6	15.8	1.011
4-2760	4-3150	0.537	87.5	22.2	-3.78	0.282	66.3	0.898	0.826	177.1	561.2	0.084	1.569	-2.43	0.908	26.6	325.4	-14.9	1.916
4-2760	4-3150	0.524	44.8	14.6	-3.78	0.445	122.8	0.796	0.916	190.1	574.2	0.187	1.645	-2.43	0.971	37.4	317.7	-18.0	0.803
4-2760	4-3220	0.570	144.9	13.0	-1.48	0.756	41.7	0.750	1.393	144.1	238.8	---	2.437	-1.00	1.137	43.6	10.7	3.6	0.867
4-2760	4-3230	0.533	146.9	12.2	-1.30	0.764	44.9	0.712	1.418	140.5	245.2	---	2.426	-1.03	1.140	47.4	17.1	6.1	0.806
4-2760	4-3240	0.497	148.9	11.6	-1.11	0.772	47.8	0.674	1.442	137.0	251.5	---	2.413	-1.09	1.142	50.9	23.6	8.5	0.746
4-2760	4-3250	0.463	150.9	11.0	-0.88	0.779	50.5	0.637	1.485	133.6	257.9	---	2.398	-1.20	1.145	54.3	30.1	10.5	0.688
4-2760	4-3260	0.432	152.8	10.6	-0.60	0.785	53.0	0.602	1.487	130.3	264.6	---	2.382	-1.38	1.147	57.5	36.6	12.3	0.632
4-2760	4-3270	0.403	154.7	10.4	-0.20	0.791	55.3	0.569	1.507	127.1	270.9	---	2.365	-1.66	1.148	60.6	43.1	13.5	0.579
4-2760	4-3280	0.376	156.8	10.8	0.43	0.796	57.4	0.539	1.526	124.1	277.6	---	2.348	-2.22	1.150	63.5	49.6	13.8	0.529
4-2760	4-3290	0.352	159.3	12.5	1.70	0.801	59.3	0.510	1.543	121.2	284.3	---	2.331	-3.41	1.151	66.3	56.4	12.2	0.482
4-2760	4-3300	0.339	164.1	20.9	6.14	0.805	61.0	0.485	1.558	118.5	291.2	---	2.312	-7.76	1.153	69.0	65.0	2.5	0.453
4-2760	4-3310	0.452	134.4	-27.4	-25.29	0.808	62.6	0.460	1.572	116.0	298.4	---	2.296	23.74	1.154	71.6	70.2	72.9	0.576
4-2760	4-3320	0.303	155.5	-6	-6.30	0.81	63.9	0.440	1.584	113.7	305.5	---	2.281	4.84	1.156	74.1	68.3	37.4	0.355
4-2760	4-3330	0.281	158.9	-2.6	-4.10	0.814	65.1	0.422	1.594	111.6	313.0	---	2.267	2.73	1.157	76.5	72.9	32.6	0.309
4-2760	4-3340	0.266	160.7	-1.5	-3.22	0.816	66.1	0.407	1.602	109.9	320.7	---	2.254	1.93	1.159	78.9	75.7	31.0	0.271
4-2760	4-3350	0.254	162.0	-0.9	-2.73	0.817	66.8	0.395	1.609	108.4	328.8	---	2.244	1.52	1.161	81.3	76.6	30.3	0.237
4-2760	4-3360	0.246	163.0	-0.6	-2.39	0.818	67.4	0.385	1.614	107.2	337.2	---	2.236	1.30	1.163	83.7	74.8	29.9	0.209
4-2760	4-3370	0.240	163.8	-0.3	-2.14	0.819	67.8	0.379	1.618	106.3	345.9	---	2.232	1.15	1.165	86.1	70.0	29.3	0.189
4-2760	4-3380	0.238	164.3	0.1	-1.94	0.820	68.0	0.377	1.621	105.9	355.1	---	2.233	1.06	1.167	88.7	62.3	28.1	0.179
4-2760	4-3390	0.240	164.5	0.7	-1.76	0.820	67.9	0.379	1.623	105.9	364.8	1.008	2.238	1.01	1.169	91.3	53.6	25.9	0.183
4-2760	4-3400	0.246	164.5	1.5	-1.59	0.821	67.4	0.386	1.624	106.5	375.0	0.997	2.251	0.99	1.171	94.2	46.1	23.3	0.202
4-2760	4-3400	0.328	29.8	9.4	-1.59	0.621	107.5	0.487	1.107	200.7	829.2	0.568	1.646	0.99	1.042	118.7	342.2	-5.7	0.522
4-2760	4-3400	0.552	20.6	7.2	-1.59	0.673	127.9	0.658	1.195	211.1	839.7	0.409	1.981	0.99	1.073	130.3	337.7	-8.1	0.731
4-2760	4-3410	0.257	164.2	2.4	-1.42	0.821	66.6	0.400	1.624	107.5	385.9	0.975	2.273	1.00	1.174	97.3	41.3	21.2	0.236
4-2760	4-3410	0.255	42.2	13.2	-1.42	0.603	98.5	0.456	1.080	190.5	828.8	0.588	1.573	1.00	1.033	116.8	351.2	-1.7	0.489
4-2760	4-3420	0.276	163.5	3.6	-1.24	0.821	65.2	0.421	1.623	109.3	397.4	0.939	2.307	1.04	1.176	100.9	39.1	19.7	0.285
4-2760	4-3420	0.220	57.6	17.2	-1.24	0.592	91.7	0.457	1.065	182.0	830.2	0.579	1.552	1.04	1.030	117.0	359.4	1.9	0.491
4-2760	4-3430	0.304	162.4	5.0	-1.03	0.820	63.1	0.453	1.622	111.9	409.9	0.887	2.358	1.12	1.178	105.0	38.9	19.1	0.350
4-2760	4-3430	0.212	76.3	20.5	-1.03	0.584	85.1	0.477	1.055	174.6	832.6	0.552	1.558	1.12	1.028	118.3	7.3	5.3	0.514
4-2760	4-3440	0.346	160.8	6.6	-0.79	0.820	60.1	0.500	1.621	115.6	423.5	0.811	2.431	1.26	1.181	110.1	39.9	18.9	0.435
4-2760	4-3440	0.232	95.4	22.0	-0.79	0.578	78.0	0.515	1.046	168.3	836.2	0.507	1.596	1.26	1.027	120.9	14.7	8.4	0.558
4-2760	4-3450	0.407	158.4	8.5	-0.46	0.820	55.6	0.566	1.620	120.8	438.8	0.704	2.537	1.48	1.183	116.6	41.5	19.0	0.547
4-2760	4-3450	0.284	111.0	21.7	-0.46	0.573	69.8	0.576	1.040	163.4	841.3	0.441	1.639	1.48	1.027	125.1	21.6	11.2	0.628
4-2760	4-3460	0.497	154.9	10.7	0.02	0.820	48.9	0.658	1.620	128.3	456.3	0.554	2.686	1.87	1.185	125.2	42.9	19.2	0.698
4-2760	4-3460	0.371	121.1	20.9	0.02	0.569	59.6	0.664	1.035	160.7	848.7	0.348	1.723	1.87	1.027	131.5	27.7	13.5	0.736
4-2760	4-3470	0.501	125.8	20.6	0.90	0.567	46.0	0.783	1.033	161.5	859.5	0.224	1.842	2.60	1.028	141.5	32.2	15.0	0.898
4-2760	4-3470	0.547	69.5	23.1	0.90	0.261	99.4	0.897	0.819	181.1	1239.1	0.084	1.594	2.25	0.897	153.2	26.8	9.9	1.015
4-2760	4-3520	0.582	106.5	21.6	-3.36	0.385	41.1	0.908	0.876	172.8	911.7	0.081	1.672	-3.05	0.945	25.0	328.8	-13.5	1.058
4-2760	4-3520	0.481	40.2	12.8	-3.36	0.499	119.6	0.727	0.961	193.2	912.1	0.262	1.660	-2.05	0.997	43.3	318.2	-18.0	0.800
4-2760	4-3530	0.565	8.7	0.3	-2.78	0.804	126.0	0.588	1.556	234.2	613.3	0.641	2.472	-1.57	1.179	60.4	302.8	-22.8	0.588
4-2760	4-3530	0.475	103.4	21.4	-2.78	0.413	56.1	0.825	0.894	171.5	910.6	0.156	1.631	-1.57	0.956	34.6	334.0	-11.8	0.923
4-2760	4-3530	0.373	50.8	15.4	-2.78	0.489	104.0	0.657	0.952	187.6	946.7	0.326	1.576	-1.57	0.991	48.9	326.0	-15.4	0.709
4-2760	4-3540	0.496	76.2	-0.5	-2.42	0.804	120.8	0.512	1.555	239.4	648.7	0.753	2.351	-1.31	1.178	67.4	305.1	-22.7	0.468
4-2760	4-3550	0.448	4.6	-1.7	-2.15	0.803	117.2	0.457	1.553	242.9	662.3	0.843	2.263	-1.15	1.176	72.7	307.3	-22.6	0.376
4-2760	4-3560	0.577	135.5	15.9	-1.93	0.665	39.3	0.799	1.180	155.1	584.6	0.237	2.122	-1.06	1.084	37.5	353.9	-3.4	0.960
4-2760	4-3560	0.414	3.4	-2.2	-1.93	0.803	114.7	0.418	1.551	245.3	674.8	0.903	2.200	-1.06	1.174	77.1	308.8	-22.8	0.306
4-2770	4-2830	0.915	308.6	-7.3	-1.99	1.276	130.3	1.344	2.875	290.9	356.0	---	---	-1.24	1.540	87.7	247.6	-25.5	0.533
4-2770	4-2840	0.841	309.8	-6.6	-1.77	1.204	128.9	1.169	2.853	288.6	363.7	0.990	---	-1.16	1.479	92.0	244.8	-25.1	0.472
4-2770	4-2850	0.781	311.3	-5.8	-1.57	1.144	127.8	1.030	2.833	285.7	370.8	0.985	---	-1.13	1.429	95.5	243.0	-24.9	0.434
4-2770	4-2860	0.731	312.9	-5.0	-1.37	1.092	126.8	0.916	11.584	282.3	377.8	0.975	---	-1.13	1.386	98.3	242.6	-24.9	0.412
4-2770	4-2870	0.686	314.5	-4.4	-1.17	1.045	125.9	0.820	5.334	278.4	383.4	0.963	---	-1.16	1.347	100.5	243.8	-25.2	0.397
4-2770	4-2880	0.645	316.2	-3.8	-0.95	1.002	124.9	0.738	3.623	274.3	389.4	0.949	---	-1.24	1.311	102.3	246.2	-25.8	0.387
4-2770	4-2890	0.606	317.8	-2.0	-0.70	0.962	123.8	0.669	2.823	269.8	394.3	0.935	---	-1.36	1.279	103.7	249.9	-26.7	0.380
4-2770	4-2900	0.570	319.4	-0.8	-0.37	0.925	122.7	0.610	2.362	265.2	399.4	0.921	---	-1.57	1.249	104.7	254.6	-27.8	0.374
4-2770	4-2910	0.535	0.9	0.5	0.07	0.891	121.4	0.560	2.063	260.3	404.2	0.908	---	-1.91	1.223	105.6	260.2	-29.3	0.389

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2770	4-2920	0.502	2.3	2.3	0.79	0.860	120.2	0.518	1.655	255.3	408.8	0.894	---	-2.52	1.199	108.2	266.4	-31.4	0.365
4-2770	4-2930	0.471	3.3	5.3	2.24	0.832	116.5	0.482	1.702	250.1	413.2	0.882	---	-2.88	1.177	106.7	273.3	-35.5	0.369
4-2770	4-2940	0.450	2.4	13.9	7.28	0.805	116.9	0.452	1.586	244.8	417.4	0.870	---	-6.82	1.157	107.0	280.4	-49.1	0.389
4-2770	4-2950	0.544	33.4	-26.1	-27.69	0.781	115.2	0.428	1.495	239.3	421.8	0.856	---	26.25	1.140	107.4	268.3	31.5	0.508
4-2770	4-2960	0.392	16.4	-6.1	-6.83	0.759	113.3	0.406	1.423	233.7	425.6	0.844	---	5.47	1.124	107.6	291.5	-5.4	0.363
4-2770	4-2970	0.359	16.9	-1.7	-4.34	0.739	111.4	0.390	1.363	228.0	429.4	0.832	---	2.09	1.111	107.8	300.2	-11.1	0.353
4-2770	4-2980	0.330	18.9	0.7	-3.35	0.720	109.4	0.377	1.314	222.2	433.1	0.819	---	2.19	1.099	108.0	308.2	-12.1	0.352
4-2770	4-2990	0.303	21.7	2.7	-2.79	0.702	107.2	0.368	1.272	216.3	436.8	0.805	---	2.73	1.088	108.3	315.9	-11.5	0.353
4-2770	4-3000	0.277	25.2	4.5	-2.41	0.686	104.9	0.362	1.237	210.3	440.3	0.790	---	1.47	1.079	108.6	323.5	-10.0	0.356
4-2770	4-3010	0.253	29.6	6.5	-2.13	0.671	102.4	0.360	1.207	204.2	445.9	0.773	---	1.30	1.071	109.0	331.0	-8.0	0.362
4-2770	4-3020	0.229	35.1	8.7	-1.89	0.657	99.7	0.361	1.181	198.3	447.4	0.758	---	1.20	1.065	109.6	338.4	-5.6	0.371
4-2770	4-3030	0.208	42.3	11.2	-1.69	0.644	96.8	0.368	1.158	192.0	450.9	0.732	---	1.15	1.059	110.3	345.7	-2.9	0.383
4-2770	4-3040	0.191	51.8	14.2	-1.49	0.632	93.6	0.379	1.138	185.9	454.6	0.707	---	1.12	1.054	111.3	353.0	-0.0	0.399
4-2770	4-3050	0.180	64.2	17.3	-1.30	0.621	89.9	0.396	1.120	179.9	458.4	0.676	1.564	1.14	1.050	112.6	0.2	2.9	0.422
4-2770	4-3060	0.179	79.5	19.9	-1.10	0.611	85.8	0.422	1.104	174.2	462.5	0.639	1.569	1.18	1.047	114.4	7.3	5.9	0.452
4-2770	4-3070	0.194	96.1	21.2	-0.87	0.602	80.9	0.457	1.090	168.8	467.1	0.592	1.588	1.28	1.044	116.8	14.3	8.7	0.493
4-2770	4-3080	0.229	111.2	21.1	-0.58	0.593	74.9	0.506	1.078	164.2	472.4	0.532	1.624	1.43	1.042	120.1	21.2	11.4	0.549
4-2770	4-3090	0.289	122.7	20.1	-0.21	0.586	67.5	0.575	1.068	160.7	478.9	0.454	1.682	1.69	1.040	124.9	27.6	13.8	0.629
4-2770	4-3100	0.381	130.0	19.3	0.25	0.580	57.7	0.668	1.060	159.2	487.4	0.352	1.769	2.14	1.039	131.8	33.3	15.8	0.744
4-2770	4-3110	0.514	133.0	19.1	1.37	0.577	44.3	0.790	1.056	160.8	499.2	0.222	1.891	2.85	1.040	142.1	37.6	17.1	0.912
4-2770	4-3150	0.576	90.6	22.3	-4.72	0.231	60.3	0.931	0.816	178.1	557.2	0.057	1.575	-3.48	0.899	22.0	327.6	-14.2	1.078
4-2770	4-3150	0.587	50.5	16.3	-4.72	0.416	131.2	0.857	0.904	189.0	568.1	0.129	1.690	-3.44	0.964	31.1	320.9	-17.1	0.976
4-2770	4-3220	0.580	148.7	11.7	-1.47	0.743	40.5	0.766	1.375	146.2	236.0	---	2.429	-1.12	1.133	42.0	11.9	4.1	0.893
4-2770	4-3230	0.542	150.8	10.9	-1.28	0.752	45.8	0.727	1.401	142.6	242.3	---	2.419	-1.14	1.136	45.8	18.4	6.6	0.830
4-2770	4-3240	0.506	152.8	10.2	-1.07	0.760	46.8	0.688	1.426	139.1	248.7	---	2.407	-1.19	1.139	49.5	24.9	8.9	0.769
4-2770	4-3250	0.472	154.8	9.6	-0.84	0.768	48.6	0.631	1.449	135.2	255.1	---	2.393	-1.29	1.141	52.9	31.4	11.0	0.710
4-2770	4-3260	0.440	156.7	9.2	-0.55	0.774	52.2	0.615	1.472	132.4	261.5	---	2.377	-1.45	1.148	56.2	37.9	12.7	0.653
4-2770	4-3270	0.410	158.6	8.9	-0.18	0.781	54.6	0.581	1.493	129.2	268.1	---	2.361	-1.71	1.146	59.4	44.4	14.0	0.599
4-2770	4-3280	0.383	160.7	9.1	0.27	0.786	56.7	0.549	1.513	126.2	274.7	---	2.344	-2.15	1.148	62.3	51.0	14.5	0.547
4-2770	4-3290	0.358	163.0	10.1	1.33	0.791	58.7	0.520	1.531	123.3	281.4	---	2.326	-3.01	1.149	65.2	57.6	13.6	0.498
4-2770	4-3300	0.338	166.4	14.2	3.68	0.795	60.5	0.493	1.547	120.6	288.3	---	2.309	-5.27	1.151	67.9	64.8	8.9	0.457
4-2770	4-3310	0.414	176.0	43.4	20.86	0.799	62.0	0.469	1.561	118.1	295.1	---	2.293	-22.35	1.153	70.5	83.2	-23.4	0.568
4-2770	4-3320	0.327	154.5	-15.4	-10.81	0.802	63.5	0.446	1.574	115.7	302.6	---	2.276	9.40	1.154	73.2	70.6	49.6	0.397
4-2770	4-3330	0.288	161.6	-6.7	-5.30	0.805	64.7	0.427	1.585	113.6	310.0	---	2.262	3.99	1.156	75.6	75.5	36.7	0.326
4-2770	4-3340	0.270	164.2	-4.4	-3.79	0.807	65.8	0.411	1.594	111.8	317.7	---	2.249	2.58	1.158	78.0	89.0	33.4	0.284
4-2770	4-3350	0.257	165.8	-3.4	-3.05	0.809	66.6	0.397	1.601	110.2	325.7	---	2.238	1.94	1.160	80.4	80.5	32.1	0.248
4-2770	4-3360	0.248	167.0	-2.9	-2.59	0.811	67.3	0.387	1.607	109.0	334.0	---	2.229	1.59	1.162	82.8	79.7	31.6	0.218
4-2770	4-3370	0.241	167.9	-2.4	-2.27	0.812	67.8	0.380	1.612	108.0	342.6	---	2.224	1.38	1.164	85.2	75.9	31.1	0.195
4-2770	4-3380	0.238	168.6	-1.9	-2.01	0.812	68.0	0.376	1.615	107.5	351.7	---	2.223	1.25	1.166	87.7	68.9	30.2	0.181
4-2770	4-3390	0.238	168.9	-1.8	-1.79	0.813	68.0	0.376	1.617	107.3	361.2	1.009	2.226	1.17	1.168	90.3	60.2	28.4	0.179
4-2770	4-3400	0.242	169.1	-0.6	-1.60	0.813	67.6	0.382	1.619	107.6	371.2	1.001	2.236	1.13	1.171	93.1	51.9	25.9	0.193
4-2770	4-3410	0.251	168.9	0.3	-1.40	0.813	67.0	0.393	1.619	108.5	381.8	0.983	2.254	1.13	1.173	96.1	46.1	23.5	0.222
4-2770	4-3410	0.303	38.6	12.7	-1.40	0.604	104.8	0.487	1.094	196.9	830.2	0.561	1.628	1.13	1.039	118.8	350.6	-1.9	0.524
4-2770	4-3410	0.588	25.6	9.6	-1.40	0.671	131.5	0.698	1.206	210.0	843.3	0.364	2.049	1.13	1.079	133.4	345.1	-5.1	0.788
4-2770	4-3420	0.267	168.4	1.5	-1.21	0.813	65.8	0.411	1.618	109.9	393.0	0.953	2.283	1.15	1.175	99.5	43.1	21.8	0.265
4-2770	4-3420	0.244	52.5	16.5	-1.21	0.588	96.4	0.469	1.072	187.4	830.5	0.569	1.575	1.15	1.033	117.8	359.2	1.9	0.505
4-2770	4-3430	0.290	167.5	2.8	-0.99	0.813	64.1	0.438	1.617	112.0	405.0	0.908	2.326	1.22	1.178	103.3	42.4	20.8	0.323
4-2770	4-3430	0.218	70.0	20.0	-0.99	0.578	89.4	0.478	1.058	179.3	832.3	0.552	1.564	1.22	1.029	118.4	7.3	5.5	0.515
4-2770	4-3440	0.325	166.2	4.3	-0.74	0.813	64.5	0.478	1.616	115.1	418.0	0.843	2.389	1.34	1.180	107.9	43.2	20.5	0.398
4-2770	4-3440	0.221	89.9	22.1	-0.74	0.570	82.3	0.506	1.048	172.3	835.3	0.516	1.578	1.34	1.028	120.2	15.0	8.8	0.547
4-2770	4-3450	0.376	164.2	6.1	-0.42	0.812	57.7	0.535	1.615	119.4	432.3	0.751	2.478	1.54	1.182	113.7	44.8	20.5	0.496
4-2770	4-3450	0.256	108.1	22.0	-0.42	0.564	74.4	0.554	1.040	166.6	839.5	0.464	1.616	1.54	1.027	123.5	22.3	11.7	0.602
4-2770	4-3460	0.451	161.3	8.1	0.02	0.812	52.2	0.614	1.614	125.5	448.5	0.623	2.605	1.87	1.184	121.1	46.6	20.6	0.626
4-2770	4-3460	0.324	121.2	20.9	0.02	0.559	65.1	0.627	1.035	162.7	845.6	0.386	1.683	1.87	1.027	128.7	29.0	14.2	0.689
4-2770	4-3470	0.562	157.1	10.6	0.74	0.812	43.8	0.722	1.614	134.5	467.5	0.449	2.779	2.48	1.186	131.3	47.8	20.6	0.805
4-2770	4-3470	0.431	128.7	19.9	0.74	0.556	53.1	0.729	1.031	161.4	854.5	0.279	1.782	2.48	1.027	136.8	34.5	16.1	0.821
4-2770	4-3480	0.585	130.7	20.0	2.25	0.555	37.1	0.857	1.029	164.3	867.5	0.147	1.912	3.88	1.028	149.0	38.2	17.1	1.014
4-2770	4-3480	0.573	83.3	24.7	2.25	0.217	83.0	0.928	0.812	179.5	1242.6	0.059	1.565	3.88	0.893	157.5	28.4	13.0	1.072
4-2770	4-3520	0.541	44.6	14.4	-4.00	0.483	127.1	0.787	0.957	192.9	936.8	0.204	1.710	-2.77	0.994	38.1	320.9	-17.3	0.883
4-2770	4-3530	0.512	108.6	21.0	-3.13	0.385	52.0	0.864	0.884	172.5	926.6	0.120	1.648	-2.01	0.949	30.5	336.1	-11.0	0.982
4-2770	4-3530	0.415	52.1	15.9	-3.13	0.475	110.3	0.699	0.950	189.5	943.6	0.286	1.613	-2.01	0.990	45.7	327.6	-15.1	0.762
4-2770	4-3540	0.523	12.3	1.8	-2.62	0.795	123.4	0.550	1.546	235.7	639.9	0.696	2.397	-1.61	1.176	63.7	310.0	-21.7	0.552
4-2770	4-3540	0.373	94.1	21.0	-2.62	0.429	75.7	0.733	0.913	174.6	938.8	0.244	1.583	-1.61	0.967	43.0	339.6	-10.0	0.798
4-2770	4-3540	0.342	79.0	20.1	-2.62	0.450	87.6	0.685	0.928	178.9	943.2	0.293	1.564	-1.61	0.976	46.9	337.5	-11.1	0.740
4-2770	4-3550	0.465	10.2	0.8	-2.27	0.795	119.0	0.484	1.545	239.8	654.2	0.797	2.293	-1.38	1.174	69.8	312.5	-21.4	0.427
4-2770	4-3560	0.594	139.3	14.8	-2.01	0.651	37.4	0.821	1.169	157.1	581.6	0.210	2.129	-1.25	1.081	36.3	355.3	-2.9	0.974
4-2770	4-3560	0.424	8.8	0.2	-2.01	0.794	115.9	0.436	1.543	242.5	667.0	0.869	2.216	-1.25	1.172	74.6	314.7	-21.4	0.346
4-2770	4-3570	0.538	141.1	14.0	-1.78	0.660	42.4	0.769	1.185	153.8	588.4	0.274	2.097	-1.17	1.084	40.4	1.5	-0.3	0.894
4-2770	4-3570	0.395	7.8	-0.1	-1.78	0.794	113.7	0.402	1.541	244.4	678.9	0.921	2.161	-1.17	1.170	78.5	316.0	-21.7	0.284
4-2780	4-2850	0.923	353.0	-4.9	-1.58	1.278	130.8	1.358	2.748	290.4	370.5	0.984	---	-1.26	1.542	96.1	243.6	-24.8	0.548
4-2780	4-2860	0.852	354.8	-3.9	-1.37	1.203	129.9	1.174	3.599	287.0	377.1	0.973	---	-1.25	1.478	99.2	243.3	-24.8	0.507
4-2780	4-2870	0.792	356.6	-2.9	-1.15	1.139	129.0	1.026	3.074	283.1	383.1	0.959	---	-1.27	1.424	101.7	244.4	-25.1	0.480
4-2780	4-2880	0.739	358.4	-1.9	-0.92	1.082	128.1	0.906	3.057	279.0	388.8	0.943	---	-1.32	1.377	103.7	246.8	-25.4	0.461
4-2780	4-2890	0.691	0.2	-0.8	-0.66	1.030	127.1	0.807	4.800	274.5	394.1	0.928	---	-1.43	1.335	105.2	250.4	-26.4	0.445
4-2780	4-2900	0.646	1.9	0.4	-0.35	0.983	125.9	0.724	3.307	269.9	399.2	0.913	---	-1.61	1.297	106.3	255.0	-27.4	0.433
4-2780	4-2910	0.604	3.5	1.7	0.07	0.941	124.7	0.655	2.604	265.0	404.0	0.898	---	-1.90	1.263	107.2	260.5	-28.6	0.422
4-2780	4-2920	0.564	5.1	3.2	0.68	0.902	123.3	0.598	2.197	260.0	408.6	0.884	---	-2.39	1.233	107.9	266.6	-30.2	0.413
4-2780	4-2930	0.527	6.3	5.5	1.75	0.867	121.8	0.550	1.933	254.8	413.1	0.871	---	-3.36	1.206	108.3	273.5	-32.9	0.407
4-2780	4-2940	0.494	6.8	10.0	4.38	0.835	120.1	0.509	1.749	249.5	417.3	0.858	---	-5.88	1.182	108.6	280.9	-39.4	0.409
4-2780	4-2950	0.551	8.5	36.4	23.93	0.806	118.3	0.475	1.613	244.1	421.2	0.847	---	-25.32	1.161	108.7	271.3	-75.3	0.598

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2780	4-2960	0.450	22.2	-10.0	-11.55	0.779	116.6	0.449	1.510	238.5	425.5	0.832	---	10.26	1.142	109.0	288.3	4.8	0.425
4-2780	4-2970	0.400	19.8	-1.8	-5.58	0.755	114.6	0.426	1.429	232.8	429.3	0.820	---	4.40	1.126	109.1	299.4	-8.3	0.387
4-2780	4-2980	0.367	21.2	1.3	-3.92	0.732	112.5	0.408	1.364	227.0	433.0	0.808	---	2.84	1.112	109.2	307.8	-10.8	0.380
4-2780	4-2990	0.336	23.6	3.4	-3.11	0.712	110.3	0.394	1.311	221.1	436.7	0.794	---	2.14	1.099	109.4	315.7	-10.7	0.377
4-2780	4-3000	0.308	26.7	5.2	-2.61	0.693	107.9	0.385	1.267	215.1	440.2	0.780	---	1.76	1.088	109.6	323.3	-9.5	0.378
4-2780	4-3010	0.280	30.5	7.1	-2.25	0.676	105.4	0.379	1.230	209.0	443.6	0.764	---	1.53	1.079	109.9	330.9	-7.6	0.380
4-2780	4-3020	0.254	35.3	9.1	-1.97	0.660	102.7	0.377	1.199	202.9	447.2	0.747	---	1.38	1.071	110.3	338.3	-5.2	0.386
4-2780	4-3030	0.230	41.6	11.4	-1.72	0.645	99.7	0.380	1.171	196.7	450.7	0.727	---	1.30	1.064	110.9	345.7	-2.6	0.395
4-2780	4-3040	0.208	49.7	14.0	-1.50	0.631	96.5	0.387	1.148	190.5	454.3	0.703	---	1.25	1.058	111.7	353.0	0.3	0.408
4-2780	4-3050	0.191	60.5	16.9	-1.29	0.618	92.9	0.401	1.127	184.4	458.0	0.675	---	1.25	1.053	112.8	0.2	3.2	0.426
4-2780	4-3060	0.183	74.5	19.6	-1.07	0.606	88.9	0.421	1.109	178.5	461.9	0.642	1.576	1.28	1.049	114.3	7.5	6.2	0.451
4-2780	4-3070	0.188	90.9	21.4	-0.83	0.595	84.2	0.451	1.093	172.8	466.2	0.601	1.586	1.36	1.046	116.3	14.6	9.1	0.485
4-2780	4-3080	0.211	107.5	21.5	-0.55	0.586	78.6	0.492	1.079	167.8	471.0	0.548	1.610	1.49	1.043	119.2	21.7	11.8	0.533
4-2780	4-3090	0.258	121.3	20.4	-0.19	0.577	71.8	0.550	1.067	163.5	476.0	0.481	1.654	1.71	1.040	123.1	28.5	14.3	0.599
4-2780	4-3100	0.333	130.9	19.2	0.31	0.569	63.0	0.629	1.058	160.8	484.2	0.392	1.724	2.09	1.038	128.8	34.7	16.5	0.695
4-2780	4-3110	0.443	136.2	18.3	1.13	0.564	51.3	0.736	1.052	160.6	494.0	0.278	1.826	2.79	1.037	137.3	40.0	18.0	0.833
4-2780	4-3120	0.599	137.1	18.5	2.86	0.563	39.5	0.865	1.050	164.2	507.7	0.142	1.958	4.41	1.038	149.8	43.4	18.9	1.042
4-2780	4-3160	0.495	80.2	21.2	-4.12	0.301	97.4	0.860	0.848	181.2	565.6	0.119	1.578	-3.02	0.924	31.1	332.7	-12.8	0.961
4-2780	4-3160	0.494	71.5	20.2	-4.12	0.337	108.3	0.841	0.865	183.6	568.0	0.138	1.592	-3.02	0.936	33.1	331.4	-13.5	0.937
4-2780	4-3220	0.591	152.4	10.4	-1.48	0.730	39.2	0.782	1.358	148.2	233.1	---	2.419	-1.25	1.128	40.3	13.2	4.6	0.918
4-2780	4-3230	0.552	154.5	9.6	-1.26	0.739	42.6	0.742	1.384	144.7	239.5	---	2.411	-1.25	1.132	44.3	19.6	7.0	0.854
4-2780	4-3240	0.516	156.5	8.9	-1.04	0.748	45.7	0.703	1.409	141.2	245.8	---	2.400	-1.29	1.135	48.0	26.1	9.3	0.792
4-2780	4-3250	0.481	156.5	8.2	-0.80	0.756	48.7	0.665	1.434	137.8	252.2	---	2.386	-1.37	1.138	51.5	32.7	11.4	0.732
4-2780	4-3260	0.448	160.5	7.7	-0.52	0.764	51.3	0.628	1.457	134.5	258.7	---	2.372	-1.51	1.141	54.9	39.2	13.1	0.674
4-2780	4-3270	0.418	162.5	7.4	-0.17	0.770	53.8	0.593	1.479	131.3	265.2	---	2.356	-1.73	1.143	58.1	45.8	14.4	0.618
4-2780	4-3280	0.390	164.5	7.4	0.32	0.776	56.1	0.560	1.499	128.3	271.8	---	2.339	-2.10	1.145	61.2	52.4	15.1	0.565
4-2780	4-3290	0.364	166.7	8.0	1.10	0.782	58.1	0.529	1.518	125.4	278.5	---	2.322	-2.76	1.147	64.1	58.9	14.7	0.515
4-2780	4-3300	0.342	169.5	10.4	2.65	0.786	60.0	0.501	1.535	122.6	285.4	---	2.305	-4.20	1.149	66.9	65.7	11.9	0.470
4-2780	4-3310	0.335	174.8	20.3	7.83	0.790	61.6	0.476	1.551	120.1	292.3	---	2.288	-9.28	1.151	69.6	74.2	-0.2	0.450
4-2780	4-3320	0.535	132.4	-33.5	-34.75	0.794	63.2	0.451	1.564	117.7	299.9	---	2.270	33.41	1.152	72.3	138.2	80.3	0.703
4-2780	4-3330	0.299	163.0	-12.5	-7.51	0.797	64.4	0.432	1.576	115.6	307.1	---	2.256	6.27	1.154	74.7	78.3	43.4	0.350
4-2780	4-3340	0.2.5	167.2	-7.8	-4.62	0.799	65.5	0.415	1.586	113.7	314.7	---	2.243	3.48	1.156	77.1	82.1	36.5	0.299
4-2780	4-3350	0.261	169.4	-6.1	-3.48	0.801	66.4	0.400	1.594	112.1	322.6	---	2.231	2.45	1.158	79.6	84.3	34.1	0.260
4-2780	4-3360	0.250	170.8	-5.2	-2.85	0.803	67.2	0.388	1.600	110.7	330.8	---	2.222	1.94	1.160	82.0	84.3	33.2	0.228
4-2780	4-3370	0.242	171.9	-4.6	-2.43	0.804	67.7	0.380	1.605	109.7	339.4	---	2.216	1.63	1.163	84.4	81.5	32.7	0.271
4-2780	4-3380	0.238	172.7	-4.0	-2.11	0.805	68.0	0.375	1.609	109.1	348.3	---	2.213	1.45	1.165	86.8	75.4	32.0	0.184
4-2780	4-3390	0.237	173.2	-3.4	-1.85	0.806	68.1	0.374	1.612	108.8	357.7	---	2.215	1.34	1.167	89.4	66.9	30.7	0.178
4-2780	4-3400	0.239	173.5	-2.8	-1.62	0.806	67.8	0.378	1.613	108.9	367.6	1.004	2.222	1.27	1.170	92.1	58.1	28.4	0.186
4-2780	4-3410	0.246	173.5	-1.7	-1.40	0.806	67.3	0.387	1.613	109.5	377.9	0.990	2.237	1.25	1.172	95.0	51.2	25.9	0.209
4-2780	4-3420	0.259	173.1	-0.6	-1.19	0.806	66.3	0.402	1.613	110.6	388.8	0.965	2.261	1.26	1.174	98.2	47.3	23.9	0.247
4-2780	4-3420	0.282	48.2	15.8	-1.19	0.588	102.2	0.493	1.083	193.2	831.5	0.549	1.616	1.26	1.037	119.2	358.8	1.8	0.532
4-2780	4-3430	0.279	172.4	0.6	-0.96	0.806	64.9	0.425	1.612	112.4	400.5	0.926	2.298	1.31	1.177	101.8	46.0	22.6	0.298
4-2780	4-3430	0.235	64.2	19.4	-0.96	0.574	94.1	0.486	1.063	184.3	832.4	0.547	1.580	1.31	1.032	118.8	7.2	5.6	0.524
4-2780	4-3440	0.309	171.3	2.1	-0.70	0.805	62.7	0.460	1.611	114.9	413.0	0.870	2.352	1.41	1.179	106.0	46.4	22.0	0.366
4-2780	4-3440	0.220	83.6	22.1	-0.70	0.564	86.7	0.502	1.051	176.7	834.7	0.523	1.578	1.41	1.029	120.0	15.2	9.0	0.543
4-2780	4-3450	0.352	169.6	3.7	-0.39	0.805	59.4	0.509	1.609	118.9	426.5	0.791	2.428	1.58	1.181	111.2	48.0	21.9	0.453
4-2780	4-3450	0.237	103.6	22.5	-0.39	0.556	79.0	0.539	1.041	170.2	838.2	0.480	1.602	1.58	1.027	122.5	22.9	12.1	0.585
4-2780	4-3460	0.415	167.3	5.6	0.02	0.805	54.8	0.577	1.608	123.6	441.6	0.680	2.536	1.86	1.183	117.8	50.0	21.9	0.567
4-2780	4-3460	0.288	119.8	21.2	0.02	0.550	70.2	0.598	1.034	165.3	843.3	0.416	1.653	1.86	1.027	126.6	30.0	14.7	0.654
4-2780	4-3470	0.506	163.8	7.9	0.64	0.805	47.9	0.671	1.608	130.9	459.0	0.529	2.686	2.36	1.185	126.5	51.7	22.0	0.720
4-2780	4-3470	0.375	130.1	19.6	0.64	0.546	59.4	0.684	1.029	162.5	850.6	0.325	1.733	2.36	1.026	133.1	36.3	16.8	0.761
4-2760	4-3480	0.504	134.8	18.9	1.76	0.543	45.3	0.799	1.026	163.1	861.3	0.206	1.847	3.36	1.027	143.0	41.1	18.3	0.921
4-2780	4-3530	0.547	113.3	20.5	-3.60	0.356	47.4	0.898	0.875	173.6	922.8	0.090	1.660	-2.56	0.943	26.4	338.0	-10.3	1.039
4-2780	4-3530	0.464	54.8	16.7	-3.60	0.461	117.1	0.747	0.946	190.5	939.7	0.239	1.653	-2.56	0.988	41.7	329.6	-14.6	0.826
4-2780	4-3540	0.556	18.5	4.5	-2.89	0.787	126.4	0.594	1.538	231.7	631.1	0.625	2.451	-1.97	1.175	59.6	314.6	-20.6	0.604
4-2780	4-3540	0.426	105.7	20.7	-2.89	0.394	67.3	0.797	0.897	173.7	933.1	0.182	1.612	-1.97	0.957	37.4	342.4	-8.9	0.883
4-2780	4-3540	0.364	72.1	19.4	-2.89	0.444	97.4	0.696	0.932	183.3	942.6	0.283	1.581	-1.97	0.978	46.0	337.8	-11.3	0.756
4-2780	4-3550	0.486	16.0	3.3	-2.43	0.786	121.0	0.516	1.536	236.5	646.0	0.744	2.329	-1.64	1.173	66.5	317.2	-20.2	0.483
4-2780	4-3560	0.437	14.3	2.6	-2.10	0.786	117.3	0.459	1.534	239.7	659.3	0.830	2.239	-1.45	1.171	71.9	319.9	-19.9	0.391
4-2780	4-3570	0.555	144.9	12.9	-1.83	0.647	40.6	0.791	1.175	155.7	585.3	0.246	2.105	-1.33	1.080	38.3	2.9	0.2	0.927
4-2780	4-3570	0.402	13.1	2.2	-1.83	0.785	114.6	0.417	1.532	241.8	671.5	0.893	2.172	-1.33	1.168	76.2	321.9	-19.9	0.319
4-2780	4-3580	0.500	146.6	12.2	-1.60	0.656	45.6	0.736	1.192	152.6	592.2	0.314	2.069	-1.27	1.083	43.3	9.0	2.7	0.846
4-2780	4-3580	0.376	12.2	2.0	-1.60	0.785	112.7	0.387	1.530	243.2	682.9	0.938	2.123	-1.27	1.166	79.9	322.9	-20.5	0.263
4-2790	4-2870	0.922	358.6	-1.9	-1.14	1.260	132.0	1.314	-3.048	287.4	382.6	0.956	---	-1.36	1.526	102.8	245.7	-25.1	0.585
4-2790	4-2880	0.852	0.6	-0.8	-0.89	1.184	131.1	1.132	-7.106	286.3	388.3	0.939	---	-1.40	1.462	105.1	247.9	-25.5	0.551
4-2790	4-2890	0.790	2.5	0.4	-0.63	1.117	130.2	0.988	75.423	279.0	393.7	0.921	---	-1.49	1.406	106.7	251.3	-26.2	0.525
4-2790	4-2900	0.734	4.4	1.5	-0.32	1.057	129.2	0.871	6.986	274.3	398.8	0.904	---	-1.65	1.357	108.0	255.7	-27.0	0.504
4-2790	4-2910	0.682	6.1	2.8	0.06	1.003	128.0	0.775	3.947	269.5	403.7	0.888	---	-1.89	1.314	108.9	261.0	-28.0	0.486
4-2790	4-2920	0.635	7.8	4.2	0.60	0.955	126.6	0.697	2.878	264.5	408.3	0.873	---	-2.30	1.276	109.6	267.1	-29.3	0.470
4-2790	4-2930	0.591	9.3	6.1	1.45	0.912	125.1	0.632	2.335	259.4	412.7	0.859	---	-3.03	1.243	110.0	273.8	-31.2	0.457
4-2790	4-2940	0.550	10.3	9.1	3.17	0.873	123.5	0.579	2.007	254.1	417.0	0.846	---	-4.63	1.213	110.3	281.1	-34.9	0.449
4-2790	4-2950	0.522	9.7	17.7	8.97	0.838	121.7	0.534	1.790	248.7	421.1	0.833	---	-10.32	1.187	110.4	289.1	-47.7	0.469
4-2790	4-2970	0.448	23.6	-2.9	-7.84	0.776	117.9	0.469	1.521	237.4	423.1	0.808	---	6.72	1.144	110.6	298.0	-3.7	0.430
4-2790	4-2980	0.407	23.9	1.7	-4.76	0.750	115.7	0.445	1.433	231.7	432.8	0.796	---	3.76	1.127	110.6	307.3	-9.1	0.412
4-2790	4-2990	0.373	25.8	4.2	-3.54	0.726	113.5	0.426	1.363	225.8	436.5	0.783	---	2.66	1.112	110.6	315.4	-9.8	0.405
4-2790	4-3000	0.341	28.5	6.1	-2.86	0.703	111.0	0.411	1.307	219.8	440.1	0.769	---	2.10	1.099	110.7	323.1	-8.9	0.402
4-2790	4-3010	0.310	31.9	7.9	-2.40	0.683	108.5	0.401	1.260	213.7	443.6	0.754	---	1.77	1.086	110.9	330.7	-7.2	0.402
4-2790	4-3020	0.281	36.1	9.7	-2.06	0.664	105.8	0.396	1.221	207.6	447.1	0.738	---	1.57	1.078	111.2	338.2	-4.9	0.404
4-2790	4-3030	0.254	41.5	11.8	-1.77	0.647	102.8	0.395	1.189	201.3	450.5	0.720	---	1.45	1.070	111.6	345.6	-2.3	0.410
4-2790	4-3040	0.229	48.5	14.1	-1.52	0.631	99.6	0.399	1.161	195.1	454.0	0.698	---	1.38	1.063	112.2	353.0	0.5	0.419

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2790	4-3050	0.208	57.8	16.7	-1.29	0.617	96.0	0.408	1.137	188.9	457.6	0.673	---	1.36	1.057	113.1	0.3	3.4	0.433
4-2790	4-3060	0.193	70.2	19.4	-1.15	0.603	92.1	0.424	1.116	182.8	461.4	0.643	---	1.37	1.052	114.4	7.6	6.4	0.454
4-2790	4-3070	0.189	85.7	21.4	-0.81	0.591	87.6	0.448	1.097	177.0	465.5	0.606	1.589	1.43	1.047	116.1	14.9	9.4	0.482
4-2790	4-3080	0.201	102.8	22.0	-0.57	0.579	82.3	0.482	1.081	171.5	470.0	0.560	1.603	1.54	1.043	118.5	22.1	12.2	0.522
4-2790	4-3090	0.235	118.5	20.9	-0.18	0.569	75.9	0.531	1.068	166.8	475.2	0.501	1.635	1.73	1.040	121.8	29.2	14.8	0.577
4-2790	4-3100	0.294	130.5	19.2	0.28	0.560	67.9	0.598	1.057	163.1	481.6	0.424	1.689	2.05	1.038	126.6	35.9	17.0	0.656
4-2790	4-3110	0.385	138.1	17.8	0.97	0.563	57.5	0.690	1.048	161.4	490.0	0.325	1.777	2.61	1.036	133.5	41.8	18.8	0.771
4-2790	4-3120	0.517	141.3	17.3	2.23	0.549	43.6	0.808	1.044	162.8	501.5	0.200	1.887	3.74	1.035	143.8	46.4	20.0	0.937
4-2790	4-3160	0.542	83.1	21.5	-5.08	0.261	105.8	0.900	0.839	181.8	561.3	0.083	1.594	-4.06	0.917	26.2	335.0	-12.1	1.029
4-2790	4-3160	0.584	77.0	20.9	-5.08	0.293	115.0	0.890	0.851	183.4	562.9	0.094	1.609	-4.06	0.927	27.5	338.1	-12.6	1.015
4-2790	4-3230	0.563	158.1	8.3	-1.26	0.727	41.4	0.758	1.366	146.7	236.6	---	2.402	-1.36	1.128	42.7	20.9	7.5	0.879
4-2790	4-3240	0.526	160.2	7.5	-1.02	0.736	44.7	0.718	1.392	143.2	243.0	---	2.392	-1.38	1.131	46.5	27.4	9.8	0.815
4-2790	4-3250	0.490	162.2	6.8	-0.77	0.745	47.7	0.679	1.417	139.8	249.4	---	2.379	-1.44	1.134	50.1	33.9	11.8	0.754
4-2790	4-3260	0.457	164.2	6.2	-0.49	0.753	50.5	0.641	1.441	136.5	255.9	---	2.365	-1.56	1.137	53.6	40.5	13.6	0.695
4-2790	4-3270	0.426	166.2	5.8	-0.16	0.760	53.0	0.605	1.464	133.3	262.4	---	2.350	-1.75	1.140	56.9	47.1	14.9	0.638
4-2790	4-3280	0.397	168.2	5.7	0.29	0.766	55.4	0.571	1.486	130.3	269.0	---	2.334	-2.06	1.142	60.0	53.7	15.7	0.584
4-2790	4-3290	0.371	170.3	6.1	0.94	0.772	57.5	0.539	1.505	127.4	275.7	---	2.317	-2.59	1.144	63.0	60.3	15.6	0.532
4-2790	4-3300	0.348	172.8	7.6	2.09	0.777	59.4	0.510	1.523	124.6	282.5	---	2.300	-3.61	1.147	65.9	66.9	13.8	0.485
4-2790	4-3310	0.331	176.5	12.6	4.84	0.781	61.1	0.483	1.539	122.1	289.5	---	2.283	-6.25	1.149	68.6	73.9	7.4	0.447
4-2790	4-3320	0.427	185.4	42.8	23.40	0.785	62.6	0.460	1.554	119.7	296.5	---	2.268	-24.69	1.151	71.1	91.9	-27.1	0.589
4-2790	4-3330	0.332	160.3	-22.5	-12.86	0.788	64.1	0.437	1.566	117.5	304.2	---	2.251	11.68	1.153	73.8	83.3	57.0	0.404
4-2790	4-3340	0.283	169.6	-12.1	-5.94	0.791	65.2	0.419	1.577	115.6	311.7	---	2.237	4.88	1.155	76.3	85.3	40.9	0.317
4-2790	4-3350	0.265	172.7	-9.1	-4.08	0.793	66.2	0.403	1.585	113.9	319.6	---	2.225	3.13	1.157	78.7	87.9	36.5	0.273
4-2790	4-3360	0.253	174.5	-7.7	-3.18	0.795	67.0	0.391	1.593	112.5	327.8	---	2.215	2.35	1.159	81.1	88.6	34.8	0.238
4-2790	4-3370	0.244	175.8	-6.8	-2.62	0.797	67.6	0.381	1.598	111.4	336.2	---	2.207	1.93	1.161	83.5	86.8	34.1	0.209
4-2790	4-3380	0.238	176.7	-6.1	-2.23	0.798	68.0	0.375	1.603	110.6	345.1	---	2.203	1.67	1.164	85.9	81.7	33.6	0.188
4-2790	4-3390	0.236	177.4	-5.4	-1.92	0.798	68.1	0.373	1.605	110.2	354.3	---	2.204	1.51	1.166	88.5	73.7	32.6	0.178
4-2790	4-3400	0.237	177.8	-4.7	-1.65	0.799	68.0	0.374	1.607	110.2	364.0	1.005	2.209	1.41	1.169	91.1	64.6	30.7	0.181
4-2790	4-3410	0.243	177.9	-3.8	-1.41	0.799	67.6	0.381	1.608	110.6	374.2	0.995	2.221	1.37	1.171	93.9	56.8	28.2	0.199
4-2790	4-3420	0.253	177.7	-2.7	-1.18	0.799	66.8	0.394	1.608	111.5	384.9	0.974	2.241	1.36	1.174	97.0	51.8	25.9	0.231
4-2790	4-3420	0.356	43.9	15.2	-1.18	0.597	111.2	0.543	1.106	200.6	834.0	0.505	1.707	1.36	1.047	122.5	357.7	1.2	0.591
4-2790	4-3430	0.515	36.7	13.7	-1.18	0.636	126.4	0.660	1.168	207.7	841.1	0.398	1.939	1.36	1.069	130.6	354.9	-0.6	0.737
4-2790	4-3430	0.270	177.2	-1.5	-0.94	0.799	65.5	0.414	1.607	112.9	396.2	0.941	2.273	1.39	1.176	100.4	89.7	24.3	0.277
4-2790	4-3430	0.264	59.1	18.8	-0.94	0.572	99.6	0.502	1.072	189.8	833.0	0.534	1.610	1.39	1.035	119.9	7.0	5.5	0.543
4-2790	4-3440	0.295	176.3	-0.1	-0.68	0.798	63.6	0.444	1.606	115.0	408.2	0.893	2.319	1.48	1.178	104.3	49.7	23.5	0.337
4-2790	4-3440	0.230	77.3	21.8	-0.68	0.559	91.4	0.505	1.055	181.3	834.5	0.523	1.587	1.48	1.031	120.2	15.3	9.1	0.546
4-2790	4-3450	0.332	174.9	1.4	-0.37	0.798	60.9	0.486	1.604	118.0	421.2	0.824	2.384	1.62	1.180	109.0	51.1	21.2	0.415
4-2790	4-3450	0.229	98.0	22.9	-0.37	0.549	83.5	0.530	1.043	174.2	837.4	0.491	1.596	1.62	1.028	121.9	23.2	12.4	0.575
4-2790	4-3460	0.385	172.9	3.2	0.02	0.798	56.9	0.546	1.603	122.2	435.4	0.728	2.477	1.86	1.182	114.9	53.2	23.1	0.516
4-2790	4-3460	0.262	116.8	21.7	0.02	0.542	75.1	0.577	1.035	168.4	841.6	0.438	1.631	1.86	1.027	125.1	30.8	15.2	0.629
4-2790	4-3470	0.461	170.0	5.2	0.56	0.797	51.2	0.627	1.602	126.2	451.5	0.597	2.606	2.27	1.184	122.5	55.3	23.2	0.649
4-2790	4-3470	0.330	130.1	19.7	0.56	0.536	65.1	0.648	1.028	164.4	847.7	0.362	1.695	2.27	1.026	130.4	37.6	17.5	0.715
4-2790	4-3480	0.572	165.6	7.7	1.45	0.797	42.6	0.736	1.602	136.9	470.3	0.423	2.781	3.03	1.185	132.8	56.8	23.2	0.829
4-2790	4-3480	0.437	137.5	18.2	1.45	0.533	52.6	0.748	1.024	163.1	856.5	0.258	1.791	3.03	1.026	138.4	43.4	19.1	0.846
4-2790	4-3490	0.589	139.6	18.0	3.54	0.532	36.1	0.871	1.023	165.8	869.4	0.132	1.914	4.79	1.027	150.6	47.3	20.1	1.037
4-2790	4-3530	0.581	117.5	19.9	-4.24	0.326	42.6	0.926	0.867	174.8	919.1	0.064	1.670	-3.29	0.837	22.3	340.0	-9.6	1.094
4-2790	4-3530	0.519	58.6	17.7	-4.24	0.446	124.6	0.800	0.942	190.6	935.0	0.188	1.696	-3.29	0.985	36.9	331.9	-13.9	0.901
4-2790	4-3540	0.594	24.9	7.1	-3.23	0.779	130.0	0.643	1.529	227.4	622.0	0.546	2.513	-2.40	1.173	55.0	319.0	-19.4	0.684
4-2790	4-3540	0.469	112.8	20.4	-3.23	0.362	61.7	0.843	0.886	174.1	928.6	0.139	1.633	-2.40	0.949	32.7	348.7	-7.9	0.950
4-2790	4-3540	0.399	70.7	19.4	-3.23	0.432	105.0	0.727	0.932	185.8	940.4	0.255	1.609	-2.40	0.978	43.5	339.0	-11.0	0.796
4-2790	4-3550	0.511	22.0	5.8	-2.63	0.778	123.5	0.555	1.528	233.2	637.8	0.683	2.373	-1.93	1.171	63.0	321.6	-19.0	0.544
4-2790	4-3560	0.453	19.9	5.0	-2.22	0.778	119.0	0.486	1.526	236.9	651.6	0.785	2.267	-1.66	1.169	69.0	324.4	-18.5	0.439
4-2790	4-3570	0.573	148.6	11.6	-1.90	0.634	58.7	0.813	1.165	157.5	582.3	0.218	2.112	-1.50	1.077	36.1	4.2	0.8	0.961
4-2790	4-3570	0.410	18.4	4.5	-1.90	0.777	115.8	0.436	1.524	229.3	664.1	0.859	2.188	-1.50	1.067	73.8	327.0	-18.3	0.359
4-2790	4-3580	0.517	150.4	10.9	-1.63	0.643	43.9	0.759	1.181	154.4	589.2	0.285	2.078	-1.41	1.080	41.3	10.4	3.2	0.878
4-2790	4-3580	0.380	17.4	4.3	-1.63	0.776	113.5	0.400	1.521	240.9	675.7	0.913	2.130	-1.41	1.164	77.7	328.9	-18.4	0.295
4-2790	4-3590	0.462	151.9	10.3	-1.38	0.652	48.8	0.702	1.198	151.5	596.3	0.357	2.039	-1.36	1.083	46.3	16.5	5.6	0.796
4-2790	4-3590	0.358	16.6	4.2	-1.38	0.776	111.8	0.374	1.519	241.9	686.6	0.952	2.087	-1.36	1.161	81.1	329.5	-19.2	0.245
4-2800	4-2900	0.838	6.8	2.7	-0.31	1.149	132.2	1.06214.429		278.5	368.2	0.897	---	-1.68	1.433	109.7	256.8	-26.7	0.590
4-2800	4-2910	0.775	8.7	3.9	0.06	1.082	131.1	0.92912.301		273.7	403.1	0.879	---	-1.89	1.378	110.7	261.9	-27.6	0.562
4-2800	4-2920	0.717	10.5	5.3	0.54	1.022	129.9	0.821	4.819	268.8	407.8	0.862	---	-2.22	1.330	111.4	267.7	-28.5	0.538
4-2800	4-2930	0.664	12.1	6.9	1.25	0.968	128.4	0.734	3.185	263.7	412.3	0.847	---	-2.80	1.288	111.8	274.3	-29.9	0.517
4-2800	4-2940	0.615	13.5	9.2	2.50	0.920	126.8	0.663	2.473	258.5	416.6	0.833	---	-3.92	1.251	112.1	281.4	-32.2	0.501
4-2800	4-2950	0.573	14.1	13.8	5.54	0.878	125.1	0.605	2.076	253.1	420.7	0.820	---	-6.83	1.219	112.2	289.4	-38.1	0.495
4-2800	4-2970	0.513	29.4	-6.7	-13.15	0.804	121.2	0.519	1.652	241.9	428.9	0.795	---	12.10	1.167	112.2	294.4	5.6	0.502
4-2800	4-2980	0.453	27.0	1.6	-6.09	0.773	119.1	0.487	1.527	236.2	432.6	0.783	---	5.16	1.146	112.1	306.5	-4.6	0.452
4-2800	4-2990	0.413	28.3	-4.8	-4.44	0.744	116.8	0.462	1.432	230.3	436.3	0.771	---	3.33	1.128	112.0	315.0	-8.7	0.438
4-2800	4-3000	0.377	30.7	-6.9	-3.18	0.718	114.3	0.442	1.358	224.4	439.9	0.758	---	2.51	1.112	112.0	323.0	-8.3	0.431
4-2800	4-3010	0.344	33.7	8.7	-2.59	0.694	111.7	0.428	1.299	218.3	443.4	0.744	---	2.06	1.099	112.0	330.6	-6.8	0.426
4-2800	4-3020	0.311	37.4	10.4	-2.17	0.673	109.0	0.418	1.251	212.1	446.9	0.728	---	1.78	1.087	112.2	338.2	-4.6	0.425
4-2800	4-3030	0.281	42.1	12.3	-1.84	0.653	106.0	0.413	1.211	205.9	450.4	0.711	---	1.62	1.077	112.5	345.6	-2.1	0.428
4-2800	4-3040	0.253	48.2	14.4	-1.55	0.636	102.8	0.413	1.177	199.7	453.8	0.692	---	1.51	1.068	112.9	353.0	0.7	0.433
4-2800	4-3050	0.227	56.2	16.7	-1.29	0.617	99.3	0.418	1.140	193.4	457.4	0.669	---	1.47	1.061	113.7	0.3	3.7	0.444
4-2800	4-3060	0.207	66.9	19.2	-1.04	0.602	95.4	0.429	1.124	187.2	461.0	0.642	---	1.46	1.055	114.7	7.7	6.6	0.460
4-2800	4-3070	0.195	80.9	21.4	-0.78	0.588	91.0	0.448	1.103	181.2	464.9	0.608	---	1.50	1.050	116.1	15.1	9.6	0.483
4-2800	4-3080	0.197	97.6	22.3	-0.30	0.574	85.9	0.477	1.085	175.4	469.1	0.568	1.602	1.59	1.045	118.1	22.4	12.5	0.515
4-2800	4-3090	0.219	114.7	21.6	-0.17	0.563	79.8	0.517	1.069	170.2	473.9	0.516	1.623	1.75	1.041	120.9	29.7	15.1	0.562
4-2800	4-3100	0.264	128.9	19.6	0.25	0.552	72.5	0.574	1.056	165.9	479.6	0.450	1.663	2.02	1.038	124.9	36.8	17.4	0.627
4-2800	4-3110	0.339	138.8	17.6	0.85	0.543	63.1	0.653	1.046	163.1	486.9	0.363	1.728	2.47	1.035	130.6	43.3	19.4	0.722
4-2800	4-3120	0.449	144.2	16.4	1.84	0.537	50.8	0.757	1.039	162.6	496.6	0.252	1.825	3.32	1.033	139.1	48.8	20.8	0.860

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2800	4-3230	0.574	161.6	6.9	-1.26	0.714	40.2	0.773	1.349	148.7	233.8	---	2.391	-1.46	1.124	41.1	22.1	8.0	0.907
4-2800	4-3240	0.536	163.7	6.1	-1.01	0.724	42.6	0.733	1.375	145.2	240.2	---	2.383	-1.44	1.127	45.0	28.6	10.2	0.839
4-2800	4-3250	0.500	165.8	5.4	-0.75	0.733	46.7	0.693	1.401	141.8	246.6	---	2.372	-1.51	1.131	48.7	35.2	12.3	0.776
4-2800	4-3260	0.466	167.8	4.7	-0.47	0.742	49.6	0.655	1.425	138.5	253.1	---	2.358	-1.60	1.134	52.3	41.8	14.0	0.716
4-2800	4-3270	0.435	169.8	4.3	-0.15	0.749	52.3	0.617	1.449	135.3	259.6	---	2.344	-1.76	1.137	55.6	48.4	15.8	0.658
4-2800	4-3280	0.405	171.8	4.1	0.27	0.756	54.7	0.582	1.471	132.2	266.2	---	2.328	-2.02	1.139	58.8	55.0	16.2	0.603
4-2800	4-3290	0.378	173.9	4.2	0.83	0.762	56.9	0.549	1.492	129.3	272.9	---	2.312	-2.45	1.142	61.9	61.6	16.3	0.550
4-2800	4-3300	0.354	176.2	5.2	1.74	0.768	58.9	0.519	1.511	126.6	279.7	---	2.295	-3.23	1.144	64.8	68.2	15.2	0.501
4-2800	4-3310	0.334	179.2	8.2	3.54	0.773	60.7	0.491	1.528	124.0	286.7	---	2.278	-4.90	1.146	67.6	74.8	11.2	0.457
4-2800	4-3320	0.333	184.8	19.7	9.47	0.777	62.3	0.466	1.543	121.6	293.7	---	2.262	-10.71	1.149	70.2	83.0	-3.5	0.446
4-2800	4-3330	0.581	134.5	-36.5	-40.06	0.780	63.8	0.442	1.556	119.3	301.6	---	2.243	38.94	1.151	73.0	180.4	75.1	0.780
4-2800	4-3340	0.297	170.5	-18.2	-8.37	0.783	65.0	0.425	1.567	117.4	308.8	---	2.231	7.37	1.153	75.4	89.2	48.0	0.544
4-2800	4-3350	0.271	175.6	-12.5	-4.95	0.786	66.0	0.407	1.577	115.7	316.6	---	2.218	4.08	1.155	77.8	91.5	39.6	0.288
4-2800	4-3360	0.256	178.0	-10.3	-3.62	0.788	66.9	0.393	1.585	114.2	324.7	---	2.208	2.87	1.158	80.2	92.8	36.7	0.250
4-2800	4-3370	0.246	179.5	-9.1	-2.87	0.789	67.5	0.382	1.591	113.1	333.1	---	2.199	2.26	1.160	82.7	91.8	35.5	0.218
4-2800	4-3380	0.240	180.7	-8.3	-2.38	0.791	68.0	0.375	1.596	112.2	341.9	---	2.194	1.91	1.163	85.1	87.8	34.9	0.194
4-2800	4-3390	0.236	181.5	-7.5	-2.00	0.791	68.2	0.371	1.599	111.7	351.0	---	2.193	1.69	1.165	87.6	80.6	34.3	0.179
4-2800	4-3400	0.236	182.0	-6.7	-1.70	0.792	68.2	0.372	1.601	111.5	360.6	1.006	2.196	1.56	1.168	90.2	71.3	32.8	0.177
4-2800	4-3410	0.240	182.2	-5.8	-1.43	0.792	67.9	0.377	1.602	111.7	370.5	0.999	2.206	1.49	1.170	92.9	62.7	30.4	0.190
4-2800	4-3420	0.249	182.2	-4.7	-1.17	0.792	67.2	0.387	1.602	112.4	381.0	0.982	2.223	1.46	1.173	95.8	56.7	28.0	0.217
4-2800	4-3430	0.263	181.8	-3.6	-0.92	0.792	66.1	0.404	1.602	113.6	392.0	0.954	2.250	1.47	1.175	99.1	53.7	26.1	0.258
4-2800	4-3430	0.316	54.5	18.3	-0.92	0.576	106.9	0.535	1.087	196.0	834.5	0.506	1.669	1.47	1.042	122.6	6.4	5.2	0.582
4-2800	4-3430	0.565	41.5	15.6	-0.92	0.639	131.5	0.712	1.185	207.0	845.5	0.342	2.029	1.47	1.078	134.6	2.0	2.4	0.809
4-2800	4-3440	0.285	181.1	-2.3	-0.65	0.792	64.5	0.430	1.600	115.3	403.7	0.932	2.289	1.54	1.177	102.8	53.2	25.0	0.312
4-2800	4-3440	0.251	71.4	21.4	-0.65	0.556	96.7	0.515	1.062	186.4	834.8	0.515	1.608	1.54	1.034	120.8	15.2	9.1	0.559
4-2800	4-3450	0.316	179.9	-0.8	-0.35	0.791	62.2	0.467	1.589	117.8	416.2	0.852	2.346	1.62	1.179	107.1	54.3	24.4	0.382
4-2800	4-3450	0.230	91.6	23.1	-0.35	0.544	88.3	0.527	1.047	178.5	836.9	0.495	1.599	1.66	1.030	121.7	23.4	12.5	0.572
4-2800	4-3460	0.361	178.2	0.8	0.02	0.791	58.8	0.519	1.597	121.3	429.7	0.769	2.425	1.66	1.181	112.4	56.4	24.3	0.472
4-2800	4-3460	0.244	112.3	22.4	0.02	0.535	79.9	0.562	1.036	171.9	840.4	0.454	1.618	1.86	1.027	124.1	31.3	15.4	0.612
4-2800	4-3470	0.425	175.8	2.7	0.51	0.791	53.9	0.590	1.596	126.2	444.8	0.655	2.537	2.20	1.186	119.1	58.7	24.3	0.589
4-2800	4-3470	0.295	128.6	20.1	0.51	0.528	70.5	0.620	1.028	166.9	845.4	0.390	1.666	2.20	1.026	128.3	38.7	17.9	0.680
4-2800	4-3480	0.518	172.3	4.9	1.25	0.790	46.7	0.686	1.595	133.4	462.0	0.501	2.689	2.80	1.181	128.0	60.7	24.3	0.745
4-2800	4-3480	0.382	138.9	17.8	1.25	0.523	59.0	0.705	1.023	164.1	852.8	0.301	1.744	2.80	1.025	134.8	45.2	19.8	0.787
4-2800	4-3490	0.511	143.5	16.8	2.61	0.520	44.4	0.817	1.020	164.7	863.4	0.186	1.853	4.03	1.025	144.8	50.2	21.0	0.947
4-2800	4-3530	0.579	53.6	18.9	-5.24	0.429	133.0	0.855	0.937	189.9	929.5	0.135	1.738	-4.35	0.982	31.2	334.6	-12.9	0.987
4-2800	4-3540	0.508	118.4	19.3	-3.69	0.331	56.6	0.882	0.876	174.8	924.5	0.104	1.647	-2.94	0.942	28.4	346.8	-7.1	1.011
4-2800	4-3540	0.462	71.8	19.7	-3.69	0.419	112.4	0.766	0.929	187.4	937.2	0.217	1.642	-2.94	0.977	40.1	340.5	-10.6	0.850
4-2800	4-3550	0.541	28.1	8.3	-2.88	0.770	126.4	0.595	1.520	229.6	629.5	0.615	2.424	-2.27	1.170	59.1	329.7	-17.7	0.613
4-2800	4-3560	0.472	25.6	7.3	-2.36	0.770	121.0	0.517	1.518	234.0	643.9	0.733	2.302	-1.90	1.166	66.0	328.5	-17.1	0.493
4-2800	4-3570	0.591	152.2	10.4	-1.98	0.621	36.7	0.834	1.154	159.3	579.3	0.192	2.117	-1.68	1.073	33.9	5.6	1.3	0.994
4-2800	4-3570	0.422	23.9	6.8	-1.98	0.769	117.1	0.459	1.515	236.8	656.8	0.820	2.210	-1.68	1.165	71.3	331.5	-16.6	0.401
4-2800	4-3580	0.534	154.0	9.6	-1.67	0.631	42.1	0.781	1.171	156.1	586.2	0.256	2.086	-1.55	1.076	39.1	11.7	3.8	0.911
4-2800	4-3580	0.385	22.6	6.4	-1.67	0.768	114.4	0.416	1.513	238.5	668.6	0.884	2.141	-1.55	1.163	75.5	334.0	-16.4	0.330
4-2800	4-3590	0.479	155.6	8.9	-1.40	0.640	47.2	0.725	1.188	153.2	593.2	0.327	2.049	-1.48	1.079	44.3	17.8	6.1	0.828
4-2800	4-3590	0.359	21.7	6.4	-1.40	0.768	112.3	0.384	1.510	239.6	679.6	0.931	2.000	-1.48	1.160	79.1	335.7	-16.7	0.273
4-2800	4-3600	0.424	157.0	8.4	-1.14	0.650	52.1	0.666	1.205	150.6	600.4	0.403	2.008	-1.46	1.082	49.2	23.9	8.2	0.746
4-2800	4-3600	0.339	21.0	6.5	-1.14	0.767	110.9	0.361	1.508	240.3	690.1	0.964	2.052	-1.46	1.157	82.2	335.9	-17.9	0.228
4-2810	4-2930	0.748	15.0	7.8	1.10	1.038	131.7	0.862	6.041	267.8	411.7	0.836	---	-2.62	1.344	113.8	274.9	-28.9	0.589
4-2810	4-2940	0.690	16.5	9.7	2.08	0.980	130.1	0.767	3.520	262.6	416.1	0.821	---	-3.46	1.298	114.0	281.9	-30.3	0.563
4-2810	4-2950	0.638	17.7	12.7	4.04	0.927	128.4	0.690	2.606	257.3	420.3	0.807	---	-5.28	1.259	114.1	289.5	-33.5	0.545
4-2810	4-2960	0.601	17.5	21.3	10.67	0.881	126.6	0.628	2.137	251.9	424.3	0.795	---	-11.78	1.224	114.0	298.1	-45.6	0.558
4-2810	4-2980	0.507	30.7	0.7	-8.48	0.802	122.5	0.538	1.663	240.5	432.3	0.769	---	7.62	1.169	113.7	305.1	-2.7	0.502
4-2810	4-2990	0.459	31.1	5.2	-5.00	0.768	120.2	0.504	1.528	234.7	436.0	0.757	---	4.27	1.147	113.6	314.6	-7.3	0.476
4-2810	4-3000	0.418	33.0	7.6	-3.61	0.737	117.7	0.478	1.428	228.8	439.6	0.745	---	3.02	1.128	113.4	322.8	-7.6	0.463
4-2810	4-3010	0.380	35.7	9.5	-2.83	0.709	115.1	0.458	1.351	222.8	443.2	0.732	---	2.39	1.112	113.3	330.5	-6.3	0.455
4-2810	4-3020	0.345	39.1	11.2	-2.31	0.684	112.3	0.443	1.289	216.6	446.7	0.718	---	2.02	1.098	113.3	338.1	-4.3	0.450
4-2810	4-3030	0.311	43.2	12.9	-1.92	0.661	109.3	0.434	1.240	210.4	450.1	0.702	---	1.79	1.086	113.5	345.6	-1.9	0.449
4-2810	4-3040	0.279	48.5	14.8	-1.60	0.640	106.1	0.430	1.199	204.1	453.6	0.684	---	1.65	1.076	113.8	353.0	0.9	0.451
4-2810	4-3050	0.250	55.4	16.9	-1.31	0.621	102.6	0.431	1.165	197.8	457.1	0.663	---	1.57	1.067	114.3	0.4	3.8	0.457
4-2810	4-3060	0.226	64.6	19.1	-1.04	0.603	98.8	0.438	1.136	191.6	460.7	0.638	---	1.55	1.059	115.1	7.8	6.8	0.469
4-2810	4-3070	0.207	76.9	21.2	-0.77	0.586	94.4	0.452	1.111	185.4	464.4	0.609	---	1.57	1.053	116.3	15.3	9.8	0.487
4-2810	4-3080	0.200	92.5	22.6	-0.49	0.571	89.5	0.475	1.090	179.5	468.4	0.572	1.608	1.63	1.047	117.9	22.7	12.7	0.513
4-2810	4-3090	0.210	109.9	22.3	-0.16	0.558	83.8	0.509	1.072	173.9	472.9	0.527	1.617	1.77	1.042	120.3	30.2	15.4	0.551
4-2810	4-3100	0.242	126.0	20.3	0.24	0.545	76.9	0.556	1.057	169.1	478.1	0.469	1.645	1.99	1.038	123.6	37.5	17.8	0.606
4-2810	4-3110	0.302	138.2	17.8	0.77	0.535	68.3	0.623	1.044	165.3	484.4	0.394	1.695	2.36	1.034	128.4	44.4	19.8	0.665
4-2810	4-3120	0.393	146.0	15.9	1.58	0.527	57.3	0.713	1.035	163.5	492.7	0.297	1.773	3.02	1.032	135.4	50.6	21.4	0.799
4-2810	4-3130	0.525	149.2	15.1	3.10	0.522	42.7	0.828	1.030	164.7	504.1	0.178	1.882	4.40	1.030	145.8	55.4	22.4	0.964
4-2810	4-3230	0.585	165.1	5.5	-1.28	0.702	39.0	0.789	1.331	150.6	231.1	---	2.380	-1.57	1.119	39.4	23.3	8.4	0.928
4-2810	4-3240	0.547	167.2	4.7	-1.01	0.712	42.5	0.748	1.358	147.1	237.4	---	2.373	-1.55	1.123	43.5	29.8	10.7	0.863
4-2810	4-3250	0.510	169.3	3.9	-0.74	0.722	45.7	0.708	1.384	143.7	243.8	---	2.363	-1.57	1.127	47.3	36.4	12.7	0.799
4-2810	4-3260	0.476	171.3	3.3	-0.46	0.731	48.7	0.668	1.409	140.4	250.3	---	2.351	-1.64	1.130	50.9	43.0	14.4	0.738
4-2810	4-3270	0.444	173.4	2.7	-0.14	0.739	51.5	0.630	1.433	137.2	256.8	---	2.337	-1.78	1.133	54.4	49.7	15.8	0.678
4-2810	4-3280	0.414	175.4	2.4	0.05	0.746	54.0	0.594	1.456	134.2	263.4	---	2.322	-2.00	1.136	57.7	56.4	16.7	0.622
4-2810	4-3290	0.386	177.5	2.5	0.75	0.753	56.3	0.560	1.478	131.3	270.1	---	2.306	-2.35	1.139	60.8	63.0	16.9	0.568
4-2810	4-3300	0.361	179.7	3.1	1.50	0.759	58.3	0.529	1.498	128.5	276.9	---	2.289	-2.95	1.142	63.7	69.5	16.2	0.517
4-2810	4-3310	0.339	182.3	5.0	2.81	0.764	60.2	0.499	1.515	125.9	283.8	---	2.272	-4.12	1.144	66.6	76.0	13.5	0.470
4-2810	4-3320	0.325	186.2	10.9	5.95	0.769	61.9	0.473	1.531	123.5	290.9	---	2.256	-7.14	1.147	69.5	82.7	5.5	0.437
4-2810	4-3330	0.451	193.6	43.0	26.94	0.772	63.3	0.451	1.546	121.3	298.0	---	2.242	-27.99	1.149	71.8	100.9	-32.2	0.625
4-2810	4-3340	0.333	166.9	-28.1	-14.09	0.776	64.7	0.428	1.558	119.2	306.0	---	2.224	13.17	1.151	74.5	98.1	61.7	0.407
4-2810	4-3350	0.279	177.8	-16.9	-6.33	0.778	65.8	0.410	1.568	117.5	313.7	---	2.212	5.54	1.154	77.0	95.5	44.0	0.307

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2810	4-3360	0.261	181.2	-13.3	-4.22	0.781	66.7	0.396	1.577	115.9	321.7	---	2.200	3.56	1.156	79.4	96.9	38.9	0.262
4-2810	4-3370	0.250	183.2	-11.6	-3.20	0.782	67.4	0.384	1.583	114.7	330.1	---	2.191	2.67	1.159	81.8	96.6	36.9	0.228
4-2810	4-3380	0.242	184.5	-10.5	-2.56	0.784	68.0	0.375	1.589	113.8	338.7	---	2.185	2.19	1.161	84.2	93.6	36.1	0.201
4-2810	4-3390	0.237	185.5	-9.6	-2.11	0.785	68.3	0.370	1.592	113.2	347.8	---	2.182	1.90	1.164	86.7	87.3	35.6	0.182
4-2810	4-3400	0.236	186.1	-8.7	-1.76	0.785	68.3	0.369	1.595	112.9	357.2	---	2.184	1.72	1.167	89.2	78.3	34.5	0.176
4-2810	4-3410	0.239	186.5	-7.8	-1.46	0.786	68.1	0.373	1.596	112.9	367.0	1.001	2.191	1.61	1.169	91.9	69.1	32.5	0.183
4-2810	4-3420	0.245	186.6	-6.7	-1.18	0.786	67.6	0.381	1.597	113.4	377.3	0.988	2.205	1.55	1.172	94.8	62.0	30.0	0.205
4-2810	4-3430	0.257	186.3	-5.6	-0.91	0.786	66.7	0.396	1.596	114.3	388.1	0.964	2.228	1.55	1.174	97.9	58.0	27.9	0.241
4-2810	4-3440	0.276	185.7	-4.3	-0.64	0.785	65.3	0.418	1.595	115.7	399.4	0.928	2.262	1.59	1.176	101.4	56.8	26.4	0.290
4-2810	4-3440	0.288	66.1	20.9	-0.64	0.558	103.2	0.537	1.073	191.9	835.6	0.497	1.648	1.59	1.038	122.2	14.8	8.9	0.584
4-2810	4-3450	0.303	184.7	-3.0	-0.34	0.785	63.2	0.450	1.593	117.8	411.5	0.876	2.311	1.69	1.178	105.4	57.6	25.7	0.353
4-2810	4-3450	0.242	85.2	23.2	-0.34	0.541	93.5	0.532	1.052	183.1	836.8	0.492	1.611	1.69	1.032	122.0	23.5	12.5	0.578
4-2810	4-3460	0.341	183.3	-1.4	0.02	0.784	60.3	0.495	1.592	120.7	424.5	0.803	2.380	1.86	1.180	110.2	59.5	25.3	0.434
4-2810	4-3460	0.237	106.6	23.1	0.02	0.530	84.8	0.554	1.038	175.8	839.5	0.463	1.613	1.86	1.028	123.6	31.7	15.6	0.602
4-2810	4-3470	0.396	181.2	0.3	0.47	0.784	56.1	0.557	1.590	124.9	438.7	0.704	2.476	2.14	1.182	116.2	62.0	25.3	0.537
4-2810	4-3470	0.269	125.7	20.8	0.47	0.521	75.6	0.600	1.029	169.9	843.7	0.412	1.645	2.14	1.026	126.8	39.5	18.2	0.655
4-2810	4-3480	0.474	178.3	2.3	1.11	0.784	58.1	0.642	1.589	130.8	454.7	0.569	2.608	2.63	1.183	124.0	64.4	25.2	0.673
4-2810	4-3480	0.338	138.9	17.9	1.11	0.515	65.0	0.670	1.022	165.9	849.8	0.337	1.706	2.63	1.025	132.1	46.6	20.3	0.741
4-2810	4-3490	0.587	174.0	4.7	2.16	0.784	41.2	0.752	1.589	139.4	473.4	0.394	2.784	3.54	1.184	134.6	66.0	25.1	0.857
4-2810	4-3490	0.446	146.1	16.0	2.16	0.510	51.8	0.769	1.017	164.6	858.7	0.235	1.799	3.54	1.024	140.2	52.5	21.7	0.873
4-2810	4-3500	0.597	148.0	15.6	4.40	0.509	34.7	0.887	1.016	167.3	871.5	0.115	1.916	5.69	1.024	152.4	56.5	22.5	1.063
4-2810	4-3540	0.546	123.1	18.5	-4.33	0.299	51.7	0.914	0.866	175.6	920.7	0.074	1.658	-3.65	0.936	24.2	348.8	-6.3	1.069
4-2810	4-3540	0.492	74.5	20.1	-4.33	0.405	120.3	0.812	0.926	188.1	933.2	0.174	1.678	-3.65	0.975	35.8	342.5	-9.9	0.915
4-2810	4-3550	0.576	34.5	10.7	-3.21	0.763	129.9	0.643	1.511	225.7	620.9	0.540	2.482	-2.68	1.168	54.8	329.7	-16.3	0.689
4-2810	4-3560	0.495	31.6	9.6	-2.55	0.762	123.4	0.553	1.509	230.9	636.2	0.675	2.344	-2.18	1.166	62.6	332.4	-15.7	0.551
4-2810	4-3570	0.436	29.5	8.9	-2.09	0.762	118.8	0.485	1.507	234.2	649.5	0.776	2.238	-1.88	1.164	68.5	335.4	-15.1	0.448
4-2810	4-3580	0.553	157.6	8.3	-1.73	0.618	40.2	0.803	1.160	157.9	583.2	0.228	2.092	-1.70	1.073	37.0	13.1	4.3	0.944
4-2810	4-3580	0.393	28.0	8.6	-1.73	0.761	115.5	0.435	1.504	236.3	661.6	0.850	2.158	-1.70	1.161	73.2	338.4	-14.6	0.368
4-2810	4-3590	0.496	159.3	7.6	-1.42	0.628	45.5	0.748	1.177	154.9	590.2	0.297	2.057	-1.60	1.076	42.2	19.2	6.7	0.860
4-2810	4-3590	0.361	27.0	8.4	-1.42	0.760	113.0	0.397	1.501	237.5	672.7	0.905	2.097	-1.60	1.168	77.1	340.8	-14.5	0.304
4-2810	4-3600	0.441	160.8	7.0	-1.15	0.638	50.6	0.689	1.195	152.2	597.4	0.372	2.018	-1.55	1.079	47.3	25.2	8.8	0.777
4-2810	4-3600	0.338	26.2	8.5	-1.15	0.759	111.3	0.369	1.499	238.1	683.3	0.946	2.052	-1.55	1.155	80.3	342.3	-15.1	0.254
4-2810	4-3610	0.387	162.0	6.5	-0.88	0.648	55.4	0.628	1.213	149.9	604.9	0.451	1.975	-1.55	1.082	52.2	31.2	10.6	0.695
4-2810	4-3610	0.321	25.5	8.8	-0.88	0.759	110.0	0.349	1.497	238.5	693.4	0.975	2.019	-1.55	1.152	83.2	342.1	-16.6	0.213
4-2820	4-2960	0.660	21.8	17.2	6.65	0.933	130.0	0.714	2.730	256.0	423.8	0.780	---	-7.71	1.265	116.0	098.0	-36.2	0.591
4-2820	4-2980	0.578	36.2	-2.7	-13.91	0.838	125.9	0.597	1.872	244.7	431.9	0.755	---	13.12	1.198	115.6	301.5	5.3	0.580
4-2820	4-2990	0.510	34.2	5.3	-6.34	0.798	123.6	0.554	1.668	239.0	435.6	0.743	---	5.69	1.171	115.2	313.9	-5.3	0.522
4-2820	4-3000	0.464	35.6	8.3	-4.19	0.762	121.2	0.520	1.525	233.1	439.2	0.732	---	3.68	1.148	115.0	322.5	-6.7	0.501
4-2820	4-3010	0.421	38.0	10.3	-3.14	0.729	118.6	0.493	1.420	227.1	442.8	0.719	---	2.78	1.128	114.8	330.4	-5.8	0.488
4-2820	4-3020	0.382	41.0	12.0	-2.49	0.700	115.8	0.473	1.340	221.0	446.4	0.706	---	2.28	1.111	114.6	338.1	-4.0	0.479
4-2820	4-3030	0.344	44.7	13.6	-2.02	0.673	112.8	0.459	1.277	214.8	449.9	0.691	---	1.98	1.097	114.6	345.6	-1.6	0.473
4-2820	4-3040	0.309	49.4	15.3	-1.65	0.649	109.6	0.450	1.227	208.5	453.3	0.675	---	1.79	1.084	114.8	353.0	1.1	0.471
4-2820	4-3050	0.277	55.4	17.1	-1.33	0.627	106.1	0.447	1.185	202.2	456.8	0.656	---	1.68	1.074	115.1	0.5	4.0	0.474
4-2820	4-3060	0.248	63.3	19.1	-1.05	0.606	102.3	0.450	1.151	195.9	460.4	0.633	---	1.63	1.065	115.7	7.9	7.0	0.481
4-2820	4-3070	0.224	73.9	21.2	-0.76	0.587	98.0	0.459	1.122	189.7	464.0	0.607	---	1.63	1.057	116.6	15.4	9.9	0.494
4-2820	4-3080	0.209	87.9	22.7	-0.47	0.570	93.2	0.477	1.097	183.6	467.9	0.574	---	1.68	1.050	118.0	22.9	12.8	0.515
4-2820	4-3090	0.208	104.8	22.9	-0.15	0.554	87.7	0.504	1.077	177.8	472.1	0.534	1.619	1.78	1.044	119.9	30.5	15.6	0.546
4-2820	4-3100	0.228	122.0	21.2	0.22	0.540	81.2	0.543	1.059	172.5	476.8	0.483	1.634	1.97	1.039	122.7	38.1	18.2	0.591
4-2820	4-3110	0.273	136.4	18.4	0.71	0.528	73.3	0.600	1.044	168.1	482.5	0.418	1.670	2.27	1.034	126.7	45.4	20.1	0.656
4-2820	4-3120	0.348	146.5	15.8	1.40	0.518	63.3	0.677	1.033	165.1	489.7	0.333	1.732	2.80	1.031	132.6	52.1	21.8	0.751
4-2820	4-3130	0.459	151.9	14.2	2.56	0.511	58.2	0.779	1.025	164.6	499.3	0.226	1.824	3.81	1.028	141.1	57.8	23.0	0.889
4-2820	4-3230	0.597	168.4	4.1	-1.30	0.689	37.7	0.804	1.313	152.5	228.3	---	2.368	-1.87	1.115	37.8	24.5	8.9	0.953
4-2820	4-3240	0.558	170.6	3.3	-1.01	0.700	41.3	0.763	1.340	149.0	234.7	---	2.362	-1.63	1.119	41.9	31.1	11.2	0.886
4-2820	4-3250	0.521	172.7	2.5	-0.73	0.710	44.7	0.722	1.366	145.6	241.7	---	2.356	-1.63	1.123	45.8	37.7	13.2	0.822
4-2820	4-3260	0.486	174.8	1.8	-0.45	0.720	47.8	0.682	1.392	142.3	247.5	---	2.342	-1.68	1.127	49.5	44.3	14.9	0.759
4-2820	4-3270	0.453	176.8	1.2	-0.13	0.729	50.7	0.643	1.417	139.1	254.1	---	2.329	-1.79	1.130	53.1	51.0	16.2	0.699
4-2820	4-3280	0.423	178.9	0.8	0.23	0.736	53.3	0.606	1.441	136.1	260.6	---	2.315	-1.97	1.133	56.4	57.7	17.2	0.641
4-2820	4-3290	0.394	181.0	0.7	0.69	0.744	55.6	0.571	1.463	133.1	267.3	---	2.299	-2.26	1.136	59.6	64.3	17.5	0.586
4-2820	4-3300	0.368	183.1	1.1	1.33	0.750	57.8	0.538	1.484	130.3	274.1	---	2.283	-2.75	1.139	62.7	70.9	17.0	0.534
4-2820	4-3310	0.346	185.5	2.4	2.34	0.756	59.7	0.508	1.503	127.7	281.0	---	2.266	-3.62	1.142	65.6	77.3	15.1	0.485
4-2820	4-3320	0.327	188.7	6.0	4.37	0.760	61.5	0.481	1.520	125.3	288.1	---	2.250	-5.50	1.144	68.3	83.6	10.0	0.444
4-2820	4-3330	0.334	194.3	19.1	11.15	0.765	63.0	0.456	1.535	123.1	295.3	---	2.235	-12.14	1.147	71.0	91.3	-7.4	0.445
4-2820	4-3340	0.576	140.6	-39.4	-40.39	0.768	64.5	0.432	1.548	120.9	303.5	---	2.216	30.53	1.150	73.8	193.0	71.3	0.783
4-2820	4-3350	0.294	178.4	-22.9	-8.81	0.771	65.6	0.414	1.559	119.2	310.8	---	2.205	8.08	1.152	76.1	100.8	51.0	0.336
4-2820	4-3360	0.267	184.0	-16.7	-5.09	0.774	66.6	0.399	1.568	117.6	318.8	---	2.193	4.51	1.155	78.6	101.1	41.8	0.278
4-2820	4-3370	0.253	186.6	-14.2	-3.62	0.776	67.4	0.386	1.575	116.3	327.0	---	2.183	3.18	1.158	81.0	101.3	38.5	0.239
4-2820	4-3380	0.244	188.3	-12.7	-2.80	0.777	67.9	0.376	1.581	115.3	335.6	---	2.176	2.51	1.160	83.4	99.2	37.2	0.208
4-2820	4-3390	0.239	189.4	-11.6	-2.25	0.778	68.3	0.370	1.586	114.6	344.6	---	2.172	2.12	1.163	85.9	93.8	36.7	0.187
4-2820	4-3400	0.236	190.2	-10.7	-1.84	0.779	68.5	0.368	1.588	114.2	353.9	---	2.172	1.88	1.166	88.4	85.5	36.0	0.176
4-2820	4-3410	0.238	190.7	-9.7	-1.50	0.779	68.3	0.369	1.590	114.2	363.6	1.003	2.178	1.73	1.168	91.0	75.8	34.3	0.178
4-2820	4-3420	0.243	190.9	-8.7	-1.20	0.780	67.9	0.376	1.591	114.5	373.7	0.993	2.189	1.65	1.171	93.7	67.7	31.9	0.195
4-2820	4-3430	0.253	190.7	-7.6	-0.91	0.779	67.2	0.388	1.591	115.2	384.3	0.973	2.208	1.62	1.173	96.7	62.7	29.6	0.226
4-2820	4-3440	0.268	190.3	-6.4	-0.63	0.779	66.0	0.408	1.589	116.3	395.4	0.942	2.237	1.64	1.175	100.0	60.7	27.9	0.270
4-2820	4-3440	0.368	60.2	20.2	-0.63	0.571	113.6	0.590	1.099	199.2	838.3	0.451	1.747	1.64	1.049	125.8	13.8	8.2	0.648
4-2820	4-3440	0.492	53.6	19.1	-0.63	0.604	126.2	0.677	1.148	204.6	843.6	0.371	1.924	1.64	1.067	132.0	11.7	6.9	0.761
4-2820	4-3450	0.292	189.5	-5.1	-0.33	0.779	64.2	0.436	1.588	118.0	407.1	0.896	2.280	1.72	1.177	103.8	60.9	26.9	0.327
4-2820	4-3450	0.268	73.1	22.9	-0.33	0.541	99.6	0.545	1.060	188.2	837.2	0.482	1.637	1.72	1.036	122.9	23.3	12.4	0.594
4-2820	4-3460	0.325	188.2	-3.6	0.02	0.778	61.7	0.475	1.586	120.5	419.5	0.833	2.339	1.86	1.179	108.3	62.6	26.4	0.400
4-2820	4-3460	0.240	100.2	23.7	0.02	0.526	90.0	0.553	1.042	180.0	839.1	0.466	1.618	1.86	1.030	123.4	31.9	15.7	0.601
4-2820	4-3470	0.372	186.5	-2.0	0.43	0.778	58.1	0.529	1.584	123.9	433.0	0.745	2.423	2.09	1.181	113.7	65.1	26.1	0.492

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2820	4-3470	0.253	121.3	21.7	0.33	0.515	80.8	C.586	1.030	173.4	842.5	0.427	1.633	2.04	1.027	125.8	40.0	18.5	0.638
4-2820	4-3480	0.439	184.0	-0.2	1.00	0.777	52.9	C.604	1.582	128.8	448.0	0.627	2.537	2.49	1.182	120.6	67.8	26.1	0.612
4-2820	4-3400	0.304	137.5	18.4	1.00	0.507	70.7	C.643	1.021	168.3	847.6	0.365	1.678	2.49	1.025	130.0	47.7	20.6	0.706
4-2820	4-3490	0.534	180.4	1.9	1.86	0.777	45.4	C.702	1.582	135.9	465.3	0.471	2.693	3.19	1.183	129.7	70.0	26.0	0.772
4-2820	4-3490	0.393	147.5	15.6	1.86	0.501	59.5	C.727	1.015	165.6	855.0	0.277	1.754	3.19	1.023	136.6	54.4	22.2	0.814
4-2820	4-3500	0.522	151.9	14.3	3.47	0.498	43.2	C.836	1.012	166.1	865.7	0.166	1.859	4.65	1.022	146.7	59.5	23.2	0.974
4-2820	4-3540	0.582	127.2	17.7	-5.26	0.267	46.5	C.941	0.858	176.5	916.9	0.051	1.666	-4.66	C.930	20.0	350.7	-5.4	1.125
4-2820	4-3540	0.547	78.6	20.7	-5.26	0.388	128.8	C.860	0.921	188.0	928.4	0.129	1.714	-4.66	0.972	30.7	344.9	-9.0	0.991
4-2820	4-3550	0.461	119.3	18.8	-3.64	0.317	72.3	C.854	0.880	176.8	927.4	0.129	1.632	-3.20	C.944	31.6	354.8	-4.0	0.966
4-2820	4-3550	0.424	94.2	20.8	-3.64	0.368	102.6	C.793	0.906	183.4	933.9	0.188	1.628	-3.20	0.962	37.7	351.6	-5.9	0.882
4-2820	4-3560	0.522	37.7	11.8	-2.78	0.755	126.2	0.594	1.501	227.7	628.3	0.610	2.391	-2.49	1.165	58.9	336.1	-14.3	0.616
4-2820	4-3570	0.454	35.2	11.0	-2.22	0.754	120.7	C.516	1.498	231.6	642.3	0.726	2.271	-2.10	1.162	65.6	339.1	-13.6	0.499
4-2820	4-3580	0.571	169.1	6.9	-1.80	0.605	38.3	C.825	1.150	159.5	580.2	0.202	2.098	-1.86	1.069	34.8	14.4	4.9	0.978
4-2820	4-3580	0.404	33.5	10.6	-1.80	0.753	116.8	C.457	1.496	234.0	654.7	0.812	2.179	-1.86	1.159	70.8	342.3	-12.9	0.409
4-2820	4-3590	0.515	162.8	6.2	-1.46	0.616	43.8	C.770	1.167	156.6	587.2	0.268	2.065	-1.72	1.072	40.1	20.5	7.2	0.893
4-2820	4-3590	0.366	32.3	10.4	-1.46	0.753	113.9	C.413	1.493	235.4	666.0	0.876	2.109	-1.72	1.156	74.9	345.2	-12.5	0.338
4-2820	4-3600	0.458	164.4	5.5	-1.16	0.626	49.0	C.712	1.184	153.8	594.3	0.342	2.027	-1.65	1.076	45.3	26.6	9.3	0.808
4-2820	4-3600	0.338	31.4	10.5	-1.16	0.752	111.8	C.380	1.490	236.1	676.6	0.924	2.055	-1.65	1.153	78.0	347.5	-12.6	0.281
4-2820	4-3610	0.403	165.7	5.1	-0.88	0.636	54.0	C.651	1.203	151.4	601.7	0.420	1.985	-1.62	1.079	50.4	32.6	11.2	0.725
4-2820	4-3610	0.318	30.7	10.7	-0.88	0.751	110.2	C.355	1.487	236.4	686.7	0.959	2.015	-1.62	1.150	81.5	348.6	-13.4	0.236
4-2820	4-3620	0.350	166.7	4.8	-0.60	0.646	58.7	C.589	1.221	149.4	609.5	0.502	1.940	-1.65	1.082	55.2	38.6	12.7	0.643
4-2820	4-3620	0.303	30.1	11.1	-0.60	0.750	109.1	C.337	1.485	236.5	696.6	0.984	1.986	-1.65	1.147	84.2	348.0	-15.4	0.200
4-2830	4-2990	0.570	37.8	4.5	-8.70	0.836	127.1	C.613	1.882	243.1	435.1	0.729	---	8.12	1.200	117.1	312.7	-2.0	0.578
4-2830	4-3000	0.514	38.5	8.7	-5.03	0.793	124.7	C.569	1.665	237.3	438.8	0.717	---	4.60	1.172	116.7	322.2	-5.5	0.545
4-2830	4-3010	0.467	47.5	11.0	-3.55	0.755	122.1	C.535	1.516	231.3	442.5	0.706	---	3.27	1.148	116.3	330.4	-5.3	0.526
4-2830	4-3020	0.423	43.2	12.7	-2.71	0.721	119.3	C.508	1.408	225.3	446.0	0.693	---	2.69	1.127	116.1	338.1	-3.7	0.511
4-2830	4-3030	0.381	46.6	14.3	-2.15	0.690	116.3	C.488	1.326	219.1	449.6	0.680	---	2.19	1.110	115.9	345.6	-1.4	0.501
4-2830	4-3040	0.343	50.7	15.8	-1.72	0.662	113.1	C.474	1.263	212.9	453.1	0.664	---	1.95	1.095	115.9	353.1	1.2	0.495
4-2830	4-3050	0.307	54.0	17.5	-1.37	0.636	109.7	C.466	1.212	206.6	456.6	0.647	---	1.80	1.082	116.1	0.5	4.1	0.494
4-2830	4-3060	0.273	62.9	19.3	-1.06	0.612	105.9	C.464	1.170	200.2	460.1	0.627	---	1.72	1.071	116.5	8.0	7.1	0.497
4-2830	4-3070	0.245	72.0	21.1	-0.76	0.591	101.7	C.469	1.136	193.9	463.6	0.603	---	1.69	1.062	117.1	15.5	10.1	0.505
4-2830	4-3080	0.223	84.2	22.7	-0.47	0.571	97.0	C.481	1.107	187.7	467.4	0.574	---	1.71	1.054	118.2	23.2	13.0	0.520
4-2830	4-3090	0.213	99.8	23.3	-0.15	0.553	91.7	C.503	1.083	181.7	471.4	0.538	---	1.76	1.046	119.8	30.8	15.7	0.545
4-2830	4-3100	0.220	117.2	22.1	0.21	0.537	85.5	C.535	1.062	176.1	475.8	C.494	1.631	1.95	1.040	122.1	38.5	18.2	0.581
4-2830	4-3110	0.252	133.4	19.3	0.66	0.522	78.1	C.582	1.045	171.1	481.0	0.437	1.654	2.20	1.035	125.5	46.1	20.4	0.635
4-2830	4-3120	0.311	145.8	16.1	1.26	0.510	66.8	C.648	1.031	167.3	487.3	0.363	1.700	2.63	1.030	130.3	53.3	22.1	0.713
4-2830	4-3130	0.404	153.5	13.7	2.19	0.500	57.0	C.737	1.021	165.4	495.5	0.268	1.774	3.36	1.026	137.5	59.7	23.4	0.828
4-2830	4-3140	0.535	156.7	12.6	3.97	0.495	41.6	C.848	1.016	166.5	506.8	C.155	1.877	5.02	1.024	147.9	64.6	24.2	0.992
4-2830	4-3240	0.570	173.9	1.8	-1.02	0.688	40.1	C.779	1.322	150.9	231.9	---	2.351	-1.71	1.114	40.3	32.3	11.6	0.911
4-2830	4-3250	0.532	176.1	1.0	-0.73	0.699	43.6	C.737	1.349	147.5	238.3	---	2.343	-1.69	1.119	44.3	38.9	13.6	0.845
4-2830	4-3260	0.497	178.2	0.3	-0.44	0.709	46.9	C.697	1.375	144.2	244.8	---	2.333	-1.72	1.123	48.1	45.6	15.3	0.781
4-2830	4-3270	0.463	180.3	-0.3	-0.13	0.718	49.8	C.657	1.401	141.0	251.3	---	2.321	-1.80	1.126	51.8	52.3	16.8	0.720
4-2830	4-3280	0.432	182.3	-0.7	0.22	0.727	52.5	C.619	1.425	137.9	257.9	---	2.307	-1.95	1.130	55.2	59.0	17.6	0.661
4-2830	4-3290	0.403	184.4	-0.9	0.64	0.734	55.0	C.582	1.448	135.0	264.5	---	2.292	-2.19	1.133	58.5	66.7	18.0	0.604
4-2830	4-3300	0.376	186.5	-0.7	1.20	0.741	57.2	C.549	1.470	132.2	271.3	---	2.276	-2.58	1.136	61.6	72.3	17.7	0.551
4-2830	4-3310	0.353	188.8	0.1	2.03	0.747	59.3	C.517	1.490	129.5	278.2	---	2.260	-3.25	1.139	64.5	78.7	16.3	0.500
4-2830	4-3320	0.332	191.5	2.5	3.48	0.752	61.1	C.489	1.507	127.1	285.3	---	2.244	-4.56	1.142	67.3	84.9	12.8	0.455
4-2830	4-3330	0.322	195.5	9.3	7.03	0.757	62.7	C.463	1.523	124.8	292.5	---	2.228	-7.96	1.145	70.0	91.1	3.0	0.426
4-2830	4-3340	0.492	200.2	43.9	31.87	0.761	64.0	C.441	1.537	122.8	299.7	---	2.215	-32.66	1.148	72.5	110.5	-38.5	0.685
4-2830	4-3350	0.331	174.5	-32.5	-14.43	0.764	65.4	C.419	1.549	120.8	308.0	---	2.197	13.78	1.150	75.3	113.3	63.6	0.402
4-2830	4-3360	0.276	186.2	-21.0	-6.45	0.767	66.4	C.402	1.559	119.3	315.8	---	2.185	5.94	1.153	77.7	105.9	45.9	0.297
4-2830	4-3370	0.258	189.8	-17.0	-4.20	0.769	67.3	C.388	1.567	117.9	324.0	---	2.175	3.84	1.156	80.2	105.9	40.4	0.251
4-2830	4-3380	0.248	191.9	-15.0	-3.10	0.771	67.9	C.377	1.573	116.8	332.6	---	2.167	2.89	1.159	82.6	104.5	38.3	0.218
4-2830	4-3390	0.241	193.3	-13.7	-2.42	0.772	68.4	C.370	1.578	116.0	341.4	---	2.162	2.37	1.162	85.0	100.2	37.6	0.192
4-2830	4-3400	0.237	194.2	-12.6	-1.93	0.773	68.6	C.366	1.582	115.6	350.6	---	2.161	2.06	1.164	87.5	92.6	37.1	0.177
4-2830	4-3410	0.237	194.8	-11.6	-1.55	0.773	68.6	C.366	1.584	115.4	360.2	1.003	2.164	1.87	1.167	90.1	82.9	35.8	0.175
4-2830	4-3420	0.241	195.1	-10.6	-1.22	0.774	68.2	C.371	1.585	115.5	370.2	0.996	2.173	1.75	1.170	92.8	73.9	33.7	0.187
4-2830	4-3430	0.249	195.1	-9.5	-0.93	0.774	67.6	C.382	1.585	116.1	380.6	0.980	2.189	1.70	1.172	95.6	67.7	31.3	0.213
4-2830	4-3440	0.263	194.8	-8.3	-0.62	0.773	66.6	C.398	1.584	117.0	391.4	0.953	2.214	1.69	1.174	98.8	64.8	29.4	0.252
4-2830	4-3450	0.283	194.1	-7.1	-0.32	0.773	65.0	C.423	1.582	118.4	402.8	C.914	2.251	1.74	1.176	102.4	64.4	28.1	0.304
4-2830	4-3450	0.316	73.2	22.5	-0.32	0.547	107.4	C.574	1.075	194.0	838.5	0.458	1.692	1.74	1.042	124.8	22.8	12.1	0.629
4-2830	4-3450	0.557	58.1	20.4	-0.32	0.612	132.8	C.737	1.170	204.3	848.8	0.307	2.032	1.74	1.078	136.9	18.7	9.6	0.846
4-2830	4-3460	0.311	193.1	-5.7	0.01	0.773	62.8	C.457	1.580	120.4	414.9	0.858	2.303	1.86	1.178	106.5	65.8	27.3	0.369
4-2830	4-3460	0.255	93.6	24.0	0.01	0.525	95.8	C.559	1.048	184.6	839.1	0.462	1.633	1.86	1.033	123.8	31.9	15.7	0.608
4-2830	4-3470	0.352	191.5	-4.2	0.41	0.772	59.7	C.505	1.578	123.3	427.8	0.781	2.375	2.05	1.180	111.4	68.2	27.0	0.452
4-2830	4-3470	0.246	115.6	22.7	0.41	0.511	86.1	C.578	1.032	177.2	841.7	0.436	1.629	2.05	1.028	125.2	40.4	18.6	0.629
4-2830	4-3480	0.409	189.4	-2.6	0.92	0.772	55.3	C.570	1.576	127.3	442.0	C.678	2.475	2.38	1.181	117.6	71.0	26.8	0.559
4-2830	4-3480	0.278	134.7	19.2	0.92	0.501	76.2	C.622	1.022	171.2	845.9	C.386	1.658	2.38	1.025	128.4	48.5	20.9	0.681
4-2830	4-3490	0.490	186.3	-0.7	1.64	0.771	48.9	C.697	1.575	133.2	458.0	C.539	2.611	2.93	1.182	125.6	73.7	26.7	0.699
4-2830	4-3490	0.349	147.6	15.6	1.64	0.494	64.8	0.693	1.014	167.3	852.1	0.312	1.777	2.93	1.023	133.8	55.8	22.6	0.768
4-2830	4-3500	0.459	154.5	13.4	2.87	0.489	50.8	C.790	1.010	166.0	861.0	0.212	1.807	3.99	1.021	142.1	61.9	23.8	0.900
4-2830	4-3550	0.505	126.3	17.5	-4.23	0.280	65.9	C.895	0.869	176.9	922.9	0.092	1.646	-3.87	0.936	26.8	357.0	-3.0	1.033
4-2830	4-3550	0.466	93.7	20.9	-4.23	0.357	112.4	C.826	0.907	185.1	931.0	0.159	1.657	-3.87	0.961	34.4	353.0	-5.5	0.932
4-2830	4-3560	0.555	48.1	13.9	-3.08	0.748	129.4	C.639	1.492	224.3	620.3	0.538	2.446	-2.87	1.163	54.8	339.7	-12.9	0.686
4-2830	4-3570	0.475	41.2	13.0	-2.38	0.747	123.0	C.550	1.490	229.0	635.0	0.670	2.310	-2.35	1.160	62.4	342.5	-12.1	0.554
4-2830	4-3580	0.591	164.5	5.6	-1.89	0.593	36.2	C.845	1.139	161.2	577.2	0.176	2.102	-2.04	1.065	32.6	15.7	5.5	1.011
4-2830	4-3580	0.417	39.1	12.5	-1.89	0.746	118.4	C.483	1.487	231.8	647.8	0.769	2.205	-2.04	1.158	68.2	345.8	-11.3	0.453
4-2830	4-3590	0.634	166.3	4.8	-1.51	0.604	41.9	C.792	1.156	158.2	584.2	0.240	2.072	-1.85	1.069	38.0	21.9	7.8	0.925
4-2830	4-3590	0.373	37.7	12.3	-1.51	0.746	115.0	C.432	1.484	233.4	659.4	0.843	2.125	-1.85	1.155	72.7	349.1	-10.6	0.374
4-2830	4-3600	0.477	167.9	4.1	-1.18	0.614	47.3	C.735	1.174	155.4	591.3	0.311	2.036	-1.74	1.072	43.3	28.0	-9.9	0.840

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2830	4-3600	0.341	36.7	12.4	-1.18	0.745	112.5	0.393	1.481	234.1	670.0	0.899	2.063	-1.74	1.152	76.5	351.9	-10.3	0.311
4-2830	4-3610	0.421	169.3	3.6	-0.88	0.625	52.5	0.674	1.192	152.9	598.6	0.389	1.995	-1.69	1.075	48.5	34.0	11.1	0.755
4-2830	4-3610	0.316	35.9	12.6	-0.88	0.744	110.6	0.364	1.478	234.4	680.1	0.940	2.015	-1.69	1.148	79.7	354.0	-10.6	0.261
4-2830	4-3620	0.366	170.5	3.3	-0.59	0.635	57.4	0.611	1.211	150.8	606.3	0.471	1.950	-1.70	1.079	53.4	40.0	13.3	0.671
4-2830	4-3620	0.298	35.4	13.0	-0.59	0.743	109.2	0.342	1.475	234.4	689.9	0.971	1.980	-1.70	1.145	82.5	354.8	-11.8	0.220
4-2830	4-3630	0.314	171.3	3.3	-0.29	0.645	62.1	0.548	1.230	149.3	614.5	0.555	1.904	-1.75	1.082	58.2	45.8	14.4	0.590
4-2830	4-3630	0.285	34.9	13.5	-0.29	0.742	108.2	0.327	1.473	234.3	699.5	0.992	1.955	-1.75	1.143	85.0	353.8	-14.3	0.189
4-2840	4-3000	0.572	41.5	8.9	-6.32	0.832	128.2	0.627	1.882	241.3	438.3	0.702	---	5.96	1.201	118.6	321.7	-3.9	0.597
4-2840	4-3010	0.518	43.2	11.6	-4.10	0.787	125.6	0.583	1.656	235.4	442.0	0.691	---	3.90	1.172	118.1	330.2	-4.6	0.569
4-2840	4-3020	0.468	45.6	13.5	-3.00	0.747	122.9	0.548	1.503	229.4	445.6	0.680	---	2.95	1.147	117.7	338.1	-3.3	0.549
4-2840	4-3030	0.422	48.7	15.0	-2.31	0.711	119.9	0.521	1.393	223.3	449.2	0.667	---	2.43	1.126	117.4	345.7	-1.2	0.534
4-2840	4-3040	0.380	52.4	16.4	-1.81	0.678	116.8	0.502	1.310	217.1	452.7	0.653	---	2.11	1.108	117.2	353.2	1.4	0.523
4-2840	4-3050	0.340	57.1	17.9	-1.42	0.649	113.3	0.489	1.246	210.8	456.2	0.637	---	1.92	1.093	117.2	0.6	4.2	0.517
4-2840	4-3060	0.303	63.1	19.5	-1.08	0.622	109.6	0.482	1.195	204.5	459.8	0.619	---	1.80	1.080	117.4	8.1	7.2	0.515
4-2840	4-3070	0.269	71.0	21.2	-0.76	0.597	105.5	0.482	1.154	198.1	463.3	0.597	---	1.75	1.068	117.8	15.7	10.1	0.519
4-2840	4-3080	0.242	81.6	22.7	-0.46	0.575	100.9	0.490	1.120	191.8	467.0	0.572	---	1.75	1.058	118.6	23.3	13.1	0.529
4-2840	4-3090	0.224	95.4	23.5	-0.15	0.554	95.8	0.505	1.091	185.7	470.8	0.540	---	1.81	1.050	119.9	31.1	15.8	0.548
4-2840	4-3100	0.220	112.2	22.9	0.20	0.536	89.8	0.531	1.068	179.8	474.0	0.501	1.635	1.93	1.042	121.8	38.9	18.3	0.577
4-2840	4-3110	0.238	129.4	20.4	0.62	0.519	82.8	0.570	1.048	174.5	479.8	0.451	1.645	2.14	1.030	124.6	46.7	20.6	0.620
4-2840	4-3120	0.283	143.8	16.8	1.15	0.504	74.2	0.625	1.031	170.0	485.4	0.387	1.676	2.49	1.030	128.6	54.2	22.4	0.685
4-2840	4-3130	0.359	153.9	13.6	1.93	0.492	63.4	0.702	1.019	167.0	492.6	0.304	1.734	3.09	1.025	134.5	61.2	23.8	0.780
4-2840	4-3140	0.471	159.3	11.7	3.26	0.484	49.5	0.802	1.011	166.4	502.1	0.200	1.821	4.25	1.022	143.3	67.0	24.6	0.918
4-2840	4-3240	0.582	177.2	0.4	-1.04	0.676	38.9	0.794	1.303	152.7	229.2	---	2.338	-1.79	1.110	38.7	33.5	12.1	0.935
4-2840	4-3250	0.544	179.4	-0.4	-0.73	0.687	42.6	0.753	1.331	149.3	235.6	---	2.332	-1.75	1.114	42.8	40.2	14.0	0.868
4-2840	4-3260	0.508	181.5	-1.1	-0.43	0.698	45.9	0.711	1.358	146.0	242.1	---	2.323	-1.75	1.118	46.7	46.8	15.7	0.803
4-2840	4-3270	0.474	183.6	-1.8	-0.13	0.708	49.0	0.671	1.384	142.8	248.6	---	2.312	-1.81	1.122	50.4	53.6	17.1	0.741
4-2840	4-3280	0.442	185.7	-2.3	0.21	0.717	51.8	0.631	1.409	139.7	255.1	---	2.299	-1.93	1.126	53.9	60.3	18.0	0.681
4-2840	4-3290	0.412	187.8	-2.5	0.61	0.725	54.3	0.594	1.433	136.8	261.8	---	2.284	-2.13	1.130	57.3	67.0	18.5	0.623
4-2840	4-3300	0.385	189.9	-2.5	1.10	0.732	56.7	0.559	1.455	133.9	268.5	---	2.269	-2.45	1.133	60.4	73.6	18.3	0.568
4-2840	4-3310	0.360	192.2	-1.9	1.80	0.739	58.8	0.527	1.476	131.3	275.4	---	2.253	-2.98	1.136	63.5	80.1	17.2	0.517
4-2840	4-3320	0.339	194.6	-0.3	2.91	0.745	60.7	0.497	1.495	128.8	282.5	---	2.237	-3.94	1.139	66.3	86.3	14.6	0.469
4-2840	4-3330	0.323	197.8	3.8	5.16	0.750	62.3	0.470	1.511	126.5	289.7	---	2.221	-6.04	1.143	69.1	92.1	8.3	0.430
4-2840	4-3340	0.339	203.3	18.8	12.94	0.754	63.8	0.446	1.526	124.4	297.0	---	2.206	-13.66	1.146	71.7	99.1	-12.1	0.445
4-2840	4-3350	0.537	149.8	-43.1	-37.17	0.757	65.3	0.422	1.539	122.4	305.4	---	2.188	36.59	1.149	74.5	197.4	69.8	0.731
4-2840	4-3360	0.290	187.0	-26.8	-8.82	0.760	66.3	0.405	1.549	120.9	312.9	---	2.178	8.36	1.152	76.9	112.3	52.4	0.326
4-2840	4-3370	0.264	192.8	-20.3	-5.03	0.763	67.2	0.391	1.558	119.5	321.0	---	2.167	4.75	1.154	79.3	110.7	43.0	0.266
4-2840	4-3380	0.252	195.4	-17.5	-3.50	0.765	67.9	0.379	1.565	118.3	329.5	---	2.158	3.37	1.157	81.8	109.6	39.6	0.228
4-2840	4-3390	0.244	197.0	-15.8	-2.64	0.766	68.4	0.370	1.571	117.5	338.3	---	2.152	2.67	1.160	84.2	106.2	38.3	0.199
4-2840	4-3400	0.239	198.2	-14.6	-2.05	0.767	68.7	0.365	1.575	116.9	347.4	---	2.150	2.26	1.163	86.6	99.6	37.9	0.180
4-2840	4-3410	0.238	198.9	-13.5	-1.61	0.768	68.7	0.364	1.577	116.6	356.9	---	2.151	2.01	1.166	89.2	90.3	37.1	0.173
4-2840	4-3420	0.240	199.3	-12.4	-1.25	0.768	68.5	0.367	1.578	116.6	366.7	0.999	2.158	1.85	1.169	91.8	80.6	35.3	0.180
4-2840	4-3430	0.247	199.4	-11.3	-0.93	0.768	68.0	0.376	1.579	117.0	377.0	0.986	2.171	1.77	1.171	94.6	73.3	32.9	0.201
4-2840	4-3440	0.258	199.2	-10.2	-0.62	0.768	67.2	0.390	1.578	117.7	387.6	0.963	2.193	1.74	1.173	97.6	69.3	30.8	0.236
4-2840	4-3450	0.275	198.7	-9.0	-0.31	0.768	65.8	0.411	1.576	118.9	398.7	0.929	2.224	1.77	1.175	101.0	68.1	29.8	0.283
4-2840	4-3460	0.300	197.8	-7.7	0.01	0.767	63.9	0.441	1.575	120.6	410.5	0.880	2.270	1.85	1.177	104.9	69.1	28.3	0.342
4-2840	4-3460	0.286	87.2	24.0	0.01	0.528	102.7	0.575	1.058	189.8	839.7	0.449	1.667	1.85	1.037	125.0	31.7	15.5	0.629
4-2840	4-3470	0.335	196.5	-6.3	0.39	0.767	61.2	0.483	1.572	122.9	422.9	0.812	2.332	2.01	1.179	109.4	71.3	27.7	0.417
4-2840	4-3470	0.251	109.2	23.6	0.39	0.509	91.8	0.577	1.037	181.3	841.3	0.438	1.635	2.03	1.030	125.2	40.6	18.6	0.629
4-2840	4-3480	0.385	194.6	-4.8	0.85	0.766	57.3	0.541	1.570	126.3	436.4	0.721	2.419	2.28	1.180	115.0	74.2	27.4	0.512
4-2840	4-3480	0.262	130.4	20.4	0.85	0.496	81.7	0.608	1.023	174.6	844.7	0.401	1.646	2.28	1.026	127.4	49.1	21.0	0.664
4-2840	4-3490	0.454	191.9	-3.1	1.48	0.766	51.9	0.618	1.569	131.2	451.4	0.599	2.538	2.73	1.181	122.1	77.1	27.2	0.636
4-2840	4-3490	0.315	146.4	16.1	1.48	0.487	70.8	0.665	1.014	169.5	849.8	0.340	1.688	2.73	1.022	131.7	57.0	22.9	0.732
4-2840	4-3500	0.552	188.2	-1.1	2.46	0.765	44.1	0.719	1.568	138.3	468.7	0.440	2.696	3.53	1.181	131.5	79.4	27.0	0.800
4-2840	4-3500	0.405	156.0	12.9	2.46	0.481	57.8	0.749	1.008	166.8	857.3	0.253	1.762	3.53	1.020	138.5	63.8	24.2	0.841
4-2840	4-3510	0.536	159.9	11.5	4.33	0.478	41.7	0.855	1.005	167.5	868.1	0.145	1.864	5.25	1.019	148.8	69.0	24.8	1.002
4-2840	4-3550	0.546	131.5	16.4	-5.08	0.244	60.5	0.927	0.859	177.4	918.8	0.063	1.656	-4.79	0.929	22.3	356.1	-2.1	1.094
4-2840	4-3550	0.515	95.9	21.0	-5.08	0.342	121.8	0.866	0.904	185.7	927.1	0.121	1.687	-4.79	0.959	30.1	354.8	-4.7	0.996
4-2840	4-3560	0.593	50.9	15.8	-3.47	0.741	133.3	0.689	1.483	220.5	612.0	0.461	2.505	-3.34	1.161	50.2	343.3	-11.3	0.767
4-2840	4-3570	0.500	47.4	14.9	-2.59	0.741	125.7	0.589	1.482	226.1	627.6	0.609	2.355	-2.63	1.159	58.9	345.9	-10.6	0.615
4-2840	4-3580	0.433	44.9	14.4	-2.01	0.740	120.3	0.512	1.479	229.5	641.0	0.722	2.236	-2.23	1.156	65.4	349.1	-9.8	0.501
4-2840	4-3590	0.553	169.7	3.4	-1.57	0.592	40.0	0.814	1.145	159.7	581.2	0.213	2.077	-1.99	1.065	35.8	23.2	8.3	0.959
4-2840	4-3590	0.383	43.3	14.1	-1.57	0.739	116.3	0.454	1.476	231.4	652.9	0.806	2.145	-1.99	1.153	70.4	352.5	-8.9	0.413
4-2840	4-3600	0.496	171.4	2.7	-1.21	0.603	45.6	0.758	1.163	156.9	588.3	0.282	2.043	-1.84	1.068	41.2	29.4	10.4	0.872
4-2840	4-3600	0.345	42.1	14.1	-1.21	0.738	113.3	0.409	1.472	232.3	663.7	0.870	2.074	-1.84	1.150	74.5	355.8	-8.3	0.343
4-2840	4-3610	0.439	172.9	2.1	-0.89	0.614	51.0	0.697	1.181	154.4	595.6	0.358	2.004	-1.76	1.072	46.5	35.5	12.3	0.786
4-2840	4-3610	0.316	41.3	14.3	-0.89	0.737	111.1	0.375	1.469	232.6	673.8	0.918	2.020	-1.76	1.147	77.9	358.6	-8.1	0.287
4-2840	4-3620	0.384	174.2	-1.7	-0.59	0.625	56.1	0.634	1.200	152.2	603.2	0.439	1.961	-1.74	1.075	51.6	41.5	13.8	0.701
4-2840	4-3620	0.294	40.7	14.7	-0.59	0.736	109.4	0.349	1.466	232.5	683.4	0.954	1.977	-1.74	1.144	80.8	0.4	-8.7	0.242
4-2840	4-3630	0.330	175.3	1.7	-0.29	0.635	60.9	0.570	1.219	150.6	611.2	0.524	1.914	-1.77	1.079	56.5	47.3	15.0	0.617
4-2840	4-3630	0.278	40.2	15.3	-0.29	0.735	108.1	0.330	1.463	232.2	692.9	0.980	1.946	-1.77	1.141	83.4	0.9	-10.3	0.206
4-2840	4-3640	0.278	175.5	2.1	0.03	0.645	65.4	0.507	1.239	149.5	619.9	0.610	1.867	-1.86	1.083	61.3	53.0	15.7	0.536
4-2840	4-3640	0.266	39.8	16.0	0.03	0.734	107.2	0.317	1.461	231.9	702.2	0.999	1.924	-1.86	1.138	85.7	359.4	-13.2	0.178
4-2850	4-3010	0.575	46.1	12.1	-4.88	0.827	129.2	0.639	1.871	239.4	441.5	0.676	---	4.75	1.201	129.0	330.1	-3.7	0.620
4-2850	4-3020	0.519	48.2	14.1	-3.37	0.780	126.5	0.595	1.640	233.4	445.2	0.665	---	3.40	1.171	119.4	338.1	-2.9	0.593
4-2850	4-3030	0.468	51.0	15.7	-2.51	0.738	123.6	0.560	1.485	227.4	448.8	0.653	---	2.70	1.146	119.0	345.7	-1.0	0.572
4-2850	4-3040	0.420	54.4	17.1	-1.92	0.700	120.4	0.534	1.374	221.2	452.4	0.641	---	2.30	1.124	118.6	353.3	1.5	0.556
4-2850	4-3050	0.376	58.6	18.4	-1.47	0.666	117.1	0.515	1.291	215.0	455.9	0.626	---	2.04	1.106	118.4	0.7	4.3	0.544
4-2850	4-3060	0.335	63.9	19.8	-1.10	0.635	113.4	0.503	1.228	208.7	459.4	0.610	---	1.89	1.090	118.4	8.3	7.2	0.538
4-2850	4-3070	0.298	70.8	21.3	-0.77	0.607	109.4	0.498	1.177	202.3	463.0	0.590	---	1.81	1.076	118.7	15.6	10.2	0.537
4-2850	4-3080	0.265	79.9	22.7	-0.46	0.582	104.9	0.501	1.136	196.0	466.6	0.567	---	1.79	1.065	119.2	23.5	13.1	0.542

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2850	4-3090	0.240	92.0	23.6	-0.14	0.558	99.9	0.511	1.103	189.7	470.3	0.539	---	1.82	1.054	120.2	31.3	15.9	0.555
4-2850	4-3100	0.227	107.4	23.5	0.20	0.537	94.1	0.531	1.075	183.7	474.4	0.504	---	1.91	1.045	121.8	39.2	18.4	0.577
4-2850	4-3110	0.233	124.7	21.4	0.59	0.517	87.4	0.562	1.052	178.0	478.8	0.461	1.643	2.08	1.038	124.0	47.2	20.7	0.611
4-2850	4-3120	0.263	140.8	17.8	1.07	0.500	79.4	0.608	1.033	173.0	483.9	0.405	1.661	2.37	1.031	127.4	55.0	22.6	0.664
4-2850	4-3130	0.323	153.1	14.0	1.74	0.485	69.5	0.673	1.018	169.1	490.2	0.333	1.703	2.84	1.025	132.3	62.4	24.0	0.742
4-2850	4-3140	0.416	160.8	11.2	2.78	0.474	56.8	0.761	1.001	167.2	498.4	0.241	1.772	3.72	1.020	139.5	69.0	24.9	0.857
4-2850	4-3150	0.549	164.0	9.9	4.84	0.468	48.3	0.868	1.001	168.2	509.6	0.133	1.870	5.61	1.017	150.2	74.0	25.4	1.021
4-2850	4-3240	0.595	180.4	-0.9	-1.06	0.663	37.7	0.810	1.285	154.4	226.4	---	2.325	-1.88	1.104	37.0	34.8	12.5	0.959
4-2850	4-3250	0.556	182.6	-1.8	-0.74	0.675	41.4	0.768	1.312	151.1	232.9	---	2.320	-1.81	1.109	41.2	41.4	14.5	0.891
4-2850	4-3260	0.519	184.8	-2.6	-0.43	0.687	44.9	0.726	1.340	147.8	239.3	---	2.313	-1.79	1.114	45.2	48.1	16.1	0.826
4-2850	4-3270	0.485	187.0	-3.2	-0.12	0.698	48.1	0.685	1.367	144.6	245.8	---	2.302	-1.82	1.118	49.0	54.8	17.4	0.762
4-2850	4-3280	0.452	189.1	-3.8	0.20	0.707	51.0	0.645	1.392	141.5	252.4	---	2.290	-1.91	1.122	52.6	61.6	18.4	0.701
4-2850	4-3290	0.422	191.2	-4.1	0.58	0.716	53.7	0.606	1.417	138.5	259.0	---	2.276	-2.07	1.126	56.1	68.4	18.9	0.642
4-2850	4-3300	0.394	193.3	-4.2	1.03	0.724	56.1	0.570	1.440	135.7	265.8	---	2.261	-2.34	1.130	59.3	75.0	18.8	0.586
4-2850	4-3310	0.368	195.5	-3.8	1.63	0.731	58.3	0.536	1.462	133.0	272.6	---	2.246	-2.76	1.133	62.4	81.5	18.0	0.533
4-2850	4-3320	0.346	197.8	-2.7	2.52	0.737	60.2	0.505	1.481	130.5	279.7	---	2.230	-3.49	1.137	65.4	87.7	16.0	0.483
4-2850	4-3330	0.327	200.6	0.0	4.11	0.742	62.0	0.477	1.499	128.2	286.9	---	2.214	-4.92	1.140	68.1	93.5	11.5	0.440
4-2850	4-3340	0.320	204.5	7.9	8.08	0.747	63.5	0.452	1.514	126.1	294.2	---	2.199	-8.74	1.143	70.8	99.1	-0.1	0.416
4-2850	4-3350	0.557	204.3	45.4	39.04	0.751	64.8	0.431	1.528	124.2	301.4	---	2.187	-39.56	1.147	73.3	122.0	-45.8	0.783
4-2850	4-3360	0.324	183.5	-35.8	-13.98	0.754	66.1	0.409	1.539	122.4	310.0	---	2.169	13.62	1.150	76.1	126.6	63.3	0.389
4-2850	4-3370	0.273	195.1	-24.4	-6.31	0.757	67.1	0.393	1.549	121.0	318.1	---	2.158	6.10	1.153	78.5	116.0	46.6	0.265
4-2850	4-3380	0.256	198.7	-20.2	-4.04	0.759	67.8	0.380	1.557	119.8	326.5	---	2.149	3.98	1.156	80.9	114.7	41.1	0.240
4-2850	4-3390	0.247	200.8	-18.0	-2.91	0.760	68.4	0.371	1.563	118.9	335.2	---	2.142	3.02	1.159	83.4	112.0	39.1	0.208
4-2850	4-3400	0.241	202.1	-16.5	-2.20	0.762	68.8	0.364	1.567	118.2	344.2	---	2.138	2.48	1.162	85.8	106.4	38.5	0.185
4-2850	4-3410	0.239	203.0	-15.3	-1.69	0.762	68.9	0.362	1.570	117.8	353.6	---	2.139	2.16	1.165	88.3	97.7	37.9	0.173
4-2850	4-3420	0.240	203.5	-14.2	-1.29	0.763	68.8	0.364	1.572	117.7	363.3	1.000	2.143	1.96	1.167	90.9	87.7	36.6	0.175
4-2850	4-3430	0.245	203.7	-13.1	-0.94	0.763	68.4	0.370	1.572	118.0	373.4	0.990	2.154	1.85	1.170	93.6	79.3	34.4	0.192
4-2850	4-3440	0.254	203.6	-12.0	-0.62	0.763	67.7	0.382	1.572	118.5	383.9	0.971	2.172	1.79	1.172	96.5	74.1	33.2	0.221
4-2850	4-3450	0.269	203.2	-10.8	-0.31	0.763	66.5	0.401	1.571	119.4	394.8	0.941	2.200	1.79	1.174	99.8	72.1	30.4	0.263
4-2850	4-3460	0.291	202.4	-9.6	0.01	0.762	64.8	0.427	1.569	120.8	406.2	0.898	2.239	1.85	1.176	103.4	72.5	29.2	0.317
4-2850	4-3460	0.155	80.0	23.7	0.01	0.541	113.1	0.618	1.081	196.3	841.7	0.413	2.749	1.85	1.047	127.9	30.9	15.0	0.682
4-2850	4-3460	0.499	70.5	22.8	0.01	0.582	128.7	0.715	1.138	202.4	847.7	0.325	2.951	1.85	1.069	135.1	28.5	13.5	0.813
4-2850	4-3470	0.321	201.4	-8.3	0.37	0.761	62.5	0.464	1.566	122.8	418.3	0.839	2.294	1.98	1.178	107.6	74.5	28.5	0.396
4-2850	4-3470	0.268	102.4	20.2	0.37	0.510	98.2	0.585	1.044	186.9	841.4	0.433	1.654	1.98	1.033	125.7	40.7	18.5	0.639
4-2850	4-3480	0.364	199.6	-7.0	0.80	0.761	59.1	0.515	1.564	125.6	431.2	0.759	2.370	2.20	1.179	112.7	77.3	28.0	0.471
4-2850	4-3480	0.256	124.9	21.6	0.80	0.494	87.4	0.601	1.026	178.3	843.9	0.409	1.643	2.20	1.027	126.9	49.5	21.1	0.655
4-2850	4-3490	0.424	197.4	-5.4	1.36	0.760	54.4	0.583	1.562	129.7	445.4	0.651	2.473	2.56	1.180	119.0	80.4	27.7	0.581
4-2850	4-3490	0.289	143.7	17.1	1.36	0.482	76.6	0.644	1.015	172.3	848.1	0.361	1.668	2.56	1.023	130.1	57.9	23.1	0.706
4-2850	4-3500	0.508	194.1	-3.6	2.16	0.760	47.7	0.674	1.561	135.5	461.4	0.509	2.613	3.19	1.180	127.3	84.2	27.4	0.725
4-2850	4-3500	0.362	156.2	12.9	2.16	0.474	64.4	0.714	1.007	168.4	854.3	0.288	1.726	3.19	1.020	135.6	65.4	24.4	0.793
4-2850	4-3510	0.474	162.7	10.5	3.55	0.469	49.6	0.810	1.002	167.3	863.4	0.190	1.814	4.41	1.018	144.1	71.5	25.2	0.928
4-2850	4-3550	0.585	135.8	15.3	-6.37	0.207	55.1	0.953	0.851	178.0	914.9	0.040	1.662	-6.16	0.923	17.9	1.1	-1.2	1.152
4-2850	4-3550	0.569	99.9	21.0	-6.37	0.325	131.8	0.908	0.899	185.4	922.3	0.083	1.715	-6.16	0.956	25.0	357.2	-3.7	1.071
4-2850	4-3570	0.530	53.8	16.6	-2.85	0.734	126.8	0.633	1.473	223.1	620.1	0.541	2.405	-2.97	1.157	55.0	349.2	-9.2	0.682
4-2850	4-3580	0.452	50.9	16.0	-2.15	0.734	122.4	0.545	1.471	227.2	634.2	0.469	2.273	-2.44	1.154	62.4	352.2	-8.3	0.553
4-2850	4-3590	0.574	173.0	2.0	-1.64	0.580	37.9	0.835	1.134	161.3	578.2	0.187	2.082	-2.13	1.061	33.6	24.6	8.9	0.992
4-2850	4-3590	0.395	49.0	15.8	-1.64	0.733	117.8	0.479	1.468	229.5	646.4	0.765	2.170	-2.13	1.151	68.0	355.7	-7.3	0.454
4-2850	4-3600	0.516	174.8	1.2	-1.24	0.591	43.7	0.780	1.152	158.4	585.3	0.253	2.050	-1.94	1.064	39.1	30.7	11.0	0.905
4-2850	4-3600	0.351	47.7	15.8	-1.24	0.732	114.4	0.428	1.464	230.6	657.4	0.838	2.090	-1.94	1.148	72.4	359.2	-6.5	0.377
4-2850	4-3610	0.459	176.4	0.6	-0.90	0.603	49.3	0.720	1.170	155.8	592.5	0.327	2.013	-1.84	1.068	44.5	36.9	12.8	0.818
4-2850	4-3610	0.318	46.8	16.0	-0.90	0.730	111.8	0.388	1.460	230.9	667.6	0.893	2.027	-1.84	1.145	76.0	2.5	-6.0	0.316
4-2850	4-3620	0.402	177.8	0.2	-0.59	0.614	54.6	0.657	1.189	153.6	600.0	0.407	1.970	-1.79	1.071	49.7	42.9	14.4	0.732
4-2850	4-3620	0.292	46.1	16.3	-0.59	0.729	109.8	0.358	1.457	230.8	677.2	0.934	1.979	-1.79	1.142	79.1	5.1	-6.0	0.266
4-2850	4-3630	0.347	178.8	0.0	-0.29	0.625	59.6	0.593	1.208	151.8	608.0	0.492	1.925	-1.80	1.076	54.8	48.8	15.6	0.646
4-2850	4-3630	0.273	45.6	16.9	-0.29	0.728	108.2	0.336	1.453	230.5	686.4	0.966	1.941	-1.80	1.139	81.7	6.8	-6.9	0.226
4-2850	4-3640	0.294	179.4	0.3	0.03	0.636	64.4	0.528	1.228	150.7	616.5	0.580	1.877	-1.86	1.080	59.6	54.5	16.3	0.563
4-2850	4-3640	0.258	45.3	17.6	0.03	0.727	107.0	0.319	1.451	229.7	695.6	0.988	1.913	-1.86	1.136	84.2	6.9	-8.9	0.194
4-2850	4-3650	0.243	179.4	1.3	0.37	0.646	68.8	0.466	1.248	150.3	625.8	0.667	1.830	-1.98	1.084	64.3	59.9	16.5	0.332
4-2850	4-3650	0.248	44.9	18.5	0.37	0.727	106.2	0.307	1.449	229.2	704.7	1.004	1.894	-1.98	1.134	86.4	5.0	-12.4	0.170
4-2850	4-3020	0.576	51.0	14.7	-3.87	0.821	130.1	0.649	1.852	237.4	444.6	0.649	---	3.97	1.200	121.4	338.1	-2.4	0.643
4-2860	4-3030	0.519	53.6	16.3	-2.76	0.772	127.2	0.605	1.618	231.4	448.3	0.639	---	3.03	1.169	120.7	345.8	-0.7	0.615
4-2860	4-3040	0.466	56.7	17.7	-2.05	0.728	124.2	0.571	1.463	225.3	451.9	0.627	---	2.50	1.143	120.2	353.4	1.7	0.593
4-2860	4-3050	0.417	60.5	18.9	-1.54	0.689	120.8	0.546	1.352	219.1	455.5	0.614	---	2.18	1.121	119.8	0.9	4.4	0.576
4-2860	4-3060	0.372	65.2	20.2	-1.14	0.653	117.2	0.528	1.271	212.8	459.1	0.599	---	1.99	1.102	119.6	8.4	7.3	0.565
4-2860	4-3070	0.330	71.2	21.5	-0.78	0.621	113.3	0.518	1.208	206.4	462.6	0.582	---	1.87	1.086	119.7	16.0	10.2	0.558
4-2860	4-3080	0.293	79.1	22.7	-0.46	0.592	108.9	0.515	1.158	200.1	466.2	0.561	---	1.82	1.072	120.0	23.7	13.2	0.558
4-2860	4-3090	0.261	89.6	23.7	-0.14	0.565	104.0	0.520	1.118	193.8	469.9	0.536	---	1.83	1.060	120.7	31.6	15.9	0.565
4-2860	4-3100	0.240	103.3	23.8	0.19	0.540	98.5	0.534	1.085	187.6	473.8	0.506	---	1.89	1.050	121.9	39.5	18.5	0.581
4-2860	4-3110	0.234	119.8	22.4	0.56	0.518	92.1	0.558	1.058	181.7	478.0	0.467	---	2.03	1.040	123.7	47.6	20.8	0.607
4-2860	4-3120	0.250	136.8	19.0	1.01	0.498	84.5	0.596	1.036	176.3	482.7	0.418	1.653	2.26	1.032	126.5	55.6	22.7	0.649
4-2860	4-3130	0.295	151.1	14.8	1.59	0.481	75.3	0.651	1.018	171.7	488.3	0.356	1.680	2.65	1.025	130.5	63.4	24.1	0.713
4-2860	4-3140	0.371	161.1	11.2	2.44	0.467	63.6	0.726	1.004	168.7	495.4	0.275	1.733	3.32	1.019	136.6	70.5	25.1	0.808
4-2860	4-3150	0.485	166.5	9.0	3.94	0.457	48.7	0.824	0.995	168.0	505.0	0.176	1.815	4.65	1.015	145.5	76.4	25.7	0.946
4-2860	4-3250	0.569	185.8	-3.2	-0.75	0.664	40.3	0.783	1.294	152.8	230.1	---	2.307	-1.86	1.104	39.6	42.7	14.9	0.915
4-2860	4-3260	0.532	188.1	-4.0	-0.43	0.676	43.9	0.741	1.321	149.5	236.6	---	2.301	-1.82	1.109	43.7	49.4	16.5	0.848
4-2860	4-3270	0.496	190.3	-4.7	-0.12	0.687	47.2	0.699	1.349	146.3	243.1	---	2.292	-1.83	1.114	47.6	56.1	17.8	0.783
4-2860	4-3280	0.463	192.4	-5.2	0.20	0.697	50.2	0.658	1.375	143.2	249.6	---	2.280	-1.90	1.118	51.3	62.9	18.8	0.721
4-2860	4-3290	0.432	194.6	-5.6	0.55	0.707	52.9	0.619	1.401	140.2	256.3	---	2.267	-2.02	1.123	54.8	69.7	19.3	0.661
4-2860	4-3300	0.403	196.7	-5.8	0.97	0.715	55.5	0.582	1.425	137.4	263.0	---	2.253	-2.24	1.127	58.1	76.4	19.3	0.604
4-2860	4-3310	0.377	198.9	-5.8	1.49	0.723	57.7	0.547	1.447	134.7	269.9	---	2.238	-2.58	1.130	61.3	83.0	18.6	0.550

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2860	4-3320	0.354	201.1	-4.8	2.23	0.729	59.8	0.514	1.467	132.2	276.9	---	2.222	-3.15	1.134	64.3	89.2	17.0	0.499
4-2860	4-3330	0.333	203.6	-2.9	3.43	0.735	61.6	0.485	1.486	129.8	284.0	---	2.206	-4.18	1.138	67.2	95.1	13.6	0.452
4-2860	4-3340	0.319	206.7	1.9	5.99	0.740	63.2	0.459	1.502	127.7	291.4	---	2.191	-5.50	1.141	69.9	100.4	6.1	0.416
4-2860	4-3350	0.347	211.8	18.9	14.91	0.744	64.6	0.435	1.517	125.7	298.8	---	2.177	-15.35	1.144	72.5	106.5	-17.7	0.450
4-2860	4-3360	0.484	161.6	-46.8	-32.23	0.748	66.0	0.413	1.529	123.9	307.3	---	2.160	31.94	1.148	75.3	196.7	69.4	0.653
4-2860	4-3370	0.286	196.2	-29.9	-8.48	0.751	67.0	0.396	1.539	122.5	315.1	---	2.150	8.54	1.151	77.7	123.3	52.3	0.313
4-2860	4-3380	0.262	201.8	-23.3	-4.80	0.753	67.8	0.382	1.548	121.2	323.4	---	2.140	4.82	1.154	80.1	119.9	43.2	0.254
4-2860	4-3390	0.251	204.4	-20.3	-3.27	0.755	68.4	0.372	1.554	120.2	332.1	---	2.132	3.45	1.157	82.5	117.6	39.9	0.217
4-2860	4-3400	0.244	205.9	-18.5	-2.39	0.757	68.9	0.364	1.559	119.5	341.0	---	2.127	2.74	1.161	85.0	112.9	38.9	0.191
4-2860	4-3410	0.240	207.0	-17.1	-1.80	0.757	69.1	0.360	1.563	119.0	350.3	---	2.126	2.33	1.163	87.4	105.1	38.5	0.175
4-2860	4-3420	0.240	207.6	-15.9	-1.34	0.758	69.1	0.361	1.565	118.8	359.9	---	2.129	2.08	1.166	90.0	95.1	37.6	0.172
4-2860	4-3430	0.244	207.9	-14.8	-0.96	0.758	68.8	0.365	1.566	118.9	369.9	0.994	2.138	1.92	1.169	92.6	85.8	35.7	0.183
4-2860	4-3440	0.252	208.0	-13.7	-0.63	0.758	68.2	0.375	1.565	119.3	380.2	0.978	2.153	1.84	1.171	95.5	79.4	33.5	0.208
4-2860	4-3450	0.264	207.8	-12.5	-0.31	0.758	67.2	0.391	1.564	120.1	390.9	0.952	2.176	1.82	1.173	98.6	76.4	31.5	0.246
4-2860	4-3460	0.283	207.0	-11.4	0.01	0.757	65.7	0.415	1.563	121.2	402.1	0.915	2.211	1.85	1.175	102.0	76.1	30.1	0.295
4-2860	4-3470	0.310	206.0	-10.2	0.36	0.757	63.6	0.447	1.560	122.8	413.8	0.862	2.258	1.95	1.177	105.9	77.7	29.2	0.357
4-2860	4-3470	0.306	95.5	24.5	0.36	0.517	106.2	0.606	1.056	191.2	842.2	0.417	1.696	1.95	1.039	127.1	40.4	18.7	0.445
4-2860	4-3470	0.565	75.1	23.5	0.36	0.593	135.6	0.773	1.160	202.0	853.0	0.264	2.056	1.95	1.078	140.1	35.9	15.9	0.898
4-2860	4-3480	0.347	204.6	-8.9	0.76	0.756	60.7	0.492	1.558	125.2	426.3	0.791	2.325	2.12	1.178	110.6	80.4	28.6	0.434
4-2860	4-3480	0.262	118.5	22.8	0.76	0.494	93.6	0.601	1.031	182.4	843.5	0.412	1.650	2.12	1.029	126.8	49.8	21.1	0.655
4-2860	4-3490	0.399	202.6	-7.6	1.26	0.756	56.6	0.552	1.556	128.5	439.8	0.696	2.415	2.42	1.178	116.3	83.6	28.1	0.533
4-2860	4-3490	0.273	139.7	18.4	1.26	0.479	82.5	0.630	1.016	175.6	846.8	0.376	1.656	2.42	1.023	129.0	58.5	23.2	0.689
4-2860	4-3500	0.471	199.8	-6.0	1.94	0.755	50.9	0.633	1.554	133.4	454.8	0.570	2.538	2.92	1.179	123.7	86.6	27.7	0.660
4-2860	4-3500	0.327	155.2	13.4	1.94	0.469	70.8	0.687	1.006	170.6	852.0	0.315	1.697	2.92	1.020	133.3	66.6	24.6	0.756
4-2860	4-3510	0.572	195.9	-4.0	3.03	0.755	42.6	0.737	1.554	140.6	472.2	0.409	2.698	3.83	1.179	133.4	89.0	27.4	0.829
4-2860	4-3510	0.420	164.2	9.9	3.03	0.462	57.0	0.770	1.000	168.0	859.6	0.230	1.769	3.83	1.017	140.3	73.5	25.5	0.867
4-2860	4-3520	0.553	167.8	8.4	5.19	0.458	39.9	0.874	0.997	168.8	870.5	0.126	1.868	5.82	1.015	150.9	78.7	25.8	1.031
4-2860	4-3560	0.500	129.1	16.6	-4.74	0.248	88.7	0.899	0.868	179.9	922.4	0.088	1.648	-4.76	0.933	26.3	6.6	0.8	1.040
4-2860	4-3560	0.491	120.6	18.3	-4.74	0.274	103.4	0.884	0.878	181.8	924.3	0.102	1.654	-4.76	0.940	28.2	5.6	0.2	1.016
4-2860	4-3570	0.566	60.6	18.1	-3.19	0.728	132.4	0.680	1.464	219.8	812.3	0.468	2.461	-3.38	1.155	50.7	352.5	-7.6	0.756
4-2860	4-3580	0.476	57.2	17.5	-2.32	0.728	125.0	0.583	1.462	224.7	627.3	0.610	2.314	-2.69	1.153	59.1	355.3	-6.8	0.610
4-2860	4-3590	0.595	176.3	0.6	-1.74	0.569	35.8	0.856	1.123	162.8	575.3	0.162	2.085	-2.29	1.057	31.3	26.0	9.4	1.025
4-2860	4-3590	0.410	54.9	17.2	-1.74	0.727	119.6	0.507	1.459	227.6	640.0	0.720	2.199	-2.29	1.150	65.4	358.7	-5.8	0.499
4-2860	4-3600	0.537	178.2	-0.2	-1.29	0.580	41.8	0.803	1.140	159.9	582.3	0.225	2.056	-2.05	1.060	36.9	32.1	11.5	0.938
4-2860	4-3600	0.360	53.3	17.2	-1.29	0.726	115.6	0.449	1.456	229.0	651.3	0.802	2.109	-2.05	1.146	70.2	2.3	-4.8	0.414
4-2860	4-3610	0.479	179.9	-0.9	-0.92	0.592	47.5	0.744	1.159	157.3	589.4	0.297	2.020	-1.91	1.064	42.4	38.3	13.3	0.850
4-2860	4-3610	0.322	52.3	17.4	-0.92	0.724	112.6	0.404	1.452	229.4	661.6	0.865	2.039	-1.91	1.143	74.1	5.9	-4.1	0.346
4-2860	4-3620	0.422	181.3	-1.3	-0.59	0.604	53.0	0.681	1.178	154.9	596.9	0.375	1.980	-1.84	1.068	47.7	44.4	14.9	0.763
4-2860	4-3620	0.292	51.7	17.8	-0.59	0.723	110.3	0.370	1.448	229.2	671.2	0.912	1.983	-1.84	1.140	77.4	9.1	-3.7	0.292
4-2860	4-3630	0.366	182.5	-1.5	-0.28	0.615	58.2	0.616	1.197	153.1	604.7	0.460	1.935	-1.82	1.072	52.9	50.4	16.1	0.676
4-2860	4-3630	0.269	51.2	18.4	-0.28	0.7[illegible]	108.4	0.343	1.444	228.6	680.3	0.948	1.940	-1.82	1.137	80.2	11.6	-4.0	0.247
4-2860	4-3640	0.311	183.2	-1.4	0.03	0.626	63.2	0.550	1.218	151.8	613.1	0.548	1.888	-1.86	1.076	57.9	56.1	16.9	0.591
4-2860	4-3640	0.251	50.9	19.1	0.03	0.721	107.0	0.323	1.441	227.8	689.2	0.975	1.906	-1.86	1.134	82.6	13.1	-5.2	0.211
4-2860	4-3650	0.258	183.4	-0.6	0.36	0.637	67.9	0.486	1.238	151.3	622.3	0.637	1.835	-1.95	1.081	62.8	61.5	17.1	0.508
4-2860	4-3650	0.238	50.7	20.1	0.36	0.720	105.9	0.308	1.438	227.0	698.0	0.995	1.881	-1.95	1.132	[illegible]	12.9	-7.6	0.183
4-2860	4-3660	0.209	182.8	1.2	0.74	0.647	72.2	0.424	1.258	151.8	632.4	0.725	1.792	-2.11	1.089	87.4	66.4	16.7	0.428
4-2860	4-3660	0.229	50.4	21.2	0.74	0.719	105.2	0.298	1.437	226.4	707.0	1.008	1.865	-2.11	1.130	87.0	10.6	-11.6	0.162
4-2870	4-3030	0.576	56.3	16.9	-3.09	0.813	130.9	0.658	1.823	235.3	447.2	0.623	---	3.43	1.199	122.7	346.0	-2.8	0.665
4-2870	4-3040	0.517	59.2	18.3	-2.22	0.762	127.9	0.615	1.590	229.2	451.4	0.613	---	2.74	1.167	122.0	353.6	1.9	0.636
4-2870	4-3050	0.463	62.7	19.4	-1.63	0.717	124.6	0.582	1.437	223.1	455.1	0.601	---	2.33	1.140	121.4	1.1	4.5	0.413
4-2870	4-3060	0.412	66.9	20.6	-1.18	0.676	121.1	0.556	1.328	216.8	458.6	0.588	---	2.09	1.118	127.0	8.6	-7.4	0.592
4-2870	4-3070	0.366	72.2	21.7	-0.80	0.639	117.3	0.542	1.248	210.5	462.2	0.572	---	1.94	1.098	120.9	16.2	10.3	0.584
4-2870	4-3080	0.324	79.1	22.8	-0.46	0.605	113.0	0.533	1.186	204.1	465.8	0.554	---	1.86	1.082	121.0	23.9	13.2	0.578
4-2870	4-3090	0.287	88.1	23.7	-0.14	0.575	108.3	0.533	1.138	197.8	469.5	0.532	---	1.84	1.067	121.4	31.8	15.9	0.580
4-2870	4-3100	0.259	100.1	24.0	0.19	0.547	102.9	0.541	1.099	191.5	473.3	0.505	---	1.88	1.055	122.3	39.8	18.5	0.589
4-2870	4-3110	0.243	115.2	23.1	0.54	0.522	96.8	0.559	1.067	185.4	477.3	0.471	---	1.98	1.044	123.7	48.0	20.8	0.600
4-2870	4-3120	0.246	132.1	20.3	0.95	0.499	89.6	0.589	1.041	179.7	481.7	0.428	1.653	2.17	1.034	125.9	56.1	22.7	0.641
4-2870	4-3130	0.275	148.0	16.0	1.47	0.478	80.9	0.634	1.020	174.7	486.8	0.374	1.666	2.48	1.026	129.3	64.2	24.2	0.692
4-2870	4-3140	0.335	160.2	11.6	2.19	0.461	70.2	0.698	1.003	170.8	493.1	0.303	1.703	3.01	1.018	134.2	71.8	25.3	0.769
4-2870	4-3150	0.430	167.8	8.5	3.34	0.448	56.5	0.784	0.991	168.8	501.3	0.214	1.769	3.99	1.013	141.6	78.4	25.9	0.835
4-2870	4-3160	0.564	171.0	7.1	5.71	0.442	38.9	0.887	0.986	169.8	512.4	0.112	1.860	6.18	1.009	152.5	83.5	26.1	1.050
4-2870	4-3250	0.582	189.0	-4.6	-0.76	0.652	39.0	0.799	1.275	154.5	227.4	---	2.293	-1.92	1.099	38.0	44.0	15.3	0.939
4-2870	4-3260	0.544	191.3	-5.4	-0.43	0.665	42.8	0.756	1.303	151.2	233.8	---	2.288	-1.85	1.104	42.2	50.7	16.9	0.871
4-2870	4-3270	0.508	193.5	-6.1	-0.12	0.677	46.2	0.714	1.341	148.0	240.3	---	2.280	-1.84	1.109	46.2	57.5	18.2	0.805
4-2870	4-3280	0.474	195.7	-6.6	0.20	0.688	49.3	0.672	1.358	144.9	246.9	---	2.270	-1.88	1.114	50.0	64.3	19.1	0.742
4-2870	4-3290	0.443	197.9	-7.1	0.53	0.698	52.1	0.632	1.384	141.9	253.5	---	2.258	-1.96	1.119	53.6	71.1	19.7	0.681
4-2870	4-3300	0.413	200.1	-7.3	0.92	0.707	54.8	0.593	1.408	139.0	260.2	---	2.244	-2.15	1.123	57.0	77.8	19.7	0.623
4-2870	4-3310	0.386	202.2	-7.2	1.39	0.715	57.2	0.557	1.432	136.3	267.1	---	2.230	-2.43	1.127	60.2	84.4	19.2	0.567
4-2870	4-3320	0.362	204.4	-6.7	2.02	0.722	59.3	0.524	1.453	133.8	274.0	---	2.214	-2.88	1.131	63.2	90.7	17.8	0.515
4-2870	4-3330	0.341	206.7	-5.3	2.97	0.728	61.2	0.493	1.472	131.4	281.2	---	2.199	-3.66	1.135	66.2	96.7	15.1	0.466
4-2870	4-3340	0.323	209.4	-2.2	4.68	0.734	62.9	0.466	1.490	129.2	288.5	---	2.183	-5.21	1.139	69.0	102.0	9.8	0.434
4-2870	4-3350	0.321	213.2	6.7	9.10	0.738	64.4	0.441	1.505	127.2	296.0	---	2.169	-9.48	1.142	71.6	106.7	-3.7	0.406
4-2870	4-3370	0.315	193.8	-38.2	-12.96	0.745	66.9	0.400	1.529	123.9	312.2	---	2.141	12.90	1.149	76.8	137.7	61.4	0.369
4-2870	4-3380	0.270	204.5	-27.0	-5.94	0.748	67.8	0.385	1.538	122.6	320.4	---	2.130	6.03	1.153	79.3	125.7	46.2	0.271
4-2870	4-3390	0.255	207.9	-22.8	-3.75	0.750	68.5	0.373	1.546	121.5	329.0	---	2.122	4.00	1.156	81.7	123.1	41.0	0.228
4-2870	4-3400	0.247	209.8	-20.5	-2.63	0.752	69.0	0.364	1.551	120.7	337.9	---	2.116	3.05	1.159	84.1	119.2	39.2	0.198
4-2870	4-3410	0.243	211.0	-18.9	-1.92	0.753	69.2	0.359	1.555	120.2	347.1	---	2.111	2.52	1.162	86.6	112.3	38.7	0.178
4-2870	4-3420	0.241	211.8	-17.6	-1.41	0.753	69.3	0.358	1.558	119.9	356.6	---	2.115	2.20	1.165	89.1	102.8	38.2	0.171
4-2870	4-3430	0.244	212.2	-16.4	-0.99	0.754	69.1	0.361	1.559	119.9	366.4	0.996	2.122	2.01	1.168	91.7	92.8	36.8	0.177
4-2870	4-3440	0.250	212.3	-15.3	-0.64	0.754	68.6	0.369	1.559	120.2	376.6	0.984	2.134	1.89	1.170	94.5	85.2	34.7	0.197

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	V 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	V 2	V 2	PSI 2	R A	DECL	SPEED
4-2870	4-3450	0.261	212.1	-14.2	-0.31	0.754	67.8	0.383	1.558	120.7	387.2	0.962	2.155	1.84	1.172	97.4	81.1	32.6	0.230
4-2870	4-3460	0.277	211.6	-13.1	0.01	0.753	66.5	0.408	1.557	121.7	398.1	0.929	2.184	1.85	1.174	100.7	80.0	31.0	0.274
4-2870	4-3470	0.300	210.7	-12.0	0.35	0.753	64.6	0.432	1.554	123.0	409.6	0.883	2.226	1.92	1.176	104.4	81.1	29.8	0.331
4-2870	4-3480	0.333	209.5	-10.8	0.73	0.752	62.1	0.472	1.552	124.9	421.6	0.820	2.284	2.06	1.177	108.7	83.5	29.0	0.401
4-2870	4-3480	0.282	111.5	23.8	0.73	0.497	100.6	0.610	1.039	187.0	843.7	0.405	1.673	2.06	1.033	127.5	49.8	20.9	0.667
4-2870	4-3490	0.378	207.7	-9.5	1.18	0.751	58.5	0.525	1.549	127.7	434.5	0.736	2.363	2.30	1.177	113.9	86.7	28.5	0.490
4-2870	4-3490	0.266	134.3	19.9	1.18	0.478	88.7	0.623	1.019	179.2	846.0	0.385	1.654	2.30	1.025	128.5	59.0	23.2	0.679
4-2870	4-3500	0.440	205.3	-8.1	1.78	0.751	53.6	0.597	1.547	131.8	448.7	0.624	2.470	2.70	1.178	120.5	90.0	28.0	0.603
4-2870	4-3500	0.301	152.7	14.4	1.78	0.465	77.0	0.665	1.007	173.2	850.2	0.337	1.676	2.70	1.020	131.7	67.5	24.7	0.729
4-2870	4-3510	0.528	201.9	-6.5	2.66	0.750	46.5	0.690	1.546	137.7	464.9	0.479	2.613	3.39	1.178	129.0	92.8	27.6	0.751
4-2870	4-3510	0.376	164.7	9.9	2.66	0.456	63.9	0.735	0.998	169.4	856.5	0.264	1.732	3.39	1.016	137.3	75.2	25.6	0.818
4-2870	4-3520	0.491	170.6	7.3	4.21	0.450	48.2	0.830	0.993	168.4	865.7	0.169	1.818	4.78	1.013	146.1	87.3	26.0	0.955
4-2870	4-3560	0.549	137.5	14.6	-5.84	0.199	79.9	0.937	0.855	179.3	917.4	0.054	1.655	-5.94	0.923	20.8	9.2	2.0	1.113
4-2870	4-3560	0.536	119.4	18.6	-5.84	0.267	119.0	0.912	0.878	183.1	921.2	0.078	1.679	-5.94	0.940	24.5	7.2	0.7	1.070
4-2870	4-3580	0.504	63.6	18.8	-2.54	0.722	127.9	0.624	1.454	222.1	620.2	0.547	2.361	-2.98	1.151	55.5	358.3	-5.3	0.672
4-2870	4-3590	0.428	60.9	18.5	-1.35	0.722	121.7	0.539	1.451	225.6	633.6	0.670	2.233	-2.48	1.148	62.5	1.5	-4.3	0.548
4-2870	4-3600	0.558	181.5	-1.6	-1.35	0.569	39.7	0.825	1.129	161.4	579.3	0.198	2.060	-2.17	1.056	34.7	33.5	12.0	0.971
4-2870	4-3600	0.372	59.1	18.5	-1.35	0.720	117.1	0.473	1.448	227.4	645.3	0.763	2.132	-2.17	1.145	67.9	5.2	-3.3	0.453
4-2870	4-3610	0.500	183.3	-2.3	-0.95	0.581	45.6	0.767	1.147	158.7	586.4	0.267	2.027	-1.99	1.060	40.3	39.7	13.9	0.883
4-2870	4-3610	0.328	58.0	18.7	-0.95	0.719	113.6	0.422	1.444	228.0	655.7	0.834	2.053	-1.99	1.141	72.2	9.0	-2.3	0.378
4-2870	4-3620	0.442	184.8	-2.8	-0.60	0.593	51.3	0.705	1.166	156.3	593.8	0.344	1.988	-1.88	1.064	45.7	45.9	15.4	0.794
4-2870	4-3620	0.294	57.3	19.1	-0.60	0.718	110.9	0.383	1.439	227.8	665.3	0.888	1.991	-1.88	1.138	75.6	12.6	-1.7	0.319
4-2870	4-3630	0.385	186.1	-3.1	-0.28	0.605	56.7	0.640	1.186	154.3	601.5	0.427	1.945	-1.84	1.068	51.0	51.9	16.8	0.707
4-2870	4-3630	0.268	56.9	19.7	-0.28	0.716	108.8	0.353	1.435	227.1	674.4	0.929	1.942	-1.84	1.135	78.6	15.8	-1.5	0.270
4-2870	4-3640	0.329	187.0	-3.3	0.03	0.617	61.9	0.573	1.206	152.9	607.8	0.515	1.898	-1.85	1.073	56.1	57.8	17.4	0.620
4-2870	4-3640	0.246	56.7	20.5	0.03	0.715	107.1	0.329	1.431	226.1	683.0	0.960	1.903	-1.85	1.132	81.1	18.2	-2.0	0.231
4-2870	4-3650	0.274	187.4	-2.3	0.35	0.628	46.8	0.507	1.227	152.2	618.8	0.605	1.849	-1.92	1.078	61.1	63.3	17.7	0.534
4-2870	4-3650	0.230	56.6	21.5	0.35	0.714	105.8	0.311	1.428	225.0	691.5	0.963	1.872	-1.92	1.129	83.4	19.4	-3.6	0.198
4-2870	4-3660	0.222	186.9	-1.0	0.71	0.639	71.4	0.443	1.248	152.6	628.7	0.696	1.801	-2.05	1.082	65.9	68.2	17.4	0.452
4-2870	4-3660	0.217	56.5	22.7	0.71	0.713	104.8	0.298	1.425	223.9	700.1	1.000	1.850	-2.05	1.127	85.5	19.0	-6.4	0.173
4-2870	4-3670	0.175	185.3	2.1	1.13	0.649	75.7	0.383	1.269	154.2	639.9	0.782	1.756	-2.27	1.087	70.5	72.3	16.2	0.374
4-2870	4-3670	0.210	56.3	24.1	1.13	0.712	104.1	0.290	1.424	223.2	708.9	1.011	1.836	-2.27	1.126	87.5	16.3	-11.0	0.156
4-2880	4-3040	0.575	61.9	18.8	-2.44	0.804	131.6	0.666	1.786	233.1	450.9	0.597	---	3.02	1.196	123.9	353.7	2.1	0.685
4-2880	4-3050	0.514	65.1	19.9	-1.74	0.751	128.4	0.623	1.558	227.0	454.5	0.587	---	2.50	1.164	123.2	1.3	4.6	0.655
4-2880	4-3060	0.458	68.9	21.0	-1.23	0.704	125.0	0.592	1.408	220.8	458.2	0.575	---	2.19	1.137	122.6	8.8	7.4	0.632
4-2880	4-3070	0.406	73.7	22.0	-0.83	0.662	121.2	0.569	1.302	214.5	461.8	0.561	---	2.00	1.113	122.2	16.4	10.3	0.614
4-2880	4-3080	0.359	79.7	22.9	-0.47	0.624	117.1	0.555	1.223	208.1	465.4	0.545	---	1.90	1.094	122.1	24.2	13.2	0.603
4-2880	4-3090	0.318	87.5	23.7	-0.14	0.589	112.5	0.549	1.163	201.8	469.1	0.525	---	1.85	1.077	122.3	32.1	16.0	0.598
4-2880	4-3100	0.283	97.8	24.1	0.19	0.557	107.4	0.551	1.116	195.5	472.8	0.501	---	1.86	1.062	122.9	40.1	18.5	0.601
4-2880	4-3110	0.258	111.2	23.6	0.53	0.529	101.5	0.563	1.079	189.3	476.7	0.472	---	1.94	1.049	123.9	48.3	20.8	0.613
4-2880	4-3120	0.249	127.4	21.4	0.91	0.502	94.7	0.585	1.048	183.3	480.9	0.435	---	2.09	1.037	125.7	56.6	22.7	0.638
4-2880	4-3130	0.254	144.0	17.3	1.38	0.479	86.5	0.622	1.023	177.9	485.6	0.387	1.660	2.34	1.027	128.4	64.8	24.3	0.678
4-2880	4-3140	0.308	158.1	12.5	2.00	0.458	76.5	0.675	1.004	173.3	491.2	0.326	1.681	2.76	1.019	132.5	72.8	25.3	0.740
4-2880	4-3150	0.385	168.8	8.5	2.92	0.442	64.0	0.750	0.989	170.2	498.3	0.247	1.730	3.50	1.011	138.6	80.0	25.9	0.835
4-2880	4-3160	0.500	173.4	6.7	4.59	0.431	47.8	0.845	0.980	169.6	507.8	0.152	1.807	5.00	1.006	147.7	86.0	26.2	0.974
4-2880	4-3250	0.596	192.1	-5.9	-0.78	0.640	37.7	0.815	1.255	156.2	224.7	---	2.278	-1.99	1.094	36.3	45.3	15.7	0.964
4-2880	4-3260	0.558	194.5	-6.7	-0.44	0.654	41.6	0.772	1.284	152.9	231.1	---	2.275	-1.89	1.099	40.6	52.0	17.3	0.895
4-2880	4-3270	0.521	196.8	-7.4	-0.12	0.666	45.2	0.729	1.312	149.7	237.6	---	2.268	-1.85	1.105	44.7	58.8	18.6	0.828
4-2880	4-3280	0.486	199.0	-8.0	0.19	0.678	48.5	0.686	1.340	146.6	244.1	---	2.259	-1.87	1.110	48.6	65.6	19.5	0.763
4-2880	4-3290	0.454	201.2	-8.5	0.52	0.689	51.4	0.645	1.366	143.5	250.7	---	2.248	-1.94	1.114	52.3	72.4	20.0	0.701
4-2880	4-3300	0.424	203.4	-8.8	0.88	0.698	54.2	0.606	1.392	140.7	257.4	---	2.235	-2.07	1.119	55.7	79.2	20.1	0.642
4-2880	4-3310	0.396	205.6	-8.8	1.31	0.707	56.6	0.569	1.416	137.9	264.2	---	2.221	-2.29	1.124	59.0	85.8	19.6	0.585
4-2880	4-3320	0.371	207.7	-8.4	1.85	0.715	58.8	0.534	1.438	135.4	271.2	---	2.206	-2.65	1.128	62.2	92.2	18.4	0.531
4-2880	4-3330	0.348	210.0	-7.5	2.63	0.722	60.8	0.502	1.458	133.0	278.3	---	2.190	-3.25	1.132	65.2	98.2	16.3	0.481
4-2880	4-3340	0.329	212.4	-5.3	3.90	0.727	62.6	0.473	1.476	130.7	285.6	---	2.175	-4.36	1.136	68.0	103.7	12.2	0.435
4-2880	4-3350	0.318	215.5	0.1	6.58	0.732	64.1	0.447	1.493	128.7	293.1	---	2.160	-6.88	1.140	70.7	108.4	3.5	0.401
4-2880	4-3360	0.359	219.6	19.5	17.15	0.737	65.5	0.425	1.507	126.9	300.7	---	2.147	-17.30	1.144	73.3	113.6	-24.0	0.461
4-2880	4-3370	0.431	176.0	-49.8	-26.94	0.740	66.8	0.403	1.519	125.3	309.4	---	2.131	26.95	1.147	76.1	152.2	68.5	0.570
4-2880	4-3380	0.282	206.1	-32.0	-7.85	0.743	67.7	0.387	1.529	124.0	317.3	---	2.121	8.01	1.151	78.5	133.2	50.9	0.297
4-2880	4-3390	0.261	211.2	-25.6	-4.41	0.745	68.5	0.374	1.537	122.8	325.8	---	2.112	4.74	1.154	80.9	128.6	42.5	0.241
4-2880	4-3400	0.251	213.6	-22.5	-2.94	0.747	69.0	0.365	1.543	122.0	334.7	---	2.105	3.43	1.158	83.3	125.1	39.5	0.206
4-2880	4-3410	0.245	215.0	-20.6	-2.08	0.748	69.4	0.358	1.547	121.4	343.8	---	2.102	2.74	1.161	85.7	119.3	38.7	0.183
4-2880	4-3420	0.243	215.9	-19.2	-1.49	0.749	69.5	0.356	1.550	121.0	353.3	---	2.102	2.34	1.164	88.2	110.5	38.4	0.171
4-2880	4-3430	0.244	216.4	-17.9	-1.03	0.750	69.4	0.357	1.552	120.9	363.0	0.997	2.106	2.09	1.166	90.8	100.3	37.5	0.172
4-2880	4-3440	0.249	216.6	-16.8	-0.65	0.750	69.1	0.364	1.552	121.0	373.1	0.988	2.117	1.94	1.169	93.5	91.6	35.6	0.187
4-2880	4-3450	0.258	216.5	-15.7	-0.31	0.750	68.3	0.375	1.552	121.5	383.5	0.970	2.134	1.87	1.171	96.3	86.2	33.5	0.215
4-2880	4-3460	0.272	216.1	-14.7	0.01	0.749	67.2	0.393	1.550	122.2	394.2	0.941	2.159	1.85	1.173	99.5	84.2	31.8	0.256
4-2880	4-3470	0.292	215.4	-13.6	0.34	0.749	65.6	0.418	1.548	123.3	405.4	0.901	2.195	1.89	1.174	103.0	84.6	30.4	0.307
4-2880	4-3480	0.321	214.3	-12.5	0.70	0.748	63.4	0.453	1.546	124.9	417.1	0.845	2.246	2.00	1.176	107.0	86.7	29.5	0.371
4-2880	4-3480	0.329	103.7	24.4	0.70	0.509	110.0	0.636	1.055	192.5	844.8	0.384	1.727	2.00	1.040	129.4	49.3	20.6	0.702
4-2880	4-3480	0.526	87.3	24.5	0.70	0.570	133.2	0.763	1.134	200.6	852.9	0.269	2.000	2.00	1.071	139.3	45.9	18.9	0.880
4-2880	4-3490	0.360	212.7	-11.4	1.12	0.747	60.2	0.500	1.543	127.2	429.6	0.771	2.315	2.19	1.176	111.8	89.7	28.8	0.451
4-2880	4-3490	0.272	127.9	21.4	1.12	0.480	95.3	0.623	1.024	183.3	845.6	0.387	1.662	2.19	1.027	128.5	59.2	23.1	0.680
4-2880	4-3500	0.414	210.6	-10.1	1.65	0.746	55.9	0.564	1.541	130.5	443.1	0.672	2.409	2.51	1.177	117.7	93.1	28.2	0.552
4-2880	4-3500	0.284	148.9	15.8	1.65	0.463	83.3	0.650	1.008	176.4	848.9	0.352	1.664	2.51	1.021	130.6	68.2	24.7	0.710
4-2880	4-3510	0.490	207.6	-8.7	2.38	0.746	49.8	0.648	1.539	135.4	458.2	0.542	2.536	3.06	1.177	125.2	96.3	27.6	0.604
4-2880	4-3510	0.340	163.9	10.3	2.38	0.452	70.7	0.707	0.998	171.4	854.1	0.293	1.703	3.06	1.016	135.0	76.4	25.7	0.779
4-2880	4-3520	0.595	203.5	-6.9	3.57	0.746	41.2	0.755	1.538	142.7	475.6	0.377	2.699	4.06	1.176	135.3	98.6	27.1	0.857
4-2880	4-3520	0.437	172.4	6.6	3.57	0.444	56.0	0.790	0.991	168.9	861.9	0.208	1.774	4.06	1.012	142.2	83.4	26.1	0.892
4-2880	4-3530	0.573	175.5	5.1	6.03	0.441	38.0	0.892	0.988	169.9	873.0	0.107	1.869	6.36	1.010	153.1	88.5	26.2	1.058

DEPART	ARRIVE	SPEED	R A	DECL	V 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	V 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2880	4-3560	0.593	142.5	13.1	-7.67	0.154	76.2	0.963	0.846	179.5	913.1	0.031	1.660	-7.84	0.917	15.9	11.4	3.1	1.175
4-2880	4-3560	0.588	122.4	18.1	-7.67	0.249	131.4	0.944	0.874	183.1	916.8	0.049	1.698	-7.84	0.937	19.4	9.4	1.7	1.139
4-2880	4-3580	0.537	70.4	19.9	-2.83	0.717	131.3	0.669	1.445	219.2	612.9	0.478	2.413	-3.34	1.149	51.4	1.3	-3.8	0.742
4-2880	4-3590	0.450	67.2	19.6	-2.00	0.717	124.1	0.574	1.443	223.5	627.1	0.615	2.272	-2.68	1.146	59.4	4.4	-2.9	0.601
4-2880	4-3600	0.581	184.8	-3.0	-1.42	0.559	37.5	0.846	1.118	162.8	576.3	0.172	2.064	-2.30	1.052	32.4	34.9	12.6	1.005
4-2880	4-3600	0.386	65.1	19.6	-1.42	0.715	118.8	0.500	1.440	225.8	639.3	0.720	2.160	-2.30	1.143	65.5	8.0	-1.8	0.495
4-2880	4-3610	0.522	186.7	-3.8	-0.98	0.571	43.6	0.790	1.136	160.0	583.4	0.238	2.033	-2.07	1.056	38.1	41.2	14.4	0.916
4-2880	4-3610	0.337	63.8	19.8	-0.98	0.714	114.8	0.443	1.436	226.7	650.0	0.800	2.072	-2.07	1.140	70.1	11.9	-0.8	0.412
4-2880	4-3620	0.464	188.3	-4.3	-0.62	0.583	49.5	0.729	1.154	157.6	590.7	0.312	1.996	-1.93	1.060	43.6	47.4	15.9	0.827
4-2880	4-3620	0.298	63.0	20.2	-0.62	0.713	111.8	0.399	1.431	226.6	659.7	0.861	2.002	-1.93	1.136	73.9	15.7	0.1	0.347
4-2880	4-3630	0.406	189.7	-4.7	-0.29	0.596	55.1	0.664	1.174	155.5	598.3	0.394	1.954	-1.86	1.064	49.0	53.5	17.1	0.738
4-2880	4-3630	0.268	62.6	20.8	-0.29	0.711	109.3	0.364	1.427	225.9	668.7	0.907	1.947	-1.86	1.133	77.0	19.4	0.6	0.295
4-2880	4-3640	0.349	190.8	-4.7	0.03	0.608	60.5	0.597	1.195	153.9	606.4	0.481	1.908	-1.85	1.069	54.3	59.4	17.9	0.650
4-2880	4-3640	0.243	62.5	21.6	0.03	0.709	107.3	0.337	1.422	224.7	677.2	0.942	1.902	-1.85	1.150	79.6	22.5	0.6	0.251
4-2880	4-3650	0.292	191.3	-4.3	0.34	0.620	65.6	0.529	1.216	153.1	615.2	0.573	1.860	-1.89	1.074	59.4	65.0	18.3	0.563
4-2880	4-3650	0.223	62.6	22.6	0.34	0.708	105.7	0.316	1.418	223.3	685.4	0.969	1.867	-1.89	1.127	81.9	24.8	-0.2	0.218
4-2880	4-3660	0.238	191.1	-3.0	0.68	0.631	70.5	0.463	1.238	153.3	625.0	0.665	1.810	-1.99	1.079	64.4	70.0	18.1	0.478
4-2880	4-3660	0.208	62.8	23.9	0.68	0.707	104.5	0.300	1.414	221.8	693.5	0.989	1.839	-1.99	1.125	84.0	26.0	-2.1	0.187
4-2880	4-3670	0.187	189.7	-0.4	1.07	0.642	75.1	0.400	1.260	154.8	636.1	0.756	1.763	-2.16	1.084	69.1	74.3	17.1	0.396
4-2880	4-3670	0.196	63.0	25.4	1.07	0.706	103.5	0.289	1.411	220.3	701.8	1.004	1.819	-2.16	1.123	85.9	25.4	-5.4	0.165
4-2880	4-3680	0.597	210.8	-11.3	1.55	0.824	43.8	0.727	1.894	129.5	260.3	---	3.271	-2.44	1.200	56.7	92.8	20.5	0.766
4-2880	4-3680	0.142	186.3	4.7	1.55	0.652	79.2	0.344	1.281	150.9	648.8	0.840	1.722	-2.44	1.090	73.6	77.1	14.9	0.320
4-2880	4-3680	0.190	62.9	27.3	1.55	0.705	102.9	0.281	1.410	219.6	710.5	1.013	1.807	-2.44	1.122	97.9	22.5	-10.5	0.151
4-2890	4-3050	0.571	67.7	20.4	-1.88	0.794	132.2	0.672	1.742	230.8	454.0	0.571	---	2.70	1.193	125.1	1.5	4.7	0.705
4-2890	4-3060	0.509	71.2	21.4	-1.30	0.739	128.9	0.631	1.521	224.6	457.7	0.561	---	2.31	1.160	124.3	9.1	7.5	0.674
4-2890	4-3070	0.452	75.5	22.2	-0.86	0.691	125.2	0.501	1.376	218.4	461.3	0.569	---	2.08	1.132	123.8	16.7	10.3	0.649
4-2890	4-3080	0.399	80.8	23.0	-0.48	0.647	121.2	0.580	1.278	212.1	465.0	0.534	---	1.99	1.108	123.4	25.4	13.2	0.632
4-2890	4-3090	0.352	87.6	23.8	-0.14	0.607	116.8	0.568	1.198	205.7	468.6	0.517	---	1.96	1.086	123.3	32.3	14.9	0.621
4-2890	4-3100	0.311	96.5	24.2	0.18	0.571	111.9	0.565	1.140	199.4	472.3	0.496	---	1.85	1.071	123.6	40.4	16.5	0.618
4-2890	4-3110	0.279	108.2	23.9	0.52	0.539	106.2	0.570	1.095	193.1	476.2	0.470	---	1.90	1.055	124.4	48.7	20.8	0.693
4-2890	4-3120	0.260	122.9	22.2	0.88	0.509	99.7	0.586	1.058	187.0	480.2	0.438	---	2.01	1.042	125.7	57.0	22.7	0.639
4-2890	4-3130	0.261	139.4	18.7	1.31	0.482	92.0	0.615	1.029	181.3	484.6	0.397	---	2.21	1.030	127.9	65.4	24.2	0.670
4-2890	4-3140	0.289	155.0	13.8	1.84	0.458	82.7	0.659	1.006	176.2	489.7	0.343	1.668	2.55	1.020	131.2	73.6	25.3	0.719
4-2890	4-3150	0.349	167.1	9.1	2.01	0.438	71.1	0.722	0.988	172.2	495.9	0.275	1.701	3.12	1.011	136.2	81.3	26.0	0.796
4-2890	4-3160	0.446	174.7	5.7	3.86	0.425	56.3	0.806	0.975	170.2	504.1	0.189	1.762	4.20	1.004	143.7	88.0	26.2	0.911
4-2890	4-3170	0.581	177.8	4.1	6.55	0.415	37.4	0.905	0.970	171.2	515.2	0.092	1.847	6.72	1.000	154.8	93.0	26.1	1.077
4-2890	4-3260	0.572	197.6	-8.0	-0.45	0.643	40.4	0.788	1.264	154.5	228.4	---	2.260	-1.92	1.094	39.0	53.3	17.7	0.918
4-2890	4-3270	0.534	200.0	-8.8	-0.12	0.656	44.2	0.744	1.293	151.3	234.8	---	2.255	-1.86	1.099	43.2	60.1	18.9	0.850
4-2890	4-3280	0.499	202.3	-9.4	0.19	0.668	47.5	0.701	1.321	148.2	241.4	---	2.247	-1.85	1.105	47.2	67.6	19.8	0.785
4-2890	4-3290	0.466	204.5	-9.9	0.51	0.680	50.6	0.659	1.348	145.2	247.9	---	2.237	-1.89	1.110	50.9	73.8	20.3	0.721
4-2890	4-3300	0.435	206.8	-10.2	0.85	0.690	53.5	0.619	1.374	142.3	254.6	---	2.225	-2.00	1.115	54.5	80.6	20.4	0.661
4-2890	4-3310	0.407	208.9	-10.3	1.24	0.699	56.0	0.580	1.399	139.5	261.4	---	2.211	-2.18	1.120	57.9	87.3	20.0	0.603
4-2890	4-3320	0.381	211.1	-10.0	1.72	0.708	58.3	0.544	1.422	136.9	268.4	---	2.197	-2.47	1.124	61.1	93.7	19.0	0.548
4-2890	4-3330	0.357	213.3	-9.3	2.37	0.715	60.4	0.511	1.444	134.5	275.5	---	2.182	-2.94	1.129	64.1	99.8	17.1	0.496
4-2890	4-3340	0.337	215.6	-7.8	3.36	0.721	62.2	0.481	1.463	132.2	282.7	---	2.166	-3.75	1.133	67.0	105.4	13.9	0.449
4-2890	4-3350	0.321	218.2	-4.2	5.18	0.727	63.9	0.454	1.480	130.2	290.2	---	2.152	-5.41	1.137	69.8	110.3	7.7	0.408
4-2890	4-3360	0.323	221.7	5.8	10.10	0.731	65.3	0.430	1.495	128.3	297.8	---	2.139	-10.16	1.141	72.4	114.0	-7.8	0.397
4-2890	4-3380	0.305	205.1	-39.6	-11.59	0.738	67.6	0.390	1.518	125.3	314.3	---	2.111	11.82	1.149	77.6	146.4	58.3	0.346
4-2890	4-3390	0.268	214.2	-28.9	-5.41	0.741	68.4	0.378	1.527	124.1	322.7	---	2.102	5.80	1.152	80.1	134.6	44.8	0.258
4-2890	4-3400	0.255	217.3	-24.7	-3.35	0.743	69.1	0.365	1.534	123.2	331.5	---	2.094	3.90	1.156	82.5	130.9	40.0	0.216
4-2890	4-3410	0.248	219.0	-22.4	-2.27	0.744	69.5	0.358	1.539	122.5	340.5	---	2.090	3.00	1.159	84.9	125.9	38.6	0.189
4-2890	4-3420	0.245	220.0	-20.7	-1.58	0.745	69.7	0.354	1.542	122.1	349.9	---	2.088	2.49	1.162	87.4	118.1	38.3	0.172
4-2890	4-3430	0.245	220.7	-19.4	-1.08	0.746	69.7	0.354	1.544	121.9	359.6	---	2.091	2.19	1.165	89.9	108.0	37.8	0.169
4-2890	4-3440	0.248	220.9	-18.2	-0.67	0.746	69.4	0.359	1.545	121.9	369.5	0.991	2.099	2.00	1.168	92.5	98.4	36.4	0.179
4-2890	4-3450	0.256	220.9	-17.2	-0.32	0.746	68.8	0.368	1.545	122.2	379.8	0.976	2.113	1.89	1.170	95.3	91.8	34.4	0.203
4-2890	4-3460	0.268	220.6	-16.1	0.01	0.746	67.9	0.383	1.544	122.7	390.4	0.952	2.135	1.85	1.172	98.3	88.7	32.5	0.238
4-2890	4-3470	0.286	220.0	-15.1	0.34	0.745	66.5	0.406	1.542	123.6	401.4	0.917	2.167	1.84	1.173	101.6	89.4	31.0	0.285
4-2890	4-3480	0.311	219.0	-14.1	0.68	0.744	64.5	0.430	1.539	124.9	412.8	0.867	2.211	1.94	1.174	105.4	90.0	29.9	0.343
4-2890	4-3490	0.345	217.7	-13.1	1.07	0.744	61.8	0.478	1.537	126.8	424.8	0.801	2.272	2.09	1.175	109.8	92.8	29.0	0.416
4-2890	4-3490	0.295	120.7	22.7	1.07	0.486	103.1	0.633	1.034	187.9	845.9	0.379	1.688	2.09	1.032	129.2	59.2	22.9	0.694
4-2890	4-3490	0.586	92.3	24.7	1.07	0.580	139.6	0.813	1.153	199.9	857.9	0.216	2.097	2.09	1.079	143.9	54.0	20.7	0.958
4-2890	4-3500	0.392	215.8	-12.0	1.54	0.743	58.0	0.535	1.534	129.6	437.8	0.714	2.354	2.35	1.175	111.1	96.2	28.3	0.507
4-2890	4-3500	0.277	143.7	17.5	1.54	0.464	89.8	0.643	1.011	179.9	848.1	0.307	2.661	2.35	1.022	130.0	68.7	24.7	0.701
4-2890	4-3510	0.458	213.2	-10.7	2.17	0.742	52.7	0.610	1.532	133.6	452.0	0.598	2.465	2.78	1.175	121.9	99.6	27.6	0.624
4-2890	4-3510	0.313	161.7	11.2	2.17	0.449	77.3	0.685	0.998	174.0	852.3	0.315	1.681	2.78	1.016	133.2	77.4	25.7	0.750
4-2890	4-3520	0.549	209.6	-9.2	3.11	0.742	45.3	0.707	1.551	139.7	468.2	0.449	2.612	3.54	1.175	130.7	102.4	27.0	0.777
4-2890	4-3520	0.392	173.1	6.5	3.11	0.439	63.3	0.755	0.989	170.2	858.7	0.243	1.736	3.54	1.011	139.0	85.1	26.2	0.841
4-2890	4-3530	0.510	178.5	3.9	4.03	0.434	44.7	0.849	0.984	169.4	868.1	0.149	1.820	5.09	1.008	148.1	91.2	26.2	0.981
4-2890	4-3580	0.577	77.4	20.7	-3.21	0.713	135.3	0.719	1.437	215.9	605.2	0.404	2.470	-3.78	1.147	46.9	4.5	-2.3	0.819
4-2890	4-3590	0.477	73.6	20.5	-2.18	0.712	126.9	0.613	1.435	221.3	620.5	0.555	2.315	-2.98	1.145	56.0	7.2	-1.5	0.660
4-2890	4-3600	0.403	71.2	20.5	-1.51	0.711	120.8	0.530	1.432	224.2	633.3	0.673	2.191	-2.45	1.142	62.8	10.6	-0.4	0.540
4-2890	4-3610	0.545	190.0	-5.0	-1.03	0.561	41.5	0.813	1.124	161.4	580.3	0.210	2.038	-2.16	1.052	35.9	42.6	14.9	0.949
4-2890	4-3610	0.347	69.7	20.7	-1.03	0.710	116.3	0.466	1.428	225.4	644.3	0.763	2.094	-2.16	1.138	68.0	14.5	0.7	0.449
4-2890	4-3620	0.487	191.8	-5.8	-0.63	0.573	47.6	0.753	1.142	158.8	587.5	0.282	2.003	-1.98	1.056	41.5	48.9	16.4	0.860
4-2890	4-3620	0.304	68.0	21.2	-0.63	0.708	112.8	0.416	1.424	225.5	654.2	0.831	2.016	-1.98	1.135	72.0	18.6	1.7	0.377
4-2890	4-3630	0.428	193.3	-6.2	-0.29	0.586	53.4	0.689	1.162	156.7	595.1	0.361	1.963	-1.89	1.060	47.0	55.0	17.6	0.770
4-2890	4-3630	0.270	68.4	21.8	-0.29	0.706	110.0	0.378	1.419	224.8	663.3	0.883	1.954	-1.89	1.131	75.3	22.5	2.5	0.320
4-2890	4-3640	0.370	194.5	-6.3	0.03	0.599	58.9	0.622	1.183	155.0	603.1	0.447	1.918	-1.85	1.065	52.3	61.0	18.4	0.681
4-2890	4-3640	0.242	68.4	22.6	0.03	0.705	107.7	0.347	1.414	223.6	671.7	0.923	1.905	-1.85	1.128	78.1	26.2	-2.8	0.273
4-2890	4-3650	0.312	195.2	-6.0	-0.34	0.611	64.2	0.553	1.204	153.9	611.7	0.539	1.870	-1.86	1.070	57.6	66.7	18.8	0.592

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2890	4-3650	0.219	68.7	23.6	0.34	0.703	105.9	0.323	1.409	221.9	679.7	0.953	1.864	-1.86	1.125	80.5	29.4	2.6	0.235
4-2890	4-3660	0.256	195.3	-5.0	0.67	0.623	69.4	0.484	1.227	153.9	621.2	0.633	1.820	-1.94	1.076	62.7	71.9	18.7	0.505
4-2890	4-3660	0.201	69.2	24.9	0.67	0.701	104.3	0.305	1.404	220.1	687.4	0.977	1.832	-1.94	1.123	82.6	31.7	1.5	0.203
4-2890	4-3670	0.202	194.1	-2.8	1.03	0.635	74.2	0.418	1.249	155.2	632.1	0.727	1.771	-2.07	1.081	67.6	76.3	17.9	0.420
4-2890	4-3670	0.186	69.9	26.5	1.03	0.700	103.1	0.290	1.400	218.2	695.1	0.994	1.807	-2.07	1.121	84.5	32.8	-0.7	0.178
4-2890	4-3680	0.153	190.9	1.8	1.45	0.646	78.8	0.358	1.272	158.3	644.7	0.816	1.727	-2.30	1.087	72.4	79.4	16.0	0.339
4-2890	4-3680	0.175	70.5	28.5	1.45	0.699	102.1	0.280	1.397	216.5	703.0	1.007	1.788	-2.30	1.119	86.3	32.3	-4.4	0.159
4-2890	4-3690	0.585	216.3	-12.4	2.00	0.823	45.1	0.711	1.897	127.8	263.7	---	3.246	-2.66	1.200	52.5	101.2	19.6	0.733
4-2890	4-3690	0.111	184.1	11.1	2.00	0.656	82.9	0.308	1.293	163.5	659.5	0.895	1.692	-2.66	1.093	76.9	80.2	12.4	0.266
4-2890	4-3690	0.168	70.7	31.0	2.00	0.698	101.5	0.273	1.396	215.5	711.4	1.014	1.777	-2.66	1.118	88.2	29.4	-10.0	0.148
4-2900	4-3120	0.277	119.2	22.8	0.86	0.519	104.8	0.591	1.072	190.8	479.6	0.438	---	1.94	1.048	126.0	57.4	22.7	0.646
4-2900	4-3130	0.266	134.8	19.9	1.25	0.488	97.5	0.612	1.038	184.8	483.8	0.400	---	2.10	1.034	127.6	65.9	24.2	0.667
4-2900	4-3140	0.279	151.0	15.2	1.72	0.461	88.8	0.647	1.010	179.3	488.5	0.357	1.664	2.37	1.022	130.3	74.3	25.3	0.705
4-2900	4-3390	0.279	216.6	-33.4	-7.01	0.737	68.4	0.379	1.517	125.3	319.6	---	2.091	7.47	1.151	79.2	141.9	48.4	0.281
4-2900	4-3400	0.261	220.9	-27.2	-3.91	0.739	69.1	0.366	1.524	124.4	328.3	---	2.083	4.53	1.154	81.6	136.7	40.9	0.228
4-2900	4-3410	0.252	222.9	-24.2	-2.53	0.741	69.6	0.358	1.530	123.6	337.3	---	2.078	3.31	1.158	84.1	132.3	38.4	0.196
4-2900	4-3420	0.248	224.2	-22.2	-1.71	0.742	69.9	0.353	1.534	123.1	346.6	---	2.075	2.67	1.161	86.5	125.4	37.9	0.175
4-2900	4-3430	0.246	224.9	-20.8	-1.14	0.743	70.0	0.351	1.537	122.8	356.1	---	2.076	2.29	1.164	89.0	115.9	37.7	0.167
4-2900	4-3440	0.249	225.3	-19.6	-0.70	0.743	69.8	0.354	1.538	122.8	366.0	0.993	2.082	2.06	1.166	91.6	105.8	36.8	0.172
4-2900	4-3450	0.255	225.3	-18.5	-0.32	0.743	69.3	0.362	1.538	122.9	376.2	0.982	2.094	1.92	1.169	94.3	97.9	35.0	0.191
4-2900	4-3460	0.265	225.1	-17.5	0.01	0.743	68.5	0.375	1.537	123.3	386.6	0.961	2.113	1.85	1.171	97.2	93.6	33.1	0.222
4-2900	4-3470	0.280	224.6	-16.5	0.34	0.742	67.3	0.394	1.535	124.0	397.4	0.930	2.140	1.84	1.172	100.3	92.4	31.5	0.265
4-2900	4-3500	0.283	137.4	19.3	1.46	0.468	97.0	0.643	1.017	183.9	847.7	0.363	1.671	2.21	1.025	130.0	69.0	24.5	0.702
4-2900	4-3510	0.295	158.1	12.7	2.00	0.449	83.9	0.669	1.000	177.0	851.0	0.331	1.669	2.55	1.017	132.0	78.2	25.6	0.730
4-2900	4-3630	0.274	74.3	22.5	-0.30	0.702	110.8	0.393	1.411	223.9	658.0	0.857	1.965	-1.91	1.130	73.7	25.4	4.1	0.346
4-2900	4-3640	0.243	74.4	23.3	0.03	0.701	108.3	0.359	1.406	222.7	666.4	0.902	1.910	-1.85	1.126	76.6	29.5	4.7	0.296
4-2900	4-3650	0.217	74.9	24.3	0.34	0.699	106.2	0.332	1.401	220.9	674.2	0.936	1.865	-1.84	1.123	79.1	33.2	4.9	0.254
4-2900	4-3660	0.275	199.4	-6.9	0.65	0.615	68.1	0.507	1.215	154.5	617.4	0.599	1.831	-1.88	1.072	60.9	73.8	19.3	0.534
4-2900	4-3660	0.196	75.7	25.6	0.65	0.697	104.4	0.310	1.395	218.7	681.7	0.962	1.828	-1.88	1.121	81.2	36.5	4.4	0.220
4-2900	4-3670	0.219	198.6	-5.1	0.99	0.628	73.2	0.438	1.238	155.5	628.0	0.695	1.781	-1.99	1.078	66.0	78.4	18.6	0.446
4-2900	4-3670	0.177	76.9	27.2	0.99	0.695	102.8	0.293	1.390	216.3	688.8	0.982	1.798	-1.99	1.118	83.1	38.9	3.1	0.192
4-2900	4-3680	0.166	195.8	-1.2	1.38	0.640	76.1	0.374	1.262	158.4	640.5	0.790	1.734	-2.17	1.084	71.0	81.7	17.1	0.361
4-2900	4-3680	0.162	78.3	29.3	1.38	0.693	101.5	0.280	1.385	213.9	695.9	0.997	1.774	-2.17	1.116	84.8	40.3	0.7	0.170
4-2900	4-3690	0.119	189.0	7.1	1.86	0.651	82.7	0.318	1.286	163.8	655.4	0.877	1.695	-2.45	1.091	75.8	82.7	14.0	0.282
4-2900	4-3690	0.151	79.9	32.1	1.86	0.692	100.5	0.271	1.382	211.6	703.2	1.008	1.755	-2.45	1.115	86.4	40.2	-3.3	0.154
4-2900	4-3700	0.087	174.3	23.8	2.51	0.662	86.9	0.276	1.308	171.9	673.0	0.947	1.670	-2.92	1.097	80.3	79.9	8.1	0.214
4-2900	4-3700	0.145	81.0	35.6	2.51	0.691	99.8	0.265	1.379	210.1	711.2	1.014	1.744	-2.92	1.115	88.2	38.1	-9.4	0.145
4-2950	4-3410	0.286	241.3	-38.1	-6.83	0.727	69.9	0.363	1.480	128.7	320.5	---	2.017	7.89	1.148	79.8	164.9	44.5	0.272
4-2950	4-3420	0.268	244.9	-30.3	-3.19	0.729	70.5	0.352	1.487	127.8	329.5	---	2.010	4.39	1.152	82.2	157.0	35.5	0.215
4-2950	4-3430	0.261	246.4	-26.9	-1.75	0.731	71.0	0.343	1.493	127.2	338.7	---	2.005	3.10	1.155	84.6	151.8	32.8	0.184
4-2950	4-3440	0.257	247.2	-24.9	-0.94	0.732	71.2	0.339	1.496	126.8	348.2	---	2.003	2.45	1.159	87.0	144.6	32.6	0.165
4-2950	4-3450	0.257	247.6	-23.4	-0.40	0.732	71.2	0.338	1.498	126.5	357.9	---	2.005	2.07	1.161	89.5	138.2	33.0	0.158
4-2950	4-3460	0.260	247.8	-22.3	0.02	0.733	71.0	0.342	1.500	126.4	367.8	0.987	2.012	1.84	1.164	92.0	125.6	32.8	0.166
4-2950	4-3470	0.267	247.7	-21.4	0.36	0.733	70.5	0.350	1.499	126.5	378.0	0.975	2.023	1.71	1.165	94.6	118.5	31.8	0.186
4-2950	4-3480	0.277	247.3	-20.7	0.66	0.732	69.6	0.363	1.498	126.8	388.4	0.954	2.041	1.64	1.167	97.5	114.8	30.4	0.217
4-2950	4-3490	0.293	246.7	-20.0	0.95	0.732	68.4	0.382	1.496	127.2	399.0	0.924	2.068	1.62	1.167	100.5	114.0	28.9	0.258
4-2950	4-3640	0.276	103.8	23.4	0.03	0.689	113.3	0.440	1.371	220.5	642.4	0.767	1.975	-1.83	1.118	68.5	42.2	11.6	0.427
4-2950	4-3650	0.234	104.8	24.3	0.36	0.686	109.7	0.395	1.365	219.1	650.6	0.827	1.904	-1.71	1.115	72.0	47.2	12.5	0.364
4-2950	4-3660	0.199	106.8	25.2	0.64	0.684	106.8	0.359	1.359	216.7	657.8	0.871	1.846	-1.64	1.112	74.8	52.4	13.2	0.314
4-2950	4-3670	0.179	110.0	26.3	0.92	0.681	104.1	0.330	1.352	213.5	664.2	0.905	1.798	-1.62	1.109	77.0	57.7	13.6	0.275
4-2950	4-3680	0.271	220.4	-13.4	1.19	0.607	71.1	0.490	1.197	157.5	617.7	0.611	1.783	-1.64	1.064	61.9	93.9	20.4	0.508
4-2950	4-3680	0.143	115.1	27.5	1.19	0.678	101.7	0.308	1.343	209.5	669.7	0.930	1.757	-1.64	1.106	78.8	63.2	13.7	0.243
4-2950	4-3690	0.205	218.3	-10.8	1.48	0.622	77.2	0.412	1.225	160.3	630.0	0.720	1.730	-1.72	1.073	67.6	97.3	19.1	0.411
4-2950	4-3690	0.119	123.8	28.8	1.48	0.674	99.2	0.290	1.334	204.1	673.9	0.947	1.721	-1.72	1.103	80.1	69.3	13.4	0.219
4-2950	4-3700	0.135	209.9	-3.4	1.80	0.640	84.0	0.335	1.258	167.8	647.1	0.836	1.681	-1.86	1.083	73.7	97.4	17.0	0.309
4-2950	4-3700	0.095	142.2	28.7	1.80	0.668	96.0	0.278	1.319	196.0	675.3	0.953	1.686	-1.86	1.100	80.7	77.5	13.1	0.206
4-3000	4-3430	0.294	268.2	-37.3	-5.66	0.726	71.2	0.347	1.437	130.8	320.1	---	1.936	7.20	1.144	80.0	183.4	35.2	0.257
4-3000	4-3440	0.278	269.7	-28.7	-1.89	0.729	71.9	0.336	1.445	130.1	329.3	---	1.929	3.53	1.148	82.4	175.3	24.3	0.201
4-3000	4-3450	0.272	270.4	-25.6	-0.64	0.730	72.3	0.327	1.450	129.5	338.6	---	1.925	2.38	1.152	84.8	170.6	21.6	0.172
4-3000	4-3460	0.269	270.7	-23.9	0.02	0.732	72.5	0.323	1.454	129.1	348.3	---	1.923	1.83	1.155	87.1	164.2	21.8	0.154
4-3000	4-3470	0.269	270.9	-22.8	0.44	0.732	72.6	0.322	1.456	128.8	358.1	---	1.923	1.53	1.157	89.5	155.7	23.1	0.147
4-3000	4-3480	0.271	270.9	-22.0	0.76	0.733	72.3	0.325	1.457	128.7	368.1	0.983	1.930	1.35	1.159	92.0	147.0	24.1	0.154
4-3000	4-3490	0.278	270.7	-21.5	1.01	0.732	71.9	0.332	1.457	128.7	378.2	0.972	1.941	1.24	1.160	94.5	140.3	24.2	0.173
4-3000	4-3500	0.288	270.3	-21.0	1.23	0.732	71.1	0.345	1.455	128.8	388.5	0.953	1.957	1.18	1.160	97.2	136.8	23.6	0.202
4-3000	4-3510	0.303	269.7	-20.7	1.44	0.731	69.9	0.363	1.453	129.0	398.9	0.925	1.981	1.16	1.160	100.1	136.1	22.5	0.240
4-3000	4-3520	0.323	269.0	-20.5	1.65	0.730	68.3	0.389	1.450	129.5	409.6	0.887	2.014	1.18	1.159	103.3	137.4	21.2	0.288
4-3000	4-3660	0.252	133.3	19.9	0.74	0.687	112.8	0.441	1.331	218.7	637.5	0.744	1.918	-1.35	1.105	67.6	63.4	17.9	0.413
4-3000	4-3670	0.207	136.0	20.4	0.98	0.684	109.0	0.393	1.325	216.8	647.2	0.804	1.846	-1.25	1.102	71.0	68.9	18.5	0.370
4-3000	4-3680	0.171	140.5	20.6	1.20	0.681	105.7	0.357	1.318	213.7	651.7	0.848	1.788	-1.18	1.100	73.7	74.9	18.8	0.322
4-3000	4-3690	0.141	147.5	20.4	1.39	0.678	102.8	0.328	1.310	209.6	657.1	0.880	1.739	-1.16	1.097	75.7	81.2	18.8	0.284
4-3000	4-3700	0.288	243.8	-18.5	1.59	0.608	72.2	0.486	1.172	158.7	615.8	0.603	1.740	-1.17	1.055	61.9	115.1	19.2	0.499
4-3000	4-3700	0.115	158.7	19.1	1.59	0.674	99.9	0.306	1.300	204.1	661.2	0.902	1.698	-1.17	1.095	77.2	88.2	18.5	0.255
4-3000	4-3710	0.212	240.8	-15.9	1.79	0.626	79.2	0.399	1.203	162.8	629.4	0.723	1.684	-1.21	1.066	68.2	117.7	17.9	0.393
4-3000	4-3710	0.096	178.6	14.2	1.79	0.668	96.4	0.292	1.286	196.1	662.7	0.911	1.662	-1.21	1.091	78.0	96.9	17.9	0.238
4-3000	4-3800	0.113	144.9	-6.4	-3.22	0.684	99.8	0.287	1.324	206.4	760.4	0.943	1.704	4.81	1.119	98.7	42.1	41.2	0.230
4-3000	4-3800	0.181	129.3	6.6	-3.22	0.699	106.6	0.345	1.362	219.5	773.5	0.893	1.932	4.81	1.129	102.9	34.6	32.8	0.299
4-3050	4-3430	0.325	289.5	-14.7	3.76	0.726	70.4	0.368	1.367	134.0	300.0	---	1.870	-2.03	1.128	74.9	179.1	-7.9	0.293
4-3050	4-3440	0.327	287.9	-4.3	8.60	0.731	71.5	0.349	1.379	132.8	308.7	---	1.860	-6.83	1.134	77.4	174.9	-28.4	0.282
4-3050	4-3450	0.299	293.9	-29.3	-3.02	0.735	72.4	0.332	1.389	131.9	317.7	---	1.851	4.83	1.139	79.8	198.1	18.0	0.235
4-3050	4-3460	0.288	293.5	-22.1	0.05	0.737	73.1	0.319	1.397	131.1	327.0	---	1.844	1.80	1.142	82.2	192.8	6.3	0.190

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3050	4-3470	0.282	293.7	-20.2	0.77	0.739	74.5	0.310	1.403	130.5	336.5	---	1.838	1.13	1.146	84.5	190.0	4.3	0.163
4-3050	4-3480	0.278	293.9	-19.3	1.11	0.741	73.8	0.304	1.407	130.0	346.1	---	1.836	0.84	1.148	86.8	185.1	5.1	0.144
4-3050	4-3490	0.277	294.0	-18.7	1.31	0.742	73.9	0.302	1.410	129.7	356.0	---	1.836	0.68	1.150	89.1	178.0	7.2	0.135
4-3050	4-3500	0.279	294.0	-18.4	1.45	0.742	73.8	0.304	1.411	129.5	366.0	0.982	1.840	0.59	1.151	91.4	170.0	9.7	0.138
4-3050	4-3510	0.284	293.9	-18.2	1.57	0.742	73.4	0.310	1.411	129.4	376.0	0.974	1.848	0.54	1.151	92.8	163.5	11.4	0.153
4-3050	4-3520	0.293	293.6	-18.1	1.67	0.742	72.8	0.320	1.410	129.4	386.2	0.959	1.861	0.51	1.151	96.3	159.6	12.1	0.177
4-3050	4-3530	0.306	293.3	-18.1	1.76	0.741	71.8	0.335	1.408	129.4	396.4	0.936	1.881	0.49	1.150	98.9	158.4	12.0	0.211
4-3050	4-3540	0.323	292.8	-18.3	1.84	0.740	70.4	0.357	1.406	129.6	406.8	0.904	1.908	0.50	1.148	101.8	159.2	11.1	0.252
4-3050	4-3680	0.245	160.9	12.4	1.43	0.699	112.8	0.440	1.297	219.1	633.8	0.726	1.867	-0.61	1.094	66.9	25.2	22.0	0.434
4-3050	4-3690	0.198	164.7	12.3	1.54	0.696	108.9	0.390	1.291	217.2	641.4	0.788	1.794	-0.55	1.092	70.5	90.9	21.9	0.369
4-3050	4-3700	0.162	170.6	11.6	1.64	0.694	105.5	0.351	1.285	214.1	647.9	0.834	1.736	-0.51	1.090	74.2	97.2	21.6	0.319
4-3050	4-3710	0.133	179.2	9.9	1.72	0.690	102.5	0.322	1.277	209.8	653.2	0.866	1.688	-0.50	1.089	75.3	103.8	21.0	0.281
4-3050	4-3720	0.112	192.2	6.6	1.81	0.686	99.6	0.300	1.268	204.2	657.1	0.888	1.648	-0.49	1.087	76.8	111.1	19.9	0.253
4-3050	4-3730	0.258	268.0	-19.4	1.89	0.634	77.2	0.417	1.166	160.7	623.2	0.680	1.652	-0.51	1.056	66.5	140.8	14.1	0.413
4-3050	4-3740	0.101	212.2	0.2	1.89	0.680	96.3	0.285	1.255	196.2	658.7	0.897	1.613	-0.51	1.084	77.6	119.9	18.3	0.236
4-3050	4-3830	0.090	202.2	-5.6	0.47	0.692	97.0	0.268	1.281	200.2	760.8	0.938	1.623	1.40	1.115	98.3	81.0	31.0	0.197
4-3050	4-3830	0.223	154.6	12.4	0.47	0.724	111.4	0.397	1.361	225.6	786.2	0.821	1.901	1.40	1.135	107.4	63.3	25.5	0.360
4-3050	4-3840	0.093	226.5	-10.6	0.95	0.685	93.9	0.262	1.266	191.0	761.8	0.935	1.598	-0.97	1.112	98.3	91.8	28.9	0.193
4-3050	4-3850	0.105	241.6	-13.4	1.21	0.681	91.5	0.264	1.257	184.2	765.7	0.925	1.589	-0.75	1.111	99.0	100.3	27.3	0.199
4-3100	4-3450	0.332	314.1	-15.7	0.95	0.740	71.1	0.359	1.313	134.3	295.2	---	1.784	0.93	1.120	74.3	205.3	-6.9	0.297
4-3100	4-3460	0.317	315.7	-17.5	-0.08	0.746	72.3	0.337	1.327	133.0	303.9	---	1.773	1.93	1.126	76.8	211.3	-4.0	0.261
4-3100	4-3480	0.298	314.4	-19.1	3.37	0.753	74.0	0.304	1.347	131.0	322.2	---	1.756	-1.57	1.134	81.4	210.5	-22.1	0.195
4-3100	4-3490	0.288	315.4	-10.5	2.60	0.756	74.6	0.293	1.354	130.3	331.6	---	1.750	-0.84	1.137	83.7	211.8	-18.9	0.166
4-3100	4-3500	0.283	316.0	-10.9	2.32	0.758	75.0	0.285	1.359	129.8	341.3	---	1.746	-0.58	1.139	85.9	209.6	-17.0	0.143
4-3100	4-3510	0.280	316.3	-11.1	2.17	0.759	75.2	0.280	1.362	129.4	351.1	---	1.744	-0.46	1.140	88.0	204.3	-14.5	0.129
4-3100	4-3520	0.279	316.6	-11.3	2.06	0.760	75.2	0.279	1.364	129.1	361.0	0.983	1.745	-0.35	1.141	90.2	196.9	-11.0	0.124
4-3100	4-3530	0.282	316.7	-11.5	1.99	0.760	75.1	0.282	1.365	128.9	370.9	0.980	1.750	-0.24	1.140	92.4	189.6	-7.4	0.130
4-3100	4-3540	0.287	316.7	-11.8	1.92	0.760	74.6	0.289	1.365	128.7	380.9	0.971	1.759	-0.32	1.139	94.6	184.5	-4.6	0.167
4-3100	4-3550	0.297	316.7	-12.2	1.87	0.759	73.9	0.300	1.364	128.6	391.0	0.954	1.773	-0.31	1.137	97.0	182.1	-3.1	0.173
4-3100	4-3560	0.311	316.6	-12.6	1.81	0.759	72.9	0.317	1.362	128.6	401.1	0.930	1.793	-0.30	1.135	99.5	181.9	-2.6	0.206
4-3100	4-3570	0.330	316.5	-13.0	1.76	0.758	71.4	0.340	1.359	128.7	411.2	0.897	1.821	-0.31	1.132	102.3	183.5	-3.0	0.247
4-3100	4-3580	0.356	316.1	-13.6	1.70	0.757	69.4	0.371	1.356	129.1	421.6	0.853	1.860	-0.33	1.129	105.5	186.1	-4.0	0.298
4-3100	4-3700	0.260	186.0	3.1	2.09	0.722	113.7	0.444	1.268	221.4	630.2	0.705	1.831	0.40	1.086	66.1	107.9	23.3	0.438
4-3100	4-3710	0.209	189.9	2.8	2.01	0.720	109.5	0.388	1.264	220.0	638.4	0.774	1.753	0.36	1.085	70.1	113.4	22.7	0.368
4-3100	4-3720	0.171	195.5	1.8	1.95	0.718	106.1	0.345	1.258	217.4	645.3	0.824	1.693	0.33	1.084	73.0	119.4	21.8	0.314
4-3100	4-3730	0.143	203.3	0.0	1.89	0.715	103.2	0.313	1.252	213.7	651.2	0.860	1.644	0.31	1.084	75.3	125.7	20.7	0.273
4-3100	4-3740	0.122	214.1	-2.7	1.84	0.712	100.6	0.289	1.245	209.0	656.1	0.885	1.604	0.30	1.083	77.0	132.4	19.1	0.241
4-3100	4-3750	0.109	228.9	-6.5	1.79	0.708	98.0	0.271	1.236	202.8	659.5	0.901	1.571	0.31	1.082	78.2	139.9	17.2	0.219
4-3100	4-3760	0.255	294.1	-17.6	1.74	0.663	79.0	0.375	1.149	160.5	626.9	0.718	1.580	0.32	1.050	69.1	167.6	6.3	0.362
4-3100	4-3760	0.110	249.8	-11.4	1.74	0.702	94.7	0.261	1.223	193.7	660.1	0.904	1.542	0.32	1.081	78.7	149.1	14.3	0.208
4-3100	4-3850	0.104	232.1	1.5	2.89	0.716	97.6	0.252	1.255	204.0	760.0	0.939	1.577	-1.10	1.111	97.7	103.7	16.1	0.180
4-3100	4-3850	0.199	186.4	9.4	2.89	0.743	109.0	0.358	1.318	226.3	782.3	0.846	1.790	-1.10	1.128	105.2	88.1	19.6	0.313
4-3100	4-3860	0.105	253.5	-6.3	2.44	0.710	94.4	0.243	1.240	193.9	760.0	0.939	1.541	-0.69	1.107	97.5	114.6	17.0	0.171
4-3100	4-3860	0.279	179.2	6.9	2.44	0.757	115.4	0.444	1.357	229.9	796.0	0.755	1.960	-0.69	1.138	111.3	91.0	21.7	0.420
4-3100	4-3870	0.115	266.5	-10.1	2.24	0.705	92.1	0.243	1.231	186.7	763.0	0.932	1.530	-0.51	1.105	98.0	123.0	16.7	0.175
4-3100	4-3880	0.491	327.7	-9.8	2.11	0.876	61.8	0.496	1.845	100.3	326.8	---	2.759	-0.42	1.221	79.2	244.7	-23.1	0.294
4-3100	4-3880	0.129	275.6	-12.3	2.11	0.702	90.2	0.247	1.224	180.6	767.1	0.921	1.527	-0.42	1.103	98.8	130.5	15.7	0.184
4-3100	4-3890	0.479	328.4	-9.6	2.02	0.877	62.7	0.484	1.850	98.6	335.3	---	2.746	-0.36	1.222	82.0	245.3	-23.2	0.260
4-3100	4-3890	0.145	282.5	-13.7	2.02	0.699	86.4	0.255	1.218	175.2	771.9	0.907	1.529	-0.36	1.101	99.8	137.8	14.2	0.197
4-3100	4-3900	0.471	329.0	-9.4	1.95	0.878	63.3	0.476	1.855	97.2	344.1	---	2.737	-0.33	1.222	84.9	243.1	-22.9	0.232
4-3100	4-3900	0.163	287.9	-14.5	1.95	0.697	86.5	0.266	1.213	170.2	777.0	0.890	1.535	-0.33	1.098	101.0	144.5	12.4	0.213
4-3150	4-3480	0.320	340.7	-14.2	-2.36	0.762	72.7	0.330	1.272	133.0	297.0	---	1.692	4.00	1.115	75.6	237.8	-4.5	0.285
4-3150	4-3510	0.291	334.2	5.7	5.72	0.775	75.5	0.277	1.304	129.6	324.2	---	1.665	-4.38	1.126	82.5	239.4	-4.3	0.195
4-3150	4-3520	0.278	336.5	1.4	3.88	0.778	76.0	0.266	1.311	128.9	333.7	---	1.659	-2.63	1.127	84.6	241.0	-40.0	0.160
4-3150	4-3530	0.270	337.6	-0.3	3.06	0.779	76.4	0.258	1.316	128.4	343.4	---	1.655	-1.93	1.128	86.6	238.5	-36.8	0.136
4-3150	4-3540	0.266	338.4	-1.3	2.58	0.781	76.7	0.254	1.319	128.0	353.1	---	1.654	-1.56	1.128	88.6	232.4	-34.0	0.122
4-3150	4-3550	0.266	338.9	-2.1	2.25	0.781	76.7	0.253	1.321	127.7	362.9	0.987	1.655	-1.34	1.127	90.6	224.0	-30.5	0.116
4-3150	4-3560	0.268	339.3	-2.8	1.99	0.782	76.5	0.255	1.322	127.4	372.8	0.984	1.659	-1.21	1.128	92.6	216.1	-26.3	0.121
4-3150	4-3570	0.273	339.7	-3.5	1.77	0.781	76.1	0.262	1.321	127.2	382.6	0.975	1.667	-1.14	1.129	94.6	210.8	-22.6	0.136
4-3150	4-3580	0.282	340.0	-4.1	1.57	0.781	75.4	0.272	1.320	127.1	392.5	0.961	1.680	-1.11	1.130	96.8	208.5	-20.0	0.159
4-3150	4-3590	0.295	340.3	-4.7	1.38	0.781	74.4	0.288	1.319	126.9	402.3	0.939	1.699	-1.11	1.117	99.1	208.6	-18.6	0.190
4-3150	4-3600	0.314	340.5	-5.4	1.18	0.780	73.0	0.310	1.317	126.9	412.2	0.908	1.725	-1.14	1.114	101.6	210.4	-18.2	0.228
4-3150	4-3610	0.340	340.6	-6.1	0.97	0.779	71.1	0.341	1.314	127.1	422.2	0.866	1.762	-1.22	1.111	104.6	213.3	-18.4	0.275
4-3150	4-3730	0.246	213.2	-6.4	2.40	0.749	111.1	0.397	1.240	223.9	634.3	0.747	1.732	1.43	1.080	69.0	136.6	20.6	0.390
4-3150	4-3740	0.201	217.6	-7.2	2.12	0.747	107.5	0.347	1.236	222.3	642.2	0.806	1.665	1.27	1.080	72.5	142.0	19.3	0.318
4-3150	4-3750	0.168	223.4	-8.5	1.90	0.745	104.5	0.310	1.231	219.5	649.1	0.849	1.612	1.18	1.081	75.1	147.8	17.9	0.271
4-3150	4-3760	0.144	231.0	-10.2	1.69	0.743	102.1	0.282	1.225	215.8	655.1	0.880	1.571	1.12	1.081	77.2	153.8	16.2	0.235
4-3150	4-3770	0.126	240.8	-12.3	1.50	0.740	99.9	0.260	1.219	211.2	660.2	0.902	1.537	1.10	1.082	78.7	160.2	14.5	0.207
4-3150	4-3780	0.115	253.4	-14.7	1.31	0.737	97.7	0.244	1.212	205.4	664.2	0.916	1.508	1.12	1.082	79.9	167.2	12.4	0.187
4-3150	4-3790	0.272	321.4	-12.6	1.11	0.689	78.0	0.364	1.121	157.1	625.8	0.713	1.529	1.16	1.053	69.5	196.8	-3.6	0.352
4-3150	4-3790	0.113	270.4	-16.8	1.11	0.732	95.1	0.234	1.202	197.4	666.1	0.921	1.483	1.16	1.082	80.6	175.6	9.7	0.175
4-3150	4-3800	0.159	306.8	-15.5	0.88	0.715	87.9	0.254	1.168	173.8	652.4	0.871	1.465	1.26	1.073	77.9	193.6	0.9	0.215
4-3150	4-3800	0.146	302.3	-16.2	0.88	0.719	89.3	0.245	1.175	177.7	656.3	0.887	1.463	1.26	1.075	78.8	191.4	2.3	0.201
4-3150	4-3870	0.156	255.3	19.6	8.26	0.745	98.0	0.233	1.231	208.8	758.0	0.944	1.517	-6.86	1.105	96.9	116.3	-20.1	0.202
4-3150	4-3870	0.206	225.1	14.8	8.26	0.763	105.8	0.307	1.273	226.5	775.7	0.883	1.664	-6.86	1.117	102.2	108.5	-5.7	0.280
4-3150	4-3880	0.123	272.9	4.8	4.61	0.738	94.7	0.219	1.215	197.2	756.6	0.948	1.481	-3.32	1.100	96.3	132.4	-7.2	0.156
4-3150	4-3880	0.265	208.7	1.4	4.61	0.779	112.5	0.397	1.314	232.2	791.6	0.792	1.835	-3.32	1.128	108.5	113.6	11.8	0.366
4-3150	4-3890	0.123	285.2	-2.2	3.43	0.734	93.7	0.217	1.206	189.8	759.4	0.944	1.468	-2.23	1.097	96.7	142.4	-2.5	0.150
4-3150	4-3900	0.130	294.4	-5.8	2.81	0.731	91.0	0.220	1.200	183.6	763.4	0.936	1.463	-1.72	1.094	97.4	150.5	-0.9	0.155
4-3150	4-3910	0.483	352.1	0.9	2.41	0.902	63.0	0.485	1.808	96.4	326.3	---	2.684	-1.44	1.215	79.2	280.1	-28.9	0.299

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3150	4-3910	0.141	301.7	-7.8	2.41	0.728	89.5	0.225	1.194	178.1	768.0	0.926	1.463	-1.44	1.091	98.3	157.7	-0.9	0.169
4-3150	4-3920	0.470	353.0	0.9	2.12	0.903	63.9	0.472	1.814	98.4	334.5	---	2.671	-1.27	1.214	81.9	281.3	-28.8	0.265
4-3150	4-3920	0.154	307.7	-9.0	2.12	0.726	87.9	0.232	1.190	173.0	773.0	0.914	1.466	-1.27	1.088	99.2	164.6	-1.9	0.176
4-3150	4-3930	0.460	353.7	0.9	1.88	0.904	64.7	0.463	1.819	92.9	343.0	---	2.661	-1.17	1.213	84.6	279.9	-29.2	0.236
4-3150	4-3930	0.169	312.7	-9.7	1.88	0.724	86.3	0.242	1.185	168.2	778.3	0.899	1.472	-1.17	1.085	100.4	171.3	-3.4	0.191
4-3150	4-3940	0.453	354.2	0.8	1.68	0.905	65.1	0.457	1.822	91.8	351.9	---	2.655	-1.12	1.211	87.5	275.3	-29.7	0.215
4-3150	4-3940	0.187	317.0	-10.1	1.68	0.722	84.5	0.255	1.181	163.6	783.7	0.880	1.483	-1.12	1.081	101.6	177.9	-5.3	0.210
4-3150	4-3950	0.450	354.6	0.6	1.48	0.905	65.3	0.455	1.825	91.3	361.4	0.995	2.655	-1.10	1.209	90.4	267.5	-29.9	0.205
4-3150	4-3950	0.208	320.7	-10.4	1.48	0.720	82.6	0.272	1.178	159.2	789.3	0.858	1.498	-1.10	1.077	103.1	184.5	-7.4	0.233
4-3200	4-3510	0.298	7.2	-12.3	-5.58	0.780	74.2	0.304	1.235	132.4	297.4	---	1.610	6.55	1.106	76.7	268.8	1.9	0.287
4-3200	4-3540	0.266	353.7	19.1	6.76	0.793	77.0	0.251	1.267	129.0	324.8	---	1.584	-6.24	1.114	83.2	285.8	-59.1	0.203
4-3200	4-3550	0.248	357.4	13.6	4.25	0.796	77.5	0.240	1.273	128.3	334.2	---	1.578	-3.88	1.114	85.1	283.2	-50.9	0.160
4-3200	4-3560	0.238	359.2	10.8	3.09	0.798	77.9	0.232	1.278	127.8	343.7	---	1.574	-2.88	1.114	87.0	279.5	-47.7	0.135
4-3200	4-3570	0.233	0.3	8.9	2.39	0.799	78.2	0.227	1.281	127.4	353.4	---	1.572	-2.35	1.112	88.8	272.2	-46.1	0.118
4-3200	4-3580	0.232	1.2	7.5	1.89	0.800	78.2	0.226	1.283	127.0	363.0	0.994	1.573	-2.04	1.111	90.6	262.1	-44.1	0.111
4-3200	4-3590	0.233	1.9	6.4	1.51	0.800	78.1	0.227	1.284	126.7	372.7	0.992	1.576	-1.85	1.108	92.3	251.9	-41.0	0.113
4-3200	4-3600	0.237	2.6	5.4	1.18	0.800	77.7	0.233	1.284	126.5	382.3	0.985	1.583	-1.74	1.106	94.1	244.6	-37.3	0.124
4-3200	4-3610	0.245	3.3	4.5	0.88	0.800	77.2	0.242	1.283	126.2	391.8	0.973	1.594	-1.70	1.103	96.0	241.1	-34.1	0.144
4-3200	4-3620	0.257	4.0	3.7	0.59	0.799	76.3	0.256	1.282	125.9	401.3	0.954	1.610	-1.70	1.100	98.1	240.6	-31.8	0.170
4-3200	4-3630	0.274	4.7	3.0	0.29	0.799	75.1	0.275	1.280	125.7	410.8	0.928	1.633	-1.75	1.097	100.3	242.2	-30.5	0.204
4-3200	4-3640	0.297	5.3	2.3	-0.03	0.798	73.4	0.303	1.278	125.6	420.4	0.891	1.665	-1.86	1.094	102.9	245.2	-29.7	0.246
4-3200	4-3650	0.330	5.8	1.6	-0.41	0.797	71.0	0.340	1.276	125.9	430.4	0.841	1.710	-2.05	1.092	106.1	248.9	-29.3	0.299
4-3200	4-3760	0.260	240.7	-15.0	2.18	0.771	109.8	0.372	1.214	226.1	636.0	0.763	1.665	2.21	1.078	70.4	165.4	33.2	0.349
4-3200	4-3770	0.216	244.5	-15.8	1.74	0.770	106.4	0.324	1.210	224.3	644.0	0.818	1.602	1.96	1.079	73.7	170.7	11.6	0.291
4-3200	4-3780	0.184	249.6	-17.0	1.39	0.768	103.7	0.288	1.206	221.6	651.0	0.858	1.554	1.81	1.080	76.3	176.4	10.0	0.247
4-3200	4-3790	0.160	255.9	-18.3	1.07	0.766	101.5	0.262	1.201	218.0	657.2	0.887	1.515	1.72	1.081	78.3	182.3	8.3	0.214
4-3200	4-3800	0.142	263.8	-19.7	0.78	0.763	99.5	0.241	1.196	213.6	662.7	0.907	1.484	1.69	1.082	79.8	188.6	6.8	0.188
4-3200	4-3810	0.129	273.8	-21.1	0.48	0.760	97.6	0.226	1.190	208.1	667.2	0.921	1.458	1.71	1.083	81.0	195.5	5.2	0.169
4-3200	4-3820	0.279	347.5	-5.1	0.17	0.710	76.7	0.364	1.093	154.1	623.2	0.695	1.491	1.79	1.050	69.3	227.6	-12.7	0.359
4-3200	4-3820	0.121	287.4	-22.0	0.17	0.757	95.4	0.214	1.181	200.8	669.9	0.928	1.435	1.79	1.083	81.8	203.7	3.3	0.157
4-3200	4-3830	0.190	339.1	-9.8	-0.19	0.730	84.2	0.268	1.128	163.7	642.8	0.826	1.430	1.94	1.066	73.2	228.8	-9.6	0.246
4-3200	4-3830	0.125	309.6	-20.1	-0.19	0.749	92.1	0.211	1.167	187.9	667.1	0.920	1.413	1.94	1.080	81.5	215.8	-0.6	0.162
4-3200	4-3900	0.185	276.8	21.6	9.96	0.765	95.7	0.209	1.200	207.1	757.6	0.949	1.451	-9.36	1.095	96.2	132.4	-39.9	0.218
4-3200	4-3900	0.260	245.7	8.6	9.96	0.790	107.2	0.317	1.258	231.5	781.9	0.859	1.656	-9.36	1.112	103.7	129.1	-16.6	0.315
4-3200	4-3910	0.136	290.4	8.4	5.27	0.760	94.2	0.199	1.189	197.4	757.9	0.952	1.426	-4.82	1.090	96.0	153.4	-28.3	0.154
4-3200	4-3920	0.128	301.7	1.7	3.61	0.757	92.5	0.198	1.182	190.4	761.0	0.948	1.415	-3.32	1.086	96.4	165.7	-22.3	0.142
4-3200	4-3930	0.129	311.2	-1.8	2.72	0.754	91.1	0.199	1.176	184.4	765.1	0.942	1.411	-2.59	1.082	97.1	175.1	-19.5	0.143
4-3200	4-3940	0.134	319.2	-3.6	2.13	0.752	89.7	0.203	1.172	178.9	769.6	0.933	1.410	-2.18	1.078	97.8	183.1	-18.6	0.150
4-3200	4-3950	0.442	19.7	12.0	1.70	0.926	65.0	0.463	1.781	90.9	331.5	---	2.605	-1.94	1.204	81.1	318.9	-24.7	0.276
4-3200	4-3950	0.143	326.1	-4.4	1.70	0.750	86.3	0.209	1.167	173.7	774.4	0.923	1.412	-1.94	1.074	98.6	190.6	-18.7	0.160
4-3200	4-3960	0.430	20.6	11.8	1.35	0.927	65.8	0.452	1.786	89.0	339.6	---	2.594	-1.79	1.202	83.7	318.9	-25.1	0.246
4-3200	4-3960	0.155	332.1	-4.8	1.35	0.748	86.9	0.218	1.164	168.8	779.4	0.910	1.417	-1.79	1.070	99.6	197.9	-19.5	0.173
4-3200	4-3970	0.421	21.3	11.5	1.04	0.928	66.4	0.445	1.790	87.6	348.0	---	2.587	-1.71	1.200	86.3	316.4	-26.4	0.222
4-3200	4-3970	0.169	337.4	-4.8	1.04	0.746	85.4	0.229	1.160	164.0	784.5	0.895	1.426	-1.71	1.066	100.6	205.1	-20.6	0.189
4-3200	4-3980	0.415	21.9	11.1	0.74	0.928	66.8	0.441	1.793	86.7	357.0	---	2.584	-1.69	1.198	89.1	310.7	-28.4	0.207
4-3200	4-3980	0.186	342.1	-4.6	0.74	0.745	83.7	0.243	1.157	159.4	789.7	0.875	1.439	-1.69	1.062	101.9	212.2	-22.0	0.209
4-3200	4-3990	0.415	22.2	10.5	0.45	0.928	66.8	0.441	1.796	86.6	366.6	1.004	2.587	-1.72	1.196	92.0	302.2	-30.4	0.206
4-3200	4-3990	0.207	346.3	-4.3	0.45	0.743	81.7	0.262	1.154	155.0	795.0	0.851	1.457	-1.72	1.059	103.3	219.4	-23.4	0.234
4-3200	4-4000	0.421	22.2	9.9	0.18	0.929	66.4	0.446	1.797	87.3	377.0	0.995	2.600	-1.80	1.194	95.2	292.6	-31.6	0.222
4-3200	4-4000	0.234	350.0	-5.9	0.18	0.742	79.4	0.287	1.151	150.8	800.6	0.821	1.481	-1.80	1.055	105.1	226.5	-24.7	0.265
4-3250	4-3510	0.296	24.3	5.1	-2.00	0.761	72.2	0.360	1.154	139.5	273.4	---	1.569	2.55	1.080	70.6	280.5	-15.9	0.361
4-3250	4-3520	0.274	25.8	2.9	-2.77	0.771	73.7	0.328	1.175	137.6	281.6	---	1.559	3.13	1.087	73.2	286.6	-12.3	0.322
4-3250	4-3530	0.258	27.7	-1.0	-4.04	0.780	75.1	0.300	1.192	135.9	290.1	---	1.550	4.22	1.093	75.7	291.8	-6.1	0.289
4-3250	4-3540	0.254	30.7	-9.6	-6.80	0.786	76.3	0.275	1.208	134.4	298.8	---	1.540	6.81	1.096	78.0	295.6	6.9	0.271
4-3250	4-3570	0.219	12.1	32.5	6.71	0.800	78.9	0.224	1.239	131.7	326.5	---	1.517	-7.18	1.100	84.0	332.5	-57.4	0.203
4-3250	4-3580	0.197	17.5	24.1	3.74	0.802	79.4	0.214	1.245	131.1	335.9	---	1.512	-4.38	1.100	85.8	323.9	-49.3	0.154
4-3250	4-3590	0.187	19.8	19.7	2.42	0.804	79.7	0.207	1.250	130.7	345.4	---	1.509	-3.22	1.099	87.5	318.2	-46.3	0.128
4-3250	4-3600	0.182	21.2	16.8	1.63	0.805	79.9	0.203	1.253	130.3	354.9	---	1.507	-2.61	1.097	89.1	310.3	-45.7	0.112
4-3250	4-3610	0.181	22.3	14.7	1.08	0.806	79.9	0.202	1.255	129.9	364.4	1.002	1.508	-2.26	1.095	90.7	299.6	-45.3	0.105
4-3250	4-3620	0.182	23.4	13.1	0.65	0.806	79.8	0.203	1.256	129.6	373.8	1.000	1.511	-2.04	1.093	92.3	288.5	-43.7	0.107
4-3250	4-3630	0.186	24.5	11.8	0.30	0.806	79.5	0.208	1.255	129.1	383.1	0.994	1.517	-1.91	1.090	93.9	280.3	-41.1	0.118
4-3250	4-3640	0.193	25.7	10.8	-0.03	0.806	78.9	0.217	1.255	128.6	392.2	0.982	1.527	-1.85	1.088	95.6	276.1	-38.3	0.135
4-3250	4-3650	0.205	27.0	10.0	-0.34	0.805	78.1	0.230	1.253	128.0	401.3	0.965	1.541	-1.84	1.085	97.4	275.2	-35.9	0.159
4-3250	4-3660	0.220	28.3	9.4	-0.65	0.804	77.0	0.248	1.251	127.4	410.3	0.941	1.561	-1.88	1.083	99.3	276.6	-34.0	0.189
4-3250	4-3670	0.242	29.7	9.0	-0.99	0.804	75.4	0.272	1.249	126.9	419.4	0.909	1.589	-1.99	1.081	101.6	279.5	-32.5	0.227
4-3250	4-3680	0.272	30.9	8.7	-1.38	0.803	73.3	0.306	1.247	126.7	428.6	0.865	1.629	-2.16	1.080	104.4	283.3	-31.2	0.274
4-3250	4-3790	0.297	270.4	-20.5	1.42	0.777	109.8	0.372	1.187	225.5	633.6	0.745	1.628	2.47	1.077	70.0	194.6	1.5	0.354
4-3250	4-3800	0.250	273.7	-21.2	0.92	0.775	106.1	0.322	1.183	223.6	641.5	0.802	1.564	2.17	1.078	73.5	200.1	-0.3	0.294
4-3250	4-3810	0.215	278.2	-22.0	0.51	0.773	103.3	0.285	1.178	220.4	648.3	0.842	1.514	1.98	1.079	76.0	206.2	-2.0	0.251
4-3250	4-3820	0.188	283.9	-22.7	0.16	0.771	100.9	0.258	1.173	216.2	654.1	0.871	1.476	1.88	1.080	78.0	212.9	-3.6	0.218
4-3250	4-3830	0.166	291.2	-23.3	-0.17	0.768	98.7	0.237	1.167	210.9	658.9	0.891	1.444	1.84	1.080	79.5	220.2	-5.1	0.195
4-3250	4-3840	0.149	301.1	-23.4	-0.49	0.764	96.5	0.222	1.160	204.0	662.1	0.908	1.417	1.85	1.079	80.5	228.5	-6.5	0.179
4-3250	4-3850	0.245	9.3	1.5	-0.84	0.719	78.1	0.347	1.076	155.4	623.5	0.703	1.450	1.93	1.049	70.3	258.8	-17.6	0.349
4-3250	4-3850	0.137	316.4	-21.9	-0.84	0.759	93.7	0.213	1.149	193.9	662.1	0.904	1.394	1.93	1.077	80.8	239.0	-8.3	0.175
4-3250	4-3940	0.164	291.1	1.5	4.94	0.775	97.3	0.211	1.182	209.5	769.1	0.933	1.431	-5.49	1.081	98.0	172.6	-35.3	0.179
4-3250	4-3950	0.139	303.7	-3.1	3.01	0.769	94.7	0.199	1.170	199.8	769.3	0.938	1.403	-3.73	1.075	97.6	187.8	-32.4	0.155
4-3250	4-3960	0.130	314.6	-5.2	2.00	0.766	92.9	0.195	1.163	192.3	771.7	0.936	1.390	-2.89	1.070	97.8	199.2	-30.7	0.190
4-3250	4-3970	0.127	324.6	-5.9	1.35	0.763	91.4	0.196	1.158	185.7	775.0	0.931	1.384	-2.42	1.065	98.2	208.9	-30.0	0.153
4-3250	4-3980	0.399	50.0	20.7	0.87	0.936	65.7	0.454	1.754	89.2	328.3	---	2.550	-2.14	1.193	80.2	351.0	-13.5	0.286
4-3250	4-3980	0.129	333.9	-5.6	0.87	0.761	89.9	0.199	1.153	179.7	778.8	0.923	1.383	-2.14	1.061	98.8	217.8	-29.9	0.160

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3250	4-3990	0.395	51.1	20.2	0.48	0.937	66.6	0.443	1.759	87.1	336.0	---	2.538	-1.97	1.191	82.7	351.8	-13.5	0.254
4-3250	4-3990	0.134	342.4	-4.7	0.48	0.759	88.5	0.205	1.149	174.0	782.9	0.913	1.385	-1.97	1.057	99.5	226.2	-30.1	0.170
4-3250	4-4000	0.375	52.0	19.6	0.14	0.938	67.3	0.435	1.763	85.5	344.0	---	2.530	-1.87	1.190	85.2	350.6	-14.7	0.228
4-3250	4-4000	0.143	350.2	-3.5	0.14	0.757	86.9	0.214	1.145	168.6	787.1	0.900	1.390	-1.87	1.053	100.3	234.5	-30.4	0.183
4-3250	4-4010	0.368	52.6	19.0	-0.18	0.938	67.7	0.429	1.767	84.3	352.5	---	2.525	-1.84	1.188	87.8	346.8	-17.0	0.210
4-3250	4-4010	0.155	357.4	-2.1	-0.18	0.755	85.3	0.226	1.142	163.3	791.5	0.884	1.400	-1.84	1.050	101.3	242.7	-30.7	0.200
4-3250	4-4020	0.366	53.0	18.4	-0.48	0.939	67.9	0.428	1.770	83.9	361.7	1.013	2.526	-1.85	1.187	90.5	340.4	-20.1	0.203
4-3250	4-4020	0.171	3.8	-0.6	-0.48	0.754	83.4	0.242	1.139	158.3	796.1	0.863	1.414	-1.85	1.047	102.5	250.8	-30.9	0.222
4-3250	4-4030	0.369	53.1	17.6	-0.81	0.939	67.7	0.431	1.772	84.2	371.6	1.008	2.535	-1.92	1.186	93.5	332.1	-23.0	0.212
4-3250	4-4030	0.193	9.6	0.8	-0.81	0.752	81.3	0.263	1.136	153.5	800.9	0.837	1.435	-1.92	1.044	104.0	258.7	-30.9	0.249
4-3250	4-4040	0.380	52.7	16.8	-1.17	0.939	67.0	0.440	1.773	85.7	382.6	0.992	2.554	-2.06	1.135	96.9	323.9	-25.1	0.239
4-3250	4-4040	0.221	14.7	2.2	-1.17	0.751	72.7	0.292	1.133	149.1	806.0	0.802	1.464	-2.06	1.042	105.9	266.5	-30.7	0.284
4-3250	4-4050	0.402	51.8	15.8	-1.59	0.939	65.6	0.460	1.774	88.5	395.0	0.959	2.589	-2.28	1.185	100.8	317.5	-26.0	0.288
4-3250	4-4050	0.259	19.1	3.5	-1.59	0.750	75.4	0.331	1.131	145.2	811.7	0.756	1.505	-2.28	1.041	108.5	274.0	-30.2	0.330
4-3300	4-3520	0.270	42.6	12.1	-1.76	0.723	72.6	0.396	1.093	148.4	260.8	---	1.526	1.56	1.058	67.3	297.6	-17.3	0.413
4-3300	4-3530	0.243	43.9	10.6	-2.08	0.739	74.4	0.355	1.120	146.5	269.1	---	1.518	1.71	1.068	70.3	303.7	-15.0	0.366
4-3300	4-3540	0.220	44.1	8.5	-2.49	0.751	76.0	0.319	1.144	144.9	277.7	---	1.510	1.96	1.075	73.1	309.3	-12.1	0.323
4-3300	4-3550	0.201	44.6	5.4	-3.07	0.761	77.4	0.289	1.165	143.6	286.5	---	1.501	2.39	1.081	75.6	314.2	-8.1	0.284
4-3300	4-3560	0.187	45.4	0.5	-3.99	0.770	78.6	0.263	1.182	142.6	295.5	---	1.493	3.17	1.085	78.0	317.9	-2.0	0.250
4-3300	4-3570	0.184	46.8	-8.3	-5.89	0.776	79.6	0.241	1.197	141.8	304.8	---	1.485	4.94	1.087	80.1	319.4	9.3	0.226
4-3300	4-3580	0.240	50.6	-29.0	-12.90	0.782	80.4	0.223	1.209	141.2	314.2	---	1.479	11.83	1.089	82.1	315.0	38.2	0.280
4-3300	4-3600	0.153	25.2	39.7	5.08	0.789	81.6	0.198	1.225	140.8	333.8	---	1.468	-6.40	1.089	85.8	357.3	+50.5	0.174
4-3300	4-3610	0.134	31.4	27.3	2.26	0.791	81.9	0.191	1.230	140.6	343.4	---	1.465	-3.71	1.088	87.4	345.4	-42.2	0.130
4-3300	4-3620	0.128	33.7	21.0	1.09	0.792	82.1	0.186	1.234	140.4	353.0	---	1.464	-2.67	1.086	88.9	336.6	-39.5	0.110
4-3300	4-3630	0.126	35.3	17.2	0.42	0.793	82.1	0.185	1.236	140.0	362.4	1.008	1.464	-2.14	1.084	90.4	326.6	-38.8	0.100
4-3300	4-3640	0.128	36.9	14.7	-0.04	0.793	82.0	0.186	1.237	139.5	371.5	1.007	1.466	-1.82	1.082	91.8	316.1	-37.9	0.100
4-3300	4-3650	0.130	38.7	13.1	-0.38	0.793	81.7	0.190	1.237	138.9	380.5	1.002	1.471	-1.64	1.080	93.2	307.7	-36.1	0.108
4-3300	4-3660	0.136	40.8	12.1	-0.67	0.793	81.2	0.196	1.235	138.0	389.2	0.993	1.478	-1.52	1.078	94.7	302.9	-33.9	0.122
4-3300	4-3670	0.144	43.2	11.7	-0.93	0.792	80.6	0.206	1.234	136.9	397.7	0.979	1.488	-1.46	1.077	96.2	301.4	-31.7	0.141
4-3300	4-3680	0.155	45.9	11.8	-1.17	0.791	79.6	0.220	1.232	135.6	406.0	0.960	1.503	-1.44	1.075	97.8	302.4	-29.6	0.166
4-3300	4-3690	0.171	48.7	11.8	-1.41	0.790	78.4	0.239	1.229	134.3	414.2	0.935	1.522	-1.46	1.074	99.6	305.0	-27.7	0.196
4-3300	4-3700	0.192	51.5	12.3	-1.67	0.789	76.8	0.263	1.226	133.0	422.4	0.904	1.549	-1.53	1.073	101.8	308.6	-25.9	0.232
4-3300	4-3710	0.220	54.3	12.9	-1.96	0.788	74.6	0.297	1.223	131.9	430.8	0.860	1.586	-1.65	1.073	104.3	312.8	-24.1	0.277
4-3300	4-3720	0.260	56.7	13.6	-2.39	0.786	71.6	0.342	1.220	131.2	439.7	0.803	1.637	-1.84	1.073	107.6	317.2	-22.3	0.335
4-3300	4-3730	0.287	306.2	-20.3	-0.20	0.754	108.1	0.384	1.149	217.8	634.2	0.754	1.544	1.73	1.074	71.5	232.3	-13.4	0.330
4-3300	4-3840	0.246	310.8	-20.2	-0.53	0.750	102.6	0.304	1.143	213.3	639.7	0.796	1.490	1.57	1.073	74.1	239.9	-14.8	0.286
4-3300	4-3850	0.212	317.4	-19.7	-0.82	0.747	99.4	0.276	1.136	207.1	643.7	0.822	1.449	1.48	1.072	75.9	248.4	-15.9	0.256
4-3300	4-3860	0.184	327.0	-18.2	-1.08	0.742	96.2	0.258	1.126	198.6	645.3	0.836	1.416	1.44	1.070	76.9	258.3	-16.7	0.240
4-3300	4-3870	0.245	30.4	8.2	-1.34	0.694	76.9	0.394	1.095	158.0	614.9	0.633	1.457	1.45	1.038	67.0	284.6	-19.4	0.409
4-3300	4-3870	0.162	344.3	-13.4	-1.34	0.733	91.9	0.255	1.130	185.5	642.4	0.827	1.393	1.45	1.064	76.7	270.7	-17.3	0.245
4-3300	4-3990	0.190	314.4	-14.6	0.74	0.763	98.2	0.237	1.168	209.0	786.2	0.891	1.445	-2.38	1.064	101.2	223.4	-29.6	0.202
4-3300	4-4000	0.164	324.3	-13.6	0.19	0.757	95.4	0.223	1.156	199.5	786.4	0.899	1.414	-1.97	1.057	100.6	234.8	-30.7	0.190
4-3300	4-4010	0.350	83.3	23.3	-0.21	0.928	66.0	0.445	1.731	90.3	328.8	---	2.501	-1.73	1.183	79.9	17.4	-0.3	0.283
4-3300	4-4010	0.150	233.9	-12.2	-0.21	0.753	93.2	0.218	1.148	191.5	788.1	0.898	1.398	-1.73	1.052	100.6	245.1	-31.1	0.189
4-3300	4-4020	0.337	84.3	22.5	-0.53	0.929	66.8	0.434	1.736	88.2	334.4	---	2.490	-1.57	1.183	82.3	18.2	-0.2	0.252
4-3300	4-4020	0.142	343.7	-10.1	-0.53	0.750	91.2	0.219	1.142	184.3	790.5	0.892	1.392	-1.57	1.048	100.9	254.8	-31.1	0.194
4-3300	4-4030	0.327	85.0	21.8	-0.80	0.929	67.5	0.425	1.741	86.6	342.3	---	2.482	-1.49	1.182	84.8	16.9	-1.2	0.226
4-3300	4-4030	0.139	253.8	-7.5	-0.80	0.747	89.3	0.224	1.137	177.6	793.4	0.882	1.391	-1.49	1.045	101.4	264.0	-30.8	0.204
4-3300	4-4040	0.321	85.6	21.1	-1.04	0.930	67.9	0.420	1.745	85.5	350.8	---	2.477	-1.45	1.181	87.3	13.3	-3.3	0.207
4-3300	4-4040	0.141	3.9	-4.3	-1.04	0.745	87.4	0.233	1.132	171.2	796.6	0.869	1.396	-1.45	1.042	102.1	272.9	-30.2	0.218
4-3300	4-4050	0.319	85.8	20.5	-1.28	0.930	68.1	0.418	1.747	85.0	359.8	---	2.478	-1.45	1.181	90.0	7.1	-6.3	0.199
4-3300	4-4050	0.148	13.8	-1.0	-1.28	0.743	85.3	0.246	1.128	165.2	800.1	0.850	1.406	-1.45	1.040	103.1	281.5	-29.3	0.236
4-3300	4-4060	0.322	85.7	19.8	-1.53	0.931	67.9	0.421	1.749	85.3	369.7	1.012	2.486	-1.49	1.181	92.9	359.5	-9.5	0.207
4-3300	4-4060	0.162	23.1	2.4	-1.53	0.741	83.0	0.265	1.124	159.5	803.9	0.826	1.422	-1.49	1.038	104.4	289.7	-28.0	0.260
4-3300	4-4070	0.332	85.2	19.3	-1.80	0.931	67.3	0.430	1.751	86.6	380.5	0.997	2.504	-1.58	1.182	96.1	352.1	-32.1	0.233
4-3300	4-4070	0.184	31.7	5.5	-1.80	0.739	80.3	0.291	1.121	154.2	808.1	0.795	1.448	-1.58	1.037	106.1	297.5	-26.5	0.292
4-3300	4-4080	0.353	84.0	18.8	-2.11	0.931	66.0	0.448	1.751	89.2	392.7	0.966	2.537	-1.73	1.182	108.0	346.3	-13.7	0.279
4-3300	4-4080	0.216	39.1	8.3	-2.11	0.737	77.0	0.327	1.118	149.5	813.0	0.752	1.484	-1.73	1.037	108.4	304.9	-24.8	0.334
4-3300	4-4090	0.263	45.3	10.6	-2.53	0.736	72.8	0.378	1.116	145.7	818.8	0.694	1.537	-1.97	1.037	111.6	311.7	-23.0	0.392
4-3350	4-3520	0.270	52.3	15.8	-1.64	0.638	74.3	0.484	1.009	161.8	243.7	---	1.498	0.66	1.021	61.1	306.6	-18.0	0.512
4-3350	4-3530	0.234	53.3	14.6	-1.76	0.665	76.4	0.426	1.047	160.2	252.3	---	1.494	0.65	1.038	65.0	312.5	-16.3	0.451
4-3350	4-3540	0.203	52.5	13.0	-1.87	0.688	78.3	0.376	1.082	159.0	261.2	---	1.488	0.67	1.051	68.5	318.2	-14.4	0.395
4-3350	4-3550	0.178	51.3	11.0	-2.00	0.706	79.9	0.332	1.113	158.1	270.5	---	1.482	0.70	1.062	71.7	323.6	-12.3	0.344
4-3350	4-3560	0.157	49.0	8.4	-2.15	0.721	81.2	0.295	1.139	157.6	280.2	---	1.476	0.77	1.070	74.6	328.6	-9.9	0.298
4-3350	4-3570	0.141	46.6	5.3	-2.33	0.733	82.4	0.264	1.162	157.5	290.1	---	1.470	0.88	1.076	77.2	332.9	-7.3	0.257
4-3350	4-3580	0.129	44.0	1.5	-2.58	0.743	83.4	0.239	1.181	157.7	300.3	---	1.464	1.01	1.080	79.6	336.3	-4.3	0.220
4-3350	4-3590	0.121	41.8	-3.1	-2.98	0.750	84.1	0.220	1.197	158.1	310.6	---	1.460	1.41	1.082	81.7	338.4	-0.4	0.187
4-3350	4-3600	0.120	40.6	-9.7	-3.78	0.755	84.7	0.204	1.209	158.7	321.1	---	1.456	2.15	1.084	83.7	337.9	6.4	0.161
4-3350	4-3610	0.137	43.5	-23.8	-6.51	0.759	85.2	0.193	1.218	159.1	331.4	---	1.453	4.82	1.084	85.5	330.4	25.7	0.158
4-3350	4-3620	0.245	346.4	62.1	15.97	0.762	85.5	0.185	1.224	159.6	341.7	---	1.451	-17.72	1.083	87.2	60.1	-62.5	0.338
4-3350	4-3630	0.099	22.2	21.2	1.39	0.764	85.7	0.181	1.228	159.6	351.4	---	1.450	-3.19	1.082	88.7	351.0	-39.1	0.113
4-3350	4-3640	0.096	26.6	10.6	+0.08	0.765	85.7	0.179	1.230	159.4	360.8	1.010	1.451	-1.78	1.080	90.1	337.2	-31.4	0.097
4-3350	4-3650	0.097	29.3	6.8	-0.65	0.765	85.5	0.179	1.231	158.7	369.8	1.010	1.452	-1.26	1.079	91.5	326.8	-28.8	0.095
4-3350	4-3660	0.098	32.2	5.2	-0.97	0.765	85.2	0.182	1.230	157.7	378.4	1.006	1.454	-1.00	1.077	92.8	319.2	-27.0	0.101
4-3350	4-3670	0.100	35.9	4.9	-1.19	0.764	84.8	0.187	1.228	156.3	386.5	0.999	1.458	-0.85	1.075	94.1	315.0	-25.4	0.113
4-3350	4-3680	0.103	40.2	5.5	-1.35	0.763	84.2	0.194	1.226	154.5	394.3	0.988	1.464	-0.75	1.073	95.4	313.9	-23.8	0.130
4-3350	4-3690	0.108	45.3	6.6	-1.49	0.762	83.4	0.204	1.223	152.4	401.8	0.973	1.472	-0.70	1.072	96.7	315.0	-22.2	0.149
4-3350	4-3700	0.115	51.0	8.2	-1.60	0.760	82.4	0.217	1.219	150.1	409.0	0.954	1.483	-0.66	1.071	98.2	317.8	-20.5	0.172
4-3350	4-3710	0.126	57.1	9.9	-1.71	0.758	81.2	0.233	1.215	147.7	416.1	0.931	1.498	-0.65	1.070	99.7	321.5	-18.7	0.198
4-3350	4-3720	0.140	63.3	11.8	-1.82	0.756	79.6	0.254	1.210	145.1	423.1	0.902	1.518	-0.66	1.070	101.5	326.0	-16.8	0.229

DEPART ARRIVE SPEEC R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	V 2	PSI 2	R A	DECL	SPEED
4-3350	4-3730	0.161	69.4	13.5	0.754	71.6	0.281	1.206	142.7	430.2	0.866	1.545	1.069	103.6	330.8	-14.8	0.266
4-3350	4-3740	0.190	75.0	15.3	0.752	75.1	0.317	1.201	150.5	437.7	0.820	1.582	1.070	106.2	335.9	-12.6	0.312
4-3350	4-3750	0.230	79.8	16.8	0.750	71.7	0.365	1.197	138.8	445.6	0.761	1.633	1.070	109.5	340.8	-10.5	0.371
4-3350	4-3760	0.288	83.5	18.0	0.748	67.1	0.430	1.193	138.1	454.6	0.680	1.706	1.071	113.9	345.5	-8.4	0.450
4-3350	4-3870	0.252	347.7	-9.9	0.695	99.9	0.350	1.093	199.6	626.0	0.711	1.475	1.058	70.3	279.0	-21.2	0.355
4-3350	4-3880	0.210	0.1	-5.6	0.685	94.3	0.336	1.077	188.6	625.2	0.715	1.439	1.051	71.0	290.3	-20.2	0.344
4-3350	4-4030	0.322	114.2	19.3	0.901	65.1	0.446	1.705	93.8	321.0	---	2.466	1.177	78.2	38.7	11.5	0.299
4-3350	4-4040	0.308	115.2	18.5	0.902	66.0	0.433	1.712	97.7	328.5	---	2.453	1.177	80.6	40.3	12.0	0.265
4-3350	4-404	0.230	40.9	-12.6	0.731	99.6	0.286	1.157	206.0	800.8	0.826	1.488	1.051	105.1	269.9	-26.4	0.271
4-3350	4-4050	0.297	115.9	17.8	0.903	66.8	0.423	1.717	93.9	336.3	---	2.443	1.177	83.0	40.0	11.8	0.236
4-3350	4-4050	0.195	349.4	-10.4	0.724	95.9	0.270	1.144	196.5	809.9	0.835	1.452	1.046	104.2	280.6	-25.9	0.258
4-3350	4-4060	0.289	116.5	17.2	0.904	67.3	0.416	1.721	90.6	344.5	---	2.437	1.177	85.5	37.4	10.8	0.212
4-3350	4-4060	0.173	358.6	-7.6	0.719	93.0	0.266	1.134	188.2	802.1	0.832	1.436	1.042	104.3	290.3	-24.8	0.259
4-3350	4-4070	0.285	116.8	16.7	0.905	67.6	0.412	1.724	89.9	353.3	---	2.434	1.178	88.0	32.2	8.9	0.198
4-3350	4-4070	0.160	9.0	-4.1	0.715	90.2	0.270	1.127	180.6	804.0	0.823	1.431	1.039	104.6	299.4	-23.2	0.266
4-3350	4-4080	0.285	116.9	16.4	0.905	67.7	0.412	1.727	89.7	362.6	1.015	2.438	1.179	90.8	24.9	6.1	0.196
4-3350	4-4080	0.153	20.6	0.0	0.711	87.5	0.279	1.121	173.5	806.5	0.808	1.434	1.038	105.3	307.9	-21.3	0.281
4-3350	4-4090	0.291	116.5	16.2	0.905	67.3	0.417	1.728	90.3	372.8	1.007	2.450	1.180	93.8	17.2	3.3	0.211
4-3350	4-4090	0.156	33.1	4.6	0.708	84.6	0.296	1.116	166.9	809.4	0.785	1.446	1.037	106.5	316.0	-19.1	0.302
4-3350	4-4100	0.303	115.7	16.3	0.905	66.5	0.429	1.729	91.9	384.0	0.987	2.472	1.182	97.1	10.9	1.0	0.244
4-3350	4-4100	0.170	45.7	9.1	0.706	81.4	0.321	1.111	160.8	812.9	0.754	1.468	1.037	108.1	323.6	-16.6	0.332
4-3350	4-4110	0.326	114.4	16.6	0.905	65.0	0.451	1.730	94.7	396.4	0.950	2.510	1.183	101.1	6.7	-0.4	0.296
4-3350	4-4110	0.196	57.3	12.9	0.703	77.6	0.357	1.107	155.4	817.2	0.712	1.502	1.037	110.3	330.1	-14.1	0.374
4-3350	4-4120	0.240	67.1	15.7	0.701	72.9	0.408	1.104	151.0	822.4	0.654	1.554	1.038	113.6	337.3	-11.6	0.431
4-3400	4-3530	0.254	49.7	14.2	0.575	85.9	0.511	0.989	176.1	239.7	---	1.494	1.010	59.3	319.2	-16.3	0.542
4-3400	4-3540	0.216	46.5	12.3	0.614	86.9	0.440	1.037	176.1	242.9	---	1.493	1.032	64.0	324.2	-14.8	0.468
4-3400	4-3550	0.188	42.1	9.9	0.646	87.9	0.379	1.082	176.6	260.6	---	1.492	1.050	68.2	329.0	-13.3	0.402
4-3400	4-3560	0.168	36.8	7.2	0.671	88.9	0.330	1.121	177.8	271.9	---	1.491	1.063	71.9	333.5	-11.7	0.342
4-3400	4-3570	0.154	31.1	4.5	0.690	89.8	0.290	1.156	179.4	283.6	---	1.490	1.074	75.2	337.6	-10.4	0.290
4-3400	4-3580	0.146	25.8	2.0	0.705	90.5	0.259	1.184	181.4	295.6	---	---	1.081	78.1	341.1	-9.3	0.243
4-3400	4-3590	0.142	21.1	0.0	0.716	91.1	0.236	1.207	183.6	307.7	---	---	1.086	80.7	343.6	-8.7	0.203
4-3400	4-3600	0.140	17.4	-1.4	0.725	91.6	0.219	1.224	185.6	319.6	---	---	1.088	83.1	345.0	-8.9	0.169
4-3400	4-3610	0.138	14.6	-2.2	0.730	91.9	0.207	1.237	187.2	331.0	---	---	1.090	85.1	344.6	-10.1	0.140
4-3400	4-3620	0.137	12.6	-2.2	0.734	92.0	0.200	1.246	188.2	341.9	---	---	1.090	87.0	342.3	-13.1	0.119
4-3400	4-3630	0.136	11.2	-0.9	0.736	92.1	0.195	1.250	188.6	352.0	---	---	1.089	88.7	338.3	-19.0	0.105
4-3400	4-3640	0.134	8.6	5.2	0.737	92.0	0.193	1.252	188.3	361.4	1.010	---	1.087	90.2	336.5	-33.7	0.104
4-3400	4-3650	0.164	26.1	-26.3	0.737	91.8	0.193	1.252	187.4	370.1	1.010	---	1.085	91.6	305.2	29.7	0.139
4-3400	4-3660	0.135	18.3	-10.0	0.736	91.4	0.195	1.249	185.8	378.1	1.006	---	1.083	92.9	312.5	-5.3	0.108
4-3400	4-3670	0.130	19.5	-6.8	0.734	90.9	0.198	1.245	183.7	385.5	0.999	---	1.080	94.1	312.0	-11.4	0.117
4-3400	4-3680	0.126	22.2	-5.1	0.732	90.3	0.202	1.240	181.1	392.5	0.990	---	1.078	95.3	312.9	-13.5	0.131
4-3400	4-3690	0.121	26.1	-2.8	0.729	89.5	0.208	1.234	178.2	399.1	0.978	1.491	1.076	96.4	314.2	-14.1	0.147
4-3400	4-3700	0.117	31.2	-0.6	0.726	88.6	0.215	1.228	174.9	405.3	0.963	1.492	1.074	97.6	318.8	-13.7	0.164
4-3400	4-3710	0.114	37.5	1.9	0.723	87.5	0.225	1.221	171.4	411.3	0.946	1.495	1.072	98.8	323.2	-12.8	0.184
4-3400	4-3720	0.113	45.4	4.7	0.720	86.2	0.237	1.214	167.6	417.2	0.926	1.501	1.071	100.0	328.2	-11.4	0.205
4-3400	4-3730	0.115	54.6	7.8	0.716	84.7	0.252	1.206	163.8	422.9	0.903	1.510	1.070	101.4	333.6	-9.7	0.229
4-3400	4-3740	0.120	64.9	10.9	0.713	82.9	0.271	1.199	160.0	428.7	0.875	1.524	1.069	102.9	339.2	-7.6	0.256
4-3400	4-3750	0.132	75.7	13.7	0.709	80.8	0.294	1.192	156.2	434.6	0.841	1.543	1.069	104.8	345.0	-5.4	0.289
4-3400	4-3760	0.153	86.1	16.0	0.706	78.2	0.325	1.185	152.7	440.7	0.800	1.570	1.069	107.0	350.8	-3.1	0.328
4-3400	4-3770	0.183	95.3	17.6	0.703	74.9	0.365	1.179	149.5	447.3	0.749	1.609	1.069	109.7	356.5	-0.7	0.377
4-3400	4-3780	0.227	102.8	18.7	0.699	70.7	0.418	1.173	147.0	454.6	0.683	1.662	1.069	113.3	2.1	1.7	0.440
4-3400	4-3790	0.291	108.3	19.5	0.697	65.2	0.489	1.167	145.7	463.1	0.596	1.739	1.070	118.2	7.3	3.9	0.526
4-3400	4-3890	0.274	21.8	4.6	0.613	88.3	0.458	1.035	190.1	608.4	0.561	1.510	1.033	62.9	309.5	-19.1	0.486
4-3400	4-4060	0.289	141.8	9.4	0.866	65.4	0.429	1.688	100.2	325.7	---	2.412	1.172	79.9	60.6	22.2	0.268
4-3400	4-4070	0.278	142.7	9.0	0.867	66.2	0.418	1.694	98.6	333.6	---	2.402	1.174	82.3	60.5	22.2	0.237
4-3400	4-4080	0.270	143.4	8.8	0.868	66.7	0.410	1.698	97.4	341.9	---	2.395	1.175	84.8	57.9	21.7	0.212
4-3400	4-4080	0.295	2.2	-3.9	0.693	104.7	0.374	1.161	208.0	812.6	0.727	1.595	1.052	110.8	303.6	-19.1	0.379
4-3400	4-4090	0.266	143.8	8.6	0.868	67.1	0.406	1.702	96.6	350.7	---	2.393	1.176	87.3	52.4	20.6	0.195
4-3400	4-4090	0.234	10.9	-1.2	0.680	98.6	0.341	1.138	197.4	811.4	0.750	1.526	1.045	109.0	313.9	-16.6	0.348
4-3400	4-4100	0.265	144.0	8.7	0.869	67.1	0.406	1.704	96.3	360.0	---	2.395	1.175	90.0	44.7	18.6	0.195
4-3400	4-4100	0.199	20.7	2.1	0.673	94.2	0.333	1.125	188.5	812.2	0.751	1.499	1.042	108.6	325.0	-13.9	0.363
4-3400	4-4110	0.269	143.9	9.0	0.869	66.8	0.410	1.706	96.7	370.0	1.007	2.405	1.180	92.9	36.6	16.1	0.203
4-3400	4-4110	0.177	32.6	6.2	0.667	90.3	0.337	1.115	180.5	813.8	0.739	1.490	1.040	109.0	331.3	-11.0	0.351
4-3400	4-4120	0.279	143.4	9.5	0.869	66.2	0.420	1.707	97.8	380.8	0.989	2.424	1.182	94.1	30.1	13.7	0.231
4-3400	4-4120	0.168	46.9	10.7	0.662	86.3	0.351	1.107	173.2	816.2	0.718	1.496	1.039	109.9	339.2	-8.0	0.369
4-3400	4-4130	0.296	142.5	10.3	0.869	64.9	0.439	1.707	99.9	392.5	0.958	2.456	1.184	99.8	26.0	12.0	0.277
4-3400	4-4130	0.174	62.7	15.0	0.658	82.2	0.376	1.101	166.6	819.3	0.687	1.515	1.039	111.6	346.7	-5.0	0.398
4-3400	4-4140	0.198	78.2	18.1	0.655	77.4	0.414	1.096	160.8	823.3	0.642	1.549	1.039	114.0	353.7	-2.0	0.441
4-3400	4-4150	0.243	91.0	19.9	0.652	71.7	0.468	1.091	156.2	828.5	0.581	1.602	1.040	117.5	0.3	0.8	0.503
4-3410	4-3490	0.585	48.6	17.1	0.256	103.6	0.907	0.791	181.4	199.0	---	---	0.876	25.7	301.4	-20.9	1.009
4-3410	4-3500	0.476	50.2	16.9	0.354	93.7	0.813	0.830	180.9	208.6	---	---	0.910	36.3	305.9	-19.9	0.872
4-3410	4-3510	0.390	50.7	16.3	0.437	90.4	0.713	0.878	180.2	218.1	---	---	0.946	44.9	310.5	-18.9	0.755
4-3410	4-3520	0.322	49.8	15.2	0.505	89.5	0.617	0.930	179.7	227.8	---	1.504	0.979	52.0	315.3	-17.7	0.653
4-3410	4-3530	0.269	47.5	13.7	0.559	89.5	0.530	0.983	179.6	237.8	---	1.504	1.007	58.0	320.2	-16.3	0.563
4-3410	4-3540	0.229	43.8	11.7	0.603	90.0	0.454	1.034	180.0	248.4	---	1.503	1.031	63.1	325.0	-14.9	0.484
4-3410	4-3550	0.200	38.9	9.3	0.637	90.7	0.390	1.082	181.0	259.6	---	---	1.050	67.6	329.6	-13.5	0.413
4-3410	4-3560	0.180	33.3	6.6	0.664	91.4	0.337	1.125	182.7	271.4	---	---	1.065	71.5	333.9	-12.1	0.350
4-3410	4-3570	0.168	27.6	4.1	0.685	92.1	0.296	1.162	184.9	283.7	---	---	1.076	75.0	337.8	-10.9	0.295
4-3410	4-3580	0.161	22.4	1.8	0.701	92.7	0.264	1.193	187.5	296.2	---	---	1.084	78.0	341.0	-10.1	0.247
4-3410	4-3590	0.157	18.1	0.1	0.713	93.2	0.241	1.217	190.0	308.7	---	---	1.089	80.7	343.3	-9.8	0.205
4-3410	4-3600	0.156	14.7	-0.9	0.722	93.5	0.225	1.236	192.4	320.9	---	---	1.092	83.1	344.3	-10.4	0.170

DEPART	ARRIVE	SPEED	R A	DECL	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3410	4-3610	0.155	12.2	-1.4	-1.32	0.728	93.8	0.213	1.249	194.2	332.6	---	---	-0.64	1.093	85.3	343.6	-12.3	0.141
4-3410	4-3620	0.154	10.5	-1.1	-1.12	0.731	93.9	0.206	1.258	195.3	343.5	---	---	-0.80	1.093	87.2	340.9	-16.0	0.120
4-3410	4-3630	0.152	9.3	-0.8	-0.76	0.733	93.9	0.202	1.262	196.6	353.5	---	---	-1.13	1.092	88.9	336.6	-22.2	0.108
4-3410	4-3640	0.150	7.8	-4.1	0.13	0.734	93.7	0.200	1.263	195.1	362.8	1.010	---	-1.96	1.090	90.5	333.0	-33.3	0.107
4-3410	4-3650	0.175	356.5	32.3	6.97	0.733	93.4	0.200	1.262	194.0	371.2	1.009	---	-8.78	1.088	91.9	6.3	-70.5	0.189
4-3410	4-3660	0.161	21.4	-17.9	-5.32	0.732	93.0	0.202	1.258	192.2	379.1	1.005	---	3.54	1.085	93.2	305.2	13.2	0.127
4-3410	4-3670	0.146	19.3	-9.4	-3.24	0.730	92.5	0.204	1.253	189.9	386.3	0.998	---	1.50	1.083	94.4	309.0	-5.1	0.124
4-3410	4-3680	0.139	21.0	-6.2	-2.67	0.727	91.9	0.208	1.247	187.1	393.1	0.988	---	0.97	1.080	95.5	311.1	-10.2	0.136
4-3410	4-3690	0.133	24.1	-3.8	-2.39	0.724	91.1	0.213	1.240	183.9	399.4	0.976	---	0.73	1.077	96.6	314.2	-11.9	0.151
4-3410	4-3700	0.128	28.9	-1.6	-2.22	0.720	90.1	0.220	1.233	180.4	405.5	0.962	---	0.60	1.075	97.7	318.1	-12.2	0.168
4-3410	4-3710	0.122	34.1	0.8	-2.10	0.717	89.0	0.228	1.225	176.7	411.3	0.946	1.504	0.52	1.073	98.8	322.8	-11.6	0.186
4-3410	4-3720	0.118	41.2	3.5	-2.01	0.713	87.7	0.239	1.217	172.7	416.9	0.927	1.507	0.47	1.072	100.0	328.0	-10.4	0.206
4-3410	4-3730	0.116	49.9	6.6	-1.92	0.709	86.2	0.252	1.209	168.7	422.4	0.904	1.513	0.44	1.070	101.3	335.6	-8.8	0.228
4-3410	4-3740	0.118	60.2	9.8	-1.85	0.705	84.5	0.269	1.201	164.6	427.9	0.878	1.523	0.43	1.069	102.7	339.3	-6.8	0.254
4-3410	4-3750	0.125	71.6	12.9	-1.78	0.701	82.4	0.290	1.193	160.6	433.5	0.847	1.538	0.42	1.069	104.4	345.3	-4.6	0.283
4-3410	4-3760	0.140	83.2	15.4	-1.71	0.698	80.0	0.316	1.185	156.7	439.3	0.810	1.560	0.43	1.068	106.4	351.2	-2.3	0.318
4-3410	4-3770	0.164	94.0	17.2	-1.63	0.694	77.0	0.351	1.178	153.1	445.5	0.764	1.592	0.46	1.069	108.8	357.2	0.2	0.361
4-3410	4-3780	0.201	103.1	18.4	-1.53	0.690	73.2	0.397	1.171	150.0	452.2	0.707	1.636	0.50	1.069	111.9	3.0	2.6	0.416
4-3410	4-3790	0.253	110.1	19.1	-1.42	0.687	68.3	0.458	1.165	147.8	459.8	0.632	1.698	0.57	1.069	116.1	8.6	4.9	0.489
4-3410	4-3800	0.329	114.8	19.6	-1.26	0.684	61.7	0.541	1.160	147.1	469.0	0.532	1.787	0.69	1.070	121.8	13.6	7.0	0.589
4-3410	4-3810	0.439	116.9	20.4	-1.01	0.682	52.4	0.655	1.156	148.9	480.8	0.399	1.914	0.90	1.072	130.2	17.6	8.6	0.732
4-3410	4-3820	0.600	115.5	21.5	-0.51	0.682	38.8	0.802	1.156	154.8	496.7	0.229	2.083	1.36	1.074	142.8	19.9	9.4	0.942
4-3410	4-3870	0.586	88.7	22.8	-2.46	0.428	41.7	0.889	0.872	171.1	563.7	0.097	1.647	-0.79	0.942	27.5	312.5	-18.1	1.016
4-3410	4-3870	0.484	10.6	1.7	-2.46	0.619	120.6	0.626	1.055	203.7	596.3	0.394	1.716	-0.79	1.042	51.4	294.4	-22.5	0.679
4-3410	4-3880	0.494	88.3	22.3	-2.26	0.461	52.9	0.812	0.895	169.1	571.8	0.168	1.621	-0.62	0.957	35.9	318.2	-16.5	0.900
4-3410	4-3880	0.382	14.4	2.6	-2.26	0.612	110.6	0.540	1.046	200.1	602.8	0.481	1.611	-0.62	1.038	57.5	301.8	-21.2	0.577
4-3410	4-3890	0.393	84.3	21.5	-2.12	0.498	64.6	0.710	0.924	168.3	581.2	0.268	1.581	-0.53	0.975	44.9	323.3	-15.0	0.769
4-3410	4-3890	0.302	23.6	5.7	-2.12	0.600	101.4	0.492	1.030	192.3	605.3	0.524	1.537	-0.53	1.031	60.7	311.1	-19.0	0.523
4-3410	4-3950	0.566	130.5	17.0	-1.62	0.818	44.3	0.716	1.513	135.4	248.8	---	2.595	-0.46	1.161	48.0	5.8	2.0	0.806
4-3410	4-3960	0.531	132.4	16.4	-1.52	0.824	47.1	0.681	1.535	131.7	255.1	---	2.580	-0.51	1.163	51.4	12.2	4.6	0.748
4-3410	4-3970	0.497	134.3	15.8	-1.40	0.829	49.7	0.648	1.556	128.1	261.3	---	2.563	-0.58	1.164	54.6	18.6	7.0	0.692
4-3410	4-3980	0.465	136.2	15.3	-1.24	0.834	52.1	0.616	1.576	124.6	267.6	---	2.546	-0.71	1.165	57.7	25.0	9.2	0.639
4-3410	4-3990	0.436	138.0	15.0	-0.98	0.838	54.3	0.585	1.594	121.2	274.0	---	2.527	-0.93	1.166	60.7	31.4	11.0	0.587
4-3410	4-4000	0.408	139.9	15.2	-0.45	0.842	56.3	0.557	1.611	117.9	280.5	---	2.508	-1.41	1.167	63.6	37.8	12.0	0.537
4-3410	4-4010	0.383	142.6	17.7	1.29	0.846	58.2	0.531	1.626	114.8	287.0	---	2.490	-3.12	1.168	66.3	45.0	10.0	0.492
4-3410	4-4020	0.412	131.3	-10.0	-14.94	0.849	59.9	0.506	1.640	111.9	293.7	---	2.471	13.14	1.168	68.9	41.9	47.3	0.502
4-3410	4-4030	0.343	141.7	6.4	-3.90	0.852	61.4	0.485	1.653	109.1	300.5	---	2.454	2.14	1.169	71.5	52.2	25.0	0.400
4-3410	4-4040	0.322	143.7	7.5	-2.91	0.854	62.8	0.465	1.663	106.6	307.6	---	2.437	1.18	1.170	74.0	57.4	23.9	0.357
4-3410	4-4050	0.305	145.1	7.5	-2.52	0.856	64.0	0.448	1.673	104.3	314.8	---	2.422	0.83	1.170	76.4	61.4	23.9	0.318
4-3410	4-4060	0.291	146.3	7.3	-2.31	0.857	65.0	0.433	1.680	102.3	322.3	---	2.408	0.66	1.171	78.8	64.0	24.0	0.281
4-3410	4-4070	0.279	147.2	7.1	-2.16	0.859	65.8	0.421	1.687	100.5	330.1	---	2.397	0.56	1.173	81.3	64.8	24.1	0.248
4-3410	4-4080	0.270	148.0	6.9	-2.05	0.860	66.5	0.412	1.692	99.2	338.3	---	2.389	0.49	1.174	83.7	63.2	23.8	0.220
4-3410	4-4090	0.265	148.6	6.8	-1.97	0.861	66.9	0.406	1.696	98.2	346.9	---	2.385	0.45	1.175	86.2	58.7	23.1	0.200
4-3410	4-4090	0.287	8.6	-1.1	-1.97	0.681	103.9	0.380	1.154	205.3	814.0	0.716	1.592	0.45	1.051	111.3	312.4	-16.6	0.389
4-3410	4-4090	0.525	359.1	-2.9	-1.97	0.729	123.7	0.579	1.251	219.5	828.2	0.526	1.976	0.45	1.083	125.9	305.2	-18.8	0.618
4-3410	4-4100	0.262	148.9	6.8	-1.89	0.861	67.0	0.404	1.699	97.8	356.0	---	2.385	0.43	1.177	88.9	51.6	21.5	0.191
4-3410	4-4100	0.230	17.7	1.8	-1.89	0.669	97.9	0.352	1.133	195.1	813.4	0.734	1.532	0.43	1.045	109.8	322.2	-13.7	0.364
4-3410	4-4110	0.264	149.0	7.1	-1.82	0.862	66.9	0.406	1.701	97.9	365.8	1.010	2.391	0.42	1.179	91.7	43.3	19.2	0.195
4-3410	4-4110	0.196	20.3	5.3	-1.82	0.661	93.4	0.347	1.120	186.4	814.3	0.731	1.508	0.42	1.042	109.6	330.9	-10.7	0.362
4-3410	4-4120	0.271	148.7	7.6	-1.74	0.862	66.4	0.414	1.702	98.6	376.2	0.997	2.406	0.43	1.181	94.7	35.9	16.7	0.217
4-3410	4-4120	0.177	41.3	9.6	-1.74	0.655	89.2	0.354	1.110	178.6	816.1	0.717	1.504	0.43	1.040	110.1	339.1	-7.6	0.372
4-3410	4-4130	0.285	148.0	8.4	-1.67	0.862	65.4	0.429	1.702	100.2	387.5	0.972	2.432	0.44	1.183	98.2	30.9	14.7	0.255
4-3410	4-4130	0.172	56.9	14.0	-1.67	0.651	85.0	0.373	1.103	171.4	818.7	0.692	1.513	0.44	1.040	111.3	346.8	-4.5	0.394
4-3410	4-4140	0.308	146.9	9.4	-1.58	0.862	63.8	0.453	1.702	102.8	399.8	0.931	2.473	0.48	1.186	102.1	28.2	13.5	0.312
4-3410	4-4140	0.184	73.6	17.6	-1.58	0.647	80.4	0.403	1.096	164.1	822.1	0.655	1.538	0.48	1.040	113.3	354.1	-1.4	0.429
4-3410	4-4150	0.343	145.2	10.8	-1.48	0.862	61.3	0.490	1.701	106.6	413.5	0.867	2.536	0.53	1.188	107.0	27.4	12.9	0.388
4-3410	4-4150	0.216	88.7	19.7	-1.48	0.643	75.1	0.447	1.091	159.7	826.6	0.603	1.574	0.53	1.040	116.2	1.0	1.5	0.480
4-3410	4-4160	0.398	142.7	12.5	-1.35	0.862	57.5	0.546	1.701	112.1	428.8	0.773	2.630	0.62	1.190	113.0	27.5	12.8	0.491
4-3410	4-4160	0.273	100.4	20.7	-1.35	0.640	68.5	0.511	1.087	155.8	832.5	0.531	1.642	0.62	1.041	120.4	7.3	4.2	0.554
4-3410	4-4170	0.481	139.0	14.6	-1.16	0.862	51.6	0.628	1.701	120.0	446.7	0.633	2.769	0.77	1.193	121.2	28.0	12.8	0.633
4-3410	4-4170	0.360	108.0	21.1	-1.16	0.638	60.0	0.602	1.083	153.9	840.5	0.431	1.736	0.77	1.043	126.8	12.8	6.5	0.662
4-3410	4-4170	0.437	48.6	17.4	-1.16	0.394	93.6	0.768	0.851	181.1	1227.7	0.197	1.504	0.77	0.914	139.5	358.9	0.1	0.821
4-3410	4-4180	0.489	111.3	21.7	-0.82	0.637	48.2	0.727	1.081	155.4	852.0	0.295	1.868	1.07	1.045	136.5	16.8	5.2	0.825
4-3410	4-4180	0.471	69.7	22.0	-0.82	0.375	69.1	0.819	0.840	175.1	1231.7	0.152	1.529	1.07	0.909	144.3	5.9	3.3	0.892
4-3420	4-3500	0.525	48.7	16.5	-3.18	0.328	106.5	0.651	0.826	183.0	205.4	---	---	-1.54	0.907	32.3	307.7	-19.8	0.930
4-3420	4-3510	0.425	48.9	15.9	-2.67	0.414	98.4	0.747	0.871	182.9	215.5	---	---	-1.09	0.942	42.1	312.0	-18.8	0.798
4-3420	4-3520	0.348	47.7	14.7	-2.39	0.487	93.2	0.644	0.924	182.9	225.7	---	---	-0.87	0.976	50.0	316.5	-17.6	0.684
4-3420	4-3530	0.290	45.0	13.1	-2.20	0.546	94.0	0.551	0.980	183.3	236.2	---	---	-0.74	1.006	56.6	321.1	-16.4	0.586
4-3420	4-3540	0.247	40.9	11.1	-2.05	0.594	93.7	0.464	1.035	184.2	247.3	---	---	-0.66	1.031	62.2	325.6	-15.0	01
4-3420	4-3550	0.217	35.8	8.6	-1.93	0.631	93.9	0.401	1.087	185.8	259.1	---	---	-0.61	1.052	66.9	329.9	-13.8	425
4-3420	4-3560	0.198	30.1	6.1	-1.82	0.660	94.2	0.346	1.133	188.1	271.5	---	---	-0.59	1.068	71.1	334.0	-12.6	0.359
4-3420	4-3570	0.186	24.6	3.7	-1.72	0.683	94.7	0.303	1.173	191.0	284.4	---	---	-0.59	1.080	74.7	337.6	-11.6	0.300
4-3420	4-3580	0.180	19.8	1.8	-1.61	0.700	95.1	0.271	1.207	194.1	297.5	---	---	-0.61	1.088	77.9	340.5	-11.0	0.250
4-3420	4-3590	0.177	15.9	0.4	-1.50	0.713	95.5	0.248	1.233	197.1	310.5	---	---	-0.64	1.094	80.8	342.4	-11.1	0.207
4-3420	4-3600	0.175	12.9	-0.4	-1.37	0.721	95.7	0.232	1.252	199.7	323.0	---	---	-0.70	1.097	83.3	343.0	-12.1	0.171
4-3420	4-3610	0.174	10.8	-0.7	-1.20	0.727	95.9	0.222	1.266	201.6	334.7	---	---	-0.81	1.098	85.5	341.8	-14.4	0.142
4-3420	4-3620	0.173	9.4	-0.3	-0.98	0.731	95.9	0.215	1.274	202.6	345.5	---	---	-0.98	1.098	87.4	338.5	-18.5	0.122
4-3420	4-3630	0.171	8.5	0.9	-0.62	0.732	95.8	0.212	1.278	202.8	355.4	---	---	-1.28	1.096	89.2	333.5	-24.6	0.111
4-3420	4-3640	0.169	7.5	3.8	0.09	0.732	95.6	0.210	1.278	202.2	364.5	1.010	---	-1.94	1.094	90.8	328.9	-33.6	0.110
4-3420	4-3650	0.168	4.5	13.4	2.40	0.731	95.3	0.210	1.275	200.8	372.7	1.008	---	-4.19	1.092	92.2	331.5	-52.0	0.152

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3420	4-3660	0.341	46.7	-40.5	-22.57	0.729	94.9	0.211	1.271	198.9	380.5	1.003	---	20.83	1.089	93.5	272.0	57.0	0.392
4-3420	4-3670	0.168	20.9	-13.6	-4.75	0.726	94.3	0.213	1.264	196.2	387.4	0.996	---	3.05	1.086	94.7	304.5	5.5	0.139
4-3420	4-3680	0.156	20.9	-7.8	-3.31	0.723	93.6	0.216	1.257	193.2	393.9	0.986	---	1.67	1.083	95.8	308.9	-5.7	0.144
4-3420	4-3690	0.148	23.2	-4.7	-2.76	0.720	92.7	0.220	1.248	189.8	400.0	0.974	---	1.17	1.080	96.9	312.8	-9.4	0.157
4-3420	4-3700	0.140	26.8	-2.2	-2.46	0.716	91.8	0.225	1.240	186.1	405.8	0.960	---	0.92	1.077	98.0	317.2	-10.5	0.173
4-3420	4-3710	0.133	31.6	0.2	-2.26	0.711	90.6	0.233	1.230	182.1	411.4	0.944	---	0.78	1.075	99.0	322.2	-10.3	0.190
4-3420	4-3720	0.127	37.9	2.8	-2.11	0.707	89.3	0.242	1.221	178.0	416.8	0.926	1.517	0.69	1.073	100.1	327.7	-9.4	0.209
4-3420	4-3730	0.122	45.8	5.7	-1.99	0.703	87.9	0.254	1.212	173.7	422.1	0.905	1.520	0.63	1.071	101.3	333.4	-7.9	0.229
4-3420	4-3740	0.120	55.5	8.8	-1.88	0.698	86.2	0.268	1.203	169.4	427.4	0.880	1.526	0.60	1.070	102.7	339.3	-6.0	0.253
4-3420	4-3750	0.122	66.9	12.0	-1.78	0.694	84.2	0.287	1.194	165.1	432.7	0.852	1.537	0.59	1.069	104.2	345.4	-3.9	0.279
4-3420	4-3760	0.132	79.2	14.9	-1.68	0.690	81.8	0.311	1.186	160.9	438.2	0.818	1.554	0.59	1.069	106.0	351.5	-1.5	0.311
4-3420	4-3770	0.150	91.4	16.9	-1.57	0.685	79.0	0.341	1.178	156.9	444.0	0.775	1.580	0.62	1.068	108.1	357.6	0.9	0.349
4-3420	4-3780	0.179	102.2	18.1	-1.46	0.681	75.5	0.381	1.170	153.3	450.2	0.725	1.616	0.66	1.068	110.9	3.7	3.4	0.397
4-3420	4-3790	0.223	110.9	18.7	-1.31	0.678	71.1	0.433	1.163	150.5	457.2	0.659	1.667	0.73	1.069	114.4	9.5	5.8	0.460
4-3420	4-3800	0.285	117.2	19.1	-1.13	0.674	65.3	0.504	1.157	148.7	465.3	0.574	1.740	0.86	1.069	119.3	15.0	8.0	0.544
4-3420	4-3810	0.376	120.9	19.6	-0.86	0.672	57.5	0.600	1.152	148.9	475.5	0.461	1.844	1.07	1.070	126.1	19.8	9.9	0.662
4-3420	4-3820	0.507	121.6	20.4	-0.40	0.670	46.2	0.729	1.150	152.2	488.7	0.312	1.988	1.48	1.072	136.3	23.2	11.1	0.834
4-3420	4-3870	0.545	16.1	4.2	-2.90	0.603	126.6	0.697	1.046	202.2	589.5	0.317	1.776	-1.29	1.038	45.9	297.9	-22.2	0.770
4-3420	4-3880	0.523	92.3	22.4	-2.52	0.429	99.8	0.848	0.882	170.6	568.1	0.134	1.629	-0.97	0.948	32.2	320.3	-16.0	0.952
4-3420	4-3880	0.426	18.7	4.6	-2.52	0.597	115.0	0.594	1.039	200.4	597.8	0.422	1.656	-0.97	1.035	53.7	304.4	-21.0	0.641
4-3420	4-3890	0.424	89.4	21.8	-2.29	0.468	61.9	0.754	0.909	169.5	577.1	0.223	1.595	-0.80	0.966	41.2	325.5	-14.5	0.824
4-3420	4-3890	0.334	26.2	6.9	-2.29	0.586	104.9	0.530	1.025	194.1	601.7	0.481	1.568	-0.80	1.028	58.0	313.0	-18.9	0.567
4-3420	4-3900	0.302	74.2	19.6	-2.12	0.521	78.4	0.610	0.955	172.3	590.1	0.372	1.538	-0.70	0.992	52.4	328.7	-13.6	0.653
4-3420	4-3900	0.268	48.7	13.9	-2.12	0.559	91.4	0.527	0.993	181.2	599.0	0.470	1.517	-0.70	1.012	58.2	324.4	-15.3	0.562
4-3420	4-3950	0.576	134.8	16.0	-1.56	0.807	43.0	0.731	1.497	137.7	245.8	---	2.590	-0.62	1.158	46.4	7.1	2.4	0.831
4-3420	4-3960	0.540	136.8	15.3	-1.44	0.813	45.9	0.696	1.519	134.0	252.1	---	2.576	-0.67	1.160	49.9	13.6	5.0	0.773
4-3420	4-3970	0.505	138.7	14.7	-1.29	0.818	48.6	0.661	1.541	130.4	258.3	---	2.560	-0.75	1.162	53.2	20.0	7.4	0.716
4-3420	4-3980	0.473	140.5	14.2	-1.11	0.824	51.1	0.629	1.561	126.9	264.6	---	2.543	-0.88	1.163	56.4	26.5	9.6	0.661
4-3420	4-3990	0.443	142.4	13.9	-0.83	0.828	53.4	0.597	1.581	123.5	271.0	---	2.525	-1.10	1.164	59.4	32.9	11.3	0.608
4-3420	4-4000	0.415	144.4	13.5	-0.35	0.833	55.5	0.568	1.599	120.2	277.4	---	2.506	-1.52	1.165	62.3	39.4	12.4	0.557
4-3420	4-4010	0.389	146.7	15.2	0.77	0.836	57.4	0.540	1.615	117.1	284.0	---	2.488	-2.59	1.166	65.1	46.1	11.8	0.510
4-3420	4-4020	0.379	152.5	27.7	7.79	0.840	59.2	0.515	1.630	114.1	290.6	---	2.469	-9.57	1.166	67.8	57.3	-1.9	0.492
4-3420	4-4030	0.357	143.2	-1.0	-7.25	0.843	60.8	0.492	1.643	111.3	297.5	---	2.451	5.53	1.167	70.4	52.6	33.8	0.427
4-3420	4-4040	0.328	147.3	4.1	-3.85	0.845	62.2	0.471	1.654	108.8	304.4	---	2.434	2.18	1.168	72.9	59.3	27.1	0.375
4-3420	4-4050	0.309	149.1	5.0	-3.00	0.847	63.5	0.453	1.664	106.4	311.6	---	2.418	1.38	1.169	75.4	63.9	26.1	0.333
4-3420	4-4060	0.294	150.5	5.1	-2.60	0.849	64.6	0.437	1.673	104.3	319.0	---	2.404	0.83	1.170	77.8	67.2	25.8	0.295
4-3420	4-4070	0.281	151.6	5.0	-2.36	0.851	65.5	0.424	1.680	102.5	326.8	---	2.392	0.64	1.171	80.3	68.7	25.6	0.260
4-3420	4-4080	0.271	152.5	4.9	-2.18	0.852	66.2	0.414	1.685	101.0	334.8	---	2.383	0.73	1.173	82.7	68.1	25.7	0.230
4-3420	4-4090	0.265	153.2	4.8	-2.05	0.853	66.7	0.407	1.690	99.9	343.3	---	2.377	0.56	1.175	85.2	64.7	25.2	0.206
4-3420	4-4100	0.261	153.6	4.9	-1.93	0.853	66.9	0.403	1.693	99.3	352.3	---	2.375	0.62	1.176	87.8	58.4	24.1	0.192
4-3420	4-4100	0.277	15.3	1.8	-1.93	0.668	102.9	0.386	1.147	202.5	815.5	0.704	1.589	0.62	1.050	111.8	321.0	-13.7	0.400
4-3420	4-4100	0.549	4.2	-0.4	-1.93	0.724	125.9	0.610	1.258	218.2	831.2	0.490	2.025	0.62	1.086	126.1	313.4	-16.6	0.660
4-3420	4-4110	0.261	153.9	5.2	-1.87	0.854	66.9	0.404	1.695	99.2	361.8	1.011	2.379	0.59	1.178	90.5	50.1	22.2	0.191
4-3420	4-4110	0.224	25.0	4.9	-1.83	0.657	97.1	0.364	1.127	192.7	815.3	0.716	1.538	0.59	1.044	110.6	330.3	-10.5	0.380
4-3420	4-4120	0.266	153.7	5.6	-1.73	0.854	66.6	0.409	1.696	99.6	371.9	1.002	2.390	0.59	1.180	93.4	42.1	19.7	0.206
4-3420	4-4120	0.193	36.6	8.7	-1.73	0.649	92.4	0.363	1.114	184.2	816.4	0.710	1.519	0.59	1.042	110.6	338.8	-7.3	0.301
4-3420	4-4130	0.277	153.3	6.4	-1.63	0.854	65.8	0.421	1.697	100.8	382.8	0.983	2.411	0.60	1.183	96.7	36.0	17.5	0.237
4-3420	4-4130	0.177	51.1	13.0	-1.63	0.643	87.9	0.374	1.105	176.5	818.5	0.692	1.518	0.60	1.041	111.4	346.7	-4.1	0.396
4-3420	4-4140	0.295	152.4	7.4	-1.52	0.854	64.5	0.441	1.697	102.9	394.6	0.949	2.445	0.63	1.185	100.4	32.6	15.9	0.286
4-3420	4-4140	0.177	68.0	16.9	-1.52	0.639	83.3	0.396	1.098	169.7	821.4	0.662	1.533	0.63	1.040	112.9	354.3	-0.9	0.422
4-3420	4-4150	0.324	151.0	8.7	-1.39	0.854	62.5	0.472	1.697	106.0	407.5	0.896	2.497	0.69	1.187	104.8	31.2	15.1	0.353
4-3420	4-4150	0.197	85.0	19.5	-1.39	0.634	78.2	0.432	1.091	163.6	825.2	0.619	1.563	0.69	1.040	115.2	1.4	2.1	0.404
4-3420	4-4160	0.368	149.0	10.3	-1.23	0.854	59.3	0.518	1.696	110.5	421.9	0.817	2.575	0.78	1.190	110.2	31.2	14.8	0.442
4-3420	4-4160	0.240	99.2	20.6	-1.23	0.631	72.2	0.485	1.086	158.8	830.2	0.559	1.613	0.78	1.041	118.7	8.1	5.0	0.524
4-3420	4-4170	0.435	146.0	12.2	-1.02	0.854	54.6	0.586	1.696	111.0	438.3	0.702	2.690	0.94	1.192	117.2	31.9	14.8	0.563
4-3420	4-4170	0.310	109.3	20.9	-1.02	0.628	64.7	0.561	1.682	155.0	837.0	0.475	1.689	0.94	1.042	123.8	14.2	7.5	0.612
4-3420	4-4180	0.537	141.7	14.6	-0.68	0.854	47.2	0.684	1.696	126.3	457.6	0.536	2.856	1.23	1.194	126.7	32.3	14.8	0.731
4-3420	4-4180	0.415	115.0	21.1	-0.68	0.626	54.6	0.666	1.679	155.1	846.4	0.360	1.799	1.23	1.044	131.6	19.2	9.5	0.743
4-3420	4-4180	0.447	62.1	20.9	-0.68	0.367	34.7	0.798	0.844	178.7	1230.0	0.171	1.518	1.23	0.912	142.2	6.8	3.8	0.862
4-3420	4-4190	0.569	116.2	21.8	-0.01	0.626	40.9	0.805	1.078	158.6	860.0	0.210	1.946	1.84	1.046	143.5	22.4	10.7	0.938
4-3420	4-4190	0.523	80.7	23.7	-0.01	0.351	58.3	0.868	0.837	174.5	1235.8	0.110	1.563	1.84	0.909	149.7	13.0	6.5	0.970
4-3430	4-3500	0.593	47.0	16.1	-4.10	0.325	123.9	0.892	0.832	184.8	202.0	---	---	-2.52	0.912	27.4	309.4	-19.6	1.003
4-3430	4-3510	0.473	47.0	15.4	-3.13	0.401	109.0	0.784	0.872	185.6	212.9	---	---	-1.62	0.942	38.8	313.4	-18.7	0.849
4-3430	4-3520	0.384	45.5	14.2	-2.66	0.476	102.4	0.674	0.925	186.2	223.8	---	---	-1.22	0.976	47.8	317.5	-17.6	0.721
4-3430	4-3530	0.319	42.5	12.6	-2.37	0.539	99.4	0.573	0.983	187.2	234.9	---	---	-1.01	1.007	55.1	321.8	-16.5	0.613
4-3430	4-3540	0.272	38.1	10.5	-2.16	0.589	98.1	0.485	1.041	188.8	246.7	---	---	-0.88	1.034	61.1	326.0	-15.3	0.519
4-3430	4-3550	0.241	32.9	8.1	-1.99	0.629	97.6	0.413	1.097	191.1	259.1	---	---	-0.80	1.056	66.3	330.0	-14.1	0.438
4-3430	4-3560	0.221	27.4	5.7	-1.85	0.660	97.5	0.355	1.147	194.1	272.3	---	---	-0.76	1.073	70.7	333.8	-13.1	0.367
4-3430	4-3570	0.210	22.2	3.5	-1.72	0.684	97.7	0.311	1.191	197.7	285.9	---	---	-0.75	1.086	74.6	337.0	-12.4	0.306
4-3430	4-3580	0.204	17.8	1.9	-1.59	0.702	97.9	0.280	1.227	201.4	299.6	---	---	-0.75	1.094	77.9	339.5	-12.1	0.253
4-3430	4-3590	0.201	14.4	0.7	-1.45	0.715	98.0	0.258	1.255	204.8	313.0	---	---	-0.78	1.100	80.9	341.0	-12.5	0.208
4-3430	4-3600	0.199	11.8	0.1	-1.30	0.724	98.2	0.243	1.275	207.6	325.6	---	---	-0.85	1.103	83.5	340.9	-13.9	0.172
4-3430	4-3610	0.198	10.1	0.0	-1.11	0.729	98.2	0.234	1.289	209.5	337.4	---	---	-0.94	1.104	85.8	339.0	-16.7	0.144
4-3430	4-3620	0.196	9.1	0.5	-0.87	0.732	98.2	0.228	1.296	210.4	348.0	---	---	-1.11	1.104	87.8	334.9	-21.0	0.125
4-3430	4-3630	0.193	8.4	1.6	-0.53	0.733	98.0	0.224	1.299	210.3	357.7	---	---	-1.38	1.102	89.6	329.4	-26.7	0.115
4-3430	4-3640	0.190	7.9	3.8	0.07	0.713	97.7	0.222	1.297	209.4	366.5	1.009	---	-1.91	1.100	91.2	324.2	-33.9	0.115
4-3430	4-3650	0.187	6.7	9.2	1.47	0.711	97.3	0.222	1.293	207.7	374.4	1.007	---	-3.24	1.097	92.6	322.8	-45.3	0.129
4-3430	4-3660	0.222	357.3	36.0	9.77	0.718	96.8	0.222	1.286	205.4	381.7	1.001	---	-11.49	1.093	93.9	4.1	-76.9	0.241
4-3430	4-3670	0.210	27.4	-22.9	-8.87	0.725	96.2	0.223	1.278	202.7	388.6	0.993	---	7.22	1.090	95.1	295.7	26.2	0.188
4-3430	4-3680	0.177	22.1	-10.1	-4.39	0.721	95.4	0.225	1.269	199.4	394.8	0.983	---	2.80	1.086	96.2	305.8	0.8	0.157

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3430	4-3690	0.165	23.2	-5.6	-3.29	0.716	94.5	0.229	1.259	195.7	400.7	0.971	---	1.76	1.083	97.2	311.0	-6.2	0.166
4-3430	4-3700	0.156	26.0	-2.7	-2.78	0.712	93.5	0.233	1.248	191.8	406.3	0.957	---	1.32	1.080	98.3	316.1	-8.6	0.180
4-3430	4-3710	0.147	30.1	-0.2	-2.46	0.707	92.4	0.239	1.238	187.6	411.7	0.942	---	1.07	1.077	99.3	321.5	-9.0	0.196
4-3430	4-3720	0.138	35.5	2.3	-2.24	0.702	91.1	0.247	1.227	183.3	416.9	0.924	---	0.93	1.075	100.3	327.2	-8.3	0.213
4-3430	4-3730	0.130	42.4	5.0	-2.07	0.697	89.6	0.257	1.217	178.8	422.0	0.904	1.530	0.84	1.073	101.5	333.1	-7.0	0.232
4-3430	4-3740	0.125	51.2	8.1	-1.92	0.692	87.9	0.270	1.207	174.2	427.0	0.881	1.532	0.78	1.071	102.7	339.2	-5.3	0.254
4-3430	4-3750	0.123	62.0	11.3	-1.79	0.687	85.9	0.286	1.197	169.7	432.1	0.854	1.539	0.75	1.070	104.1	345.4	-3.2	0.278
4-3430	4-3760	0.127	74.6	14.3	-1.67	0.682	83.6	0.307	1.187	165.2	437.3	0.823	1.552	0.75	1.069	105.7	351.7	-0.9	0.306
4-3430	4-3770	0.140	87.8	16.6	-1.54	0.677	80.9	0.334	1.178	160.9	442.8	0.785	1.572	0.76	1.069	107.6	358.0	1.6	0.341
4-3430	4-3780	0.162	100.2	18.0	-1.40	0.673	77.7	0.368	1.170	157.0	448.6	0.739	1.601	0.80	1.068	110.1	4.2	4.1	0.383
4-3430	4-3790	0.198	110.6	18.6	-1.24	0.669	73.7	0.414	1.162	153.5	455.0	0.681	1.643	0.87	1.068	113.2	10.3	6.6	0.438
4-3430	4-3800	0.250	118.5	18.7	-1.04	0.665	69.5	0.474	1.155	151.0	462.4	0.607	1.703	0.99	1.069	117.3	16.2	8.9	0.509
4-3430	4-3810	0.325	123.9	18.9	-0.76	0.661	61.7	0.556	1.149	149.9	471.2	0.510	1.788	1.19	1.069	123.0	21.5	10.9	0.608
4-3430	4-3820	0.433	126.3	19.3	-0.33	0.659	52.3	0.667	1.145	151.2	482.6	0.381	1.909	1.56	1.070	131.3	25.9	12.5	0.749
4-3430	4-3830	0.588	125.4	20.3	0.52	0.658	38.7	0.808	1.144	156.4	497.8	0.219	2.069	2.34	1.072	143.5	28.5	13.4	0.952
4-3430	4-3880	0.552	96.1	22.4	-2.88	0.396	46.6	0.881	0.869	172.2	564.4	0.103	1.635	-1.40	0.940	28.5	322.4	-15.5	1.004
4-3430	4-3880	0.476	23.4	6.8	-2.88	0.581	120.2	0.654	1.031	200.0	592.3	0.356	1.705	-1.40	1.031	49.2	307.3	-20.6	0.715
4-3430	4-3890	0.454	94.0	21.9	-2.51	0.436	59.3	0.795	0.895	170.8	573.2	0.183	1.607	-1.11	0.957	37.5	327.6	-13.9	0.877
4-3430	4-3890	0.371	29.3	8.4	-2.51	0.571	108.8	0.574	1.018	195.4	597.8	0.433	1.603	-1.11	1.025	55.0	315.0	-18.6	0.618
4-3430	4-3900	0.339	83.5	20.7	-2.26	0.487	74.6	0.670	0.934	172.0	584.6	0.309	1.560	-0.94	0.980	48.1	331.5	-12.7	0.721
4-3430	4-3900	0.291	46.2	13.4	-2.26	0.548	96.0	0.547	0.993	185.0	597.6	0.450	1.537	-0.94	1.012	56.8	325.1	-15.4	0.585
4-3430	4-3950	0.586	139.0	14.8	-1.52	0.795	41.8	0.746	1.480	139.9	242.9	---	2.584	-0.77	1.155	44.8	8.4	2.8	0.857
4-3430	4-3960	0.549	141.0	14.2	-1.38	0.802	44.8	0.710	1.503	136.2	249.1	---	2.571	-0.81	1.157	48.4	14.9	5.4	0.797
4-3430	4-3970	0.514	142.9	13.5	-1.21	0.808	47.5	0.675	1.526	132.6	255.4	---	2.556	-0.89	1.159	51.8	21.4	7.8	0.739
4-3430	4-3980	0.481	144.8	13.0	-1.01	0.813	50.1	0.642	1.547	129.1	261.7	---	2.540	-1.01	1.160	55.0	27.9	9.9	0.683
4-3430	4-3990	0.450	146.7	12.6	-0.73	0.818	52.5	0.609	1.567	125.7	268.0	---	2.522	-1.22	1.162	58.1	34.3	11.7	0.629
4-3430	4-4000	0.422	148.6	12.5	-0.29	0.823	54.7	0.579	1.586	122.5	274.5	---	2.504	-1.59	1.163	61.1	40.9	12.9	0.577
4-3430	4-4010	0.395	150.8	13.3	0.56	0.827	56.7	0.550	1.603	119.3	281.0	---	2.485	-2.37	1.164	63.9	47.5	12.9	0.528
4-3430	4-4020	0.373	154.1	17.4	3.16	0.830	58.5	0.524	1.618	116.3	287.6	---	2.467	-4.91	1.165	66.7	55.1	8.5	0.487
4-3430	4-4040	0.337	149.8	-0.9	-5.74	0.836	61.7	0.478	1.645	110.9	301.4	---	2.431	4.11	1.167	71.9	60.8	32.6	0.396
4-3430	4-4050	0.315	152.7	2.0	-3.74	0.839	63.0	0.459	1.655	108.5	308.5	---	2.415	2.18	1.168	74.4	66.2	28.8	0.349
4-3430	4-4060	0.298	154.4	2.6	-3.01	0.841	64.2	0.442	1.664	106.3	315.9	---	2.400	1.51	1.169	76.8	70.1	27.8	0.309
4-3430	4-4070	0.284	155.7	2.8	-2.61	0.842	65.1	0.428	1.672	104.5	323.5	---	2.387	1.18	1.170	79.3	72.4	27.5	0.272
4-3430	4-4080	0.273	156.8	2.8	-2.35	0.844	65.9	0.416	1.678	102.9	331.5	---	2.377	0.99	1.172	81.7	72.7	27.3	0.240
4-3430	4-4090	0.265	157.6	2.8	-2.16	0.845	66.5	0.408	1.683	101.7	339.8	---	2.370	0.88	1.174	84.2	70.3	27.1	0.214
4-3430	4-4100	0.260	158.2	2.9	-2.00	0.845	66.8	0.403	1.687	100.9	348.6	---	2.366	0.81	1.175	86.7	64.9	26.4	0.195
4-3430	4-4110	0.259	158.5	3.2	-1.86	0.846	66.9	0.402	1.689	100.6	357.9	---	2.368	0.76	1.177	89.4	57.0	24.9	0.189
4-3430	4-4110	0.266	22.4	4.8	-1.86	0.655	101.9	0.393	1.139	199.6	817.0	0.691	1.587	0.76	1.049	112.3	329.4	-10.5	0.411
4-3430	4-4110	0.573	9.4	2.1	-1.86	0.719	128.3	0.641	1.265	216.9	834.2	0.454	2.075	0.76	1.090	128.4	321.4	-14.2	0.703
4-3430	4-4120	0.262	158.6	3.7	-1.73	0.846	66.7	0.405	1.691	100.8	367.8	1.006	2.376	0.75	1.180	92.3	48.5	22.6	0.197
4-3430	4-4120	0.218	32.9	8.1	-1.73	0.645	96.0	0.378	1.121	190.2	817.2	0.698	1.544	0.75	1.044	111.5	338.3	-7.2	0.397
4-3430	4-4130	0.270	158.3	4.4	-1.60	0.846	66.1	0.414	1.692	101.6	378.4	0.991	2.393	0.75	1.182	95.4	41.5	20.2	0.222
4-3430	4-4130	0.190	45.9	12.1	-1.60	0.637	91.2	0.380	1.109	181.9	818.6	0.688	1.530	0.75	1.042	111.7	346.5	-3.8	0.402
4-3430	4-4140	0.285	157.7	5.3	-1.47	0.847	65.1	0.430	1.692	103.3	389.8	0.964	2.421	0.78	1.184	98.8	37.2	18.3	0.264
4-3430	4-4140	0.178	62.0	16.1	-1.47	0.631	86.4	0.395	1.100	174.5	821.0	0.665	1.534	0.78	1.041	112.8	354.3	-0.5	0.421
4-3430	4-4150	0.308	156.6	6.5	-1.32	0.846	63.4	0.456	1.692	105.8	402.1	0.920	2.464	0.83	1.187	102.9	35.2	17.2	0.323
4-3430	4-4150	0.186	79.9	19.2	-1.32	0.626	81.4	0.423	1.092	167.9	824.2	0.630	1.555	0.83	1.041	114.6	1.7	2.6	0.453
4-3430	4-4160	0.345	154.9	8.0	-1.15	0.846	60.8	0.495	1.691	109.5	415.7	0.853	2.529	0.92	1.189	107.7	34.9	16.7	0.401
4-3430	4-4160	0.216	96.5	20.6	-1.15	0.622	75.7	0.466	1.086	162.3	828.5	0.580	1.593	0.92	1.041	117.4	8.8	5.6	0.502
4-3430	4-4170	0.399	152.5	9.9	-0.92	0.846	56.8	0.553	1.690	114.9	431.0	0.756	2.625	1.08	1.191	113.9	35.6	16.6	0.506
4-3430	4-4170	0.371	109.2	20.8	-0.92	0.619	68.8	0.529	1.081	158.1	834.2	0.510	1.653	1.08	1.042	121.6	15.3	8.3	0.575
4-3430	4-4180	0.482	149.0	12.1	-0.58	0.846	59.9	0.635	1.690	122.4	448.5	0.617	2.764	1.34	1.193	122.0	36.4	16.6	0.648
4-3430	4-4180	0.396	117.4	20.7	-0.58	0.616	60.1	0.617	1.078	156.0	842.1	0.412	1.743	1.34	1.043	127.9	21.0	10.6	0.681
4-3430	4-4180	0.419	50.8	18.6	-0.58	0.372	105.7	0.806	0.855	183.9	1230.0	0.166	1.544	1.34	0.920	143.2	6.9	3.9	0.879
4-3430	4-4190	0.482	121.1	20.9	-0.01	0.615	48.1	0.738	1.076	157.1	853.2	0.282	1.869	1.84	1.044	137.4	25.4	12.2	0.839
4-3430	4-4190	0.479	75.3	23.3	-0.01	0.340	74.7	0.830	0.839	176.9	1233.0	0.137	1.541	1.84	0.910	146.2	14.3	7.2	0.920
4-3430	4-4200	0.590	90.0	24.5	1.34	0.329	45.5	0.919	0.834	174.8	1241.0	0.067	1.600	3.13	0.909	156.4	19.6	9.4	1.065
4-3440	4-3510	0.539	45.1	14.5	-3.81	0.409	122.3	0.824	0.885	188.1	210.4	---	---	-2.36	0.951	34.8	314.6	-18.6	0.914
4-3440	4-3520	0.433	43.3	13.7	-3.03	0.476	111.4	0.707	0.935	187.7	222.1	---	---	-1.67	0.982	45.1	318.3	-17.7	0.766
4-3440	4-3530	0.358	40.0	12.0	-2.59	0.539	105.9	0.598	0.994	191.4	234.0	---	---	-1.32	1.013	53.3	322.2	-16.6	0.644
4-3440	4-3540	0.306	35.6	9.9	-2.30	0.591	103.2	0.504	1.056	193.8	246.6	---	---	-1.12	1.041	60.0	326.1	-15.6	0.541
4-3440	4-3550	0.272	30.4	7.6	-2.08	0.633	101.9	0.427	1.116	196.9	259.8	---	---	-1.00	1.063	65.6	329.8	-14.6	0.453
4-3440	4-3560	0.251	25.2	5.4	-1.89	0.665	101.2	0.367	1.171	200.8	273.8	---	---	-0.94	1.081	70.3	333.2	-13.8	0.377
4-3440	4-3570	0.239	20.4	3.5	-1.73	0.690	101.0	0.323	1.218	205.1	288.2	---	---	-0.90	1.094	74.4	336.0	-13.3	0.312
4-3440	4-3580	0.232	16.5	2.1	-1.57	0.708	100.9	0.292	1.257	209.4	302.4	---	---	-0.90	1.103	78.0	338.0	-13.3	0.257
4-3440	4-3590	0.229	13.6	1.2	-1.41	0.721	100.9	0.271	1.286	213.1	316.1	---	---	-0.92	1.109	81.1	338.9	-14.0	0.211
4-3440	4-3600	0.227	11.5	0.8	-1.24	0.729	100.8	0.258	1.307	215.9	328.9	---	---	-0.97	1.112	83.8	338.1	-15.9	0.174
4-3440	4-3610	0.225	10.1	0.8	-1.04	0.734	100.8	0.249	1.320	217.7	340.4	---	---	-1.06	1.113	86.1	335.2	-19.0	0.146
4-3440	4-3620	0.222	9.3	1.3	-0.80	0.737	100.6	0.244	1.326	218.3	350.9	---	---	-1.21	1.112	88.2	330.4	-23.3	0.129
4-3440	4-3630	0.219	8.9	2.3	-0.46	0.737	100.3	0.240	1.327	218.0	360.2	1.008	---	-1.46	1.110	90.0	324.3	-28.5	0.121
4-3440	4-3640	0.214	8.8	4.1	0.06	0.735	100.0	0.238	1.323	216.7	368.7	1.008	---	-1.90	1.106	91.7	319.0	-34.2	0.123
4-3440	4-3650	0.209	8.3	7.7	1.07	0.733	99.5	0.237	1.316	214.7	376.3	1.005	---	-2.83	1.103	93.1	316.6	-41.8	0.134
4-3440	4-3660	0.210	9.6	18.2	4.13	0.729	98.9	0.236	1.307	212.1	383.3	0.998	---	-5.82	1.099	94.4	322.8	-58.4	0.170
4-3440	4-3680	0.206	25.2	-14.3	-6.52	0.720	97.4	0.238	1.284	205.6	395.9	0.979	---	4.98	1.091	96.7	301.1	11.6	0.182
4-3440	4-3690	0.186	21.1	-6.8	-4.09	0.715	96.5	0.240	1.272	201.7	401.6	0.967	---	2.63	1.087	97.7	308.8	-2.0	0.178
4-3440	4-3700	0.173	24.1	-3.1	-3.21	0.709	95.5	0.243	1.260	197.6	407.0	0.954	---	1.82	1.084	98.7	314.8	-6.3	0.189
4-3440	4-3710	0.162	29.4	-0.4	-2.73	0.703	94.3	0.248	1.247	193.2	412.1	0.938	---	1.42	1.080	99.6	320.6	-7.5	0.203
4-3440	4-3720	0.152	34.0	2.1	-2.41	0.698	92.9	0.254	1.235	188.7	417.1	0.921	---	1.19	1.077	100.6	326.6	-7.3	0.219
4-3440	4-3730	0.142	40.0	4.7	-2.18	0.692	91.4	0.262	1.223	184.0	422.0	0.902	---	1.05	1.075	101.7	332.8	-6.2	0.237
4-3440	4-3740	0.134	47.8	7.6	-1.99	0.686	89.7	0.273	1.211	179.2	426.9	0.880	1.542	0.97	1.073	102.8	339.0	-4.6	0.256

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3440	4-3750	0.128	57.6	10.6	-1.82	0.681	87.8	0.288	1.200	174.4	431.7	0.855	1.545	0.92	1.071	104.1	345.4	-2.5	0.279
4-3440	4-3760	0.127	69.7	13.7	-1.67	0.675	85.5	0.306	1.190	169.7	436.7	0.826	1.553	0.90	1.070	105.5	351.8	-0.2	0.304
4-3440	4-3770	0.134	83.2	16.3	-1.51	0.670	82.9	0.329	1.179	165.1	441.9	0.791	1.568	0.90	1.069	107.3	358.2	2.2	0.335
4-3440	4-3780	0.150	96.9	17.5	-1.35	0.665	79.9	0.359	1.170	160.8	447.3	0.749	1.590	0.93	1.068	109.5	4.6	4.7	0.373
4-3440	4-3790	0.178	109.2	18.5	-1.18	0.660	76.1	0.399	1.161	156.9	453.3	0.698	1.624	1.00	1.068	112.2	10.9	7.3	0.420
4-3440	4-3800	0.221	118.9	18.5	-0.96	0.655	71.4	0.451	1.153	153.7	460.0	0.633	1.674	1.11	1.068	115.7	17.1	9.7	0.482
4-3440	4-3810	0.284	125.8	18.4	-0.69	0.651	65.4	0.521	1.146	151.7	467.9	0.549	1.744	1.29	1.068	120.6	22.9	11.8	0.566
4-3440	4-3820	0.374	130.0	18.4	-0.28	0.648	57.3	0.616	1.141	151.4	477.7	0.438	1.844	1.61	1.069	127.4	27.9	13.6	0.683
4-3440	4-3830	0.502	131.0	19.0	0.42	0.646	45.9	0.741	1.138	154.2	490.5	0.294	1.982	2.22	1.070	137.4	31.7	14.9	0.851
4-3440	4-3880	0.582	99.6	22.3	-3.37	0.361	43.2	0.911	0.857	173.7	560.8	0.076	1.639	-1.96	0.932	24.6	324.4	-14.9	1.056
4-3440	4-3880	0.533	28.8	9.0	-3.37	0.564	126.3	0.720	1.021	198.9	586.0	0.286	1.757	-1.96	1.027	44.0	310.5	-20.1	0.801
4-3440	4-3890	0.484	98.2	21.8	-2.79	0.403	56.6	0.834	0.881	172.1	569.4	0.147	1.616	-1.48	0.948	33.8	329.7	-13.2	0.931
4-3440	4-3890	0.412	33.1	10.0	-2.79	0.555	113.4	0.624	1.011	196.1	593.3	0.380	1.643	-1.48	1.022	51.4	317.2	-18.2	0.678
4-3440	4-3900	0.374	90.5	21.2	-2.44	0.453	71.7	0.721	0.916	172.5	579.9	0.256	1.577	-1.21	0.970	44.0	333.9	-11.9	0.782
4-3440	4-3900	0.320	46.4	13.7	-2.44	0.535	100.3	0.577	0.990	187.7	595.2	0.418	1.562	-1.21	1.011	54.7	326.4	-15.2	0.620
4-3440	4-3950	0.596	143.0	13.6	-1.50	0.783	40.5	0.761	1.464	142.1	239.9	---	2.578	-0.90	1.152	43.2	9.7	3.3	0.883
4-3440	4-3960	0.559	145.0	12.9	-1.34	0.790	43.6	0.725	1.487	138.4	246.2	---	2.565	-0.94	1.154	46.8	16.2	5.8	0.822
4-3440	4-3970	0.523	147.0	12.3	-1.15	0.797	46.4	0.689	1.510	134.8	252.4	---	2.551	-1.01	1.156	50.3	22.7	8.2	0.763
4-3440	4-3980	0.490	148.9	11.7	-0.94	0.803	49.1	0.655	1.533	131.3	258.7	---	2.535	-1.13	1.158	53.6	29.2	10.4	0.706
4-3440	4-3990	0.459	150.8	11.3	-0.66	0.808	51.6	0.622	1.553	127.9	265.1	---	2.518	-1.32	1.159	56.8	35.7	12.1	0.651
4-3440	4-4000	0.429	152.8	11.1	-0.25	0.813	53.8	0.590	1.572	124.7	271.5	---	2.501	-1.64	1.160	59.8	42.3	13.4	0.598
4-3440	4-4010	0.402	154.9	11.5	0.44	0.817	55.9	0.561	1.590	121.5	278.0	---	2.482	-2.24	1.162	62.8	48.9	13.7	0.547
4-3440	4-4020	0.378	157.5	13.6	2.00	0.821	57.8	0.533	1.607	118.5	284.6	---	2.464	-3.73	1.163	65.5	55.9	11.6	0.501
4-3440	4-4030	0.379	164.1	28.1	10.21	0.825	59.6	0.508	1.622	115.7	291.3	---	2.446	-11.86	1.164	68.2	67.3	-5.0	0.498
4-3440	4-4040	0.365	148.6	-11.2	-11.17	0.828	61.1	0.485	1.635	113.0	298.4	---	2.427	9.59	1.165	70.9	61.8	46.0	0.440
4-3440	4-4050	0.322	155.7	-2.0	-4.99	0.830	62.5	0.465	1.646	110.6	305.4	---	2.411	3.49	1.166	73.4	68.5	32.7	0.367
4-3440	4-4060	0.303	158.1	-0.2	-3.59	0.832	63.7	0.447	1.656	108.4	312.8	---	2.396	2.17	1.168	75.9	72.8	30.2	0.324
4-3440	4-4070	0.288	159.6	0.4	-2.95	0.834	64.8	0.432	1.664	106.4	320.3	---	2.382	1.60	1.169	78.3	75.8	29.3	0.286
4-3440	4-4080	0.276	160.9	0.6	-2.56	0.836	65.6	0.419	1.671	104.8	328.2	---	2.371	1.30	1.171	80.8	76.9	28.9	0.251
4-3440	4-4090	0.267	161.8	0.7	-2.29	0.837	66.2	0.409	1.676	103.5	336.5	---	2.363	1.12	1.173	83.2	75.5	28.7	0.222
4-3440	4-4100	0.261	162.6	0.9	-2.08	0.838	66.7	0.403	1.681	102.5	345.1	---	2.358	1.01	1.174	85.7	71.2	28.3	0.200
4-3440	4-4110	0.258	163.1	1.2	-1.91	0.838	66.9	0.400	1.684	102.0	354.3	---	2.358	0.94	1.177	88.4	63.9	27.2	0.189
4-3440	4-4110	0.354	19.3	4.7	-1.91	0.664	110.5	0.461	1.169	209.0	821.2	0.630	1.708	0.94	1.060	116.4	327.3	-11.2	0.486
4-3440	4-4110	0.456	15.5	4.0	-1.91	0.686	119.3	0.545	1.210	214.6	826.9	0.551	1.869	0.94	1.073	121.8	324.7	-12.5	0.583
4-3440	4-4120	0.259	163.3	1.7	-1.75	0.839	66.8	0.402	1.686	102.0	363.9	1.008	2.363	0.90	1.179	91.1	55.2	25.3	0.192
4-3440	4-4120	0.255	29.9	7.9	-1.75	0.642	100.6	0.402	1.131	196.7	818.6	0.676	1.586	0.90	1.048	112.9	337.5	-7.2	0.423
4-3440	4-4120	0.597	14.6	4.7	-1.75	0.714	130.7	0.671	1.271	215.4	837.3	0.418	2.125	0.90	1.094	130.8	329.3	-11.4	0.746
4-3440	4-4130	0.265	163.2	2.3	-1.59	0.839	66.3	0.409	1.687	102.6	374.2	0.997	2.376	0.89	1.181	94.1	47.4	22.9	0.210
4-3440	4-4130	0.211	41.6	11.4	-1.59	0.632	94.8	0.392	1.114	187.6	819.2	0.678	1.551	0.89	1.044	112.4	346.1	-3.7	0.415
4-3440	4-4140	0.277	162.7	3.2	-1.44	0.839	65.5	0.422	1.687	103.9	385.2	0.975	2.399	0.91	1.183	97.4	42.0	20.8	0.245
4-3440	4-4140	0.187	56.3	15.4	-1.44	0.624	89.7	0.398	1.103	179.5	820.9	0.663	1.542	0.91	1.042	112.9	354.2	-0.3	0.424
4-3440	4-4150	0.296	161.8	4.4	-1.27	0.839	64.1	0.444	1.687	105.9	397.1	0.938	2.435	0.96	1.186	101.2	39.3	19.3	0.297
4-3440	4-4150	0.182	74.1	18.8	-1.27	0.619	84.6	0.419	1.094	172.4	823.6	0.636	1.552	0.96	1.042	114.3	1.9	3.0	0.448
4-3440	4-4160	0.326	160.5	5.8	-1.08	0.839	61.9	0.477	1.686	109.0	410.0	0.883	2.490	1.04	1.188	105.6	38.6	18.6	0.366
4-3440	4-4160	0.199	92.3	20.7	-1.08	0.614	79.1	0.453	1.087	166.2	827.2	0.594	1.579	1.04	1.041	116.6	9.2	6.1	0.488
4-3440	4-4170	0.371	158.5	7.5	-0.84	0.839	58.7	0.525	1.685	113.4	424.4	0.801	2.570	1.18	1.190	111.1	39.1	18.3	0.457
4-3440	4-4170	0.240	107.6	20.9	-0.84	0.610	72.7	0.505	1.081	161.2	832.1	0.536	1.627	1.18	1.042	120.0	16.1	9.0	0.547
4-3440	4-4180	0.478	155.6	9.6	-0.52	0.839	53.8	0.595	1.685	119.6	440.6	0.683	2.687	1.42	1.193	118.1	40.2	18.3	0.580
4-3440	4-4180	0.349	118.4	20.4	-0.52	0.606	64.8	0.579	1.077	157.8	838.7	0.454	1.699	1.42	1.043	125.1	22.4	11.4	0.634
4-3440	4-4190	0.539	151.5	12.0	-0.01	0.839	46.3	0.693	1.685	128.6	459.6	0.517	2.853	1.84	1.195	127.7	41.0	18.3	0.747
4-3440	4-4190	0.413	124.5	20.1	-0.01	0.604	54.4	0.682	1.073	157.0	848.0	0.342	1.805	1.84	1.044	132.8	27.7	13.4	0.763
4-3440	4-4190	0.470	66.1	22.1	-0.01	0.338	93.9	0.825	0.846	180.8	1231.8	0.148	1.543	1.84	0.915	145.0	15.0	7.6	0.905
4-3440	4-4200	0.562	126.0	20.5	0.99	0.603	40.2	0.815	1.072	160.1	861.2	0.199	1.946	2.76	1.045	144.4	31.2	14.5	0.952
4-3440	4-4200	0.522	87.2	24.5	0.99	0.314	62.9	0.882	0.835	176.0	1237.0	0.099	1.571	2.76	0.909	151.3	21.6	10.4	0.994
4-3450	4-3520	0.499	41.3	13.2	-3.53	0.495	121.8	0.745	0.961	193.3	220.7	---	---	-2.25	0.996	41.9	318.9	-17.8	0.824
4-3450	4-3530	0.409	37.9	11.5	-2.88	0.551	113.5	0.627	1.018	196.0	233.6	---	---	-1.69	1.025	51.2	322.4	-16.9	0.683
4-3450	4-3540	0.350	33.4	9.5	-2.47	0.602	109.1	0.526	1.083	199.4	247.1	---	---	-1.40	1.052	58.7	325.9	-16.0	0.568
4-3450	4-3550	0.311	28.4	7.3	-2.18	0.644	104.7	0.445	1.148	203.5	261.4	---	---	-1.22	1.075	64.8	329.2	-15.2	0.471
4-3450	4-3560	0.288	23.5	5.3	-1.95	0.677	101.3	0.383	1.208	208.3	276.3	---	---	-1.11	1.093	69.9	332.1	-14.6	0.389
4-3450	4-3570	0.274	19.2	3.6	-1.75	0.701	104.6	0.340	1.259	213.4	291.4	---	---	-1.06	1.106	74.3	334.5	-14.4	0.320
4-3450	4-3580	0.266	15.8	2.4	-1.57	0.719	104.2	0.310	1.301	218.1	306.1	---	---	-1.03	1.115	78.0	335.9	-14.7	0.262
4-3450	4-3590	0.262	13.3	1.7	-1.39	0.731	103.9	0.291	1.331	222.0	319.9	---	---	-1.04	1.121	81.3	336.0	-15.8	0.214
4-3450	4-3600	0.259	11.6	1.5	-1.20	0.739	103.7	0.279	1.352	224.7	332.5	---	---	-1.09	1.123	84.1	334.3	-18.0	0.177
4-3450	4-3610	0.255	10.6	1.6	-0.99	0.743	103.5	0.271	1.363	226.1	343.8	---	---	-1.17	1.123	86.6	330.5	-21.3	0.151
4-3450	4-3620	0.252	10.0	2.1	-0.74	0.743	103.2	0.265	1.367	226.4	353.9	---	---	-1.30	1.122	88.7	324.8	-25.5	0.135
4-3450	4-3630	0.247	9.9	3.0	-0.42	0.744	102.9	0.261	1.364	225.6	362.9	1.008	---	-1.52	1.119	90.6	318.6	-29.9	0.130
4-3450	4-3640	0.241	10.0	4.6	0.05	0.741	102.4	0.258	1.357	224.0	370.9	1.006	---	-1.89	1.115	92.2	313.5	-34.2	0.132
4-3450	4-3650	0.235	10.0	7.2	0.85	0.737	101.9	0.256	1.346	221.7	378.3	1.002	---	-2.59	1.110	93.7	311.3	-39.4	0.143
4-3450	4-3660	0.229	9.1	13.1	2.65	0.732	101.2	0.254	1.333	218.8	385.0	0.995	---	-4.31	1.106	95.0	313.7	-49.0	0.164
4-3450	4-3670	0.269	1.6	38.0	12.01	0.727	100.5	0.253	1.319	215.5	391.1	0.986	---	-13.58	1.101	96.1	348.7	-78.6	0.291
4-3450	4-3680	0.266	34.0	-24.3	-12.60	0.721	99.6	0.253	1.304	211.8	397.2	0.975	---	11.11	1.096	97.2	290.9	31.7	0.262
4-3450	4-3690	0.210	26.3	-8.8	-5.44	0.714	98.6	0.253	1.289	207.7	402.5	0.963	---	4.04	1.092	98.2	305.9	4.1	0.196
4-3450	4-3700	0.194	27.0	-3.6	-3.82	0.708	97.5	0.255	1.274	203.4	407.7	0.949	---	2.51	1.087	99.1	313.2	-3.5	0.201
4-3450	4-3710	0.180	29.6	-0.4	-3.07	0.701	96.3	0.258	1.259	198.8	412.7	0.934	---	1.85	1.083	100.1	319.6	-5.9	0.213
4-3450	4-3720	0.168	33.4	2.2	-2.63	0.695	94.9	0.263	1.245	194.1	417.5	0.918	---	1.50	1.080	101.0	325.9	-6.2	0.227
4-3450	4-3730	0.156	38.5	4.7	-2.31	0.688	93.4	0.270	1.231	189.2	422.2	0.899	---	1.29	1.077	102.0	332.3	-5.4	0.243
4-3450	4-3740	0.145	45.3	7.3	-2.07	0.682	91.6	0.279	1.217	184.3	426.9	0.878	---	1.16	1.075	103.0	338.8	-3.9	0.261
4-3450	4-3750	0.136	54.0	10.2	-1.87	0.675	89.7	0.291	1.205	179.8	431.5	0.854	1.555	1.08	1.073	104.2	345.2	-1.9	0.281
4-3450	4-3760	0.131	65.0	13.2	-1.68	0.669	87.5	0.306	1.193	174.3	436.3	0.827	1.558	1.04	1.071	105.5	351.8	0.3	0.304
4-3450	4-3770	0.132	78.3	16.0	-1.50	0.663	85.0	0.327	1.181	169.5	441.2	0.795	1.568	1.03	1.070	107.1	358.3	2.8	0.332

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	CECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3450	4-3780	0.142	92.8	17.9	-1.32	0.657	82.0	C.353	1.171	764.8	446.3	0.757	1.585	1.05	1.069	109.0	4.9	5.3	0.366
4-3450	4-3790	C.163	106.6	18.6	-1.13	C.652	78.5	C.388	1.161	160.5	451.9	C.711	1.611	1.11	1.068	111.4	11.4	7.8	0.407
4-3450	4-3800	0.198	118.2	18.5	-0.91	C.647	74.2	C.433	1.152	156.8	458.0	0.653	1.651	1.21	1.068	114.5	17.8	10.3	0.461
4-3450	4-3810	0.250	126.9	18.C	-0.63	C.642	68.7	C.493	1.144	154.0	465.1	C.580	1.709	1.37	1.067	118.7	24.0	12.6	0.533
4-3450	4-3820	C.325	132.6	17.7	-0.25	0.638	61.6	C.575	1.137	152.6	473.7	0.484	1.791	1.65	1.067	124.4	29.6	14.5	0.631
4-3450	4-3830	0.432	135.4	17.8	0.35	0.635	51.9	C.684	1.133	153.5	484.7	C.358	1.907	2.15	1.068	132.6	34.3	16.C	C.770
4-3450	4-3840	0.584	134.7	10.6	1,52	C.634	38.1	C.820	1.132	158.2	499.5	0.204	2.059	3.23	1.069	144.7	37.3	16.9	0.969
4-3450	4-3880	0.597	34.9	11.4	-4.09	0.545	133.4	C.790	1.011	197.0	579.0	0.212	1.810	-2.75	1.022	37.8	314.1	-19.3	0.899
4-3450	4-3890	0.515	102.0	21.7	-3.17	0.367	53.9	C.869	0.869	173.4	565.6	0.114	1.623	-1.94	C.939	30.0	331.7	-12.6	0.984
4-3450	4-3890	0.459	37.6	11.7	-3.17	C.538	118.6	C.680	1.003	196.1	588.4	0.321	1.685	-1.94	1.018	47.2	319.7	-17.7	C.747
4-3450	4-3900	C.407	96.2	21.3	-2.67	0.419	69.1	C.767	0.900	173.2	575.6	C.210	1.591	-1.53	C.959	40.1	336.2	-11.2	0.841
4-3450	4-3900	0.354	48.0	14.3	-2.67	0.521	104.7	C.615	0.985	189.7	592.1	0.380	1.590	-1.53	1.008	52.1	327.9	-14.9	0.664
4-3450	4-3960	0.569	149.8	11.6	-1.30	0.779	42.4	C.740	1.471	140.6	243.3	---	2.559	-1.06	1.151	45.3	17.4	6.3	0.847
4-3450	4-3970	0.533	150.9	11.C	-1.11	C.786	46.3	C.703	1.494	137.0	249.6	---	2.548	-1.12	1.153	48.8	24.0	8.7	0.787
4-3450	4-3980	0.499	152.9	10.3	-0.88	0.792	48.1	C.668	1.517	133.5	255.9	---	2.531	-1.22	1.155	52.2	30.5	10.8	0.728
4-3450	4-3990	0.467	154.8	9.9	-0.60	0.798	5C.6	C.634	1.539	130.1	262.2	---	2.514	-1.39	1.157	55.5	37.1	12.6	0.672
4-3450	4-4000	0.437	156.8	9.6	-0.22	C.803	53.0	C.602	1.559	126.8	268.6	---	2.497	-1.67	1.158	58.6	43.7	13.9	C.618
4-3450	4-4010	0.409	158.8	9.8	0.37	C.808	55.2	C.571	1.578	123.7	275.1	---	2.479	-2.16	1.159	61.6	50.3	14.4	C.566
4-3450	4-4020	0.384	161.2	11.0	1.48	0.812	57.1	C.543	1.595	120.6	281.7	---	2.460	-3.19	1.161	64.4	57.0	13.4	0.518
4-3450	4-4030	0.366	165.1	16.4	4.74	0.816	58.9	C.517	1.610	117.8	288.4	---	2.442	-6.36	1.162	67.1	64.8	6.9	0.481
4-3450	4-4050	C.335	157.2	-8.C	-7.50	C.822	62.0	C.471	1.636	112.6	302.5	---	2.407	6.C5	1.165	72.4	70.3	39.7	0.393
4-3450	4-4060	0.309	161.3	-3.5	-4.48	0.824	63.3	C.452	1.647	110.4	309.7	---	2.392	3.12	1.166	74.9	75.5	33.2	0.340
4-3450	4-4070	0.292	163.3	-2.2	-3.41	0.826	64.4	C.436	1.656	108.4	317.2	---	2.378	2.14	1.168	77.4	79.0	31.3	0.299
4-3450	4-4080	0.278	164.8	-1.7	-2.84	C.828	65.3	C.422	1.663	106.6	325.0	---	2.365	1.66	1.170	79.8	80.8	30.5	0.263
4-3450	4-4090	0.269	165.9	-1.4	-2.47	C.829	66.0	C.411	1.669	105.2	333.2	---	2.356	1.39	1.171	82.3	80.4	30.2	0.232
4-3450	4-4100	0.262	166.8	-1.2	-2.19	0.830	66.5	C.404	1.674	104.2	341.7	---	2.350	1.22	1.173	84.8	77.1	29.9	0.207
4-3450	4-4110	0.258	167.4	-0.8	-1.97	0.831	66.8	C.400	1.678	103.5	350.7	---	2.348	1.12	1.176	87.4	70.7	29.2	0.191
4-3450	4-4120	C.257	167.8	-0.4	-1.78	0.831	66.8	C.400	1.680	103.3	360.2	14009	2.351	1.06	1.178	90.1	62.1	27.7	0.188
4-3450	4-4120	0.320	27.2	7.8	-1.78	C.647	107.6	C.450	1.152	204.6	821.4	C.634	1.670	1.06	1.056	115.8	336.2	-7.7	0.476
4-3450	4-4120	0.502	19.9	6.4	-1.78	C.686	123.6	C.596	1.226	214.4	831.3	C.495	1.957	1.06	1.080	125.3	331.9	-10.C	0.649
4-3450	4-4130	0.261	167.8	0.3	-1.60	0.831	66.5	C.404	1.681	103.7	370.2	1.002	2.361	1.04	1.180	92.9	53.6	25.5	0.201
4-3450	4-4130	0.243	38.2	11.1	-1.60	C.629	99.2	C.412	1.123	193.7	820.2	0.661	1.586	1.04	1.048	113.6	345.6	-3.7	0.437
4-3450	4-4140	0.270	167.6	1.1	-1.42	C.832	65.8	C.415	1.682	104.6	380.9	0.984	2.379	1.04	1.183	96.1	47.2	23.2	0.230
4-3450	4-4140	0.204	51.4	14.7	-1.42	C.619	93.4	C.407	1.108	184.9	821.2	0.657	1.559	1.04	1.044	113.5	354.0	-0.1	0.434
4-3450	4-4150	0.286	166.9	2.2	-1.24	0.832	64.7	C.433	1.682	106.3	392.4	0.954	2.416	1.08	1.185	99.6	43.6	21.4	0.274
4-3450	4-4150	0.186	68.0	18.3	-1.24	C.612	88.0	C.419	1.097	177.2	823.3	0.637	1.556	1.08	1.043	114.3	1.9	3.3	0.449
4-3450	4-4160	0.311	165.8	3.6	-1.03	C.831	62.9	C.461	1.681	108.8	404.8	0.906	2.456	1.15	1.187	103.8	42.3	20.4	0.338
4-3450	4-4160	0.190	87.C	20.7	-1.03	C.606	82.4	C.445	1.088	170.4	826.4	C.604	1.573	1.15	1.042	116.0	9.5	6.5	0.479
4-3450	4-4170	0.349	164.1	5.2	-0.79	C.831	60.1	C.502	1.680	112.5	418.4	C.837	2.523	1.28	1.190	108.7	42.6	20.0	0.416
4-3450	4-4170	0.218	104.6	21.2	-0.79	C.601	76.3	C.487	1.081	164.6	830.5	0.555	1.608	1.28	1.042	118.8	16.7	9.5	0.527
4-3450	4-4180	0.404	161.7	7.1	-0.47	0.831	56.1	C.561	1.679	117.6	433.5	C.737	2.622	1.48	1.192	114.9	43.7	19.9	0.523
4-3450	4-4180	0.272	118.1	20.5	-0.47	0.597	69.1	C.548	1.076	160.3	836.2	C.486	1.666	1.48	1.042	123.0	23.5	12.1	0.598
4-3450	4-4190	0.487	158.3	9.3	-0.01	0.831	5C.0	C.645	1.679	125.0	450.9	0.595	2.762	1.84	1.194	123.1	45.0	19.9	0.666
4-3450	4-4190	0.357	126.6	19.6	-0.01	C.594	59.9	C.636	1.072	158.0	843.9	0.391	1.753	1.84	1.043	129.3	29.4	14.3	0.704
4-3450	4-4200	0.481	130.5	19.4	0.79	C.592	47.6	C.753	1.069	158.8	854.8	C.264	1.874	2.54	1.044	138.7	34.1	15.8	0.859
4-3450	4-4200	0.488	80.5	24.2	0.79	0.306	82.2	C.857	0.839	178.7	1234.7	0.120	1.557	2.54	0.912	148.5	22.8	10.9	0.954
4-3450	4-4210	0.585	97.1	24.8	2.65	0.288	48.9	C.929	0.831	176.0	1242.2	0.059	1.603	4.31	0.909	157.8	28.4	13.1	1.084
4-3450	4-4250	0.525	35.9	11.5	-3.57	C.938	125.7	C.735	1.004	196.9	943.8	C.266	1.741	-2.29	1.019	42.7	316.6	-18.6	0.819
4-3460	4-3520	0.591	39.6	12.8	-4.25	C.544	133.4	C.789	1.020	197.1	219.5	---	---	-3.05	1.026	37.9	319.2	-18.1	0.901
4-3460	4-3530	0.479	36.1	11.1	-3.26	0.583	122.1	C.663	1.068	201.2	233.8	---	---	-2.16	1.047	48.7	322.2	-17.3	0.734
4-3460	4-3540	0.407	31.6	9.1	-2.70	0.627	115.6	C.554	1.133	205.7	248.5	---	---	-1.71	1.071	57.1	325.3	-16.6	0.601
4-3460	4-3550	0.361	26.9	7.1	-2.32	0.666	112.0	C.469	1.201	211.0	263.9	---	---	-1.46	1.093	63.9	328.1	-16.0	0.493
4-3460	4-3560	0.333	22.4	5.3	-2.03	0.697	109.8	C.406	1.266	216.7	279.7	---	---	-1.30	1.110	69.5	330.6	-15.6	0.404
4-3460	4-3570	0.317	18.6	3.9	-1.79	0.721	108.6	C.364	1.321	222.5	295.5	---	---	-1.22	1.123	74.2	332.3	-15.7	0.330
4-3460	4-3580	0.307	15.6	2.9	-1.58	0.737	107.8	C.336	1.365	227.5	310.5	---	---	-1.17	1.131	78.1	333.0	-16.3	0.269
4-3460	4-3590	0.301	13.5	2.4	-1.38	0.748	107.3	C.319	1.396	231.2	324.2	---	---	-1.16	1.136	81.6	332.2	-17.8	0.220
4-3460	4-3600	0.296	12.1	2.2	-1.17	C.755	106.8	C.307	1.415	233.6	336.5	---	---	-1.19	1.138	84.5	329.5	-20.3	0.183
4-3460	4-3610	0.291	11.4	2.4	-0.95	C.757	106.5	C.300	1.423	234.6	347.4	---	---	-1.26	1.137	87.1	324.7	-23.7	0.158
4-3460	4-3620	0.285	11.1	3.0	-0.70	0.757	106.1	C.293	1.422	234.4	357.0	---	---	-1.38	1.134	89.3	318.6	-27.4	0.145
4-3460	4-3630	0.279	11.2	3.8	-0.38	C.754	105.6	C.288	1.415	233.3	365.5	1.007	---	-1.57	1.130	91.2	312.5	-30.9	0.141
4-3460	4-3640	0.272	11.5	5.2	0.04	0.750	105.1	C.284	1.402	231.3	373.2	1.004	---	-1.88	1.126	92.9	308.2	-34.0	0.145
4-3460	4-3650	0.263	11.8	7.3	0.71	0.745	104.4	C.279	1.386	228.6	380.2	0.999	---	-2.44	1.120	94.4	306.5	-37.6	0.155
4-3460	4-3660	0.255	11.7	11.2	1.97	0.738	103.7	C.276	1.368	225.5	386.6	0.991	---	-3.66	1.114	95.7	308.3	-43.5	0.172
4-3460	4-3670	0.254	9.5	21.8	5.66	C.731	102.9	C.273	1.349	221.8	392.5	0.981	---	-7.19	1.108	96.8	316.9	-58.7	0.214
4-3460	4-3690	0.244	30.3	-13.C	-8.11	C.716	100.9	C.270	1.311	213.6	403.5	0.957	---	6.77	1.097	98.8	301.2	14.2	0.230
4-3460	4-3700	0.217	28.6	-4.5	-4.74	0.709	99.7	C.269	1.292	209.1	408.5	0.944	---	3.50	1.092	99.7	311.2	0.2	0.217
4-3460	4-3710	0.200	30.4	-0.5	-3.54	0.701	98.4	C.271	1.274	204.4	413.3	0.929	---	2.40	1.088	100.6	318.4	-4.C	0.225
4-3460	4-3720	0.186	33.5	2.3	-2.90	0.693	97.0	C.274	1.257	199.5	417.9	0.913	---	1.87	1.084	101.4	325.1	-5.0	0.237
4-3460	4-3730	0.172	37.9	4.8	-2.48	0.686	95.4	C.279	1.241	194.4	422.5	0.895	---	1.56	1.080	102.3	331.8	-4.6	0.252
4-3460	4-3740	0.159	43.7	7.3	-2.18	0.678	93.7	C.286	1.225	189.3	427.0	0.875	---	1.38	1.077	103.3	338.4	-3.3	0.267
4-3460	4-3750	0.147	51.3	10.C	-1.93	0.671	91.7	C.296	1.211	184.2	431.4	0.853	---	1.26	1.075	104.4	345.1	-1.4	0.286
4-3460	4-3760	0.138	61.1	12.9	-1.71	0.664	89.6	C.309	1.197	179.0	436.0	0.827	1.567	1.19	1.072	105.6	351.7	0.8	0.307
4-3460	4-3770	0.134	73.5	15.7	-1.51	0.657	87.1	C.327	1.185	173.9	440.6	0.798	1.571	1.16	1.071	107.0	358.4	3.2	0.331
4-3460	4-3780	0.138	88.0	17.8	-1.31	C.651	84.2	C.350	1.173	169.0	445.5	0.763	1.583	1.17	1.069	108.7	5.1	5.8	0.361
4-3460	4-3790	0.152	102.9	18.8	-1.10	0.644	80.9	C.380	1.162	164.4	450.7	C.721	1.603	1.21	1.068	110.9	11.8	8.4	0.398
4-3460	4-3800	0.180	116.3	18.7	-0.87	0.639	76.8	C.419	1.152	160.2	456.4	0.669	1.634	1.30	1.067	113.6	18.4	10.9	0.445
4-3460	4-3810	0.223	126.8	18.0	-0.59	C.633	71.8	C.471	1.143	156.7	462.9	0.604	1.681	1.4	1.067	117.2	24.8	13.2	0.507
4-3460	4-3820	0.286	134.3	17.2	-0.23	0.628	65.4	C.541	1.135	154.4	470.6	0.521	1.749	1.6	1.066	122.0	30.9	15.3	0.590
4-3460	4-3830	0.376	138.7	16.8	0.30	0.625	56.9	C.635	1.129	153.9	480.1	0.412	1.846	2.1	1.066	128.9	36.3	17.C	0.706
4-3460	4-3840	0.503	139.9	17.1	1.22	0.623	45.2	C.757	1.125	156.4	492.7	0.273	1.978	2.90	1.067	138.9	40.4	18.1	0.872

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3460	4-3890	0.545	105.5	21.5	-3.70	0.330	51.1	0.900	0.857	174.7	562.0	0.085	1.628	-2.54	0.931	26.1	333.7	-11.9	1.036
4-3460	4-3890	0.512	42.7	13.5	-3.70	0.519	124.6	0.741	0.994	195.5	582.8	0.258	1.730	-2.54	1.013	42.2	322.6	-17.0	0.826
4-3460	4-3900	0.440	101.2	21.2	-2.96	0.383	66.9	0.809	0.886	174.1	571.5	0.169	1.602	-1.91	0.950	36.2	338.3	-10.4	0.897
4-3460	4-3900	0.392	50.7	15.3	-2.96	0.504	109.5	0.658	0.979	191.0	588.4	0.335	1.623	-1.91	1.005	48.8	329.8	-14.5	0.717
4-3460	4-3960	0.579	152.8	10.3	-1.28	0.767	41.2	0.755	1.454	142.7	240.4	---	2.552	-1.17	1.147	43.7	18.7	6.7	0.872
4-3460	4-3970	0.543	154.8	9.6	-1.07	0.774	44.2	0.718	1.478	139.1	246.7	---	2.539	-1.22	1.150	47.4	25.2	9.1	0.810
4-3460	4-3980	0.508	156.8	8.9	-0.84	0.781	47.1	0.682	1.502	135.6	253.0	---	2.525	-1.31	1.152	50.8	31.8	11.2	0.751
4-3460	4-3990	0.476	158.7	8.4	-0.56	0.787	49.7	0.647	1.524	132.2	259.3	---	2.510	-1.46	1.154	54.2	38.4	13.0	0.694
4-3460	4-4000	0.445	160.7	8.1	-0.20	0.793	52.2	0.614	1.545	128.9	265.8	---	2.493	-1.70	1.155	57.3	45.0	14.4	0.639
4-3460	4-4010	0.417	162.7	8.1	0.32	0.798	54.4	0.582	1.564	125.7	272.2	---	2.475	-2.11	1.157	60.4	51.7	15.0	0.586
4-3460	4-4020	0.391	164.9	8.8	1.19	0.803	56.5	0.553	1.582	122.7	278.8	---	2.457	-2.87	1.159	63.3	58.3	14.6	0.536
4-3460	4-4030	0.369	167.9	11.7	3.12	0.807	58.3	0.525	1.599	119.8	285.5	---	2.439	-4.70	1.160	66.1	65.3	11.2	0.492
4-3460	4-4040	0.380	174.9	27.9	12.37	0.810	60.0	0.501	1.613	117.2	292.3	---	2.421	-13.86	1.162	68.7	76.7	-8.2	0.504
4-3460	4-4050	0.379	153.1	-20.1	-14.95	0.813	61.6	0.477	1.626	114.6	299.6	---	2.403	13.56	1.163	71.4	74.3	56.9	0.462
4-3460	4-4060	0.317	163.8	-7.9	-5.97	0.816	62.9	0.458	1.638	112.3	306.7	---	2.387	4.68	1.165	73.9	78.0	37.7	0.360
4-3460	4-4070	0.297	166.7	-5.2	-4.06	0.818	64.0	0.440	1.647	110.3	314.2	---	2.372	2.87	1.166	76.4	82.1	33.7	0.314
4-3460	4-4080	0.283	168.5	-4.1	-3.20	0.820	65.0	0.425	1.656	108.5	321.9	---	2.360	2.11	1.168	78.9	84.6	32.2	0.276
4-3460	4-4090	0.272	169.9	-3.6	-2.69	0.821	65.8	0.413	1.662	107.0	330.0	---	2.349	1.70	1.170	81.3	85.0	31.5	0.242
4-3460	4-4100	0.263	170.9	-3.3	-2.33	0.822	66.4	0.405	1.667	105.8	338.4	---	2.342	1.46	1.172	83.8	82.7	31.3	0.215
4-3460	4-4110	0.258	171.7	-2.9	-2.05	0.823	66.7	0.399	1.671	105.0	347.3	---	2.338	1.31	1.175	86.4	77.3	30.9	0.195
4-3460	4-4120	0.257	172.1	-2.4	-1.82	0.824	66.8	0.398	1.674	104.7	356.6	---	2.340	1.22	1.177	89.0	69.2	29.9	0.187
4-3460	4-4130	0.259	172.4	-1.8	-1.61	0.824	66.7	0.401	1.676	104.8	366.4	1.004	2.347	1.18	1.179	91.8	60.2	27.9	0.194
4-3460	4-4130	0.295	35.3	10.9	-1.61	0.631	105.2	0.448	1.139	200.7	822.3	0.629	1.649	1.18	1.053	115.8	344.6	-4.0	0.477
4-3460	4-4130	0.538	24.8	8.8	-1.61	0.684	127.0	0.639	1.238	213.6	835.1	0.447	2.029	1.18	1.086	128.4	339.2	-7.2	0.706
4-3460	4-4140	0.266	172.2	-0.9	-1.41	0.824	66.1	0.409	1.676	105.5	376.8	0.991	2.362	1.16	1.182	94.9	52.8	25.6	0.216
4-3460	4-4140	0.231	47.3	14.2	-1.41	0.616	97.6	0.423	1.115	190.6	822.0	0.643	1.587	1.16	1.047	114.4	353.6	-0.1	0.452
4-3460	4-4150	0.279	171.8	0.1	-1.21	0.824	65.2	0.424	1.676	106.8	388.0	0.966	2.387	1.18	1.184	98.2	48.2	23.6	0.255
4-3460	4-4150	0.199	62.4	17.8	-1.21	0.606	91.6	0.425	1.401	182.2	823.4	0.633	1.568	1.18	1.044	114.6	1.8	3.5	0.455
4-3460	4-4160	0.300	170.9	1.4	-0.99	0.824	63.7	0.448	1.676	108.9	399.9	0.926	2.426	1.25	1.187	102.1	46.2	22.3	0.309
4-3460	4-4160	0.189	80.9	20.6	-0.99	0.599	85.9	0.442	1.090	174.8	825.9	0.608	1.572	1.25	1.043	115.8	9.6	6.8	0.475
4-3460	4-4170	0.331	169.5	2.9	-0.74	0.824	61.4	0.483	1.675	111.9	412.9	0.866	2.483	1.36	1.189	106.6	46.2	21.6	0.381
4-3460	4-4170	0.203	100.2	21.5	-0.74	0.593	79.9	0.475	1.082	168.4	829.4	0.568	1.596	1.36	1.042	118.0	17.1	9.9	0.513
4-3460	4-4180	0.377	167.5	4.6	-0.43	0.824	57.9	0.533	1.674	116.2	427.2	0.781	2.567	1.54	1.191	112.2	47.2	21.4	0.475
4-3460	4-4180	0.243	116.4	20.7	-0.43	0.589	73.1	0.525	1.076	163.3	834.2	0.510	1.641	1.54	1.042	121.4	24.3	12.7	0.571
4-3460	4-4190	0.446	164.6	6.7	-0.01	0.824	52.9	0.605	1.673	122.3	443.3	0.660	2.686	1.85	1.193	119.3	48.7	21.4	0.599
4-3460	4-4190	0.312	127.5	19.4	-0.01	0.585	64.7	0.599	1.071	159.8	840.7	0.430	1.711	1.85	1.042	126.5	30.8	15.0	0.658
4-3460	4-4200	0.547	160.5	9.2	0.66	0.824	45.3	0.705	1.673	131.0	462.1	0.494	2.853	2.40	1.195	129.0	49.8	21.3	0.768
4-3460	4-4200	0.415	133.7	18.6	0.66	0.582	54.0	0.700	1.067	158.8	849.9	0.320	1.814	2.40	1.043	134.2	36.3	16.8	0.786
4-3460	4-4200	0.520	67.2	22.7	0.66	0.319	111.1	0.862	0.852	183.6	1234.6	0.117	1.586	2.40	0.922	149.2	23.1	10.9	0.968
4-3460	4-4210	0.562	135.2	18.7	1.97	0.581	39.5	0.828	1.066	161.7	862.9	0.183	1.948	3.60	1.044	145.8	40.1	17.9	0.973
4-3460	4-4210	0.528	93.3	24.9	1.97	0.275	68.9	0.897	0.833	177.5	1238.6	0.085	1.581	3.60	0.910	153.3	30.2	13.8	1.022
4-3460	4-4250	0.589	41.4	13.5	-4.33	0.524	133.2	0.800	0.999	195.6	937.5	0.199	1.798	-3.11	1.016	36.8	319.8	-17.8	0.913
4-3460	4-4260	0.571	116.6	20.1	-3.29	0.410	90.7	0.897	0.903	171.7	923.7	0.093	1.712	-2.19	0.961	26.3	336.7	-10.7	1.049
4-3460	4-4260	0.454	44.3	13.8	-3.29	0.520	118.1	0.692	0.995	194.7	946.8	0.306	1.683	-2.19	1.013	46.2	325.3	-16.1	0.763
4-3470	4-3530	0.574	34.6	10.8	-3.77	0.642	131.2	0.709	1.170	207.0	234.8	---	---	-2.75	1.085	45.6	321.6	-17.9	0.803
4-3470	4-3540	0.481	30.3	8.9	-2.98	0.671	122.7	0.593	1.225	213.1	250.9	---	---	-2.09	1.102	55.2	324.2	-17.3	0.647
4-3470	4-3550	0.424	25.8	7.0	-2.49	0.703	117.7	0.504	1.294	219.5	267.5	---	---	-1.72	1.120	62.8	326.5	-16.9	0.524
4-3470	4-3560	0.390	21.7	5.4	-2.13	0.730	114.6	0.441	1.362	226.2	284.3	---	---	-1.51	1.135	68.9	328.3	-16.8	0.425
4-3470	4-3570	0.369	18.3	4.2	-1.85	0.750	112.8	0.400	1.420	232.3	300.5	---	---	-1.38	1.146	74.0	329.4	-17.2	0.344
4-3470	4-3580	0.355	15.8	3.4	-1.60	0.764	111.6	0.375	1.465	237.3	315.4	---	---	-1.31	1.153	78.3	329.3	-18.1	0.280
4-3470	4-3590	0.346	14.1	3.0	-1.38	0.773	110.8	0.358	1.494	240.7	328.8	---	---	-1.28	1.157	81.9	327.5	-19.9	0.230
4-3470	4-3600	0.338	13.0	3.0	-1.15	0.777	110.1	0.347	1.508	242.5	340.5	---	---	-1.29	1.157	85.0	323.8	-22.5	0.193
4-3470	4-3610	0.331	12.5	3.0	-0.92	0.777	109.6	0.338	1.509	243.0	350.8	---	---	-1.35	1.155	87.7	318.3	-25.7	0.170
4-3470	4-3620	0.324	12.5	3.0	-0.66	0.775	109.1	0.330	1.500	242.3	359.9	---	---	-1.45	1.150	90.1	312.0	-28.8	0.159
4-3470	4-3630	0.315	12.7	4.7	-0.36	0.770	108.5	0.323	1.484	240.7	368.1	1.005	---	-1.61	1.145	92.2	306.5	-31.4	0.157
4-3470	4-3640	0.306	13.2	5.9	0.04	0.764	107.8	0.316	1.463	238.3	375.4	1.002	---	-1.89	1.139	93.7	303.1	-33.6	0.162
4-3470	4-3650	0.295	13.8	7.7	0.61	0.756	107.1	0.309	1.439	235.4	382.0	0.995	---	-2.33	1.132	95.1	302.3	-36.0	0.172
4-3470	4-3660	0.285	14.2	10.5	1.58	0.748	106.3	0.301	1.414	231.9	388.2	0.986	---	-3.18	1.125	96.4	304.3	-39.8	0.185
4-3470	4-3670	0.276	13.7	16.5	3.73	0.739	105.4	0.291	1.388	228.1	393.9	0.976	---	-5.23	1.119	97.6	309.9	-48.3	0.210
4-3470	4-3680	0.317	7.8	40.2	10.21	0.730	104.4	0.292	1.363	223.9	399.1	0.965	---	-15.80	1.111	98.5	335.5	-77.1	0.345
4-3470	4-3690	0.319	40.3	-23.0	-15.83	0.721	103.3	0.289	1.338	219.5	404.6	0.951	---	14.55	1.105	99.6	289.8	33.0	0.336
4-3470	4-3700	0.245	31.3	-6.4	-6.28	0.711	102.1	0.287	1.315	214.8	409.3	0.938	---	5.11	1.098	100.4	308.5	5.7	0.240
4-3470	4-3710	0.223	31.8	-0.8	-4.21	0.702	100.7	0.286	1.293	209.9	413.9	0.923	---	3.14	1.093	101.2	317.0	-1.7	0.241
4-3470	4-3720	0.206	34.3	2.5	-3.26	0.693	99.3	0.287	1.273	204.8	418.4	0.907	---	2.32	1.088	102.0	324.3	-3.7	0.250
4-3470	4-3730	0.190	38.0	5.1	-2.70	0.685	97.6	0.290	1.253	199.6	422.8	0.890	---	1.87	1.084	102.8	331.2	-3.7	0.262
4-3470	4-3740	0.175	42.9	7.5	-2.31	0.676	95.9	0.295	1.235	194.4	427.1	0.871	---	1.61	1.080	103.7	338.0	-2.6	0.276
4-3470	4-3750	0.161	49.5	10.0	-2.00	0.668	93.9	0.303	1.219	189.1	431.5	0.850	---	1.45	1.077	104.7	344.8	-0.9	0.292
4-3470	4-3760	0.149	58.1	12.7	-1.75	0.660	91.7	0.314	1.203	183.7	435.8	0.826	---	1.35	1.074	105.8	351.6	1.3	0.311
4-3470	4-3770	0.140	69.2	15.4	-1.52	0.652	89.3	0.329	1.189	178.5	440.3	0.798	1.579	1.29	1.072	107.1	358.4	3.7	0.333
4-3470	4-3780	0.138	83.0	17.8	-1.30	0.645	86.5	0.348	1.175	173.3	444.9	0.766	1.585	1.28	1.070	108.6	5.2	6.2	0.359
4-3470	4-3790	0.146	98.4	19.1	-1.08	0.638	83.2	0.374	1.163	168.4	449.8	0.728	1.598	1.31	1.069	110.5	12.1	8.8	0.392
4-3470	4-3800	0.166	113.3	19.1	-0.83	0.631	79.4	0.408	1.152	163.8	455.2	0.681	1.622	1.38	1.067	112.9	18.9	11.4	0.433
4-3470	4-3810	0.201	125.8	18.1	-0.56	0.625	74.8	0.454	1.142	159.8	461.1	0.624	1.660	1.50	1.066	116.0	25.6	13.8	0.486
4-3470	4-3820	0.253	135.0	17.0	-0.21	0.619	68.9	0.514	1.133	156.7	468.0	0.550	1.715	1.71	1.066	120.2	32.0	15.9	0.558
4-3470	4-3830	0.329	141.0	16.1	0.27	0.615	61.4	0.595	1.125	155.1	476.5	0.455	1.795	2.05	1.065	126.0	37.9	17.8	0.656
4-3470	4-3840	0.436	144.0	15.9	1.02	0.611	51.3	0.703	1.120	155.8	487.2	0.333	1.907	2.68	1.065	134.2	42.9	19.1	0.795
4-3470	4-3850	0.586	143.5	16.5	2.51	0.611	37.2	0.834	1.119	160.1	501.7	0.185	2.052	4.06	1.066	146.3	46.1	19.9	0.991
4-3470	4-3890	0.577	108.7	21.2	-4.45	0.290	48.2	0.929	0.846	175.9	550.3	0.060	1.631	-3.36	0.922	22.1	335.7	-11.3	1.089
4-3470	4-3890	0.570	48.6	15.4	-4.45	0.499	131.6	0.804	0.983	194.1	576.5	0.193	1.773	-3.36	1.008	36.5	325.7	-16.1	0.916
4-3470	4-3900	0.473	105.5	21.0	-3.34	0.346	64.9	0.848	0.872	175.1	567.6	0.133	1.611	-2.38	0.940	32.3	340.4	-9.6	0.952

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3470	4-3900	0.435	54.3	16.4	-3.34	0.487	114.9	0.707	0.971	191.7	584.2	0.284	1.658	-2.38	1.001	45.0	331.9	-13.9	0.778
4-3470	4-3960	0.590	156.5	8.9	-1.27	0.756	39.9	0.769	1.437	144.8	237.6	---	2.543	-1.28	1.144	42.1	19.9	7.2	0.896
4-3470	4-3970	0.553	158.5	8.2	-1.05	0.763	43.1	0.732	1.462	141.2	243.9	---	2.532	-1.31	1.147	45.9	26.5	9.5	0.834
4-3470	4-3980	0.518	160.5	7.5	-0.80	0.770	46.0	0.696	1.486	137.7	250.2	---	2.519	-1.39	1.149	49.4	33.1	11.6	0.774
4-3470	4-3990	0.485	162.5	6.9	-0.53	0.777	48.8	0.660	1.509	134.3	256.5	---	2.504	-1.51	1.151	52.8	39.7	13.4	0.715
4-3470	4-4000	0.454	164.5	6.5	-0.18	0.783	51.3	0.626	1.530	131.0	262.9	---	2.488	-1.72	1.153	56.1	46.3	14.8	0.659
4-3470	4-4010	0.425	166.5	6.4	0.28	0.788	53.6	0.593	1.551	127.6	269.4	---	2.471	-2.06	1.155	59.2	53.0	15.6	0.605
4-3470	4-4020	0.399	168.6	6.8	1.00	0.793	55.8	0.563	1.569	124.8	276.0	---	2.453	-2.66	1.156	62.1	59.7	15.5	0.554
4-3470	4-4030	0.375	171.2	0.5	2.34	0.798	57.7	0.534	1.587	121.9	282.7	---	2.435	-3.89	1.158	65.0	66.4	13.5	0.507
4-3470	4-4040	0.360	175.4	15.1	6.18	0.802	59.4	0.509	1.602	119.2	289.5	---	2.417	-7.63	1.160	67.7	74.1	5.1	0.474
4-3470	4-4060	0.334	164.4	-14.5	-8.97	0.808	62.5	0.463	1.628	114.2	303.8	---	2.382	7.74	1.165	73.0	81.1	45.8	0.390
4-3470	4-4070	0.304	169.7	-8.7	-5.05	0.810	63.7	0.445	1.639	112.1	311.2	---	2.367	3.93	1.165	75.5	85.1	36.9	0.331
4-3470	4-4080	0.287	172.1	-6.8	-3.69	0.812	64.7	0.429	1.647	110.3	318.9	---	2.354	2.68	1.167	78.0	88.1	34.1	0.289
4-3470	4-4090	0.275	173.7	-6.0	-2.97	0.814	65.5	0.416	1.654	108.7	326.9	---	2.343	2.08	1.169	80.4	89.3	32.9	0.253
4-3470	4-4100	0.266	174.9	-5.4	-2.50	0.815	66.2	0.406	1.660	107.5	335.2	---	2.334	1.73	1.171	82.9	88.0	32.5	0.223
4-3470	4-4110	0.260	175.8	-4.9	-2.16	0.816	66.6	0.399	1.665	106.6	343.9	---	2.329	1.52	1.174	85.4	83.7	32.2	0.200
4-3470	4-4120	0.257	176.4	-4.4	-1.88	0.817	66.8	0.396	1.668	106.1	353.1	---	2.329	1.39	1.176	88.0	76.2	31.6	0.188
4-3470	4-4130	0.257	176.7	-3.8	-1.64	0.817	66.8	0.398	1.670	106.0	362.7	1.006	2.334	1.32	1.179	90.8	67.1	30.1	0.189
4-3470	4-4140	0.263	176.8	-3.0	-1.41	0.817	66.4	0.404	1.671	106.5	372.9	0.996	2.345	1.28	1.181	93.7	58.8	27.9	0.206
4-3470	4-4140	0.273	44.0	13.9	-1.41	0.616	103.1	0.451	1.127	197.0	823.5	0.619	1.636	1.28	1.052	116.1	352.9	-0.3	0.482
4-3470	4-4140	0.570	29.9	11.1	-1.41	0.682	130.3	0.67	1.249	212.4	838.8	0.403	2.094	1.28	1.092	131.4	346.6	-4.2	0.760
4-3470	4-4150	0.273	176.5	-2.0	-1.19	0.817	65.6	0.416	1.671	107.5	383.7	0.976	2.366	1.29	1.183	96.9	53.2	25.7	0.238
4-3470	4-4150	0.220	57.6	17.3	-1.19	0.603	95.8	0.436	1.107	187.6	823.8	0.624	1.590	1.29	1.047	115.3	1.5	3.5	0.468
4-3470	4-4160	0.290	175.8	-0.8	-0.96	0.817	64.3	0.436	1.671	109.2	395.3	0.942	2.399	1.33	1.186	100.5	50.4	24.1	0.286
4-3470	4-4160	0.196	74.9	20.3	-0.96	0.593	89.6	0.444	1.094	179.6	825.7	0.608	1.579	1.33	1.044	115.9	9.6	7.0	0.478
4-3470	4-4170	0.317	174.7	0.6	-0.71	0.817	62.4	0.466	1.670	111.7	407.8	0.891	2.448	1.43	1.188	104.7	49.8	23.2	0.350
4-3470	4-4170	0.196	94.7	21.8	-0.71	0.586	83.5	0.468	1.084	172.5	828.6	0.577	1.591	1.43	1.043	117.5	17.4	10.2	0.505
4-3470	4-4180	0.355	173.0	2.2	-0.40	0.817	59.5	0.510	1.668	115.3	421.4	0.818	2.519	1.58	1.190	109.8	50.6	22.8	0.433
4-3470	4-4180	0.222	113.2	21.2	-0.40	0.581	76.9	0.509	1.076	166.7	832.7	0.529	1.623	1.58	1.042	120.3	24.9	13.1	0.552
4-3470	4-4190	0.413	170.6	4.2	-0.00	0.817	55.2	0.572	1.667	120.4	436.5	0.714	2.621	1.85	1.192	116.1	52.2	22.7	0.543
4-3470	4-4190	0.277	127.1	19.5	-0.00	0.576	69.2	0.569	1.070	162.2	838.3	0.461	1.679	1.85	1.042	124.5	31.9	15.6	0.623
4-3470	4-4200	0.496	167.1	6.4	0.58	0.817	48.9	0.658	1.667	127.6	453.7	0.570	2.764	2.30	1.194	124.4	53.7	22.7	0.688
4-3470	4-4200	0.362	135.7	18.1	0.58	0.573	59.5	0.656	1.065	159.8	846.0	0.367	1.764	2.30	1.042	130.8	38.1	17.6	0.728
4-3470	4-4210	0.485	139.5	17.5	1.58	0.571	46.9	0.770	1.063	160.5	856.8	0.244	1.881	3.18	1.043	140.2	42.9	19.0	0.883
4-3470	4-4210	0.511	84.7	24.7	1.58	0.275	93.8	0.881	0.840	180.5	1236.8	0.100	1.580	3.18	0.915	151.3	31.3	14.2	0.996
4-3470	4-4220	0.587	103.9	24.7	3.96	0.246	53.4	0.940	0.829	177.2	1243.6	0.050	1.608	5.45	0.909	159.6	37.4	16.4	1.108
4-3470	4-4260	0.507	48.7	15.2	-3.83	0.507	124.5	0.749	0.991	194.7	941.9	0.249	1.732	-2.80	1.011	41.5	327.8	-15.4	0.838
4-3470	4-4270	0.584	19.4	4.9	-3.01	0.801	128.3	0.620	1.600	232.7	630.0	0.608	2.592	-2.11	1.185	58.2	314.6	-20.7	0.633
4-3470	4-4270	0.504	119.3	19.3	-3.01	0.409	50.2	0.854	0.910	171.2	928.6	0.133	1.687	-2.11	0.965	31.5	343.8	-8.1	0.975
4-3470	4-4270	0.390	55.7	16.5	-3.01	0.500	109.9	0.663	0.984	191.0	948.4	0.331	1.636	-2.11	1.007	48.5	334.4	-12.9	0.725
4-3480	4-3540	0.581	29.4	8.8	-3.36	0.743	130.1	0.651	1.416	221.6	254.6	---	---	-2.55	1.151	52.8	322.5	-18.2	0.712
4-3480	4-3550	0.506	25.2	7.1	-2.70	0.759	123.7	0.559	1.468	229.2	272.4	---	---	-2.03	1.160	61.4	324.2	-18.1	0.567
4-3480	4-3560	0.460	21.4	5.6	-2.26	0.778	119.7	0.496	1.531	236.5	289.8	---	---	-1.73	1.170	68.2	325.4	-18.2	0.454
4-3480	4-3570	0.432	18.4	4.6	-1.92	0.792	117.1	0.456	1.587	242.6	306.0	---	---	-1.55	1.178	73.8	325.7	-18.8	0.366
4-3480	4-3580	0.413	16.3	4.0	-1.64	0.802	115.5	0.431	1.627	247.2	320.5	---	---	-1.45	1.182	78.4	324.7	-20.1	0.297
4-3480	4-3590	0.399	14.9	3.7	-1.39	0.807	114.4	0.414	1.648	250.0	333.3	---	---	-1.40	1.183	82.3	322.0	-22.0	0.245
4-3480	4-3600	0.388	14.1	3.8	-1.15	0.807	113.5	0.401	1.650	251.2	344.4	---	---	-1.39	1.181	85.6	317.5	-24.6	0.209
4-3480	4-3610	0.378	13.9	4.2	-0.90	0.804	112.8	0.389	1.638	251.1	354.1	---	---	-1.43	1.177	88.4	311.6	-27.3	0.188
4-3480	4-3620	0.367	14.0	4.8	-0.64	0.799	112.2	0.378	1.614	249.9	362.7	1.005	---	-1.51	1.171	90.7	305.8	-29.7	0.178
4-3480	4-3630	0.356	14.5	5.6	-0.34	0.791	111.5	0.366	1.584	247.9	370.4	1.003	---	-1.65	1.163	92.8	301.0	-31.5	0.177
4-3480	4-3640	0.344	15.1	6.7	0.04	0.782	110.8	0.355	1.549	245.2	377.4	0.998	---	-1.87	1.155	94.5	298.7	-33.0	0.183
4-3480	4-3650	0.331	15.9	8.2	0.55	0.772	110.0	0.345	1.512	241.9	383.7	0.990	---	-2.25	1.147	96.3	298.7	-34.6	0.192
4-3480	4-3660	0.318	16.5	10.5	1.33	0.761	109.1	0.335	1.475	238.2	389.6	0.981	---	-2.90	1.138	97.4	301.1	-37.0	0.204
4-3480	4-3670	0.305	16.8	14.5	2.81	0.750	108.1	0.326	1.440	234.1	395.1	0.970	---	-4.27	1.129	98.-	306.0	-42.1	0.221
4-3480	4-3680	0.302	15.1	24.9	7.09	0.739	107.0	0.318	1.406	229.8	400.3	0.958	---	-8.43	1.121	99.4	315.8	-56.4	0.265
4-3480	4-3700	0.283	35.7	-10.3	-9.33	0.717	104.6	0.308	1.345	220.3	410.1	0.931	---	8.23	1.106	101.2	303.9	14.8	0.281
4-3480	4-3710	0.249	33.9	-1.5	-5.20	0.706	103.2	0.304	1.317	215.3	414.6	0.917	---	4.22	1.100	101.9	315.3	1.5	0.260
4-3480	4-3720	0.229	35.6	2.6	-3.75	0.696	101.6	0.303	1.292	210.1	418.9	0.901	---	2.89	1.094	102.6	323.3	-2.2	0.265
4-3480	4-3730	0.211	38.4	5.4	-2.98	0.685	100.0	0.303	1.269	204.8	423.2	0.884	---	2.24	1.089	103.4	330.5	-2.8	0.274
4-3480	4-3740	0.193	42.9	7.8	-2.48	0.676	98.2	0.300	1.248	199.4	427.4	0.866	---	1.87	1.084	104.0	337.6	-2.0	0.286
4-3480	4-3750	0.177	48.6	10.2	-2.10	0.666	96.2	0.312	1.229	194.0	431.6	0.846	---	1.65	1.080	105.1	344.5	-0.4	0.300
4-3480	4-3760	0.162	56.0	12.1	-1.80	0.657	94.0	0.320	1.211	188.5	435.8	0.823	---	1.51	1.077	106.1	351.4	1.7	0.317
4-3480	4-3770	0.150	65.8	15.3	-1.54	0.648	91.5	0.332	1.194	183.1	440.1	0.797	---	1.43	1.074	107.2	358.4	4.0	0.336
4-3480	4-3780	0.143	78.4	17.7	-1.30	0.640	88.8	0.349	1.179	177.7	444.5	0.768	1.591	1.39	1.072	108.6	5.3	6.6	0.359
4-3480	4-3790	0.144	93.5	19.3	-1.06	0.632	85.6	0.371	1.165	172.5	449.1	0.733	1.598	1.40	1.070	110.3	12.3	9.2	0.388
4-3480	4-3800	0.156	109.3	19.5	-0.81	0.625	82.0	0.401	1.153	167.6	454.1	0.690	1.615	1.44	1.068	112.4	19.2	11.8	0.424
4-3480	4-3810	0.183	123.6	18.5	-0.53	0.618	77.8	0.440	1.141	163.2	459.7	0.639	1.644	1.53	1.066	115.1	26.1	14.2	0.471
4-3480	4-3820	0.227	134.7	17.0	-0.20	0.611	72.2	0.493	1.131	159.5	466.0	0.574	1.688	1.73	1.065	118.7	32.9	16.5	0.532
4-3480	4-3830	0.291	142.5	15.6	0.24	0.606	65.4	0.563	1.122	156.9	473.5	0.491	1.754	2.02	1.064	123.6	39.2	18.4	0.616
4-3480	4-3840	0.381	147.0	14.9	0.89	0.601	56.5	0.656	1.116	156.2	482.9	0.384	1.808	2.53	1.063	130.6	44.9	19.9	0.732
4-3480	4-3850	0.509	148.3	14.9	2.61	0.599	44.3	0.776	1.112	158.5	495.2	0.249	1.975	3.52	1.064	140.6	49.2	20.9	0.898
4-3480	4-3900	0.506	109.3	20.7	-3.86	0.307	63.2	0.883	0.859	176.1	563.8	0.101	1.618	-2.98	0.932	28.3	342.4	-8.9	1.007
4-3480	4-3900	0.483	58.8	17.6	-3.86	0.467	121.0	0.761	0.962	191.6	579.4	0.230	1.694	-2.98	0.996	40.5	334.3	-13.1	0.849
4-3480	4-3910	0.381	92.3	20.8	-3.01	0.396	87.9	0.751	0.908	179.3	577.2	0.226	1.591	-2.26	0.963	41.5	345.0	-8.3	0.822
4-3480	4-3910	0.372	81.2	20.3	-3.01	0.423	96.8	0.720	0.927	182.7	580.5	0.259	1.595	-2.26	0.975	44.0	343.4	-9.2	0.786
4-3480	4-3970	0.564	162.2	6.8	-1.03	0.752	41.9	0.747	1.445	143.2	241.1	---	2.524	-1.40	1.143	44.3	27.7	10.0	0.858
4-3480	4-3980	0.529	164.2	6.0	-0.78	0.760	45.0	0.710	1.470	139.7	247.4	---	2.512	-1.46	1.146	48.0	34.3	12.1	0.797
4-3480	4-3990	0.495	166.2	5.4	-0.50	0.767	47.8	0.673	1.493	136.3	253.7	---	2.498	-1.56	1.148	51.5	41.6	13.9	0.737
4-3480	4-4000	0.463	168.2	5.0	-0.17	0.773	50.4	0.638	1.515	133.0	260.1	---	2.481	-1.74	1.150	54.8	47.7	15.3	0.680
4-3480	4-4010	0.434	170.2	4.7	0.26	0.779	52.8	0.605	1.537	129.8	266.6	---	2.466	-2.03	1.152	57.9	54.3	16.2	0.625

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3480	4-4020	0.407	172.3	4.9	0.87	0.784	55.0	0.573	1.556	126.8	273.1	---	2.448	-2.51	1.154	61.0	61.0	16.3	0.572
4-3480	4-4030	0.382	174.6	6.0	1.89	0.789	57.1	0.544	1.574	123.8	279.8	---	2.430	-3.41	1.156	63.9	67.7	15.0	0.523
4-3480	4-4040	0.362	177.8	9.5	4.16	0.793	58.9	0.517	1.591	121.1	286.6	---	2.412	-5.55	1.158	67.7	74.6	10.3	0.481
4-3480	4-4050	0.385	184.9	27.5	14.59	0.797	60.5	0.492	1.605	118.6	293.5	---	2.396	-15.87	1.160	69.3	85.6	-12.1	0.511
4-3480	4-4060	0.392	157.9	-27.1	-17.84	0.800	62.0	0.469	1.618	116.1	301.0	---	2.377	16.67	1.162	72.0	91.2	64.4	0.484
4-3480	4-4070	0.314	171.8	-13.3	-6.70	0.802	63.3	0.450	1.629	114.0	308.2	---	2.362	5.65	1.164	74.5	88.4	41.7	0.352
4-3480	4-4080	0.293	175.3	-9.8	-4.38	0.805	64.4	0.433	1.639	112.1	315.8	---	2.348	3.45	1.166	77.0	91.6	36.4	0.304
4-3480	4-4090	0.279	177.3	-8.4	-3.34	0.806	65.3	0.419	1.646	110.5	323.8	---	2.336	2.53	1.168	79.5	93.4	34.4	0.266
4-3480	4-4100	0.269	178.7	-7.6	-2.72	0.808	66.0	0.408	1.653	109.1	332.0	---	2.327	2.04	1.170	82.0	93.0	33.6	0.233
4-3480	4-4110	0.262	179.8	-7.0	-2.29	0.809	66.5	0.400	1.658	108.1	340.6	---	2.321	1.75	1.173	84.5	89.7	33.4	0.207
4-3480	4-4120	0.258	180.6	-6.4	-1.96	0.810	66.8	0.396	1.661	107.5	349.7	---	2.318	1.57	1.175	87.1	83.2	33.0	0.190
4-3480	4-4130	0.257	181.0	-5.8	-1.68	0.810	66.8	0.395	1.664	107.3	359.1	---	2.321	1.46	1.178	89.8	74.2	32.0	0.186
4-3480	4-4140	0.260	181.2	-5.0	-1.43	0.811	66.6	0.399	1.665	107.5	369.1	1.000	2.330	1.40	1.180	92.6	65.3	30.0	0.197
4-3480	4-4140	0.369	39.7	13.5	-1.43	0.629	113.3	0.522	1.161	206.0	827.7	0.555	1.766	1.40	1.064	120.6	351.1	-1.4	0.564
4-3480	4-4140	0.444	36.5	12.9	-1.43	0.646	120.2	0.580	1.191	209.9	831.5	0.500	1.882	1.40	1.074	124.4	349.5	-2.4	0.634
4-3480	4-4150	0.269	181.1	-4.1	-1.19	0.811	66.0	0.409	1.665	108.3	379.7	0.984	2.347	1.39	1.183	95.7	58.5	27.8	0.224
4-3480	4-4150	0.254	53.6	16.9	-1.19	0.602	100.8	0.457	1.117	193.4	824.9	0.606	1.627	1.39	1.050	116.6	1.0	3.3	0.491
4-3480	4-4160	0.283	180.5	-2.9	-0.94	0.811	64.9	0.426	1.665	109.6	390.9	0.955	2.375	1.42	1.185	99.1	54.8	25.9	0.266
4-3480	4-4160	0.212	69.3	19.9	-0.94	0.589	93.7	0.452	1.098	184.6	825.9	0.602	1.595	1.42	1.046	116.4	9.5	7.1	0.486
4-3480	4-4170	0.305	179.6	-1.6	-0.68	0.810	63.2	0.452	1.664	111.7	403.0	0.912	2.417	1.49	1.187	103.0	53.6	24.7	0.323
4-3480	4-4170	0.197	88.6	22.0	-0.68	0.580	87.3	0.466	1.086	176.9	828.2	0.580	1.592	1.49	1.044	117.4	17.6	10.4	0.503
4-3480	4-4180	0.338	178.2	-0.1	-0.38	0.810	60.8	0.490	1.663	114.8	416.0	0.849	2.477	1.62	1.189	107.7	54.1	24.1	0.397
4-3480	4-4180	0.209	108.8	21.8	-0.38	0.574	80.7	0.497	1.077	170.4	831.6	0.541	1.612	1.62	1.043	119.5	25.3	13.4	0.539
4-3480	4-4190	0.386	176.1	1.7	-0.00	0.810	57.2	0.543	1.662	119.0	430.3	0.759	2.564	1.85	1.191	113.4	55.6	23.9	0.494
4-3480	4-4190	0.249	125.3	19.9	-0.00	0.568	73.4	0.547	1.070	165.1	836.4	0.484	1.655	1.85	1.042	122.9	32.7	16.1	0.596
4-3480	4-4200	0.456	173.2	3.8	0.51	0.810	51.9	0.618	1.661	125.0	446.3	0.635	2.687	2.22	1.193	120.7	57.4	23.8	0.621
4-3480	4-4200	0.318	136.5	17.9	0.51	0.564	64.6	0.620	1.064	161.6	842.9	0.405	1.723	2.22	1.042	128.1	39.5	18.2	0.683
4-3480	4-4210	0.559	169.1	6.3	1.33	0.810	44.1	0.719	1.661	133.6	465.0	0.467	2.855	2.90	1.194	130.5	58.8	23.8	0.793
4-3480	4-4210	0.422	142.6	16.6	1.33	0.561	53.3	0.719	1.060	160.5	852.0	0.297	1.823	2.90	1.042	135.9	45.2	19.8	0.811
4-3480	4-4220	0.567	144.1	16.5	2.95	0.560	38.4	0.844	1.059	163.3	864.9	0.166	1.952	4.40	1.043	147.4	49.2	20.7	0.997
4-3480	4-4220	0.541	98.8	25.0	2.95	0.237	78.1	0.915	0.832	178.9	1240.4	0.071	1.594	4.40	0.911	155.7	39.1	16.9	1.055
4-3480	4-4260	0.566	53.9	16.7	-4.59	0.493	131.8	0.808	0.986	193.7	936.1	0.189	1.782	-3.65	1.009	36.1	330.6	-14.5	0.924
4-3480	4-4270	0.537	123.8	18.5	-3.40	0.384	46.0	0.886	0.901	172.4	924.9	0.103	1.699	-2.58	0.959	27.7	345.7	-7.3	1.029
4-3480	4-4270	0.434	58.6	17.3	-3.40	0.487	115.7	0.709	0.980	192.0	944.6	0.285	1.675	-2.58	1.005	44.9	336.3	-12.4	0.784
4-3480	4-4280	0.538	22.6	6.2	-2.73	0.793	125.3	0.577	1.591	234.8	637.4	0.672	2.509	-2.05	1.183	62.0	321.2	-19.2	0.568
4-3480	4-4280	0.425	118.7	18.9	-2.73	0.415	62.6	0.792	0.921	171.9	934.6	0.191	1.651	-2.05	0.970	47.7	350.4	-5.6	0.884
4-3480	4-4280	0.338	73.5	19.3	-2.73	0.474	99.7	0.655	0.969	185.2	947.9	0.334	1.603	-2.05	0.997	49.1	344.2	-9.1	0.713
4-3490	4-3560	0.549	21.8	5.9	-2.42	0.847	124.8	0.584	1.881	247.3	295.8	---	---	-1.98	1.221	67.3	321.8	-19.7	0.499
4-3490	4-3570	0.509	18.8	5.0	-2.01	0.851	121.6	0.542	1.907	253.0	311.6	---	---	-1.74	1.222	73.4	321.3	-20.5	0.399
4-3490	4-3580	0.482	16.9	4.6	-1.69	0.854	119.5	0.514	1.921	256.9	325.5	---	---	-1.60	1.222	78.4	319.5	-21.9	0.324
4-3490	4-3590	0.462	15.9	4.5	-1.40	0.852	118.1	0.492	1.914	258.9	337.5	---	---	-1.52	1.218	82.6	315.9	-23.9	0.270
4-3490	4-3600	0.446	15.4	4.6	-1.14	0.848	117.0	0.474	1.886	259.5	347.9	---	---	-1.49	1.213	86.1	310.9	-26.2	0.234
4-3490	4-3610	0.431	15.4	5.1	-0.89	0.841	116.2	0.456	1.843	258.8	357.1	---	---	-1.50	1.205	89.1	305.1	-28.3	0.213
4-3490	4-3620	0.417	15.8	5.7	-0.62	0.831	115.4	0.439	1.790	257.1	365.2	1.004	---	-1.56	1.196	91.6	299.8	-30.0	0.204
4-3490	4-3630	0.402	16.4	6.5	-0.32	0.819	114.6	0.422	1.731	254.7	372.5	1.001	---	-1.62	1.186	93.7	296.2	-31.2	0.204
4-3490	4-3640	0.387	17.2	7.6	0.03	0.807	113.8	0.405	1.672	251.7	379.1	0.994	---	-1.87	1.176	95.5	294.9	-32.2	0.209
4-3490	4-3650	0.371	18.1	8.9	0.49	0.793	112.9	0.390	1.614	248.2	385.2	0.985	---	-2.18	1.165	97.0	295.7	-33.2	0.217
4-3490	4-3660	0.355	19.0	10.8	1.16	0.780	112.0	0.375	1.559	244.2	390.9	0.975	---	-2.70	1.154	98.3	298.6	-34.8	0.227
4-3490	4-3670	0.339	19.7	13.7	2.27	0.766	110.9	0.362	1.509	240.0	396.2	0.963	---	-3.69	1.143	99.4	303.3	-38.0	0.240
4-3490	4-3680	0.326	19.5	19.7	4.76	0.752	109.8	0.350	1.463	235.5	401.2	0.951	---	-6.04	1.133	100.3	310.6	-45.7	0.263
4-3490	4-3690	0.369	15.2	42.8	16.62	0.738	108.5	0.339	1.421	230.7	405.9	0.939	---	-17.78	1.124	101.1	330.8	-74.2	0.406
4-3490	4-3700	0.365	45.6	-19.9	-17.94	0.725	107.2	0.332	1.383	225.8	410.9	0.923	---	16.90	1.115	102.0	292.2	31.6	0.399
4-3490	4-3710	0.280	36.8	-3.1	-6.85	0.712	105.7	0.326	1.348	220.7	415.2	0.909	---	5.94	1.108	102.7	312.8	6.2	0.287
4-3490	4-3720	0.258	37.4	2.5	-4.44	0.700	104.2	0.321	1.318	215.4	419.4	0.894	---	3.65	1.101	103.4	322.1	-0.2	0.283
4-3490	4-3730	0.233	39.8	5.7	-3.34	0.688	102.4	0.319	1.290	210.0	423.6	0.878	---	2.69	1.094	104.1	329.8	-1.8	0.289
4-3490	4-3740	0.214	43.5	8.2	-2.69	0.677	100.6	0.320	1.284	204.5	427.7	0.860	---	2.17	1.089	104.8	337.1	-1.3	0.299
4-3490	4-3750	0.195	48.4	10.6	-2.23	0.666	98.6	0.323	1.241	198.9	431.7	0.841	---	1.86	1.084	105.6	344.2	0.1	0.311
4-3490	4-3760	0.178	54.8	12.9	-1.88	0.656	96.3	0.329	1.221	193.3	435.8	0.819	---	1.67	1.080	106.4	351.2	2.0	0.325
4-3490	4-3770	0.163	63.3	15.3	-1.58	0.646	93.6	0.338	1.202	187.7	439.9	0.795	---	1.56	1.076	107.5	358.3	4.4	0.341
4-3490	4-3780	0.151	74.5	17.7	-1.31	0.636	91.2	0.352	1.135	182.1	444.2	0.768	---	1.50	1.073	108.7	5.3	6.9	0.362
4-3490	4-3790	0.146	88.6	19.5	-1.05	0.627	88.1	0.371	1.169	176.7	448.6	0.735	1.603	1.49	1.071	110.2	12.4	9.5	0.387
4-3490	4-3800	0.152	104.7	20.0	-0.79	0.619	84.5	0.396	1.155	171.6	453.3	0.697	1.612	1.52	1.068	112.1	19.5	12.1	0.419
4-3490	4-3810	0.170	120.4	19.2	-0.51	0.611	80.4	0.430	1.142	166.8	458.5	0.650	1.633	1.60	1.066	114.4	26.6	14.6	0.459
4-3490	4-3820	0.205	133.4	17.4	-0.18	0.604	75.4	0.476	1.130	162.6	464.3	0.593	1.668	1.75	1.065	117.6	33.6	16.9	0.512
4-3490	4-3830	0.259	143.0	15.5	0.22	0.597	69.2	0.536	1.120	159.3	471.0	0.520	1.721	1.99	1.063	121.8	40.3	18.9	0.583
4-3490	4-3840	0.336	149.2	14.1	0.79	0.592	61.2	0.617	1.112	157.4	479.3	0.426	1.799	2.41	1.062	127.6	46.5	20.6	0.682
4-3490	4-3850	0.444	152.1	13.6	1.69	0.588	58.5	0.723	1.107	158.0	490.0	0.306	1.907	3.17	1.061	136.0	51.7	21.7	0.821
4-3490	4-3860	0.593	151.7	14.1	3.51	0.587	56.0	0.851	1.105	162.1	504.2	0.165	2.046	4.85	1.062	148.1	55.2	22.3	1.016
4-3490	4-3900	0.540	112.7	20.3	-4.61	0.264	61.8	0.914	0.848	177.1	930.1	0.073	1.623	-3.80	0.923	24.2	344.4	-8.1	1.062
4-3490	4-3900	0.535	64.3	18.8	-4.61	0.445	127.9	0.817	0.952	190.9	973.9	0.174	1.729	-3.80	0.990	35.3	337.0	-12.1	0.930
4-3490	4-3910	0.422	101.6	20.8	-3.38	0.349	84.3	0.807	0.887	178.6	571.8	0.171	1.602	-2.72	0.949	36.5	347.8	-7.1	0.895
4-3490	4-3910	0.407	79.3	20.3	-3.38	0.413	105.0	0.749	0.927	185.2	578.4	0.233	1.621	-2.72	0.974	41.6	344.5	-8.9	0.825
4-3490	4-3970	0.576	165.7	5.3	-1.02	0.741	40.8	0.761	1.428	145.2	238.3	---	2.516	-1.49	1.139	42.8	28.9	10.4	0.882
4-3490	4-3980	0.540	167.8	4.6	-0.76	0.749	43.9	0.724	1.453	141.7	244.6	---	2.505	-1.52	1.142	46.5	35.5	12.5	0.820
4-3490	4-3990	0.505	169.8	3.9	-0.48	0.756	46.8	0.687	1.477	138.3	250.9	---	2.491	-1.61	1.145	50.1	42.2	14.3	0.759
4-3490	4-4000	0.473	171.8	3.4	-0.16	0.763	49.6	0.651	1.500	135.0	257.3	---	2.476	-1.76	1.147	53.5	48.9	15.7	0.701
4-3490	4-4010	0.443	173.8	3.1	0.24	0.769	52.0	0.616	1.522	131.8	263.8	---	2.460	-2.00	1.149	56.7	55.7	16.6	0.645
4-3490	4-4020	0.415	175.9	3.1	0.77	0.775	54.3	0.584	1.542	128.7	270.3	---	2.443	-2.39	1.151	59.8	62.4	16.9	0.591
4-3490	4-4030	0.390	178.1	3.8	1.60	0.780	54.4	0.553	1.561	125.8	277.0	---	2.425	-3.09	1.154	62.8	69.0	16.1	0.540
4-3490	4-4040	0.368	180.8	5.9	3.16	0.785	58.3	0.525	1.578	123.0	283.8	---	2.408	-4.51	1.156	65.6	75.6	13.1	0.494

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3490	4-4050	0.357	185.3	13.6	7.56	0.780	60.0	0.500	1.594	120.4	290.7	---	2.390	-8.79	1.158	68.3	83.0	2.7	0.467
4-3490	4-4070	0.333	171.9	-20.2	-9.98	0.795	62.9	0.455	1.619	115.8	305.3	---	2.356	9.00	1.162	73.6	93.1	50.2	0.387
4-3490	4-4080	0.301	178.1	-13.4	-5.42	0.797	64.1	0.437	1.630	113.8	312.9	---	2.342	4.56	1.164	76.1	95.2	39.6	0.321
4-3490	4-4090	0.284	180.7	-11.1	-3.83	0.799	65.1	0.422	1.638	112.2	320.7	---	2.330	3.11	1.167	78.6	97.3	36.1	0.279
4-3490	4-4100	0.273	182.4	-9.9	-3.00	0.801	65.8	0.410	1.645	110.7	328.9	---	2.319	2.41	1.169	81.1	97.7	34.8	0.244
4-3490	4-4110	0.264	183.7	-9.1	-2.45	0.802	66.4	0.401	1.650	109.6	337.4	---	2.312	2.01	1.171	83.6	95.4	34.3	0.215
4-3490	4-4120	0.259	184.6	-8.5	-2.05	0.803	66.8	0.395	1.654	108.9	346.3	---	2.308	1.76	1.174	86.1	89.9	34.1	0.194
4-3490	4-4130	0.257	185.2	-7.8	-1.73	0.804	66.9	0.393	1.657	108.5	355.7	---	2.309	1.61	1.177	88.8	81.5	33.5	0.185
4-3490	4-4140	0.259	185.5	-7.0	-1.45	0.804	66.8	0.396	1.659	108.6	365.5	1.002	2.316	1.53	1.179	91.6	72.1	32.0	0.191
4-3490	4-4150	0.266	185.5	-6.1	-1.19	0.804	66.3	0.404	1.660	109.1	375.8	0.990	2.330	1.49	1.182	94.5	64.3	29.8	0.212
4-3490	4-4150	0.314	49.9	16.5	-1.19	0.607	108.1	0.498	1.136	200.5	827.2	0.570	1.702	1.49	1.057	119.2	0.1	2.8	0.538
4-3490	4-4150	0.509	40.6	14.9	-1.19	0.653	126.4	0.646	1.215	210.3	837.0	0.430	2.000	1.49	1.084	129.2	356.2	0.2	0.720
4-3490	4-4160	0.277	185.2	-5.0	-0.93	0.804	65.4	0.418	1.659	110.2	386.8	0.966	2.393	1.49	1.184	97.8	59.5	27.7	0.248
4-3490	4-4160	0.238	64.5	19.6	-0.93	0.587	98.5	0.467	1.106	190.0	826.5	0.590	1.622	1.49	1.049	117.3	9.2	7.0	0.503
4-3490	4-4170	0.296	184.4	-3.7	-0.66	0.804	64.0	0.440	1.639	112.0	368.4	0.929	2.388	1.55	1.186	101.5	57.5	26.3	0.299
4-3490	4-4170	0.206	82.5	21.9	-0.66	0.576	91.4	0.469	1.090	181.6	828.1	0.578	1.602	1.55	1.045	117.6	17.6	10.5	0.507
4-3490	4-4180	0.324	183.2	-2.3	-0.36	0.804	61.9	0.472	1.658	114.5	410.9	0.879	2.441	1.66	1.188	105.8	57.6	25.4	0.366
4-3490	4-4180	0.203	103.2	22.4	-0.36	0.568	84.7	0.491	1.079	176.4	830.9	0.549	1.608	1.66	1.043	119.1	25.6	13.7	0.532
4-3490	4-4190	0.365	181.5	-0.7	-0.00	0.803	58.8	0.519	1.656	118.0	424.5	0.797	2.515	1.85	1.190	111.0	59.0	25.0	0.452
4-3490	4-4190	0.228	122.2	20.6	-0.00	0.561	77.5	0.531	1.070	163.4	834.9	0.502	1.638	1.85	1.042	121.8	33.3	16.4	0.577
4-3490	4-4200	0.424	179.0	1.4	0.47	0.803	54.3	0.583	1.655	123.1	439.6	0.489	2.621	2.16	1.192	117.4	61.0	24.9	0.564
4-3490	4-4200	0.283	136.1	18.0	0.47	0.556	69.2	0.591	1.063	163.9	840.5	0.435	1.692	2.16	1.041	126.0	40.6	18.7	0.648
4-3490	4-4210	0.509	175.5	3.5	1.16	0.803	47.8	0.672	1.654	130.2	456.8	0.542	2.766	2.70	1.193	126.0	62.8	24.8	0.733
4-3490	4-4210	0.370	144.5	16.0	1.16	0.552	59.0	0.677	1.058	161.5	848.2	0.343	1.775	2.70	1.041	132.4	47.0	20.5	0.754
4-3490	4-4220	0.494	148.2	15.2	2.37	0.949	45.8	0.769	1.056	162.2	859.0	0.223	1.889	3.77	1.041	142.0	52.0	21.6	0.909
4-3490	4-4230	0.595	110.0	24.3	5.32	0.202	60.2	0.951	0.828	178.3	1245.3	0.040	1.615	6.58	0.968	161.7	46.5	19.2	1.135
4-3490	4-4270	0.569	127.9	17.7	-3.92	0.359	41.7	0.914	0.893	173.6	921.4	0.076	1.709	-3.19	0.954	24.0	347.5	-6.6	1.080
4-3490	4-4270	0.483	62.5	18.2	-3.92	0.474	122.2	0.759	0.976	192.3	940.1	0.235	1.718	-3.19	1.003	40.6	338.4	-11.7	0.852
4-3490	4-4280	0.570	28.9	8.6	-3.01	0.786	128.3	0.620	1.582	230.8	628.7	0.601	2.564	-2.42	1.181	57.8	325.5	-17.8	0.641
4-3490	4-4280	0.463	124.7	17.9	-3.01	0.388	57.8	0.834	0.910	172.5	930.4	0.151	1.670	-2.42	0.984	33.6	352.4	-4.8	0.944
4-3490	4-4280	0.372	73.4	19.5	-3.01	0.464	105.7	0.686	0.967	187.5	945.4	0.303	1.631	-2.42	0.996	46.7	345.-	-8.8	0.753
4-3490	4-4290	0.497	26.0	7.6	-2.44	0.785	122.7	0.540	1.581	236.2	644.2	0.727	2.435	-2.00	1.179	65.2	327.4	-17.4	0.512
4-3500	4-3560	0.666	21.6	6.2	-2.61	0.947	129.9	0.727	2.906	258.1	301.9	---	---	-2.27	1.296	66.0	317.5	-21.3	0.569
4-3500	4-3570	0.607	19.3	5.5	-2.12	0.934	126.1	0.674	2.709	267.0	316.9	---	---	-1.94	1.284	72.8	315.3	-22.2	0.451
4-3500	4-3580	0.567	17.8	5.2	-1.75	0.924	123.5	0.635	2.579	268.0	329.9	---	---	-1.75	1.275	78.8	313.8	-23.6	0.366
4-3500	4-3590	0.538	17.0	5.2	-1.43	0.914	121.8	0.603	2.458	267.3	341.1	---	---	-1.64	1.265	82.9	309.8	-25.4	0.307
4-3500	4-3600	0.515	16.8	5.4	-1.15	0.902	120.5	0.574	2.334	267.2	350.9	---	---	-1.58	1.254	86.7	304.6	-27.2	0.269
4-3500	4-3610	0.494	17.0	5.9	-0.88	0.888	119.5	0.546	2.207	266.9	353.5	---	---	-1.57	1.242	89.8	299.3	-28.8	0.247
4-3500	4-3620	0.475	17.6	6.6	-0.60	0.873	118.6	0.519	2.083	265.9	367.3	1.002	---	-1.61	1.229	92.5	294.9	-30.0	0.238
4-3500	4-3630	0.455	18.3	7.4	-0.31	0.856	117.8	0.493	1.966	261.1	374.2	0.998	---	-1.71	1.215	94.7	292.3	-30.7	0.237
4-3500	4-3640	0.436	19.3	8.4	0.03	0.839	116.9	0.468	1.860	257.9	380.6	0.990	---	-1.87	1.201	96.5	291.8	-31.3	0.240
4-3500	4-3650	0.417	20.3	9.7	0.46	0.821	116.0	0.445	1.764	254.7	386.5	0.979	---	-2.13	1.187	98.1	293.3	-32.0	0.247
4-3500	4-3660	0.397	21.4	11.3	1.03	0.804	115.0	0.424	1.679	250.0	392.0	0.958	---	-2.55	1.173	99.4	296.5	-33.1	0.255
4-3500	4-3670	0.378	22.4	13.6	1.92	0.786	113.9	0.404	1.605	245.7	397.2	0.956	---	-3.30	1.161	100.5	301.2	-35.0	0.264
4-3500	4-3680	0.360	23.0	17.5	3.61	0.769	112.7	0.387	1.540	241.0	402.1	0.943	---	-4.85	1.148	101.4	307.8	-39.5	0.279
4-3500	4-3690	0.353	21.9	27.9	8.49	0.753	111.3	0.373	1.483	236.2	406.7	0.930	---	-9.60	1.137	101.2	318.3	-53.1	0.322
4-3500	4-3710	0.321	41.1	-6.7	-10.05	0.722	108.5	0.351	1.388	225.9	415.7	0.901	---	9.21	1.117	102.6	308.6	14.1	0.331
4-3500	4-3720	0.283	39.7	2.0	-5.45	0.707	106.8	0.344	1.350	220.5	419.9	0.886	---	4.74	1.109	104.2	320.6	2.4	0.305
4-3500	4-3730	0.258	41.5	6.0	-3.82	0.694	105.0	0.338	1.315	215.0	423.9	0.870	---	3.25	1.101	104.8	329.0	-0.5	0.307
4-3500	4-3740	0.236	44.6	8.7	-2.95	0.680	103.1	0.336	1.285	209.4	427.9	0.853	---	2.52	1.095	105.0	336.6	-0.6	0.314
4-3500	4-3750	0.216	48.8	11.0	-2.39	0.668	101.1	0.336	1.258	203.8	431.9	0.835	---	2.11	1.089	106.1	343.9	0.5	0.323
4-3500	4-3760	0.196	54.4	13.2	-1.97	0.656	98.8	0.339	1.233	198.0	435.9	0.815	---	1.86	1.084	106.9	351.0	2.4	0.335
4-3500	4-3770	0.178	61.8	15.4	-1.63	0.645	96.4	0.346	1.211	192.3	439.9	0.792	---	1.70	1.077	107.8	358.2	4.7	0.349
4-3500	4-3780	0.163	71.6	17.7	-1.33	0.634	93.7	0.357	1.192	186.6	444.0	0.766	---	1.61	1.076	108.9	5.3	7.2	0.367
4-3500	4-3790	0.153	84.3	19.6	-1.06	0.624	90.6	0.373	1.174	181.0	448.2	0.736	---	1.57	1.072	110.2	12.5	9.8	0.388
4-3500	4-3800	0.152	99.8	20.5	-0.78	0.614	87.2	0.394	1.158	175.6	452.7	0.701	1.614	1.58	1.070	111.9	19.7	12.4	0.416
4-3500	4-3810	0.162	116.2	19.9	-0.50	0.606	83.2	0.423	1.143	170.5	457.5	0.659	1.627	1.64	1.067	113.0	26.9	14.9	0.451
4-3500	4-3820	0.189	131.0	18.0	-0.18	0.597	78.4	0.462	1.130	165.9	462.9	0.608	1.653	1.76	1.065	113.7	34.1	17.3	0.497
4-3500	4-3830	0.233	142.5	15.7	0.21	0.587	72.7	0.515	1.119	162.0	469.1	0.543	1.695	1.97	1.063	120.3	41.2	19.3	0.558
4-3500	4-3840	0.298	150.5	13.1	0.72	0.583	65.4	0.585	1.109	159.3	476.4	0.480	1.758	2.31	1.061	125.3	47.9	21.1	0.642
4-3500	4-3850	0.390	155.0	12.6	1.47	0.578	55.9	0.678	1.102	158.4	485.7	0.355	1.850	2.91	1.060	132.4	53.8	22.4	0.759
4-3500	4-3860	0.518	156.3	12.4	2.81	0.575	43.2	0.796	1.098	160.5	497.6	0.224	1.972	4.10	1.059	140.5	58.3	23.2	0.925
4-3500	4-3900	0.575	155.5	12.9	3.73	0.218	61.2	0.942	0.838	178.0	556.3	0.049	1.627	5.00	0.915	38.0	346.4	-7.3	1.117
4-3500	4-3900	0.592	70.7	19.9	-5.73	0.420	135.7	0.873	0.939	189.4	567.7	0.119	1.759	-5.00	0.983	29.2	340.0	-11.0	1.019
4-3500	4-3910	0.460	107.4	20.4	-3.88	0.306	83.5	0.851	0.871	178.9	567.3	0.130	1.613	-3.30	0.939	32.0	350.1	-6.1	0.958
4-3500	4-3910	0.449	81.3	20.6	-3.88	0.394	112.1	0.790	0.921	186.3	574.8	0.193	1.648	-3.30	0.971	37.9	348.2	-8.3	0.881
4-3500	4-3970	0.587	169.2	3.9	-1.02	0.730	39.6	0.776	1.411	147.1	235.5	---	2.506	-1.57	1.136	41.2	30.1	10.9	0.906
4-3500	4-3980	0.551	171.3	3.1	-0.75	0.738	42.8	0.738	1.436	143.6	241.8	---	2.496	-1.59	1.139	45.0	36.8	13.0	0.843
4-3500	4-3990	0.516	173.3	2.4	-0.47	0.746	45.9	0.700	1.461	140.2	248.2	---	2.484	-1.65	1.141	48.7	43.5	14.7	0.781
4-3500	4-4000	0.483	175.3	1.9	-0.15	0.753	48.7	0.664	1.484	136.9	254.6	---	2.470	-1.77	1.144	52.2	50.2	16.1	0.722
4-3500	4-4010	0.453	177.4	1.5	0.22	0.760	51.2	0.628	1.507	133.7	261.0	---	2.454	-1.98	1.146	56.3	57.0	17.1	0.665
4-3500	4-4020	0.424	179.4	1.4	0.70	0.766	53.6	0.595	1.528	130.6	267.5	---	2.437	-2.30	1.149	59.6	63.7	17.5	0.610
4-3500	4-4030	0.398	181.6	1.8	1.40	0.772	55.8	0.563	1.548	127.7	274.2	---	2.420	-2.85	1.151	61.6	70.4	17.0	0.558
4-3500	4-4040	0.375	184.0	3.1	2.56	0.776	57.7	0.534	1.566	124.9	280.9	---	2.402	-3.87	1.153	64.5	76.9	14.9	0.509
4-3500	4-4050	0.357	187.4	7.3	5.14	0.781	59.5	0.508	1.582	122.3	287.8	---	2.385	-6.31	1.156	67.3	83.5	8.8	0.470
4-3500	4-4060	0.395	194.2	27.4	17.06	0.784	61.1	0.484	1.597	119.9	294.8	---	2.369	-18.10	1.158	69.9	94.2	-16.8	0.524
4-3500	4-4070	0.397	164.1	-32.3	-19.33	0.787	62.6	0.460	1.609	117.4	302.5	---	2.350	18.41	1.160	72.7	110.7	67.8	0.494
4-3500	4-4080	0.381	180.0	-13.0	-7.13	0.790	63.8	0.442	1.620	115.6	309.9	---	2.336	6.35	1.163	75.2	99.6	44.4	0.343
4-3500	4-4090	0.29	183.9	-14.0	-4.53	0.792	64.8	0.426	1.629	113.8	317.7	---	2.323	3.88	1.165	77.7	101.2	38.3	0.293
4-3500	4-4100	0.28	186.0	-12.3	-3.56	0.794	65.7	0.412	1.637	112.3	325.8	---	2.312	2.85	1.168	80.2	102.1	36.0	0.255

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3500	4-4110	0.268	187.5	-11.3	-2.66	0.795	66.3	0.402	1.643	111.2	334.2	---	2.303	2.30	1.170	82.7	100.8	35.1	0.224
4-3500	4-4120	0.261	188.6	-10.5	-2.17	0.796	66.8	0.395	1.647	110.3	343.0	---	2.298	1.97	1.173	85.2	96.4	34.9	0.200
4-3500	4-4130	0.258	189.3	-9.7	-1.80	0.797	67.0	0.392	1.651	109.8	352.2	---	2.298	1.77	1.176	87.8	88.8	34.7	0.186
4-3500	4-4140	0.259	189.8	-8.9	-1.48	0.798	66.9	0.393	1.653	109.7	361.9	1.003	2.302	1.65	1.178	90.5	79.3	33.6	0.186
4-3500	4-4150	0.263	189.9	-8.0	-1.20	0.798	66.5	0.399	1.654	110.1	372.1	0.994	2.312	1.59	1.181	93.4	70.6	31.4	0.202
4-3500	4-4160	0.273	189.7	-7.0	-0.93	0.798	65.8	0.410	1.654	110.9	382.8	0.975	2.332	1.57	1.183	96.6	64.6	29.5	0.232
4-3500	4-4160	0.282	60.3	19.2	-0.93	0.590	104.7	0.495	1.119	196.1	828.0	0.566	1.673	1.57	1.054	119.0	8.6	6.7	0.535
4-3500	4-4160	0.553	45.6	16.8	-0.93	0.654	130.8	0.694	1.230	209.5	841.3	0.377	2.083	1.57	1.092	132.8	3.3	3.2	0.785
4-3500	4-4170	0.289	189.1	-5.8	-0.65	0.798	64.6	0.429	1.653	112.8	394.1	0.944	2.363	1.60	1.185	100.1	61.8	27.8	0.278
4-3500	4-4170	0.225	76.9	21.8	-0.65	0.574	96.0	0.479	1.096	186.6	828.4	0.571	1.621	1.60	1.048	118.2	17.4	10.5	0.518
4-3500	4-4180	0.313	188.1	-4.5	-0.35	0.798	62.8	0.457	1.652	114.4	406.2	0.896	2.407	1.69	1.188	104.1	61.3	26.7	0.338
4-3500	4-4180	0.205	97.1	22.9	-0.35	0.563	88.8	0.490	1.082	178.7	830.5	0.552	1.611	1.69	1.045	119.0	25.8	13.8	0.530
4-3500	4-4190	0.347	186.6	-2.9	-0.00	0.797	60.2	0.498	1.650	117.4	419.2	0.829	2.472	1.85	1.189	108.8	62.4	26.1	0.415
4-3500	4-4190	0.215	117.7	21.5	-0.00	0.555	81.6	0.520	1.071	172.1	833.8	0.51	1.628	1.85	1.043	121.0	33.8	16.7	0.564
4-3500	4-4200	0.397	184.5	-1.2	0.43	0.797	58.4	0.564	1.649	121.6	433.5	0.756	2.562	2.11	1.191	114.7	64.4	25.9	0.515
4-3500	4-4200	0.256	134.4	18.6	0.43	0.548	73.7	0.569	1.063	166.7	838.6	0.458	1.668	2.11	1.041	124.5	41.5	19.1	0.621
4-3500	4-4210	0.470	181.5	0.8	1.03	0.797	56.9	0.632	1.648	127.6	449.5	0.607	2.689	2.55	1.192	122.1	66.5	25.7	0.645
4-3500	4-4210	0.327	145.4	15.8	1.03	0.544	64.3	0.641	1.057	163.1	845.1	0.379	1.735	2.55	1.041	129.7	48.5	21.0	0.709
4-3500	4-4220	0.574	177.3	3.2	1.99	0.797	42.7	0.735	1.648	136.1	468.2	0.437	2.859	3.36	1.194	132.2	68.0	25.6	0.820
4-3500	4-4220	0.432	151.2	14.2	1.99	0.540	52.4	0.740	1.053	162.1	854.2	0.273	1.833	3.36	1.040	137.6	54.4	22.3	0.838
4-3500	4-4230	0.578	152.5	14.0	3.94	0.539	37.0	0.861	1.052	164.9	867.1	0.147	1.957	5.16	1.040	149.3	58.5	23.0	1.023
4-3500	4-4230	0.564	102.9	24.9	3.94	0.204	94.5	0.933	0.834	180.3	1242.6	0.056	1.611	5.16	0.913	158.6	48.1	19.5	1.094
4-3500	4-4270	0.538	67.2	19.2	-4.66	0.461	129.4	0.813	0.972	191.9	935.0	0.182	1.762	-2.00	1.001	354.6	340.9	-10.8	0.930
4-3500	4-4280	0.500	129.7	16.9	-3.38	0.362	53.3	0.870	0.901	173.3	926.6	0.117	1.685	-2.87	0.957	29.7	354.3	-3.9	1.001
4-3500	4-4280	0.412	75.0	19.8	-3.38	0.452	111.9	0.725	0.965	189.1	942.3	0.265	1.664	-2.87	0.995	43.5	346.9	-8.3	0.803
4-3500	4-4290	0.521	32.0	9.8	-2.64	0.778	125.2	0.577	1.573	232.8	636.2	0.666	2.479	-2.49	1.178	61.6	331.9	-16.0	0.574
4-3500	4-4300	0.461	29.6	9.1	-2.15	0.778	120.5	0.507	1.571	237.1	650.4	0.774	2.368	-1.99	1.175	68.0	334.4	-15.5	0.463
4-3510	4-3570	0.735	19.9	6.0	-2.26	1.049	130.5	0.882	7.514	272.2	321.4	---	---	-2.17	1.373	72.0	311.2	-23.6	0.532
4-3510	4-3580	0.678	18.7	5.7	-1.83	1.019	127.5	0.815	5.121	274.3	333.5	---	---	-1.91	1.348	78.1	308.2	-24.9	0.430
4-3510	4-3590	0.631	18.2	5.9	-1.47	0.995	125.4	0.760	4.082	274.9	344.1	---	---	-1.76	1.327	83.1	304.3	-26.3	0.362
4-3510	4-3600	0.597	18.2	6.2	-1.16	0.972	124.0	0.711	3.447	274.2	353.3	---	---	-1.67	1.308	87.2	299.2	-27.8	0.318
4-3510	4-3610	0.568	18.7	6.8	-0.88	0.949	122.8	0.665	2.996	272.6	361.5	1.002	---	-1.64	1.289	90.6	294.5	-28.9	0.293
4-3510	4-3620	0.542	19.4	7.5	-0.60	0.926	121.9	0.623	2.654	270.2	368.9	1.000	---	-1.66	1.270	93.4	291.0	-29.6	0.281
4-3510	4-3630	0.517	20.4	8.3	-0.30	0.903	121.0	0.583	2.386	267.2	375.6	0.994	---	-1.73	1.251	95.7	289.3	-30.1	0.278
4-3510	4-3640	0.493	21.5	9.3	0.03	0.880	120.0	0.547	2.172	263.7	381.8	0.985	---	-1.86	1.233	97.7	289.5	-30.5	0.279
4-3510	4-3650	0.468	22.7	10.5	0.43	0.857	119.1	0.513	2.000	259.8	387.5	0.973	---	-2.08	1.215	99.3	291.5	-30.9	0.283
4-3510	4-3660	0.445	23.9	11.9	0.94	0.834	118.0	0.483	1.859	255.6	392.9	0.961	---	-2.43	1.198	100.6	295.0	-31.6	0.288
4-3510	4-3670	0.421	25.1	13.2	1.68	0.813	116.9	0.456	1.743	251.1	398.0	0.948	---	-3.01	1.182	101.7	299.8	-32.8	0.295
4-3510	4-3680	0.399	26.1	14.7	2.93	0.792	115.6	0.433	1.647	246.3	402.8	0.935	---	-4.12	1.167	102.6	305.9	-35.4	0.304
4-3510	4-3690	0.380	26.3	22.6	5.73	0.772	114.3	0.412	1.567	241.4	407.3	0.921	---	-6.78	1.153	103.3	314.2	-42.5	0.323
4-3510	4-3700	0.427	23.5	45.8	19.43	0.753	112.8	0.394	1.499	236.3	411.5	0.908	---	-20.34	1.140	103.9	331.5	-71.2	0.477
4-3510	4-3710	0.402	50.2	-15.5	-18.68	0.735	111.3	0.381	1.441	231.0	416.3	0.891	---	17.90	1.129	104.7	297.5	28.8	0.447
4-3510	4-3720	0.317	42.6	0.7	-7.11	0.718	109.6	0.369	1.391	225.5	420.3	0.877	---	6.48	1.119	105.2	318.5	6.3	0.335
4-3510	4-3730	0.287	43.5	6.0	-4.50	0.702	107.8	0.361	1.348	220.0	424.3	0.862	---	4.00	1.110	105.7	328.0	1.0	0.328
4-3510	4-3740	0.262	46.1	9.1	-3.30	0.686	105.8	0.355	1.311	214.3	428.2	0.845	---	2.95	1.102	106.2	336.0	0.2	0.331
4-3510	4-3750	0.238	49.8	11.4	-2.58	0.672	103.7	0.352	1.278	208.6	432.1	0.828	---	2.39	1.095	106.8	343.5	1.0	0.338
4-3510	4-3760	0.216	54.6	13.6	-2.08	0.658	101.4	0.353	1.249	202.8	436.0	0.809	---	2.05	1.088	107.5	350.8	2.7	0.347
4-3510	4-3770	0.196	61.1	15.7	-1.69	0.646	99.0	0.356	1.223	196.9	439.9	0.787	---	1.85	1.083	108.3	358.0	4.9	0.359
4-3510	4-3780	0.177	69.5	17.7	-1.36	0.633	96.2	0.364	1.201	191.1	443.8	0.763	---	1.72	1.079	109.2	5.3	7.4	0.373
4-3510	4-3790	0.163	80.8	19.7	-1.06	0.622	93.2	0.377	1.180	185.4	447.9	0.736	---	1.66	1.075	110.4	12.5	10.0	0.392
4-3510	4-3800	0.156	95.1	20.9	-0.78	0.611	89.9	0.395	1.162	179.8	452.2	0.704	1.620	1.65	1.071	111.8	19.8	12.6	0.416
4-3510	4-3810	0.159	111.5	20.6	-0.49	0.601	86.0	0.419	1.146	174.4	456.8	0.665	1.626	1.68	1.068	113.7	27.2	15.2	0.446
4-3510	4-3820	0.177	127.6	18.8	-0.17	0.592	81.5	0.453	1.131	169.4	461.8	0.619	1.643	1.78	1.065	116.0	34.6	17.5	0.485
4-3510	4-3830	0.212	141.1	16.2	0.20	0.583	76.1	0.498	1.118	165.0	467.5	0.561	1.675	1.95	1.062	119.2	41.9	19.7	0.538
4-3510	4-3840	0.266	150.8	13.7	0.66	0.575	69.4	0.559	1.107	161.6	474.1	0.489	1.726	2.23	1.060	123.5	49.0	21.5	0.610
4-3510	4-3850	0.345	157.1	11.9	1.31	0.569	60.9	0.640	1.098	159.6	482.3	0.396	1.801	2.71	1.058	129.4	55.4	22.9	0.709
4-3510	4-3860	0.455	160.0	11.1	2.36	0.565	49.6	0.745	1.092	160.0	492.8	0.278	1.907	3.60	1.057	137.5	60.8	23.8	0.849
4-3510	4-3910	0.499	111.8	20.0	-4.58	0.263	84.7	0.889	0.858	179.3	563.2	0.095	1.621	-4.08	0.929	27.6	352.3	-5.2	1.018
4-3510	4-3910	0.495	85.3	20.9	-4.58	0.371	119.2	0.836	0.912	186.5	570.3	0.150	1.674	-4.08	0.965	33.4	348.4	-7.4	0.949
4-3510	4-3970	0.600	172.6	2.4	-1.03	0.719	38.3	0.791	1.393	149.0	232.8	---	2.495	-1.65	1.132	39.6	31.3	11.3	0.931
4-3510	4-3980	0.562	174.7	1.6	-0.74	0.728	41.7	0.752	1.419	145.5	239.1	---	2.487	-1.65	1.135	43.5	38.0	13.4	0.866
4-3510	4-3990	0.527	176.8	0.9	-0.46	0.736	44.8	0.714	1.444	142.1	245.4	---	2.475	-1.69	1.138	47.3	44.7	15.1	0.804
4-3510	4-4000	0.494	178.8	0.3	-0.15	0.744	47.7	0.677	1.468	138.8	251.8	---	2.462	-1.79	1.141	50.8	51.5	16.6	0.743
4-3510	4-4010	0.463	180.9	-0.1	0.21	0.751	50.4	0.641	1.492	135.6	258.2	---	2.447	-1.95	1.143	54.2	58.3	17.5	0.685
4-3510	4-4020	0.434	182.9	-0.3	0.65	0.757	52.9	0.606	1.513	132.5	264.8	---	2.431	-2.22	1.146	57.4	65.1	18.0	0.629
4-3510	4-4030	0.407	185.0	-0.1	1.25	0.763	55.1	0.574	1.534	129.5	271.4	---	2.414	-2.66	1.149	60.5	71.8	17.7	0.576
4-3510	4-4040	0.383	187.3	0.8	2.17	0.768	57.2	0.544	1.553	126.7	278.1	---	2.397	-3.44	1.151	63.4	78.3	16.2	0.525
4-3510	4-4050	0.362	190.2	3.4	3.92	0.773	59.0	0.516	1.570	124.1	285.0	---	2.379	-5.04	1.154	66.3	84.7	12.2	0.481
4-3510	4-4060	0.356	194.7	12.3	8.93	0.777	60.7	0.490	1.585	121.6	292.0	---	2.363	-9.92	1.156	69.0	91.5	-0.3	0.461
4-3510	4-4080	0.331	179.9	-24.8	-10.45	0.783	63.5	0.447	1.610	117.3	307.0	---	2.330	9.74	1.161	74.3	105.6	52.7	0.380
4-3510	4-4090	0.298	186.7	-17.6	-5.56	0.786	64.6	0.430	1.620	115.5	314.7	---	2.316	4.99	1.164	76.8	105.4	41.3	0.311
4-3510	4-4100	0.282	189.5	-14.9	-3.84	0.787	65.5	0.415	1.628	113.9	322.7	---	2.304	3.41	1.166	79.3	106.5	37.4	0.268
4-3510	4-4110	0.272	191.2	-13.5	-2.92	0.789	66.2	0.404	1.635	112.7	331.1	---	2.295	2.65	1.169	81.8	105.9	35.9	0.234
4-3510	4-4120	0.264	192.5	-12.5	-2.32	0.790	66.7	0.396	1.640	111.7	339.8	---	2.289	2.21	1.172	84.3	102.6	35.6	0.207
4-3510	4-4130	0.260	193.4	-11.6	-1.88	0.791	67.0	0.391	1.644	111.1	348.9	---	2.286	1.94	1.174	86.9	96.0	35.5	0.189
4-3510	4-4140	0.259	194.0	-10.8	-1.53	0.792	67.0	0.390	1.646	110.9	358.4	---	2.289	1.78	1.177	89.6	86.7	34.9	0.184
4-3510	4-4150	0.262	194.2	-9.9	-1.22	0.792	66.8	0.394	1.647	111.0	368.4	0.998	2.297	1.69	1.180	92.4	77.3	33.3	0.194
4-3510	4-4160	0.270	194.1	-8.9	-0.93	0.792	66.2	0.404	1.648	111.6	378.9	0.982	2.313	1.65	1.182	95.4	70.2	31.2	0.219
4-3510	4-4170	0.283	193.7	-7.8	-0.64	0.792	65.2	0.420	1.647	112.8	389.9	0.956	2.339	1.66	1.185	98.7	66.3	29.3	0.259
4-3510	4-4170	0.257	72.0	21.5	-0.64	0.574	101.5	0.498	1.106	192.1	829.3	0.555	1.656	1.66	1.052	119.4	17.1	10.3	0.540

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3510	4-4170	0.589	51.0	18.6	-0.64	0.655	134.6	0.735	1.242	208.2	845.4	0.330	2.154	1.66	1.098	136.2	10.7	6.2	0.845
4-3510	4-4180	0.303	192.9	-6.5	-0.34	0.792	63.6	0.444	1.646	114.5	401.7	0.915	2.377	1.72	1.187	102.5	65.2	28.0	0.313
4-3510	4-4180	0.216	90.9	23.1	-0.34	0.560	93.3	0.494	1.086	183.4	830.5	0.549	1.623	1.72	1.046	119.3	25.8	13.8	0.536
4-3510	4-4190	0.333	191.6	-5.1	-0.00	0.791	61.4	0.479	1.645	117.1	414.2	0.857	2.433	1.85	1.189	106.9	65.9	27.2	0.382
4-3510	4-4190	0.210	112.2	22.4	-0.00	0.550	85.8	0.514	1.073	176.0	833.2	0.522	1.625	1.85	1.043	120.6	34.1	16.8	0.557
4-3510	4-4200	0.376	189.7	-3.5	0.40	0.791	58.1	0.528	1.643	120.0	427.8	0.775	2.511	2.01	1.190	112.2	67.7	26.8	0.471
4-3510	4-4200	0.236	131.4	19.4	0.40	0.542	78.0	0.553	1.064	169.9	837.1	0.476	1.651	2.01	1.042	123.3	42.1	19.3	0.602
4-3510	4-4210	0.437	187.2	-1.7	0.94	0.791	53.4	0.596	1.642	125.6	442.9	0.663	2.621	2.43	1.191	118.9	70.0	26.5	0.587
4-3510	4-4210	0.292	145.0	16.0	0.94	0.536	69.2	0.613	1.056	165.4	842.7	0.409	1.704	2.43	1.040	127.6	49.6	21.4	0.673
4-3510	4-4220	0.525	183.6	0.5	1.73	0.791	46.6	0.688	1.641	132.7	460.2	0.513	2.770	3.06	1.193	127.6	72.0	26.4	0.740
4-3510	4-4220	0.381	153.2	13.6	1.73	0.532	58.4	0.698	1.051	163.0	850.4	0.317	1.785	3.06	1.039	134.2	56.2	22.8	0.780
4-3510	4-4230	0.506	156.6	12.5	3.15	0.529	44.6	0.809	1.048	163.7	861.3	0.200	1.896	4.33	1.039	143.9	61.4	23.7	0.937
4-3510	4-4270	0.597	72.9	20.1	-5.77	0.446	137.5	0.868	0.966	190.7	929.2	0.128	1.805	-5.19	0.998	29.8	343.7	-9.7	1.018
4-3510	4-4280	0.535	134.2	15.8	-3.86	0.336	48.7	0.902	0.892	174.2	922.8	0.088	1.696	-3.44	0.952	25.8	356.2	-3.1	1.055
4-3510	4-4290	0.457	77.8	20.2	-3.86	0.440	118.6	0.769	0.961	189.9	938.5	0.222	1.700	-3.44	0.993	39.8	348.7	-7.6	0.863
4-3510	4-4290	0.551	38.3	12.0	-2.90	0.771	128.1	0.618	1.564	229.3	628.0	0.598	2.531	-2.63	1.176	57.7	335.7	-14.5	0.642
4-3510	4-4290	0.414	126.3	17.2	-2.90	0.376	69.9	0.802	0.915	174.7	933.4	0.182	1.688	-2.63	0.964	36.9	0.3	-1.7	0.896
4-3510	4-4290	0.358	96.6	20.5	-2.90	0.422	97.5	0.718	0.946	183.0	941.7	0.267	1.626	-2.63	0.983	44.2	356.5	-4.0	0.789
4-3510	4-4300	0.479	35.4	11.2	-2.29	0.771	122.5	0.538	1.563	234.2	642.9	0.722	2.403	-2.19	1.174	64.9	338.3	-14.0	0.516
4-3510	4-4310	0.428	33.4	10.6	-1.85	0.776	118.5	0.478	1.560	237.4	656.2	0.814	2.307	-1.92	1.171	70.5	340.9	-13.5	0.420
4-3520	4-3580	0.813	19.7	6.3	-1.92	1.150	131.2	1.090	10.574	281.6	336.2	---	---	-2.09	1.452	77.6	303.3	-25.7	0.528
4-3520	4-3590	0.748	19.4	6.5	-1.52	1.103	126.9	0.988	8.857	281.6	346.2	---	---	-1.99	1.413	83.2	299.3	-26.8	0.442
4-3520	4-3600	0.698	19.7	7.0	-1.19	1.063	127.3	0.903	10.263	280.5	355.1	---	---	-1.77	1.380	87.7	295.0	-27.9	0.387
4-3520	4-3610	0.657	20.3	7.6	-0.88	1.028	126.1	0.828	5.817	278.6	363.0	1.002	---	-1.72	1.350	91.3	291.0	-28.6	0.354
4-3520	4-3620	0.621	21.3	8.3	-0.59	0.994	125.0	0.761	4.175	276.0	370.1	0.998	---	-1.71	1.323	94.4	288.3	-29.1	0.337
4-3520	4-3630	0.588	22.4	9.2	-0.29	0.962	124.1	0.701	3.311	272.8	376.6	0.990	---	-1.76	1.297	96.8	287.3	-29.4	0.329
4-3520	4-3640	0.557	23.7	10.2	0.03	0.931	123.2	0.647	2.774	269.1	382.7	0.980	---	-1.86	1.273	98.9	286.0	-29.7	0.326
4-3520	4-3650	0.528	25.0	11.3	0.40	0.902	122.2	0.599	2.411	265.1	388.3	0.967	---	-2.04	1.249	100.5	290.3	-29.9	0.326
4-3520	4-3660	0.499	26.4	12.6	0.87	0.873	121.1	0.557	2.150	260.8	393.6	0.954	---	-2.32	1.228	101.9	293.9	-30.3	0.328
4-3520	4-3670	0.471	27.8	14.2	1.50	0.846	119.9	0.519	1.955	256.2	398.6	0.940	---	-2.79	1.208	103.0	298.7	-31.0	0.331
4-3520	4-3680	0.443	29.0	16.5	2.48	0.821	118.6	0.487	1.804	251.4	403.3	0.926	---	-3.62	1.189	103.8	304.7	-32.5	0.335
4-3520	4-3690	0.419	29.9	20.4	4.36	0.796	117.3	0.459	1.685	246.4	407.8	0.912	---	-5.35	1.172	104.6	312.0	-36.4	0.344
4-3520	4-3700	0.408	29.4	30.6	9.90	0.774	115.7	0.435	1.589	241.3	412.1	0.898	---	-10.75	1.157	105.1	322.8	-49.4	0.385
4-3520	4-3720	0.360	46.8	-2.4	-10.24	0.732	112.5	0.400	1.445	230.4	420.6	0.868	---	9.68	1.131	106.2	314.7	12.8	0.381
4-3520	4-3730	0.318	45.9	5.7	-5.49	0.713	110.6	0.387	1.390	224.8	424.5	0.853	---	5.07	1.120	106.7	326.8	3.2	0.353
4-3520	4-3740	0.289	47.9	9.4	-3.76	0.695	108.6	0.377	1.354	219.1	428.4	0.837	---	3.49	1.110	107.1	335.4	1.1	0.352
4-3520	4-3750	0.264	51.2	11.9	-2.83	0.679	106.5	0.371	1.304	213.3	432.3	0.820	---	2.72	1.102	107.6	343.1	1.6	0.355
4-3520	4-3760	0.239	55.4	14.0	-2.22	0.663	104.2	0.360	1.269	207.5	436.1	0.802	---	2.28	1.094	108.2	350.6	3.1	0.361
4-3520	4-3770	0.216	61.0	16.0	-1.77	0.648	101.7	0.369	1.239	201.6	439.9	0.782	---	2.01	1.088	108.8	357.9	5.2	0.370
4-3520	4-3780	0.195	68.4	17.9	-1.40	0.635	98.9	0.374	1.212	195.6	443.7	0.759	---	1.84	1.082	109.6	5.2	7.6	0.382
4-3520	4-3790	0.177	78.2	19.7	-1.08	0.622	95.9	0.383	1.189	189.8	447.7	0.734	---	1.75	1.077	110.6	12.6	10.2	0.398
4-3520	4-3800	0.164	91.0	21.1	-0.78	0.609	92.6	0.397	1.168	184.0	451.8	0.704	---	1.71	1.073	111.9	20.0	12.8	0.418
4-3520	4-3810	0.161	106.7	21.3	-0.48	0.598	88.8	0.418	1.149	178.4	456.2	0.669	1.629	1.72	1.069	113.5	27.5	15.4	0.444
4-3520	4-3820	0.170	123.4	19.8	-0.17	0.587	84.5	0.446	1.133	173.1	460.9	0.627	1.639	1.79	1.066	115.6	35.0	17.8	0.478
4-3520	4-3830	0.196	138.5	17.0	0.19	0.578	79.4	0.485	1.118	168.3	466.1	0.576	1.661	1.93	1.063	118.3	42.5	19.9	0.523
4-3520	4-3840	0.241	150.2	14.0	0.62	0.569	73.2	0.537	1.106	164.2	472.2	0.512	1.700	2.16	1.060	122.0	49.9	21.8	0.584
4-3520	4-3850	0.307	158.2	11.5	1.19	0.561	65.4	0.608	1.095	161.5	479.5	0.430	1.761	2.56	1.057	127.1	56.8	23.2	0.668
4-3520	4-3860	0.402	162.8	10.0	2.05	0.555	55.3	0.701	1.088	160.4	488.6	0.325	1.850	3.24	1.055	134.2	62.9	24.3	0.787
4-3520	4-3870	0.531	164.0	9.7	3.60	0.552	41.9	0.817	1.084	162.4	500.8	0.199	1.968	4.64	1.054	144.6	67.6	24.8	0.954
4-3520	4-3910	0.538	115.1	19.6	-5.61	0.219	89.2	0.922	0.848	179.9	559.2	0.066	1.629	-5.18	0.921	23.2	354.3	-4.3	1.077
4-3520	4-3910	0.545	90.9	21.2	-5.61	0.340	126.8	0.884	0.899	185.9	565.1	0.105	1.694	-5.18	0.957	28.1	351.0	-6.3	1.025
4-3520	4-3980	0.575	178.1	0.2	-0.74	0.717	40.6	0.767	1.401	147.4	236.3	---	2.476	-1.71	1.131	42.0	29.2	13.8	0.890
4-3520	4-3990	0.539	180.2	-0.5	-0.45	0.726	43.8	0.728	1.427	143.9	242.7	---	2.466	-1.73	1.134	45.8	46.0	15.6	0.826
4-3520	4-4000	0.505	182.3	-1.2	-0.14	0.734	46.8	0.690	1.452	140.6	249.1	---	2.454	-1.80	1.137	49.4	52.8	17.0	0.765
4-3520	4-4010	0.473	184.3	-1.7	0.20	0.742	49.6	0.653	1.476	137.4	255.5	---	2.440	-1.94	1.140	52.9	59.6	18.0	0.705
4-3520	4-4020	0.444	186.4	-1.9	0.61	0.749	52.1	0.618	1.498	134.3	262.0	---	2.424	-2.16	1.143	56.2	66.4	18.5	0.648
4-3520	4-4030	0.416	188.5	-1.9	1.14	0.755	54.4	0.585	1.520	131.3	268.6	---	2.408	-2.52	1.146	59.3	73.1	18.3	0.594
4-3520	4-4040	0.391	190.7	-1.4	1.90	0.760	56.6	0.553	1.539	128.5	275.3	---	2.391	-3.12	1.149	62.4	79.7	17.2	0.542
4-3520	4-4050	0.369	193.2	0.3	3.19	0.765	58.5	0.524	1.557	125.8	282.2	---	2.373	-4.26	1.151	65.2	86.0	14.4	0.495
4-3520	4-4060	0.354	196.6	5.3	6.08	0.769	60.2	0.498	1.573	123.3	289.2	---	2.357	-7.00	1.154	68.0	92.2	6.9	0.458
4-3520	4-4070	0.411	202.7	27.9	19.99	0.773	61.7	0.475	1.588	121.1	296.3	---	2.341	-20.77	1.157	70.6	102.6	-22.6	0.544
4-3520	4-4080	0.393	172.1	-36.2	-19.39	0.776	63.2	0.452	1.600	118.9	304.2	---	2.323	18.75	1.159	73.4	128.0	67.9	0.488
4-3520	4-4090	0.309	188.6	-22.0	-7.24	0.779	64.3	0.434	1.611	117.1	311.8	---	2.309	6.74	1.162	75.9	110.2	45.0	0.333
4-3520	4-4100	0.289	192.7	-17.7	-4.51	0.781	65.3	0.418	1.619	115.5	319.7	---	2.297	4.16	1.165	78.4	110.8	39.3	0.282
4-3520	4-4110	0.276	194.9	-15.7	-3.26	0.783	66.1	0.406	1.627	114.1	328.0	---	2.287	3.07	1.168	80.9	110.8	36.8	0.245
4-3520	4-4120	0.268	196.4	-14.5	-2.51	0.784	66.6	0.396	1.632	113.1	336.6	---	2.279	2.48	1.171	83.4	108.4	36.0	0.215
4-3520	4-4130	0.262	197.4	-13.5	-1.99	0.785	67.0	0.391	1.636	112.4	345.6	---	2.276	2.13	1.173	86.0	102.9	36.0	0.193
4-3520	4-4140	0.260	198.1	-12.7	-1.58	0.786	67.1	0.389	1.639	112.0	355.0	---	2.276	1.92	1.176	88.6	94.3	35.8	0.183
4-3520	4-4150	0.262	198.5	-11.7	-1.24	0.786	67.0	0.391	1.641	112.0	364.8	1.000	2.282	1.79	1.179	91.3	84.5	34.7	0.198
4-3520	4-4160	0.268	198.5	-10.8	-0.93	0.786	66.9	0.398	1.642	112.4	375.1	0.988	2.295	1.72	1.181	94.3	76.3	32.7	0.207
4-3520	4-4170	0.279	198.2	-9.7	-0.64	0.786	65.7	0.412	1.641	113.3	385.9	0.966	2.317	1.71	1.184	97.5	71.3	30.7	0.242
4-3520	4-4170	0.317	67.0	21.2	-0.64	0.582	109.5	0.538	1.125	198.8	831.4	0.520	1.731	1.71	1.059	121.9	16.2	9.7	0.587
4-3520	4-4170	0.497	57.0	19.8	-0.64	0.627	127.2	0.669	1.198	207.5	840.0	0.397	2.000	1.71	1.084	131.0	12.8	7.5	0.752
4-3520	4-4180	0.296	197.5	-8.5	-0.33	0.786	64.4	0.433	1.640	114.8	397.3	0.931	2.350	1.75	1.186	101.0	69.3	29.2	0.290
4-3520	4-4180	0.239	85.1	23.1	-0.33	0.559	98.4	0.506	1.093	188.4	830.9	0.540	1.647	1.75	1.049	120.0	25.6	13.7	0.549
4-3520	4-4190	0.322	196.4	-7.2	-0.00	0.786	62.4	0.463	1.639	116.9	409.5	0.880	2.398	1.85	1.188	105.5	69.5	28.2	0.353
4-3520	4-4190	0.214	106.9	23.1	-0.00	0.547	90.3	0.513	1.076	180.2	832.8	0.524	1.629	1.85	1.045	120.6	34.3	16.9	0.557
4-3520	4-4200	0.358	194.8	-6.7	0.38	0.785	59.6	0.506	1.637	119.9	422.5	0.809	2.466	2.03	1.189	110.0	71.1	27.6	0.433
4-3520	4-4200	0.223	127.1	20.5	0.38	0.537	82.4	0.542	1.065	173.5	836.1	0.488	1.642	2.03	1.042	122.6	42.6	19.5	0.589
4-3520	4-4210	0.411	192.6	-4.1	0.87	0.785	55.6	0.565	1.636	124.1	436.9	0.711	2.560	2.32	1.191	116.0	73.4	27.2	0.536

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3520	4-4210	0.265	143.5	16.6	0.87	0.530	73.8	0.591	1.056	168.1	840.8	0.432	1.680	2.32	1.040	126.0	50.5	21.6	0.646
4-3520	4-4220	0.485	189.5	-2.1	1.54	0.785	49.7	0.646	1.678	130.0	452.9	0.578	2.691	2.83	1.191	125.7	75.8	27.0	0.670
4-3520	4-4220	0.338	154.1	13.3	1.54	0.524	63.8	0.663	1.050	164.5	847.4	0.354	1.746	2.83	1.039	131.4	57.8	23.2	0.734
4-3520	4-4230	0.592	185.2	0.2	2.65	0.785	41.3	0.752	1.635	138.5	471.6	0.406	2.863	3.77	1.192	134.0	77.4	26.8	0.849
4-3520	4-4230	0.446	159.6	11.4	2.65	0.521	51.4	0.761	1.046	163.6	856.6	0.249	1.842	3.77	1.038	139.5	63.8	24.2	0.865
4-3520	4-4240	0.592	160.6	11.1	4.96	0.520	35.3	0.878	1.044	166.3	869.6	0.127	1.961	5.92	1.037	151.4	68.0	24.7	1.052
4-3520	4-4280	0.569	138.5	14.7	-4.54	0.309	43.8	0.929	0.883	175.2	919.2	0.063	1.704	-4.19	0.946	21.9	358.0	-2.3	1.107
4-3520	4-4280	0.507	81.7	20.6	-4.54	0.428	125.9	0.817	0.957	190.0	934.0	0.175	1.739	-4.19	0.991	35.3	350.8	-6.7	0.932
4-3520	4-4290	0.585	44.9	14.1	-3.23	0.765	131.5	0.664	1.555	225.4	619.5	0.522	2.589	-3.04	1.175	53.4	339.5	-12.9	0.718
4-3520	4-4290	0.457	133.6	15.6	-3.23	0.346	63.7	0.847	0.903	174.7	928.9	0.138	1.667	-3.04	0.957	32.3	2.5	-0.7	0.962
4-3520	4-4290	0.390	94.7	20.6	-3.23	0.414	105.5	0.744	0.946	185.5	939.6	0.242	1.651	-3.04	0.983	41.9	357.5	-3.7	0.825
4-3520	4-4300	0.502	41.5	13.2	-2.47	0.764	124.9	0.573	1.554	231.2	635.3	0.654	2.445	-2.45	1.172	61.6	341.9	-12.4	0.575
4-3520	4-4310	0.442	39.0	12.6	-1.95	0.764	120.1	0.504	1.532	235.0	649.1	0.770	2.334	-2.11	1.170	67.8	344.7	-11.8	0.466
4-3520	4-4320	0.573	168.7	3.9	-1.54	0.619	38.4	0.817	1.185	158.1	582.2	0.217	2.153	-1.90	1.079	35.7	22.2	8.0	0.968
4-3520	4-4320	0.398	37.3	12.3	-1.54	0.763	116.8	0.452	1.550	237.4	661.6	0.848	2.251	-1.90	1.167	72.7	347.3	-11.5	0.382
4-3530	4-3590	0.899	20.6	7.1	-1.59	1.249	132.2	1.332	-2.958	287.5	347.6	---	---	-2.03	1.531	82.9	295.8	-27.0	0.557
4-3530	4-3600	0.824	21.1	7.7	-1.22	1.183	130.4	1.178	-5.605	286.2	356.1	---	---	-1.87	1.476	87.9	292.1	-27.7	0.482
4-3530	4-3610	0.765	22.0	8.4	-0.89	1.129	129.1	1.052	19.083	284.0	363.8	1.001	---	-1.75	1.431	92.0	288.8	-28.2	0.435
4-3530	4-3620	0.716	23.2	9.2	-0.59	1.081	128.1	0.947	18.715	281.3	370.8	0.996	---	-1.76	1.392	95.3	286.7	-28.6	0.408
4-3530	4-3630	0.673	24.5	10.1	-0.29	1.037	127.1	0.855	6.817	278.0	377.3	0.987	---	-1.78	1.356	98.0	286.1	-28.8	0.392
4-3530	4-3640	0.633	25.9	11.0	0.03	0.996	126.2	0.776	4.352	274.2	383.2	0.974	---	-1.86	1.325	100.1	287.1	-28.9	0.384
4-3530	4-3650	0.596	27.4	12.1	0.38	0.958	125.2	0.707	3.282	270.2	388.8	0.960	---	-2.00	1.293	101.9	289.5	-29.0	0.378
4-3530	4-3660	0.561	28.9	13.3	0.81	0.922	124.2	0.648	2.687	265.8	394.0	0.946	---	-2.24	1.265	103.3	293.3	-29.2	0.375
4-3530	4-3670	0.527	30.5	14.8	1.34	0.888	123.0	0.597	2.309	261.2	398.9	0.931	---	-2.62	1.240	104.4	298.1	-29.5	0.376
4-3530	4-3680	0.494	31.9	16.6	2.17	0.857	121.7	0.553	2.049	256.3	403.6	0.916	---	-3.26	1.217	105.2	303.9	-30.4	0.374
4-3530	4-3690	0.464	33.2	11.5	3.54	0.827	120.3	0.515	1.860	251.3	408.1	0.902	---	-4.47	1.196	105.9	310.7	-32.5	0.378
4-3530	4-3700	0.439	33.8	25.3	6.67	0.800	118.8	0.483	1.717	246.1	412.4	0.888	---	-7.45	1.177	106.5	319.4	-38.9	0.390
4-3530	4-3710	0.492	33.1	49.2	22.92	0.774	117.1	0.456	1.606	240.8	416.4	0.874	---	-23.56	1.160	106.9	334.7	-68.6	0.560
4-3530	4-3720	0.435	34.5	-10.1	-18.20	0.750	115.4	0.435	1.518	235.2	421.0	0.857	---	17.71	1.145	107.4	305.2	25.1	0.486
4-3530	4-3730	0.354	48.9	4.6	-7.07	0.728	113.5	0.417	1.446	229.6	424.8	0.843	---	6.72	1.132	107.8	325.1	6.3	0.386
4-3530	4-3740	0.320	50.1	9.5	-4.39	0.707	111.5	0.403	1.386	223.8	428.6	0.827	---	4.20	1.120	108.1	334.7	2.4	0.376
4-3530	4-3750	0.291	52.9	12.3	-3.35	0.688	109.3	0.393	1.336	218.0	432.4	0.811	---	3.11	1.110	108.5	342.7	2.2	0.375
4-3530	4-3760	0.264	56.7	14.4	-2.39	0.670	107.0	0.387	1.294	212.1	436.1	0.794	---	2.53	1.101	109.0	350.3	3.4	0.379
4-3530	4-3770	0.239	61.6	16.3	-1.86	0.653	104.5	0.384	1.258	206.1	439.9	0.775	---	2.18	1.093	109.5	357.8	5.4	0.385
4-3530	4-3780	0.215	68.0	18.1	-1.45	0.638	101.7	0.385	1.227	200.1	443.7	0.754	---	1.96	1.087	110.2	5.2	7.8	0.394
4-3530	4-3790	0.193	76.5	19.9	-1.10	0.623	98.8	0.391	1.199	194.1	447.5	0.730	---	1.83	1.081	111.0	12.6	10.3	0.406
4-3530	4-3800	0.176	87.8	21.3	-0.78	0.609	95.5	0.402	1.176	188.2	451.5	0.703	---	1.77	1.076	112.1	20.1	13.0	0.422
4-3530	4-3810	0.166	102.2	21.8	-0.48	0.596	91.8	0.419	1.155	182.5	455.7	0.671	---	1.76	1.071	113.5	27.6	15.5	0.444
4-3530	4-3820	0.168	118.7	20.7	-0.16	0.584	87.6	0.443	1.136	176.9	460.2	0.633	1.639	1.81	1.067	115.3	35.3	18.0	0.473
4-3530	4-3830	0.185	135.1	18.0	0.18	0.573	82.7	0.476	1.120	171.8	465.1	0.587	1.652	1.91	1.063	117.7	43.0	20.2	0.512
4-3530	4-3840	0.220	148.6	15.6	0.58	0.563	76.8	0.521	1.105	167.2	470.6	0.530	1.681	2.11	1.059	120.8	50.6	22.9	0.564
4-3530	4-3850	0.276	158.5	11.5	1.10	0.554	69.6	0.582	1.093	163.6	477.2	0.498	1.729	2.43	1.056	125.2	57.9	23.5	0.636
4-3530	4-3860	0.356	166.7	9.3	1.82	0.547	60.5	0.663	1.084	161.6	485.3	0.365	1.802	2.97	1.053	131.2	64.6	24.6	0.736
4-3530	4-3870	0.468	167.6	8.3	3.01	0.542	48.6	0.768	1.077	161.9	495.8	0.250	1.905	3.99	1.052	140.0	70.1	25.3	0.878
4-3530	4-3910	0.581	116.9	19.4	-7.28	0.180	100.7	0.949	0.841	180.6	555.3	0.043	1.638	-6.93	0.916	12.7	356.4	-3.5	1.137
4-3530	4-3910	0.596	98.4	21.2	-7.28	0.298	134.5	0.929	0.883	184.5	559.2	0.063	1.703	-6.93	0.946	21.9	354.0	-5.0	1.109
4-3530	4-3980	0.587	181.4	-1.3	-0.75	0.707	39.4	0.782	1.384	149.2	233.6	---	2.465	-1.77	1.127	40.4	40.5	14.2	0.914
4-3530	4-3990	0.551	183.6	-2.0	-0.45	0.716	42.7	0.743	1.410	145.7	239.9	---	2.456	-1.76	1.131	44.3	47.2	16.0	0.849
4-3530	4-4000	0.517	185.7	-2.7	-0.14	0.725	45.8	0.704	1.435	142.4	246.3	---	2.445	-1.81	1.134	48.0	54.1	17.4	0.787
4-3530	4-4010	0.484	187.7	-3.2	0.19	0.733	48.7	0.666	1.459	139.2	252.7	---	2.432	-1.92	1.137	51.6	60.9	18.4	0.726
4-3530	4-4020	0.454	189.8	-3.5	0.57	0.740	51.3	0.630	1.483	136.1	259.2	---	2.417	-2.10	1.140	54.9	67.8	18.9	0.668
4-3530	4-4030	0.426	1.9	-3.6	1.05	0.747	53.7	0.596	1.505	133.1	55.8	---	2.401	-2.39	1.143	58.2	74.5	18.9	0.612
4-3530	4-4040	0.400	4.1	-3.3	1.79	0.752	55.9	0.563	1.525	130.2	272.5	---	2.384	-2.88	1.146	61.2	81.1	18.0	0.560
4-3530	4-4050	0.377	16.4	-2.1	2.71	0.758	57.9	0.533	1.544	127.5	279.4	---	2.367	-3.73	1.149	64.2	87.5	15.9	0.510
4-3530	4-4060	0.358	199.3	0.9	4.64	0.762	59.7	0.506	1.561	125.0	286.4	---	2.350	-5.50	1.152	67.0	93.5	10.8	0.467
4-3530	4-4070	0.358	203.7	11.1	10.33	0.766	61.3	0.481	1.576	122.7	293.5	---	2.334	-11.04	1.155	69.7	99.7	-4.0	0.456
4-3530	4-4090	0.328	188.7	-28.5	-10.39	0.773	64.0	0.438	1.601	118.6	308.8	---	2.302	9.97	1.160	75.6	117.8	53.2	0.370
4-3530	4-4100	0.296	195.5	-21.1	-5.49	0.775	65.1	0.422	1.610	117.0	316.7	---	2.289	5.22	1.163	77.5	115.4	41.9	0.299
4-3530	4-4110	0.281	198.4	-18.2	-3.71	0.777	65.9	0.408	1.618	115.6	324.9	---	2.278	3.69	1.166	80.0	115.5	37.9	0.257
4-3530	4-4120	0.272	200.1	-16.6	-2.75	0.779	66.6	0.398	1.624	114.4	333.4	---	2.270	2.80	1.169	82.5	113.9	36.5	0.224
4-3530	4-4130	0.265	201.4	-15.4	-2.12	0.780	67.0	0.390	1.629	113.6	342.3	---	2.265	2.34	1.172	85.1	109.5	36.2	0.199
4-3530	4-4140	0.262	202.2	-14.5	-1.66	0.781	67.2	0.387	1.632	113.2	351.6	---	2.264	2.06	1.175	87.7	101.8	36.3	0.185
4-3530	4-4150	0.263	202.7	-13.5	-1.28	0.781	67.2	0.388	1.634	113.0	361.2	1.001	2.268	1.89	1.178	90.4	92.0	35.7	0.184
4-3530	4-4160	0.267	202.8	-12.6	-0.95	0.781	66.8	0.393	1.635	113.3	371.4	0.992	2.278	1.80	1.180	93.2	82.9	34.1	0.198
4-3530	4-4170	0.276	202.7	-11.5	-0.64	0.781	66.2	0.404	1.635	114.0	382.0	0.974	2.296	1.76	1.183	96.3	76.7	32.1	0.227
4-3530	4-4180	0.290	202.1	-10.4	-0.33	0.781	65.0	0.422	1.634	115.2	393.1	0.944	2.324	1.78	1.185	99.7	73.7	30.4	0.270
4-3530	4-4180	0.279	79.8	23.0	-0.33	0.563	104.9	0.530	1.106	194.1	832.1	0.519	1.692	1.78	1.054	121.5	25.1	13.4	0.578
4-3530	4-4180	0.549	62.0	21.2	-0.33	0.632	132.4	0.721	1.216	206.8	844.8	0.339	2.094	1.78	1.092	135.2	20.0	10.2	0.826
4-3530	4-4190	0.312	201.2	-9.2	-0.00	0.781	63.3	0.449	1.633	116.9	405.0	0.900	2.366	1.85	1.187	103.5	73.3	29.1	0.326
4-3530	4-4190	0.227	99.8	23.7	-0.00	0.545	95.2	0.519	1.082	184.8	832.9	0.520	1.643	1.85	1.047	120.9	34.3	16.8	0.563
4-3530	4-4200	0.344	199.8	-7.8	0.36	0.780	60.9	0.486	1.631	119.4	417.5	0.838	2.425	1.99	1.188	108.0	74.5	28.4	0.399
4-3530	4-4200	0.219	121.6	21.7	0.36	0.534	86.9	0.536	1.067	177.3	835.4	0.495	1.639	1.99	1.043	122.2	42.9	19.6	0.582
4-3530	4-4210	0.389	197.9	-6.3	0.81	0.780	57.4	0.538	1.629	123.0	431.2	0.752	2.507	2.24	1.190	113.5	76.8	27.9	0.491
4-3530	4-4210	0.246	140.7	17.5	0.81	0.525	78.5	0.974	1.057	171.1	839.4	0.450	1.663	2.24	1.040	124.9	51.2	21.8	0.626
4-3530	4-4220	0.453	195.2	-4.6	1.40	0.780	52.4	0.610	1.628	120.0	446.3	0.636	2.620	2.65	1.190	120.3	79.3	27.6	0.610
4-3530	4-4220	0.303	153.9	13.5	1.40	0.518	69.0	0.634	1.049	166.6	845.0	0.383	1.714	2.65	1.038	129.2	59.0	23.5	0.697
4-3530	4-4230	0.544	191.4	-2.5	2.30	0.779	49.2	0.704	1.627	135.1	463.6	0.482	2.773	3.37	1.191	129.4	81.5	27.3	0.767
4-3530	4-4230	0.394	161.7	10.1	2.30	0.513	57.6	0.720	1.043	164.3	852.8	0.292	1.794	3.37	1.037	136.0	65.8	24.6	0.807
4-3530	4-4240	0.522	168.7	9.6	3.94	0.511	43.0	0.829	1.040	165.1	863.8	0.178	1.903	4.84	1.036	145.9	71.0	25.2	0.966
4-3530	4-4280	0.562	88.6	21.0	-5.55	0.414	133.9	0.866	0.952	189.3	928.8	0.128	1.776	-5.27	0.988	30.0	353.3	-3.7	1.081

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3530	4-4290	0.497	139.3	14.1	-3.68	0.318	58.2	0.884	0.892	175.2	924.8	0.104	1.680	-3.56	0.950	28.1	4.5	0.3	1.021
4-3530	4-4290	0.430	95.3	20.7	-3.68	0.404	113.0	0.780	0.945	187.1	936.7	0.208	1.681	-3.56	0.982	38.8	358.9	-3.2	0.874
4-3530	4-4300	0.529	47.8	15.0	-2.80	0.758	127.6	0.613	1.546	228.0	627.6	0.599	2.493	-2.76	1.171	57.9	345.4	-10.9	0.639
4-3530	4-4310	0.459	44.9	14.4	-2.07	0.758	122.1	0.534	1.544	232.4	642.1	0.720	2.368	-2.31	1.168	64.9	348.1	-10.2	0.536
4-3530	4-4320	0.592	172.1	8.4	-1.61	0.609	36.5	0.837	1.174	159.7	579.3	0.191	2.158	-2.04	1.075	33.6	23.5	8.5	1.000
4-3530	4-4320	0.408	42.8	14.1	-1.61	0.757	119.1	0.474	1.541	235.3	654.9	0.811	2.272	-2.04	1.166	70.3	351.0	-9.7	0.422
4-3530	4-4330	0.538	173.9	1.7	-1.23	0.618	41.8	0.786	1.191	156.7	586.2	0.255	2.126	-1.88	1.078	38.8	29.7	10.7	0.917
4-3530	4-4330	0.371	41.3	14.0	-1.23	0.756	115.2	0.429	1.539	237.1	666.6	0.878	2.199	-1.88	1.163	74.6	353.5	-9.4	0.348
4-3540	4-3610	0.902	23.6	9.1	-0.91	1.262	132.0	1.375	-2.667	288.9	364.2	1.001	---	-1.80	1.540	92.4	287.8	-27.7	0.544
4-3540	4-3620	0.833	25.0	9.9	-0.59	1.192	130.9	1.203	-4.907	286.1	371.2	0.995	---	-1.80	1.481	96.1	286.1	-28.0	0.500
4-3540	4-3630	0.774	26.5	10.9	-0.28	1.131	130.0	1.062	15.829	282.7	377.5	0.984	---	-1.80	1.431	99.0	285.7	-28.1	0.472
4-3540	4-3640	0.723	28.1	11.9	0.03	1.077	129.1	0.945	17.716	279.0	383.5	0.970	---	-1.88	1.387	101.4	286.8	-28.1	0.454
4-3540	4-3650	0.676	29.8	12.9	0.37	1.028	128.2	0.847	6.218	274.9	389.0	0.954	---	-1.97	1.347	103.3	289.3	-28.2	0.441
4-3540	4-3660	0.632	31.5	14.1	0.76	0.982	127.2	0.763	3.962	270.5	394.2	0.938	---	-2.16	1.312	104.7	293.0	-28.2	0.432
4-3540	4-3670	0.591	33.1	15.4	1.26	0.940	126.0	0.678	3.002	265.8	399.1	0.922	---	-2.47	1.279	105.9	297.8	-28.3	0.425
4-3540	4-3680	0.552	34.8	17.0	1.94	0.901	124.8	0.633	2.472	261.0	403.8	0.907	---	-2.98	1.250	106.7	303.4	-28.6	0.419
4-3540	4-3690	0.516	36.3	19.2	3.00	0.865	123.4	0.583	2.138	256.0	408.3	0.891	---	-3.87	1.225	107.4	309.9	-29.7	0.416
4-3540	4-3700	0.483	37.5	23.0	5.05	0.832	121.8	0.541	1.908	250.7	412.6	0.877	---	-5.78	1.201	107.9	317.6	-33.0	0.418
4-3540	4-3710	0.466	37.6	33.2	11.37	0.802	120.2	0.505	1.743	245.4	416.7	0.863	---	-11.94	1.181	108.3	328.5	-45.6	0.455
4-3540	4-3730	0.399	52.7	3.1	-9.96	0.748	116.5	0.453	1.520	234.2	424.9	0.832	---	9.69	1.147	109.0	322.0	11.5	0.432
4-3540	4-3740	0.355	52.7	9.3	-5.31	0.723	114.5	0.433	1.442	228.5	428.7	0.817	---	5.20	1.133	109.2	333.7	4.0	0.404
4-3540	4-3750	0.322	54.9	12.6	-3.57	0.701	112.3	0.419	1.379	222.6	432.5	0.802	---	3.61	1.120	109.5	342.3	2.9	0.399
4-3540	4-3760	0.292	58.3	14.9	-2.61	0.680	109.9	0.408	1.326	216.7	436.2	0.785	---	2.82	1.110	109.9	350.1	3.8	0.398
4-3540	4-3770	0.264	62.7	16.7	-1.98	0.661	107.4	0.402	1.283	210.6	439.9	0.767	---	2.37	1.100	110.3	357.6	5.6	0.401
4-3540	4-3780	0.237	68.3	18.4	-1.51	0.643	104.6	0.400	1.245	204.6	443.7	0.747	---	2.10	1.092	110.8	5.1	7.9	0.407
4-3540	4-3790	0.212	75.7	20.0	-1.13	0.627	101.7	0.402	1.213	198.5	447.4	0.726	---	1.93	1.085	111.5	12.6	10.5	0.416
4-3540	4-3800	0.192	85.5	21.4	-0.79	0.611	98.4	0.409	1.186	192.5	451.3	0.700	---	1.83	1.079	112.4	20.1	13.1	0.429
4-3540	4-3810	0.176	98.3	22.2	-0.48	0.596	94.8	0.422	1.161	186.6	455.3	0.671	---	1.80	1.073	113.6	27.8	15.7	0.447
4-3540	4-3820	0.171	114.0	21.6	-0.16	0.583	90.7	0.442	1.140	180.8	459.6	0.637	---	1.82	1.068	115.2	35.6	18.1	0.472
4-3540	4-3830	0.179	130.9	19.2	0.38	0.570	86.0	0.469	1.122	175.4	464.2	0.595	1.648	1.90	1.064	117.2	43.4	20.8	0.504
4-3540	4-3840	0.204	146.0	15.6	0.56	0.559	80.4	0.508	1.106	170.4	469.4	0.544	1.667	2.05	1.060	119.9	51.2	22.2	0.549
4-3540	4-3850	0.250	157.8	11.9	1.02	0.549	73.7	0.566	1.092	166.3	475.3	0.480	1.704	2.31	1.056	123.7	58.8	23.8	0.609
4-3540	4-3860	0.318	165.8	9.0	1.65	0.540	65.4	0.631	1.081	163.3	482.5	0.399	1.762	2.75	1.052	128.8	66.0	24.9	0.695
4-3540	4-3870	0.415	170.3	7.3	2.60	0.533	54.6	0.724	1.072	162.3	491.6	0.296	1.849	3.53	1.049	136.2	72.3	25.6	0.815
4-3540	4-3880	0.546	171.4	6.8	4.39	0.530	40.5	0.837	1.068	164.2	503.7	0.174	1.963	5.15	1.048	146.7	77.0	25.9	0.983
4-3540	4-3990	0.564	186.9	-3.5	-0.45	0.706	41.6	0.757	1.392	147.5	237.2	---	2.416	-1.80	1.126	42.8	48.5	16.4	0.872
4-3540	4-4000	0.529	189.0	-4.1	-0.14	0.715	44.8	0.718	1.418	144.2	243.6	---	2.435	-1.82	1.120	46.6	55.3	17.7	0.809
4-3540	4-4010	0.496	191.1	-4.7	0.19	0.724	47.8	0.680	1.443	140.9	250.0	---	2.423	-1.90	1.134	50.2	62.2	18.7	0.747
4-3540	4-4020	0.465	193.2	-5.1	0.55	0.731	50.5	0.643	1.467	137.8	256.5	---	2.409	-2.05	1.137	53.7	69.1	19.3	0.688
4-3540	4-4030	0.436	195.3	-5.3	0.98	0.738	53.0	0.607	1.489	134.8	263.1	---	2.394	-2.29	1.140	57.0	75.9	19.3	0.631
4-3540	4-4040	0.410	197.4	-5.1	1.55	0.745	55.3	0.574	1.511	131.9	269.7	---	2.377	-2.68	1.143	60.1	82.5	18.7	0.577
4-3540	4-4050	0.386	199.7	-4.3	2.37	0.750	57.4	0.543	1.530	129.2	276.6	---	2.360	-3.33	1.146	63.1	88.9	17.0	0.526
4-3540	4-4060	0.365	202.2	-2.3	3.77	0.755	59.3	0.514	1.548	126.7	283.5	---	2.343	-4.58	1.149	66.0	94.9	13.3	0.480
4-3540	4-4070	0.353	205.6	3.4	6.98	0.760	60.9	0.488	1.564	124.3	290.6	---	2.327	-7.63	1.152	68.7	100.5	4.4	0.447
4-3540	4-4080	0.436	210.3	29.0	23.67	0.764	62.4	0.465	1.578	122.2	297.8	---	2.312	-24.17	1.156	71.3	110.8	-29.5	0.578
4-3540	4-4090	0.383	181.9	-39.1	-18.33	0.767	63.8	0.443	1.590	120.1	306.0	---	2.294	17.98	1.159	74.1	140.5	65.9	0.468
4-3540	4-4100	0.307	197.7	-25.3	-7.05	0.769	64.9	0.425	1.600	118.4	313.7	---	2.281	6.85	1.162	76.6	120.8	45.8	0.321
4-3540	4-4110	0.288	201.7	-20.8	-4.33	0.772	65.8	0.411	1.609	117.0	321.8	---	2.270	4.29	1.165	79.1	120.2	39.4	0.271
4-3540	4-4120	0.276	203.8	-18.7	-3.06	0.773	66.5	0.399	1.616	115.8	330.2	---	2.261	3.18	1.168	81.6	119.1	36.9	0.234
4-3540	4-4130	0.269	205.2	-17.3	-2.29	0.775	67.0	0.391	1.621	114.9	339.0	---	2.254	2.58	1.171	84.2	115.7	36.4	0.206
4-3540	4-4140	0.265	206.2	-16.2	-1.75	0.775	67.3	0.386	1.625	114.3	348.2	---	2.252	2.22	1.174	86.7	109.1	36.5	0.187
4-3540	4-4150	0.264	206.9	-15.2	-1.32	0.776	67.3	0.385	1.627	114.0	357.8	---	2.254	2.01	1.177	89.4	99.8	36.3	0.181
4-3540	4-4160	0.266	207.1	-14.3	-0.97	0.776	67.1	0.389	1.629	114.1	367.7	0.995	2.262	1.87	1.179	92.2	90.0	35.2	0.190
4-3540	4-4170	0.274	207.1	-13.2	-0.64	0.776	66.6	0.398	1.629	114.6	378.2	0.981	2.277	1.81	1.182	95.1	82.6	33.3	0.214
4-3540	4-4180	0.286	206.7	-12.2	-0.33	0.776	65.6	0.413	1.628	115.6	389.1	0.956	2.301	1.80	1.184	98.4	78.5	31.5	0.251
4-3540	4-4190	0.305	205.9	-11.0	-0.00	0.776	64.2	0.436	1.627	117.1	400.6	0.918	2.336	1.85	1.186	102.0	77.3	30.1	0.302
4-3540	4-4190	0.253	93.8	23.9	-0.00	0.547	100.9	0.533	1.090	189.9	833.4	0.509	1.672	1.85	1.050	121.8	34.1	16.7	0.580
4-3540	4-4190	0.590	67.5	22.3	-0.00	0.635	136.8	0.764	1.230	205.7	849.2	0.290	2.170	1.85	1.099	138.9	27.6	13.0	0.889
4-3540	4-4200	0.332	204.7	-9.8	0.35	0.776	62.0	0.469	1.625	119.2	412.8	0.863	2.387	1.96	1.187	106.2	78.1	29.1	0.368
4-3540	4-4200	0.223	115.5	22.7	0.35	0.532	91.7	0.536	1.071	181.5	835.1	0.497	1.644	1.96	1.045	122.1	43.1	19.6	0.582
4-3540	4-4210	0.371	203.0	-8.4	0.76	0.775	59.0	0.515	1.623	122.2	425.9	0.788	2.459	2.16	1.189	111.2	80.2	28.5	0.451
4-3540	4-4210	0.232	136.6	18.8	0.76	0.521	83.1	0.563	1.058	174.6	838.3	0.463	1.653	2.16	1.041	124.1	51.8	22.0	0.612
4-3540	4-4220	0.426	200.6	-6.8	1.29	0.775	54.7	0.577	1.621	126.4	440.2	0.685	2.558	2.49	1.189	117.4	82.8	28.0	0.557
4-3540	4-4220	0.276	152.6	14.1	1.29	0.513	74.8	0.612	1.048	169.2	843.0	0.407	1.690	2.49	1.038	127.6	60.0	23.7	0.669
4-3540	4-4230	0.503	197.4	-5.0	2.04	0.774	48.6	0.661	1.620	132.3	456.4	0.549	2.692	3.06	1.190	125.3	85.3	27.6	0.696
4-3540	4-4230	0.352	162.7	10.4	2.04	0.507	63.3	0.684	1.042	165.7	849.7	0.320	1.755	3.06	1.036	138.1	67.4	24.9	0.759
4-3540	4-4240	0.462	167.8	8.4	3.29	0.503	50.1	0.782	1.037	164.9	859.0	0.226	1.849	4.12	1.034	141.4	73.5	25.6	0.893
4-3540	4-4290	0.536	144.0	12.7	-4.28	0.289	52.9	0.915	0.883	175.8	920.9	0.075	1.690	-4.24	0.943	24.0	6.5	1.1	1.077
4-3540	4-4290	0.476	97.6	20.8	-4.28	0.393	120.8	0.820	0.941	187.8	932.9	0.169	1.714	-4.24	0.980	34.9	0.7	-2.5	0.934
4-3540	4-4300	0.561	54.4	16.8	-2.99	0.752	130.9	0.657	1.537	224.5	619.7	0.528	2.547	-3.13	1.169	53.8	348.9	-9.3	0.710
4-3540	4-4310	0.480	51.0	16.1	-2.23	0.752	124.3	0.567	1.536	229.8	634.9	0.665	2.406	-2.54	1.167	61.7	351.4	-8.7	0.571
4-3540	4-4320	0.421	48.6	15.7	-1.69	0.751	119.7	0.499	1.533	233.1	648.2	0.768	2.298	-2.19	1.164	67.7	354.4	-8.0	0.466
4-3540	4-4330	0.558	177.3	0.2	-1.28	0.608	40.0	0.807	1.180	158.3	583.2	0.228	2.132	-1.98	1.074	36.7	31.1	11.2	0.949
4-3540	4-4330	0.378	46.8	15.6	-1.28	0.751	116.3	0.447	1.540	235.2	660.2	0.846	2.215	-1.98	1.161	72.5	357.2	-7.5	0.383
4-3540	4-4340	0.503	179.1	-0.5	-0.92	0.617	45.2	0.752	1.197	155.4	590.2	0.296	2.097	-1.86	1.077	41.9	37.4	13.1	0.865
4-3540	4-4340	0.345	45.6	15.7	-0.92	0.750	113.8	0.409	1.528	236.4	671.2	0.903	2.152	-1.86	1.168	76.4	359.6	-7.4	0.318
4-3550	4-3630	0.899	28.4	11.7	-0.28	1.252	132.7	1.348	-2.816	287.1	377.4	0.981	---	-1.83	1.530	100.0	286.1	-27.4	0.574
4-3550	4-3640	0.830	30.5	12.7	0.03	1.179	131.9	1.171	-5.632	283.4	383.4	0.965	---	-1.85	1.469	102.6	287.3	-27.6	0.541
4-3550	4-3650	0.770	32.1	13.7	0.36	1.114	131.0	1.028	33.676	279.3	388.9	0.948	---	-1.94	1.410	104.7	289.7	-27.4	0.518
4-3550	4-3660	0.716	34.0	14.6	0.73	1.057	130.1	0.911	10.437	274.9	394.2	0.931	---	-2.09	1.370	106.3	293.2	-27.3	0.500

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APPEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3550	4-3670	0.466	35.8	16.0	1.17	1.004	129.0	0.814	4.898	270.3	399.1	0.913	---	-2.34	1.329	107.5	297.8	-27.2	0.486
4-3550	4-3680	0.479	37.6	17.5	1.76	0.956	127.8	0.733	3.356	265.4	403.8	0.897	---	-2.75	1.292	108.4	303.2	-27.3	0.473
4-3550	4-3690	0.475	39.3	19.2	2.62	0.913	126.4	0.666	2.634	260.4	408.3	0.881	---	-3.44	1.260	109.0	309.5	-27.7	0.468
4-3550	4-3700	0.535	40.8	22.0	4.10	0.873	124.9	0.610	2.218	255.2	412.6	0.865	---	-4.75	1.231	109.5	316.6	-29.3	0.457
4-3550	4-3710	0.502	41.9	27.6	7.56	0.836	123.3	0.563	1.948	249.9	416.7	0.851	---	-8.06	1.206	109.8	325.4	-35.1	0.464
4-3550	4-3720	0.568	44.4	52.9	27.53	0.803	121.4	0.524	1.760	244.4	420.5	0.838	---	-27.88	1.184	109.9	338.6	-66.7	0.663
4-3550	4-3730	0.469	59.1	-4.2	-16.85	0.772	119.6	0.495	1.622	238.7	425.0	0.820	---	16.65	1.165	110.4	314.4	21.3	0.523
4-3550	4-3740	0.394	55.6	6.5	-6.75	0.744	117.5	0.469	1.517	232.9	428.8	0.806	---	6.71	1.148	110.5	332.4	6.4	0.439
4-3550	4-3750	0.356	57.3	12.8	-4.14	0.718	115.3	0.448	1.434	227.1	432.5	0.791	---	4.26	1.133	110.7	341.8	3.8	0.426
4-3550	4-3760	0.323	60.2	15.3	-2.90	0.694	112.9	0.433	1.368	221.1	436.2	0.775	---	3.18	1.120	110.9	349.9	4.2	0.421
4-3550	4-3770	0.291	64.1	17.1	-2.13	0.672	110.4	0.423	1.314	215.1	439.9	0.759	---	2.59	1.109	111.2	357.5	5.9	0.421
4-3550	4-3780	0.262	69.1	18.8	-1.59	0.651	107.6	0.417	1.269	209.0	443.6	0.740	---	2.24	1.099	111.6	5.0	8.1	0.424
4-3550	4-3790	0.234	75.6	20.3	-1.17	0.632	104.7	0.415	1.231	202.9	447.3	0.720	---	2.02	1.091	112.1	12.6	10.6	0.429
4-3550	4-3800	0.210	84.2	21.6	-0.81	0.615	101.4	0.419	1.198	196.8	451.1	0.696	---	1.90	1.083	112.9	20.2	13.2	0.439
4-3550	4-3810	0.190	95.4	22.4	-0.48	0.598	97.8	0.428	1.171	190.7	455.0	0.670	---	1.84	1.077	113.9	27.9	15.7	0.453
4-3550	4-3820	0.178	109.7	22.2	-0.16	0.583	93.8	0.443	1.146	184.8	459.1	0.638	---	1.83	1.071	115.2	35.8	18.2	0.473
4-3550	4-3830	0.178	126.2	20.3	0.17	0.569	89.3	0.466	1.125	179.2	463.5	0.601	1.650	1.89	1.065	117.0	43.7	20.4	0.500
4-3550	4-3840	0.194	142.5	16.8	0.54	0.556	84.0	0.498	1.107	173.9	468.3	0.555	1.659	2.01	1.060	119.3	51.7	22.4	0.537
4-3550	4-3850	0.229	156.1	12.6	0.96	0.544	77.7	0.543	1.092	169.2	473.8	0.499	1.685	2.22	1.056	122.5	59.6	23.9	0.589
4-3550	4-3860	0.287	165.9	9.1	1.52	0.534	70.0	0.604	1.078	165.5	480.2	0.427	1.730	2.57	1.051	126.9	67.2	25.1	0.661
4-3550	4-3870	0.369	172.1	6.6	2.31	0.526	60.2	0.686	1.068	163.3	488.3	0.336	1.801	3.18	1.048	133.1	74.0	25.8	0.762
4-3550	4-3880	0.484	174.9	5.4	3.64	0.520	47.5	0.790	1.062	163.7	498.7	0.223	1.900	4.34	1.045	142.0	79.6	26.2	0.906
4-3550	4-3990	0.577	190.2	-4.9	-0.45	0.696	40.5	0.772	1.374	149.9	234.5	---	2.434	-1.83	1.122	41.3	49.8	16.8	0.896
4-3550	4-4000	0.542	192.3	-5.6	-0.14	0.706	43.8	0.732	1.400	145.9	240.9	---	2.625	-1.83	1.126	45.2	56.6	18.1	0.831
4-3550	4-4010	0.508	194.5	-6.1	0.18	0.715	46.9	0.693	1.425	142.7	247.3	---	2.414	-1.89	1.130	48.9	63.5	19.1	0.769
4-3550	4-4020	0.477	196.6	-6.6	0.53	0.723	49.7	0.655	1.450	139.5	253.7	---	2.400	-2.00	1.133	52.4	70.4	19.7	0.709
4-3550	4-4030	0.447	198.7	-6.8	0.93	0.731	52.3	0.619	1.473	136.5	260.3	---	2.386	-2.20	1.137	55.7	77.3	19.7	0.651
4-3550	4-4040	0.420	200.8	-6.8	1.43	0.737	54.7	0.585	1.495	133.6	267.0	---	2.370	-2.51	1.140	58.0	84.0	19.2	0.595
4-3550	4-4050	0.395	203.0	-6.3	2.12	0.743	56.8	0.552	1.516	130.9	273.7	---	2.353	-3.03	1.144	62.0	90.4	17.8	0.543
4-3550	4-4060	0.373	205.4	-4.9	3.20	0.749	58.8	0.523	1.534	128.8	280.7	---	2.336	-3.94	1.147	64.9	96.5	15.0	0.494
4-3550	4-4070	0.356	208.2	-1.4	5.30	0.753	60.5	0.495	1.551	125.9	287.8	---	2.320	-5.88	1.150	67.7	102.0	9.0	0.453
4-3550	4-4080	0.362	212.4	10.3	11.77	0.757	62.0	0.471	1.566	123.7	295.0	---	2.304	-12.20	1.153	70.4	107.4	-8.3	0.452
4-3550	4-4100	0.324	198.3	-31.3	-9.89	0.764	64.6	0.430	1.590	119.9	310.7	---	2.273	9.77	1.160	75.7	128.9	52.2	0.356
4-3550	4-4110	0.295	204.8	-23.9	-5.22	0.766	65.6	0.414	1.599	118.4	318.7	---	2.261	5.25	1.163	78.2	125.1	41.4	0.287
4-3550	4-4120	0.282	207.5	-20.9	-3.46	0.768	66.4	0.401	1.607	117.1	327.1	---	2.251	3.65	1.166	80.7	124.2	37.6	0.246
4-3550	4-4130	0.273	209.2	-19.2	-2.50	0.770	67.0	0.391	1.613	116.1	335.8	---	2.244	2.86	1.169	83.3	121.6	36.3	0.214
4-3550	4-4140	0.267	210.3	-17.9	-1.86	0.771	67.4	0.385	1.617	115.4	344.9	---	2.240	2.40	1.173	85.8	116.1	36.3	0.192
4-3550	4-4150	0.265	211.0	-16.9	-1.38	0.771	67.5	0.383	1.620	115.0	354.3	---	2.241	2.12	1.175	88.4	107.5	36.5	0.181
4-3550	4-4160	0.267	211.4	-15.9	-0.99	0.772	67.4	0.385	1.622	115.0	364.1	0.997	2.246	1.95	1.178	91.2	97.5	35.9	0.184
4-3550	4-4170	0.272	211.5	-14.9	-0.65	0.772	66.9	0.392	1.622	115.4	374.4	0.986	2.258	1.86	1.181	94.0	89.0	34.3	0.202
4-3550	4-4180	0.283	211.2	-13.8	-0.33	0.772	66.1	0.405	1.622	116.1	385.1	0.965	2.278	1.83	1.183	97.2	83.7	32.5	0.235
4-3550	4-4190	0.299	210.6	-12.8	-0.00	0.772	64.9	0.425	1.621	117.3	396.4	0.932	2.309	1.85	1.185	100.6	81.6	30.9	0.281
4-3550	4-4190	0.304	87.6	24.0	-0.00	0.556	108.7	0.565	1.107	195.9	835.0	0.482	1.732	1.85	1.057	123.9	33.5	16.2	0.618
4-3550	4-4190	0.506	73.7	23.1	-0.00	0.610	129.9	0.707	1.189	205.3	844.3	0.349	1.630	1.85	1.086	134.1	29.6	14.0	0.804
4-3550	4-4200	0.322	209.5	-11.6	0.34	0.771	63.1	0.453	1.619	119.1	408.2	0.885	2.353	1.93	1.186	104.6	81.8	29.8	0.340
4-3550	4-4200	0.238	109.1	23.6	0.34	0.532	97.1	0.542	1.077	186.0	835.2	0.493	1.661	1.93	1.047	122.5	43.1	19.5	0.590
4-3550	4-4210	0.356	208.0	-10.3	0.73	0.771	60.4	0.494	1.617	121.6	420.8	0.819	2.415	2.09	1.188	109.2	83.6	29.0	0.415
4-3550	4-4210	0.227	131.3	20.2	0.73	0.519	87.9	0.557	1.060	178.4	837.6	0.470	1.651	2.09	1.042	123.6	52.1	22.0	0.605
4-3550	4-4220	0.403	205.9	-8.9	1.21	0.770	56.7	0.549	1.615	125.1	434.5	0.729	2.501	2.36	1.188	114.8	86.1	28.4	0.510
4-3550	4-4220	0.255	150.0	15.1	1.21	0.509	78.8	0.594	1.049	172.2	841.6	0.425	1.672	2.36	1.038	126.3	60.7	23.8	0.648
4-3550	4-4230	0.470	203.1	-7.3	1.85	0.770	51.5	0.623	1.614	130.1	449.7	0.608	2.619	2.82	1.189	121.9	88.9	27.9	0.633
4-3550	4-4230	0.316	162.7	10.5	1.85	0.501	58.7	0.655	1.041	167.6	847.2	0.359	1.722	2.82	1.036	130.8	68.7	25.1	0.721
4-3550	4-4240	0.564	199.2	-5.4	2.84	0.770	43.9	0.721	1.613	137.4	467.1	0.450	2.776	3.63	1.189	131.2	91.1	27.5	0.795
4-3550	4-4240	0.410	170.0	7.6	2.84	0.496	56.6	0.741	1.035	165.4	855.1	0.268	1.802	3.63	1.033	137.7	75.5	25.8	0.832
4-3550	4-4250	0.540	172.6	6.4	4.70	0.493	41.3	0.848	1.032	166.4	866.3	0.156	1.908	5.32	1.032	148.0	80.7	26.1	0.994
4-3550	4-4290	0.573	148.2	19.4	-5.15	0.261	47.3	0.941	0.871	176.6	917.2	0.052	1.096	-5.19	0.937	20.0	8.3	2.0	1.131
4-3550	4-4290	0.528	101.3	20.7	-5.15	0.381	129.2	0.864	0.937	187.8	928.4	0.128	1.747	-5.19	0.978	30.3	2.8	-1.6	1.003
4-3550	4-4300	0.598	61.3	18.3	-3.38	0.747	134.7	0.705	1.528	220.7	611.4	0.451	2.606	-3.58	1.168	49.2	352.4	-7.7	0.789
4-3550	4-4300	0.452	141.0	13.3	-3.38	0.311	73.0	0.855	0.896	177.0	927.7	0.130	1.663	-3.58	0.950	31.4	12.4	3.3	0.973
4-3550	4-4300	0.411	117.2	18.6	-3.38	0.361	103.0	0.798	0.924	183.4	934.0	0.187	1.661	-3.58	0.967	37.2	9.3	1.5	0.893
4-3550	4-4310	0.505	57.3	17.6	-2.42	0.747	127.0	0.605	1.527	227.0	627.6	0.604	2.451	-2.80	1.165	58.2	354.7	-7.1	0.632
4-3550	4-4320	0.437	54.5	17.2	-1.80	0.746	121.5	0.527	1.525	230.9	641.5	0.721	2.329	-2.36	1.163	64.9	357.5	-6.4	0.513
4-3550	4-4330	0.578	180.6	-1.2	-1.33	0.597	38.0	0.827	1.169	159.8	580.3	0.202	2.137	-2.10	1.071	34.6	32.4	11.7	0.981
4-3550	4-4330	0.387	52.5	17.1	-1.33	0.745	117.5	0.468	1.522	233.3	653.8	0.809	2.235	-2.10	1.160	70.2	0.6	-5.7	0.421
4-3550	4-4340	0.524	182.5	-2.0	-0.95	0.608	43.5	0.774	1.186	156.9	587.2	0.268	2.104	-1.94	1.074	39.8	38.7	13.6	0.897
4-3550	4-4340	0.849	51.1	17.2	-0.95	0.744	114.6	0.424	1.519	234.8	665.1	0.875	2.163	-1.94	1.157	74.4	3.4	-5.3	0.349
4-3550	4-4350	0.469	184.3	-2.6	-0.61	0.618	48.6	0.717	1.205	154.2	594.3	0.340	2.066	-1.85	1.077	45.0	45.0	15.2	0.813
4-3550	4-4350	0.322	50.0	17.5	-0.61	0.744	112.4	0.390	1.516	235.5	675.6	0.925	2.108	-1.85	1.154	78.0	5.5	-5.5	0.291
4-3550	4-3660	0.815	36.5	15.6	0.70	1.149	132.9	1.103-8.963		279.1	393.9	0.924	---	-2.03	1.444	107.8	293.8	-26.5	0.583
4-3560	4-3670	0.753	38.4	16.7	1.11	1.083	131.9	0.96828.035		274.5	398.9	0.905	---	-2.23	1.391	109.1	298.2	-26.3	0.558
4-3560	4-3680	0.696	40.4	18.0	1.62	1.024	130.7	0.858	6.226	269.7	403.6	0.887	---	-2.56	1.344	110.0	303.4	-26.1	0.538
4-3560	4-3690	0.644	42.2	19.5	2.34	0.970	129.4	0.768	3.743	264.7	408.1	0.870	---	-3.10	1.304	110.7	309.3	-26.1	0.520
4-3560	4-3700	0.596	44.0	21.6	3.46	0.922	128.0	0.694	2.788	259.5	412.5	0.854	---	-4.06	1.268	111.1	316.1	-26.7	0.506
4-3560	4-3710	0.553	45.5	25.2	5.69	0.878	126.4	0.633	2.286	254.2	416.7	0.839	---	-6.13	1.237	111.4	323.9	-29.4	0.499
4-3560	4-3720	0.530	46.5	35.5	12.91	0.838	124.6	0.583	1.977	248.8	420.7	0.825	---	-13.19	1.210	111.6	334.7	-41.7	0.531
4-3560	4-3740	0.442	59.1	6.6	-9.31	0.769	120.6	0.570	1.621	237.3	428.8	0.794	---	9.34	1.166	111.9	330.0	10.4	0.486
4-3560	4-3750	0.394	59.9	12.7	-4.96	0.739	118.4	0.483	1.509	231.5	432.5	0.780	---	5.15	1.148	111.9	341.1	5.0	0.458
4-3560	4-3760	0.357	62.4	15.6	-3.26	0.711	116.0	0.462	1.423	225.5	436.2	0.765	---	3.62	1.133	112.0	349.6	4.8	0.448
4-3560	4-3770	0.322	65.9	17.5	-2.32	0.686	113.5	0.447	1.355	219.5	439.9	0.749	---	2.85	1.119	112.2	357.4	6.1	0.444
4-3560	4-3780	0.290	70.4	19.1	-1.69	0.662	110.7	0.437	1.299	213.4	443.5	0.732	---	2.40	1.107	112.5	5.0	8.2	0.443

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APPEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3560	4-3790	0.259	76.1	20.5	-1.22	0.641	107.8	0.431	1.253	207.2	447.2	0.713	---	2.13	1.097	112.9	12.6	10.7	0.445
4-3560	4-3800	0.231	83.6	21.7	-0.83	0.621	104.5	0.431	1.215	201.1	450.9	0.691	---	1.96	1.088	113.5	20.3	13.2	0.451
4-3560	4-3810	0.207	93.4	22.6	-0.48	0.602	101.0	0.436	1.182	194.9	454.8	0.667	---	1.87	1.080	114.3	28.0	15.8	0.461
4-3560	4-3820	0.190	106.1	22.7	-0.16	0.585	97.0	0.447	1.155	188.9	458.7	0.638	---	1.84	1.073	115.4	36.0	18.3	0.477
4-3560	4-3830	0.182	121.7	21.3	-0.17	0.569	92.6	0.465	1.131	183.0	462.9	0.604	---	1.87	1.067	116.9	44.0	20.5	0.499
4-3560	4-3840	0.189	138.4	18.1	-0.52	0.555	87.5	0.492	1.110	177.4	467.5	0.564	1.656	1.96	1.061	118.9	52.1	22.4	0.530
4-3560	4-3850	0.214	153.5	13.7	-0.92	0.541	81.6	0.530	1.092	172.4	472.5	0.513	1.671	2.13	1.056	121.6	60.2	24.0	0.573
4-3560	4-3860	0.261	165.2	9.5	-1.41	0.529	74.4	0.583	1.077	168.1	478.4	0.450	1.705	2.42	1.051	125.3	68.1	25.2	0.634
4-3560	4-3870	0.331	173.1	6.3	-2.08	0.519	65.4	0.653	1.065	165.0	485.5	0.369	1.761	2.90	1.046	130.6	75.5	26.0	0.720
4-3560	4-3880	0.430	177.6	4.4	-3.13	0.512	53.9	0.746	1.056	163.9	494.6	0.268	1.845	3.76	1.043	138.1	81.8	26.3	0.841
4-3560	4-3890	0.563	178.6	3.8	-5.15	0.508	38.9	0.857	1.052	165.9	506.7	0.150	1.955	-5.62	1.041	149.0	86.6	26.4	1.012
4-3560	4-3990	0.591	193.4	-6.3	-0.45	0.686	39.3	0.787	1.355	151.0	231.8	---	2.421	-1.87	1.118	39.7	51.0	17.1	0.919
4-3560	4-4000	0.555	195.6	-7.0	-0.14	0.696	42.7	0.747	1.382	147.6	238.1	---	2.414	-1.84	1.122	43.7	57.9	18.5	0.854
4-3560	4-4010	0.521	197.8	-7.6	0.18	0.706	45.9	0.707	1.408	144.4	244.5	---	2.403	-1.87	1.126	47.5	64.9	19.4	0.790
4-3560	4-4020	0.489	200.0	-8.0	0.51	0.715	48.8	0.669	1.433	141.2	251.0	---	2.391	-1.96	1.130	51.1	71.8	20.0	0.729
4-3560	4-4030	0.458	202.1	-8.3	0.88	0.723	51.5	0.631	1.457	138.2	257.5	---	2.377	-2.12	1.134	54.5	78.7	20.1	0.670
4-3560	4-4040	0.431	204.2	-8.4	1.34	0.730	54.0	0.596	1.480	135.3	264.2	---	2.362	-2.37	1.137	57.7	85.4	19.7	0.614
4-3560	4-4050	0.405	206.4	-8.0	1.93	0.736	56.2	0.565	1.501	132.5	270.9	---	2.346	-2.78	1.141	60.9	91.9	18.5	0.560
4-3560	4-4060	0.382	208.6	-7.1	2.80	0.742	58.2	0.532	1.520	129.9	277.8	---	2.329	-3.48	1.144	63.8	98.1	16.2	0.510
4-3560	4-4070	0.363	211.1	-4.7	4.30	0.747	60.1	0.503	1.538	127.4	284.9	---	2.312	-4.82	1.148	66.7	103.7	11.8	0.465
4-3560	4-4080	0.353	214.4	1.6	7.83	0.752	61.7	0.478	1.554	125.2	292.2	---	2.296	-8.19	1.151	69.4	108.6	1.5	0.435
4-3560	4-4090	0.476	216.6	30.9	28.60	0.755	63.0	0.456	1.568	123.2	299.4	---	2.282	-28.80	1.155	72.0	119.5	-37.6	0.634
4-3560	4-4100	0.369	193.3	-41.0	-16.57	0.759	64.4	0.434	1.579	121.3	307.7	---	2.265	16.52	1.158	74.8	149.1	62.7	0.440
4-3560	4-4110	0.305	207.3	-27.8	-6.62	0.761	65.4	0.417	1.589	119.7	315.1	---	2.253	6.72	1.162	77.3	130.8	44.7	0.308
4-3560	4-4120	0.288	211.0	-23.3	-4.01	0.763	66.3	0.403	1.598	118.4	323.1	---	2.242	4.27	1.165	79.9	129.1	38.5	0.259
4-3560	4-4130	0.277	213.0	-21.1	-2.76	0.765	67.0	0.393	1.604	117.3	332.6	---	2.234	3.19	1.168	82.4	127.1	36.4	0.224
4-3560	4-4140	0.271	214.3	-19.6	-2.00	0.766	67.4	0.385	1.609	116.5	341.5	---	2.229	2.61	1.171	84.9	122.7	36.0	0.198
4-3560	4-4150	0.268	215.2	-18.5	-1.45	0.767	67.6	0.382	1.612	116.0	350.9	---	2.227	2.26	1.174	87.5	115.2	36.3	0.182
4-3560	4-4160	0.268	215.7	-17.4	-1.02	0.768	67.6	0.382	1.614	115.9	360.6	0.998	2.231	2.04	1.177	90.2	105.3	36.2	0.180
4-3560	4-4170	0.272	215.8	-16.4	-0.66	0.768	67.3	0.387	1.615	116.1	370.7	0.990	2.240	1.91	1.180	93.0	96.0	35.1	0.198
4-3560	4-4180	0.280	215.7	-15.4	-0.33	0.768	66.6	0.397	1.615	116.6	381.2	0.973	2.257	1.85	1.182	96.0	89.4	33.4	0.220
4-3560	4-4190	0.294	215.2	-14.4	-0.00	0.768	65.5	0.415	1.614	117.6	392.2	0.945	2.283	1.85	1.184	99.3	86.2	31.7	0.261
4-3560	4-4200	0.314	214.3	-13.3	0.33	0.767	64.0	0.440	1.613	119.1	403.8	0.904	2.322	1.91	1.185	103.0	85.7	30.4	0.315
4-3560	4-4200	0.268	102.7	24.1	0.33	0.537	103.6	0.589	1.087	191.2	835.8	0.479	1.694	1.91	1.051	123.6	42.9	19.3	0.610
4-3560	4-4200	0.559	78.8	23.8	0.33	0.617	135.4	0.758	1.208	204.5	849.2	0.293	2.723	1.91	1.094	138.4	37.3	16.4	0.878
4-3560	4-4210	0.344	212.9	-12.1	0.70	0.767	61.7	0.475	1.611	121.2	416.0	0.846	2.376	2.03	1.187	107.3	87.1	29.4	0.383
4-3560	4-4210	0.232	125.3	21.6	0.70	0.519	93.1	0.557	1.064	182.5	837.3	0.472	1.657	2.03	1.044	123.6	52.3	22.0	0.605
4-3560	4-4220	0.384	211.1	-10.9	1.14	0.766	58.5	0.523	1.609	124.2	429.2	0.767	2.451	2.25	1.187	112.4	89.5	28.7	0.468
4-3560	4-4220	0.241	146.1	16.4	1.14	0.506	83.8	0.583	1.050	175.5	840.5	0.438	1.662	2.25	1.039	125.5	61.3	23.9	0.634
4-3560	4-4230	0.442	208.6	-9.5	1.70	0.766	53.9	0.589	1.607	128.4	443.5	0.660	2.554	2.61	1.188	118.8	92.3	28.1	0.578
4-3560	4-4230	0.287	161.6	11.1	1.70	0.497	74.0	0.631	1.040	170.1	845.2	0.383	1.697	2.81	1.035	129.1	69.7	25.2	0.691
4-3560	4-4240	0.523	205.2	-7.8	2.51	0.765	47.4	0.677	1.606	134.5	459.8	0.519	2.692	3.24	1.188	127.0	94.9	27.6	0.721
4-3560	4-4240	0.366	171.2	7.2	2.51	0.491	62.6	0.705	1.033	166.7	852.0	0.305	1.761	3.24	1.033	134.8	77.2	26.0	0.783
4-3560	4-4250	0.480	175.8	5.1	3.89	0.486	48.7	0.803	1.029	166.0	861.5	0.203	1.855	4.44	1.030	143.4	80.3	26.3	0.919
4-3560	4-4290	0.584	186.1	20.4	-6.50	0.368	138.2	0.907	0.932	187.1	923.3	0.086	1.777	-6.61	0.975	24.9	5.2	-0.5	1.082
4-3560	4-4300	0.499	148.0	11.1	-3.90	0.278	65.5	0.895	0.884	176.9	923.2	0.092	1.675	-4.17	0.942	26.6	14.7	4.4	1.039
4-3560	4-4300	0.449	116.0	18.9	-3.90	0.355	113.1	0.827	0.924	185.2	931.5	0.160	1.688	-4.17	0.967	34.3	10.6	1.9	0.938
4-3560	4-4310	0.534	63.9	18.9	-2.67	0.742	130.0	0.647	1.519	223.9	620.1	0.536	2.501	-3.12	1.164	54.4	357.9	-5.5	0.698
4-3560	4-4320	0.456	60.7	18.5	-1.92	0.741	123.7	0.559	1.517	228.6	634.8	0.669	2.365	-2.56	1.161	62.0	0.6	-4.8	0.564
4-3560	4-4330	0.600	183.9	-2.6	-1.39	0.588	56.0	0.848	1.158	161.3	577.4	0.177	2.140	-2.22	1.067	32.4	33.8	12.2	1.013
4-3560	4-4330	0.398	58.3	18.4	-1.39	0.740	119.0	0.492	1.514	231.5	647.5	0.769	2.260	-2.22	1.158	67.8	3.7	-4.0	0.462
4-3560	4-4340	0.544	185.9	-3.4	-0.98	0.598	41.6	0.796	1.175	158.3	584.2	0.240	2.110	-2.02	1.070	37.8	40.1	14.1	0.929
4-3560	4-4340	0.356	76.7	18.5	-0.98	0.739	115.7	0.441	1.511	233.1	659.0	0.844	2.178	-2.02	1.155	72.4	6.7	-3.4	0.382
4-3560	4-4350	0.490	137.7	-4.0	-0.62	0.608	46.9	0.740	1.192	155.6	591.3	0.311	2.074	-1.90	1.073	43.0	46.5	15.7	0.844
4-3560	4-4350	0.323	55.5	18.8	-0.62	0.739	113.1	0.403	1.508	234.0	669.7	0.901	2.115	-1.90	1.152	76.2	9.4	-3.2	0.319
4-3560	4-4360	0.436	189.4	-4.5	-0.30	0.618	52.0	0.680	1.210	153.2	598.6	0.387	2.034	-1.85	1.076	48.0	52.8	17.0	0.760
4-3560	4-4360	0.299	54.6	19.2	-0.30	0.738	111.2	0.373	1.505	234.4	679.8	0.943	2.067	-1.85	1.149	79.4	11.2	-3.7	0.267
4-3560	4-3690	0.724	45.2	19.9	2.12	1.041	132.4	0.895	8.191	268.8	407.8	0.859	---	-2.82	1.358	112.5	309.5	-24.7	0.588
4-3570	4-3700	0.667	47.1	21.6	3.02	0.982	131.0	0.797	4.150	263.7	412.2	0.842	---	-3.55	1.314	112.9	315.9	-24.7	0.565
4-3570	4-3710	0.615	48.9	24.1	4.59	0.929	129.4	0.718	2.927	258.4	416.4	0.826	---	-4.96	1.275	113.2	323.1	-25.8	0.548
4-3570	4-3720	0.572	50.4	29.6	8.41	0.882	127.7	0.655	2.338	253.0	420.5	0.812	---	-8.62	1.242	113.3	331.9	-31.1	0.545
4-3570	4-3740	0.507	64.3	1.7	-15.01	0.800	123.8	0.559	1.770	241.6	428.7	0.781	---	15.11	1.188	113.4	324.3	18.0	0.564
4-3570	4-3750	0.438	62.7	12.1	-6.22	0.765	121.6	0.524	1.613	235.8	432.4	0.768	---	6.48	1.166	113.3	340.1	6.9	0.496
4-3570	4-3760	0.395	64.9	15.7	-3.76	0.733	119.2	0.497	1.497	229.8	436.1	0.754	---	4.18	1.148	113.3	349.3	5.4	0.479
4-3570	4-3770	0.356	68.0	17.8	-2.56	0.704	116.6	0.476	1.408	223.8	439.8	0.738	---	3.15	1.132	113.3	357.3	6.4	0.470
4-3570	4-3780	0.320	72.1	19.4	-1.81	0.677	113.9	0.460	1.338	217.7	443.4	0.722	---	2.58	1.118	113.5	5.0	8.4	0.465
4-3570	4-3790	0.287	77.2	20.7	-1.28	0.652	110.9	0.450	1.282	211.5	447.1	0.705	---	2.24	1.105	113.7	12.6	10.7	0.464
4-3570	4-3800	0.256	83.7	21.9	-0.85	0.630	107.7	0.446	1.236	205.3	450.8	0.685	---	2.03	1.095	114.2	20.3	13.3	0.466
4-3570	4-3810	0.228	92.2	22.7	-0.49	0.609	104.2	0.447	1.198	199.1	454.5	0.662	---	1.91	1.085	114.8	28.2	15.8	0.472
4-3570	4-3820	0.205	103.4	23.0	-0.16	0.589	100.3	0.454	1.165	193.0	458.4	0.636	---	1.86	1.077	115.7	36.1	18.3	0.484
4-3570	4-3830	0.191	117.5	22.0	0.17	0.572	96.0	0.467	1.138	186.9	462.4	0.606	---	1.86	1.070	116.9	44.3	20.5	0.501
4-3570	4-3840	0.189	133.8	19.3	0.51	0.555	91.1	0.489	1.114	181.2	466.8	0.569	---	1.92	1.063	118.6	52.5	22.5	0.526
4-3570	4-3850	0.204	149.9	15.1	0.88	0.540	85.4	0.521	1.094	175.8	471.5	0.524	1.664	2.05	1.057	120.9	60.8	24.1	0.562
4-3570	4-3860	0.240	163.4	10.3	1.33	0.526	78.6	0.565	1.077	171.0	476.9	0.468	1.686	2.28	1.051	124.1	68.9	25.3	0.613
4-3570	4-3870	0.299	173.2	6.4	1.91	0.514	70.3	0.626	1.063	167.2	483.2	0.397	1.728	2.67	1.045	128.6	76.7	26.1	0.685
4-3570	4-3880	0.384	179.4	3.7	2.76	0.505	59.9	0.708	1.052	165.0	491.2	0.307	1.797	3.33	1.041	134.9	83.6	26.4	0.788
4-3570	4-3890	0.501	182.1	2.4	4.23	0.499	46.3	0.811	1.045	165.3	501.7	0.198	1.893	4.63	1.038	144.1	89.2	26.5	0.933
4-3570	4-4000	0.569	198.9	-8.3	-0.14	0.687	41.6	0.762	1.363	149.3	235.4	---	2.402	-1.85	1.138	42.2	59.2	18.8	0.873
4-3570	4-4010	0.534	201.1	-8.9	0.18	0.697	44.9	0.722	1.390	146.0	241.8	---	2.392	-1.86	1.122	46.0	66.2	19.8	0.813
4-3570	4-4020	0.501	203.3	-9.4	0.50	0.706	47.9	0.682	1.415	142.9	248.2	---	2.381	-1.92	1.125	49.7	73.1	20.3	0.753

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3570	4-4030	0.470	205.5	-9.8	0.85	0.715	50.7	0.644	1.440	139.8	254.7	---	2.368	-2.04	1.130	53.2	80.0	20.4	0.690
4-3570	4-4040	0.442	207.6	-9.9	1.26	0.723	53.3	0.608	1.464	134.9	261.4	---	2.353	-2.24	1.134	56.5	86.8	20.1	0.633
4-3570	4-4050	0.415	209.7	-9.7	1.78	0.730	55.6	0.573	1.486	134.1	268.1	---	2.337	-2.57	1.138	59.7	93.4	19.0	0.578
4-3570	4-4060	0.392	211.9	-9.0	2.50	0.736	57.7	0.541	1.506	131.4	275.0	---	2.321	-3.11	1.142	62.7	99.6	17.1	0.526
4-3570	4-4070	0.371	214.2	-7.4	3.63	0.741	59.6	0.512	1.524	129.0	282.0	---	2.305	-4.03	1.145	65.7	105.4	13.7	0.478
4-3570	4-4080	0.355	217.0	-3.4	5.90	0.746	61.3	0.485	1.541	126.7	289.2	---	2.289	-6.19	1.149	68.5	110.4	6.8	0.439
4-3570	4-4090	0.368	220.7	9.8	13.30	0.750	62.8	0.461	1.556	124.6	296.6	---	2.273	-13.44	1.153	71.1	114.8	-13.3	0.451
4-3570	4-4110	0.321	208.6	-33.2	-9.07	0.756	65.3	0.421	1.579	121.0	312.6	---	2.244	9.25	1.160	76.4	138.7	49.9	0.340
4-3570	4-4120	0.295	214.3	-26.1	-4.79	0.759	66.2	0.406	1.588	119.6	320.8	---	2.232	5.13	1.163	79.0	134.2	40.0	0.274
4-3570	4-4130	0.283	216.8	-23.1	-3.11	0.761	66.9	0.394	1.595	118.5	329.3	---	2.223	3.61	1.167	81.5	132.4	36.5	0.234
4-3570	4-4140	0.275	218.3	-21.3	-2.17	0.762	67.4	0.386	1.600	117.6	338.2	---	2.217	2.84	1.170	84.0	129.0	35.5	0.205
4-3570	4-4150	0.271	219.3	-20.0	-1.54	0.763	67.7	0.380	1.604	117.0	347.4	---	2.214	2.40	1.173	86.6	122.5	35.8	0.185
4-3570	4-4160	0.270	219.9	-18.9	-1.07	0.764	67.6	0.379	1.607	116.8	357.0	---	2.216	2.13	1.176	89.2	113.3	36.1	0.178
4-3570	4-4170	0.272	220.2	-17.9	-0.88	0.764	67.6	0.383	1.608	116.8	367.0	0.993	2.223	1.97	1.178	91.9	103.4	35.5	0.185
4-3570	4-4180	0.279	220.1	-16.9	-0.33	0.764	67.1	0.391	1.608	117.2	377.4	0.980	2.237	1.88	1.181	94.9	95.6	34.1	0.207
4-3570	4-4190	0.291	219.7	-15.9	-0.00	0.764	66.2	0.405	1.608	118.0	388.2	0.956	2.259	1.85	1.183	98.0	91.2	32.4	0.243
4-3570	4-4200	0.308	219.0	-14.9	0.33	0.764	64.8	0.427	1.606	119.2	399.5	0.920	2.292	1.88	1.184	101.5	89.9	31.0	0.291
4-3570	4-4200	0.337	95.2	24.4	0.33	0.553	113.5	0.604	1.111	197.9	838.2	0.440	1.781	1.88	1.061	126.7	41.9	18.7	0.665
4-3570	4-4200	0.457	86.4	24.3	0.33	0.586	126.4	0.687	1.160	203.3	843.6	0.363	1.956	1.88	1.078	132.7	39.6	17.5	0.775
4-3570	4-4210	0.333	217.8	-13.8	0.68	0.763	62.8	0.458	1.604	121.0	411.4	0.869	2.339	1.97	1.185	105.6	90.7	29.8	0.353
4-3570	4-4210	0.248	118.7	22.7	0.68	0.521	98.9	0.564	1.071	187.0	837.4	0.467	1.675	1.97	1.046	124.1	52.3	21.8	0.614
4-3570	4-4220	0.369	216.2	-12.7	1.08	0.762	60.0	0.501	1.602	123.5	424.1	0.800	2.404	2.15	1.184	110.3	92.9	29.0	0.431
4-3570	4-4220	0.236	141.1	18.1	1.08	0.506	88.9	0.576	1.053	179.2	839.7	0.446	1.659	2.15	1.040	125.0	61.7	23.9	0.626
4-3570	4-4230	0.419	214.0	-11.4	1.58	0.762	56.1	0.559	1.600	127.1	437.8	0.706	2.494	2.44	1.187	116.0	95.7	28.3	0.529
4-3570	4-4230	0.266	159.3	12.1	1.58	0.494	79.1	0.613	1.041	173.0	843.7	0.402	1.679	2.44	1.035	127.7	70.5	25.3	0.668
4-3570	4-4240	0.488	211.0	-10.0	2.27	0.762	50.5	0.637	1.598	132.1	453.0	0.581	2.616	2.93	1.187	123.3	98.5	27.7	0.656
4-3570	4-4240	0.330	171.4	7.2	2.27	0.486	68.4	0.675	1.032	168.5	849.4	0.336	1.728	2.93	1.032	132.4	78.6	26.1	0.742
4-3570	4-4250	0.586	206.8	-8.2	3.34	0.761	42.5	0.738	1.598	139.9	470.6	0.419	2.777	3.83	1.187	133.0	100.7	27.1	0.823
4-3570	4-4250	0.427	178.2	4.2	3.34	0.481	55.5	0.761	1.026	166.4	857.5	0.245	1.807	3.83	1.029	139.5	85.5	26.4	0.856
4-3570	4-4260	0.560	180.3	3.1	5.44	0.478	35.5	0.867	1.024	167.6	868.8	0.136	1.911	5.75	1.027	150.1	90.5	26.3	1.021
4-3570	4-4300	0.541	153.3	9.4	-4.63	0.247	54.0	0.927	0.874	177.2	919.1	0.064	1.683	-4.98	0.935	22.2	16.7	5.4	1.098
4-3570	4-4300	0.496	117.4	18.8	-4.63	0.346	122.6	0.863	0.921	186.0	927.8	0.126	1.716	-4.58	0.966	30.4	12.3	2.6	0.996
4-3570	4-4310	0.570	70.9	20.0	-2.99	0.737	133.6	0.693	1.510	220.5	612.3	0.463	2.557	-3.51	1.162	50.1	1.1	-3.9	0.772
4-3570	4-4320	0.479	67.0	19.7	-2.08	0.737	126.1	0.595	1.509	226.1	627.9	0.611	2.407	-2.78	1.160	58.7	3.6	-3.3	0.621
4-3570	4-4330	0.413	64.4	19.6	-1.47	0.736	120.8	0.519	1.506	229.6	641.2	0.724	2.289	-2.36	1.157	65.2	6.6	-2.5	0.507
4-3570	4-4340	0.566	189.2	-4.8	-1.02	0.588	39.6	0.817	1.164	159.8	581.3	0.213	2.115	-2.11	1.066	35.6	41.5	14.6	0.961
4-3570	4-4340	0.364	62.5	19.7	-1.02	0.735	116.9	0.461	1.503	231.6	653.1	0.810	2.197	-2.11	1.154	70.2	9.8	-1.7	0.418
4-3570	4-4350	0.511	191.1	-5.5	-0.64	0.599	45.1	0.762	1.181	157.0	588.3	0.281	2.081	-1.95	1.069	40.9	47.9	16.2	0.876
4-3570	4-4350	0.327	61.1	20.0	-0.64	0.734	113.9	0.417	1.500	232.6	663.9	0.874	2.126	-1.95	1.150	74.3	12.8	-1.3	0.348
4-3570	4-4360	0.457	192.9	-6.0	-0.30	0.610	50.3	0.703	1.199	154.5	595.5	0.356	2.042	-1.87	1.073	46.1	54.2	17.5	0.791
4-3570	4-4360	0.299	60.1	20.4	-0.30	0.733	111.7	0.384	1.497	233.0	674.0	0.922	2.071	-1.87	1.148	77.7	15.3	-1.3	0.291
4-3570	4-4370	0.404	194.5	-6.3	0.01	0.620	55.3	0.642	1.218	152.3	603.0	0.436	1.999	-1.85	1.077	51.1	60.5	18.4	0.707
4-3570	4-4370	0.278	59.4	21.0	0.01	0.732	110.1	0.358	1.494	233.1	683.8	0.958	2.029	-1.85	1.145	80.7	18.8	-2.1	0.246
4-3580	4-3720	0.632	54.1	27.0	6.26	0.935	130.7	0.737	3.040	257.0	420.2	0.798	---	-6.40	1.281	115.1	330.5	-25.5	0.590
4-3580	4-3750	0.488	66.1	10.7	-8.40	0.797	124.7	0.572	1.762	239.9	432.2	0.755	---	8.72	1.189	114.9	338.4	9.8	0.544
4-3580	4-3760	0.437	67.5	15.7	-4.47	0.760	122.4	0.536	1.598	234.0	435.9	0.741	---	4.96	1.166	114.7	348.9	6.4	0.514
4-3580	4-3770	0.394	70.4	18.1	-2.87	0.726	119.8	0.509	1.480	228.0	439.6	0.727	---	3.52	1.147	114.6	357.2	6.8	0.500
4-3580	4-3780	0.354	74.0	19.7	-1.97	0.695	117.1	0.488	1.390	221.9	443.3	0.712	---	2.79	1.130	114.6	5.0	8.5	0.491
4-3580	4-3790	0.317	78.6	21.0	-1.35	0.667	114.1	0.473	1.319	215.7	446.9	0.695	---	2.37	1.115	114.7	12.7	10.8	0.485
4-3580	4-3800	0.283	84.4	22.0	-0.89	0.641	111.0	0.464	1.263	209.5	450.6	0.677	---	2.11	1.103	115.0	20.4	13.3	0.484
4-3580	4-3810	0.251	91.9	22.8	-0.50	0.618	107.5	0.461	1.217	203.3	454.3	0.657	---	1.95	1.092	115.4	28.3	15.8	0.486
4-3580	4-3820	0.224	101.6	23.1	-0.16	0.596	103.7	0.463	1.179	197.1	458.1	0.633	---	1.87	1.082	116.1	36.3	18.3	0.493
4-3580	4-3830	0.204	114.2	22.6	0.17	0.576	99.5	0.472	1.147	190.9	462.0	0.605	---	1.85	1.073	117.1	44.5	20.5	0.506
4-3580	4-3840	0.194	129.4	20.4	0.50	0.557	94.7	0.489	1.120	185.0	466.2	0.572	---	1.88	1.065	118.5	52.8	22.5	0.526
4-3580	4-3850	0.200	145.8	16.5	0.85	0.540	89.3	0.515	1.097	179.3	470.6	0.532	1.662	1.98	1.058	120.5	61.2	24.1	0.555
4-3580	4-3860	0.225	160.7	11.5	1.26	0.525	82.8	0.552	1.078	174.1	475.6	0.483	1.673	2.16	1.051	123.2	69.6	25.3	0.597
4-3580	4-3870	0.272	172.4	6.9	1.77	0.511	75.1	0.604	1.062	169.7	481.4	0.420	1.703	2.47	1.045	127.0	77.6	26.1	0.657
4-3580	4-3880	0.344	180.3	3.4	2.48	0.500	65.5	0.675	1.049	166.6	488.4	0.341	1.756	2.99	1.039	132.3	85.1	26.5	0.744
4-3580	4-3890	0.446	184.7	1.4	3.61	0.491	53.2	0.768	1.039	165.5	497.5	0.241	1.837	3.94	1.035	140.1	91.4	26.5	0.867
4-3580	4-3900	0.582	185.7	0.7	5.88	0.487	37.2	0.877	1.036	167.5	509.6	0.128	1.943	6.03	1.032	151.2	96.1	26.2	1.039
4-3580	4-4000	0.583	202.2	-9.6	-0.14	0.678	40.4	0.777	1.344	151.0	232.7	---	2.389	-1.86	1.113	40.6	60.6	19.2	0.900
4-3580	4-4010	0.548	204.4	-10.3	0.18	0.688	43.8	0.736	1.371	147.7	239.0	---	2.381	-1.85	1.117	44.5	67.5	20.1	0.835
4-3580	4-4020	0.514	206.7	-10.8	0.49	0.698	47.0	0.696	1.397	144.5	245.5	---	2.370	-1.88	1.122	48.3	74.5	20.6	0.772
4-3580	4-4030	0.483	208.9	-11.1	0.82	0.707	49.9	0.657	1.423	141.4	252.0	---	2.358	-1.97	1.126	51.9	81.4	20.8	0.711
4-3580	4-4040	0.454	211.0	-11.3	1.20	0.716	52.5	0.620	1.447	138.5	258.6	---	2.344	-2.13	1.130	55.3	88.3	20.4	0.652
4-3580	4-4050	0.427	213.2	-11.2	1.66	0.723	54.9	0.586	1.470	135.6	265.3	---	2.329	-2.40	1.135	58.5	94.9	19.5	0.597
4-3580	4-4060	0.402	215.3	-10.8	2.27	0.730	57.1	0.551	1.491	133.0	272.1	---	2.313	-2.82	1.139	61.6	101.2	17.8	0.543
4-3580	4-4070	0.380	217.5	-9.6	3.17	0.736	59.1	0.521	1.510	130.5	279.1	---	2.297	-3.55	1.143	64.6	107.1	15.0	0.494
4-3580	4-4080	0.362	219.9	-7.0	4.75	0.741	60.9	0.493	1.528	128.1	286.3	---	2.280	-4.97	1.146	67.4	112.3	9.9	0.449
4-3580	4-4090	0.354	222.9	0.2	8.63	0.745	62.4	0.468	1.543	126.0	293.7	---	2.265	-8.69	1.150	70.2	116.4	-1.8	0.424
4-3580	4-4100	0.540	220.8	33.6	35.72	0.749	63.7	0.447	1.557	124.1	300.9	---	2.252	-35.63	1.154	72.7	129.5	-47.0	0.729
4-3580	4-4110	0.355	205.8	-42.0	-14.47	0.752	65.1	0.425	1.568	122.3	309.6	---	2.234	14.72	1.158	75.5	155.5	58.6	0.408
4-3580	4-4120	0.304	217.3	-29.6	-5.99	0.755	66.0	0.409	1.578	120.8	317.6	---	2.223	6.39	1.161	78.1	139.9	42.5	0.294
4-3580	4-4130	0.289	220.5	-25.2	-3.58	0.757	66.8	0.396	1.585	119.6	326.1	---	2.213	4.14	1.165	80.6	137.6	36.9	0.247
4-3580	4-4140	0.280	222.3	-23.0	-2.39	0.758	67.4	0.386	1.591	118.7	334.9	---	2.206	3.12	1.168	83.1	134.8	35.1	0.214
4-3580	4-4150	0.274	223.5	-21.4	-1.65	0.759	67.8	0.380	1.596	118.0	344.0	---	2.202	2.56	1.171	86.6	129.5	35.0	0.190
4-3580	4-4160	0.272	224.2	-20.3	-1.12	0.760	68.0	0.377	1.599	117.6	353.5	---	2.202	2.23	1.174	88.2	121.2	35.6	0.178
4-3580	4-4170	0.273	224.5	-19.2	-0.70	0.761	67.8	0.379	1.601	117.5	363.4	0.994	2.207	2.02	1.177	90.9	111.2	35.5	0.180
4-3580	4-4180	0.278	224.6	-18.2	-0.34	0.761	67.4	0.385	1.601	117.8	373.6	0.985	2.218	1.90	1.179	93.8	104.4	34.5	0.196
4-3580	4-4190	0.288	224.3	-17.3	-0.00	0.761	66.7	0.397	1.601	118.4	384.2	0.965	2.236	1.85	1.182	96.8	96.7	32.9	0.227

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3580	4-4200	0.303	223.7	-16.3	0.32	0.760	65.5	0.416	1.600	119.4	395.3	0.934	2.265	1.86	1.183	100.2	94.4	31.4	0.270
4-3580	4-4210	0.325	222.7	-15.3	0.66	0.760	65.8	0.443	1.598	120.9	406.9	0.890	2.305	1.92	1.184	103.9	94.5	30.2	0.326
4-3580	4-4210	0.283	111.9	23.6	0.66	0.529	106.1	0.584	1.083	192.2	838.2	0.450	1.715	1.92	1.053	125.4	52.0	21.5	0.639
4-3580	4-4210	0.531	90.5	24.5	0.66	0.600	134.0	0.752	1.186	203.4	849.4	0.294	2.077	1.92	1.089	138.0	47.2	19.3	0.868
4-3580	4-4220	0.356	221.2	-14.3	1.04	0.759	61.4	0.481	1.596	123.0	419.2	0.829	2.362	2.06	1.185	108.3	96.3	29.2	0.396
4-3580	4-4220	0.240	135.1	19.7	1.04	0.507	94.4	0.576	1.057	183.2	839.4	0.448	1.666	2.06	1.042	125.0	61.9	23.8	0.626
4-3580	4-4230	0.399	219.3	-13.2	1.49	0.759	58.0	0.532	1.593	126.0	432.3	0.746	2.441	2.29	1.186	113.6	99.0	28.3	0.485
4-3580	4-4230	0.251	155.7	13.5	1.49	0.493	84.3	0.601	1.042	176.2	842.5	0.416	1.668	2.29	1.036	126.8	71.1	25.2	0.653
4-3580	4-4240	0.459	216.6	-12.0	2.08	0.758	53.1	0.691	1.591	130.3	446.8	0.635	2.548	2.68	1.186	120.1	101.9	27.6	0.598
4-3580	4-4240	0.300	170.6	7.7	2.08	0.483	73.9	0.650	1.031	170.8	847.3	0.361	1.702	2.68	1.032	130.5	79.7	26.1	0.710
4-3580	4-4250	0.544	213.0	-10.5	2.94	0.758	46.3	0.692	1.590	136.4	463.1	0.490	2.690	3.36	1.185	128.6	104.5	27.0	0.745
4-3580	4-4250	0.383	179.6	3.7	2.94	0.476	61.9	0.724	1.024	167.5	854.2	0.283	1.766	3.36	1.028	136.4	87.2	26.4	0.804
4-3580	4-4260	0.499	183.8	1.7	4.45	0.472	47.2	0.822	1.020	167.0	863.9	0.182	1.858	4.70	1.026	145.3	93.2	26.3	0.944
4-3580	4-4300	0.582	157.7	7.8	-5.74	0.215	52.3	0.952	0.864	177.8	915.2	0.041	1.688	-6.16	0.928	17.9	18.7	6.3	1.154
4-3580	4-4300	0.549	150.5	18.3	-5.74	0.336	132.3	0.902	0.917	185.9	923.4	0.090	1.744	-6.16	0.963	25.6	14.5	3.6	1.065
4-3580	4-4320	0.507	73.7	20.5	-2.29	0.733	129.0	0.635	1.501	223.4	620.8	0.547	2.454	-3.04	1.158	55.1	6.6	-1.8	0.683
4-3580	4-4330	0.431	70.5	20.5	-1.57	0.732	122.8	0.550	1.499	227.6	634.8	0.675	2.323	-2.51	1.155	62.4	9.5	-1.0	0.555
4-3580	4-4340	0.589	192.5	-6.2	-1.06	0.579	37.5	0.838	1.153	161.2	578.3	0.187	2.118	-2.20	1.062	33.4	42.9	15.1	0.994
4-3580	4-4340	0.375	68.4	20.6	-1.06	0.731	118.3	0.484	1.496	230.0	647.1	0.771	2.220	-2.20	1.152	67.9	12.7	-0.1	0.456
4-3580	4-4350	0.534	194.5	-6.9	-0.66	0.590	43.2	0.784	1.170	158.4	585.3	0.252	2.087	-2.01	1.066	38.8	49.4	16.7	0.908
4-3580	4-4350	0.335	66.9	20.9	-0.66	0.730	114.9	0.434	1.492	231.3	658.2	0.844	2.140	-2.01	1.149	72.4	15.0	0.5	0.379
4-3580	4-4360	0.479	196.4	-7.5	-0.31	0.601	48.6	0.726	1.188	155.8	592.4	0.325	2.050	-1.90	1.069	44.1	55.7	18.0	0.822
4-3580	4-4360	0.301	65.8	21.4	-0.31	0.729	110.4	0.396	1.489	231.8	668.4	0.899	2.078	-1.90	1.146	76.0	18.9	0.8	0.317
4-3580	4-4370	0.425	198.0	-7.8	0.01	0.612	53.7	0.665	1.206	153.5	599.8	0.404	2.009	-1.85	1.073	49.2	62.1	18.9	0.737
4-3580	4-4370	0.276	65.1	22.0	0.01	0.728	110.4	0.367	1.485	231.8	678.1	0.941	2.030	-1.85	1.143	79.1	21.1	0.5	0.267
4-3580	4-4380	0.372	199.5	-7.9	0.32	0.622	58.6	0.603	1.225	151.7	607.6	0.486	1.964	-1.86	1.077	54.1	68.2	19.4	0.654
4-3580	4-4380	0.257	64.5	22.8	0.32	0.727	109.0	0.345	1.482	231.6	687.5	0.972	1.993	-1.86	1.341	81.8	22.1	-0.7	0.226
4-3590	4-3750	0.553	70.3	7.1	-12.95	0.836	127.9	0.628	1.991	244.0	432.0	0.741	---	12.35	1.216	116.6	334.5	15.4	0.615
4-3590	4-3760	0.485	70.4	15.3	-5.54	0.793	125.6	0.583	1.746	238.2	435.7	0.728	---	6.09	1.188	196.3	348.2	7.7	0.557
4-3590	4-3770	0.436	72.9	18.2	-3.29	0.754	123.0	0.547	1.579	232.2	439.4	0.715	---	4.00	1.165	186.0	357.0	7.3	0.535
4-3590	4-3780	0.392	76.3	19.9	-2.16	0.718	120.3	0.520	1.458	226.1	443.1	0.701	---	3.04	1.145	115.9	5.0	8.7	0.520
4-3590	4-3790	0.351	80.4	21.2	-1.45	0.686	117.4	0.499	1.368	219.9	446.8	0.685	---	2.51	1.127	115.9	12.8	10.9	0.510
4-3590	4-3800	0.313	85.6	22.1	-0.93	0.657	114.3	0.485	1.298	213.7	450.4	0.669	---	2.19	1.112	116.0	20.5	13.3	0.505
4-3590	4-3810	0.278	92.2	22.9	-0.52	0.630	110.9	0.477	1.242	207.4	454.1	0.650	---	1.99	1.099	116.2	28.4	15.8	0.504
4-3590	4-3820	0.247	100.6	23.2	-0.16	0.605	107.1	0.475	1.197	201.2	457.8	0.628	---	1.88	1.088	116.7	36.5	18.3	0.506
4-3590	4-3830	0.221	111.6	22.9	0.17	0.583	103.0	0.480	1.160	194.9	461.7	0.603	---	1.83	1.077	117.5	44.7	20.5	0.514
4-3590	4-3840	0.204	125.5	23.3	0.49	0.562	98.4	0.492	1.129	188.8	465.7	0.574	---	1.84	1.068	118.6	53.1	22.5	0.529
4-3590	4-3850	0.201	141.0	17.9	0.83	0.543	93.1	0.512	1.102	183.0	469.9	0.538	---	1.91	1.060	120.3	61.6	24.1	0.552
4-3590	4-3860	0.215	157.2	13.0	1.21	0.525	87.0	0.543	1.080	177.5	474.6	0.494	1.666	2.06	1.052	122.5	70.1	25.3	0.586
4-3590	4-3870	0.251	170.6	7.8	1.67	0.509	79.7	0.587	1.061	172.6	479.9	0.439	1.684	2.30	1.045	125.7	78.4	26.1	0.636
4-3590	4-3880	0.311	180.4	3.6	2.27	0.496	70.8	0.648	1.046	168.7	486.2	0.369	1.724	2.71	1.038	130.2	86.3	26.4	0.708
4-3590	4-3890	0.399	186.5	0.7	3.16	0.485	59.6	0.729	1.035	166.4	494.1	0.280	1.789	3.42	1.033	136.8	93.3	26.4	0.811
4-3590	4-3900	0.518	189.2	-0.7	4.76	0.478	45.1	0.831	1.028	166.8	504.6	0.174	1.882	4.85	1.029	146.2	98.8	26.1	0.959
4-3590	4-4000	0.598	205.4	-10.9	-0.14	0.669	39.2	0.792	1.325	152.6	229.9	---	2.375	-1.88	1.108	39.0	61.9	19.5	0.924
4-3590	4-4010	0.562	207.8	-11.6	0.18	0.680	42.7	0.751	1.352	149.3	236.3	---	2.368	-1.83	1.113	43.0	68.9	20.4	0.858
4-3590	4-4020	0.526	210.0	-12.1	0.48	0.690	46.0	0.711	1.379	146.1	242.7	---	2.359	-1.84	1.118	46.9	75.9	20.9	0.794
4-3590	4-4030	0.496	212.3	-12.4	0.80	0.700	49.0	0.671	1.405	143.0	249.2	---	2.347	-1.91	1.122	50.5	82.8	21.0	0.732
4-3590	4-4040	0.466	214.4	-12.7	1.15	0.709	51.7	0.633	1.430	140.0	255.7	---	2.334	-2.03	1.127	54.0	89.7	20.7	0.672
4-3590	4-4050	0.438	216.6	-12.7	1.57	0.717	54.2	0.596	1.453	137.2	262.4	---	2.320	-2.24	1.131	57.3	96.4	19.8	0.615
4-3590	4-4060	0.413	218.7	-12.3	2.09	0.724	56.5	0.562	1.475	134.5	269.2	---	2.304	-2.58	1.135	60.5	102.8	18.4	0.561
4-3590	4-4070	0.390	220.9	-11.5	2.82	0.730	58.6	0.530	1.495	131.9	275.2	---	2.288	-3.14	1.140	63.5	108.8	16.0	0.510
4-3590	4-4080	0.370	223.1	-9.7	4.00	0.735	60.4	0.501	1.514	129.5	283.4	---	2.272	-4.15	1.144	66.4	114.2	12.0	0.463
4-3590	4-4090	0.356	225.7	-5.3	6.41	0.740	62.1	0.475	1.530	127.3	290.7	---	2.256	-6.40	1.148	69.2	118.5	4.2	0.425
4-3590	4-4100	0.377	228.7	9.7	14.94	0.744	63.5	0.452	1.544	125.4	298.2	---	2.242	-14.78	1.152	71.8	121.7	-18.9	0.452
4-3590	4-4110	0.520	180.8	-53.5	-34.17	0.748	64.9	0.429	1.557	123.5	306.7	---	2.224	34.48	1.156	74.7	214.1	61.1	0.699
4-3590	4-4120	0.317	219.4	-34.3	-8.04	0.751	65.9	0.412	1.567	122.0	314.5	---	2.213	8.51	1.160	77.1	147.4	46.7	0.322
4-3590	4-4130	0.296	224.2	-27.6	-4.24	0.753	66.7	0.398	1.575	120.7	322.9	---	2.203	4.87	1.163	79.7	142.7	37.8	0.261
4-3590	4-4140	0.285	226.3	-24.7	-2.68	0.755	67.4	0.387	1.582	119.7	331.6	---	2.195	3.47	1.167	82.2	140.3	34.7	0.224
4-3590	4-4150	0.278	227.6	-22.9	-1.79	0.756	67.9	0.379	1.587	119.0	340.6	---	2.189	2.75	1.170	84.7	136.0	34.1	0.196
4-3590	4-4160	0.275	228.4	-21.6	-1.18	0.757	68.1	0.375	1.591	118.5	350.0	---	2.188	2.34	1.173	87.3	128.0	34.6	0.180
4-3590	4-4170	0.275	228.9	-20.5	-0.72	0.758	68.1	0.375	1.593	118.3	359.7	---	2.191	2.08	1.176	89.9	119.2	35.1	0.176
4-3590	4-4180	0.279	229.0	-19.5	-0.34	0.758	67.8	0.380	1.594	118.4	369.8	0.988	2.199	1.93	1.178	92.7	109.7	34.6	0.187
4-3590	4-4190	0.286	228.9	-18.5	-0.00	0.758	67.2	0.390	1.594	118.8	380.3	0.973	2.215	1.85	1.180	95.6	102.8	33.3	0.212
4-3590	4-4200	0.299	228.3	-17.6	0.32	0.757	66.2	0.406	1.593	119.6	391.1	0.947	2.239	1.83	1.182	98.9	99.3	31.8	0.251
4-3590	4-4210	0.318	227.5	-16.7	0.65	0.757	64.7	0.429	1.591	120.9	402.5	0.908	2.274	1.87	1.183	102.4	98.6	30.4	0.301
4-3590	4-4220	0.345	226.2	-15.8	1.00	0.756	62.6	0.462	1.589	122.6	414.4	0.854	2.323	1.97	1.184	106.5	99.9	29.3	0.365
4-3590	4-4220	0.258	128.5	21.2	1.00	0.512	100.6	0.584	1.064	187.8	839.5	0.442	1.686	1.97	1.045	125.5	61.9	23.6	0.636
4-3590	4-4220	0.581	95.9	24.6	1.00	0.608	139.2	0.798	1.202	202.4	854.2	0.243	2.161	1.97	1.095	142.2	55.4	21.1	0.938
4-3590	4-4230	0.383	224.5	-14.8	1.41	0.756	59.6	0.508	1.587	125.2	427.1	0.781	2.392	2.16	1.184	111.3	102.3	28.3	0.445
4-3590	4-4230	0.245	150.9	15.3	1.41	0.494	89.7	0.594	1.044	179.8	841.8	0.424	1.664	2.16	1.037	126.3	71.6	25.2	0.644
4-3590	4-4240	0.435	222.1	-13.7	1.93	0.755	55.4	0.569	1.504	128.7	440.9	0.683	2.485	2.47	1.184	117.3	105.3	27.9	0.546
4-3590	4-4240	0.277	168.5	8.7	1.93	0.482	79.3	0.631	1.032	173.6	845.7	0.381	1.682	2.47	1.032	129.0	80.6	26.0	0.686
4-3590	4-4250	0.508	218.9	-12.5	2.64	0.755	49.6	0.650	1.583	133.9	456.2	0.554	2.612	2.99	1.184	124.8	108.1	26.7	0.677
4-3590	4-4250	0.345	180.1	3.6	2.64	0.473	67.9	0.693	1.023	169.2	851.5	0.314	1.731	2.99	1.028	133.8	88.7	26.4	0.762
4-3590	4-4260	0.446	186.3	0.7	3.79	0.467	54.3	0.780	1.017	167.2	859.7	0.224	1.810	3.96	1.024	141.2	95.5	26.2	0.879
4-3590	4-4270	0.582	188.1	-0.3	6.12	0.465	37.4	0.884	1.014	168.7	871.3	0.117	1.912	6.11	1.022	152.2	100.4	25.9	1.048
4-3590	4-4310	0.505	156.3	8.1	-4.03	0.245	75.7	0.907	0.876	178.5	921.6	0.082	1.670	-4.67	0.943	25.2	24.8	8.4	1.055
4-3590	4-4310	0.473	136.1	14.6	-4.03	0.305	111.8	0.868	0.902	183.5	926.6	0.119	1.685	-4.67	0.951	30.0	22.2	6.9	0.995
4-3590	4-4320	0.541	80.6	21.2	-2.55	0.729	132.4	0.680	1.492	220.4	613.4	0.478	2.507	-3.36	1.156	51.1	9.6	-0.2	0.753
4-3590	4-4330	0.454	76.9	21.2	-1.70	0.729	125.2	0.584	1.491	225.4	628.3	0.420	2.362	-2.69	1.154	59.3	12.3	0.5	0.608

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3590	4-4340	0.389	74.5	21.4	-1.12	0.728	120.0	0.510	1.488	228.4	641.1	0.729	2.247	-2.30	1.151	65.5	15.5	1.4	0.498
4-3590	4-4350	0.557	197.9	-8.3	-0.68	0.582	41.1	0.806	1.158	159.8	582.3	0.224	2.092	-2.06	1.062	36.6	50.8	17.1	0.940
4-3590	4-4350	0.341	72.8	21.7	-0.68	0.727	116.1	0.453	1.485	230.0	652.5	0.811	2.158	-2.06	1.147	70.4	18.9	2.2	0.412
4-3590	4-4360	0.501	199.8	-8.9	-0.31	0.593	46.7	0.749	1.176	157.1	589.3	0.295	2.057	-1.92	1.065	42.0	57.3	18.4	0.854
4-3590	4-4360	0.304	71.6	22.2	-0.31	0.725	113.2	0.410	1.481	230.7	662.9	0.874	2.088	-1.92	1.144	74.3	22.1	2.7	0.345
4-3590	4-4370	0.447	201.6	-9.3	0.01	0.604	52.0	0.689	1.194	154.7	596.6	0.371	2.017	-1.85	1.069	47.2	63.6	19.3	0.769
4-3590	4-4370	0.276	70.8	22.8	0.01	0.724	111.0	0.377	1.477	230.7	672.6	0.921	2.034	-1.85	1.142	77.6	24.9	2.7	0.290
4-3590	4-4380	0.393	203.1	-9.5	0.32	0.614	57.1	0.626	1.213	152.8	604.3	0.453	1.974	-1.83	1.073	52.2	69.9	19.9	0.684
4-3590	4-4380	0.254	70.3	23.6	0.32	0.723	109.2	0.351	1.474	230.4	682.0	0.956	1.992	-1.83	1.139	80.4	26.7	2.0	0.245
4-3590	4-4390	0.340	204.5	-9.3	0.63	0.625	61.9	0.563	1.233	151.3	612.5	0.539	1.927	-1.86	1.078	57.1	75.8	20.0	0.601
4-3590	4-4390	0.238	69.9	24.5	0.63	0.722	107.9	0.332	1.471	230.0	691.1	0.982	1.960	-1.86	1.137	82.9	27.2	0.4	0.209
4-3600	4-3760	0.540	73.6	14.2	-7.32	0.833	128.8	0.638	1.971	242.2	435.4	0.714	---	7.94	1.216	118.0	347.1	9.8	0.608
4-3600	4-3770	0.484	75.6	18.2	-3.87	0.787	126.3	0.592	1.721	236.2	439.1	0.702	---	4.65	1.187	117.6	356.8	7.9	0.575
4-3600	4-3780	0.434	78.7	20.1	-2.41	0.746	123.6	0.557	1.554	230.2	442.8	0.688	---	3.39	1.163	117.3	5.0	9.0	0.555
4-3600	4-3790	0.389	82.5	21.4	-1.56	0.709	120.7	0.530	1.434	224.0	446.5	0.674	---	2.67	1.142	117.1	12.8	11.0	0.540
4-3600	4-3800	0.347	87.2	22.3	-0.98	0.676	117.6	0.510	1.344	217.8	450.2	0.659	---	2.28	1.124	117.1	20.7	13.3	0.529
4-3600	4-3810	0.308	93.0	22.9	-0.54	0.645	114.3	0.497	1.275	211.6	453.8	0.642	---	2.04	1.109	117.2	28.6	15.8	0.523
4-3600	4-3820	0.273	100.4	23.3	-0.16	0.618	110.6	0.490	1.220	205.3	457.6	0.622	---	1.89	1.095	117.5	36.6	18.2	0.521
4-3600	4-3830	0.243	110.0	23.1	0.17	0.592	106.6	0.490	1.176	199.0	461.3	0.599	---	1.82	1.083	118.0	44.9	20.5	0.525
4-3600	4-3840	0.220	122.3	21.9	0.49	0.569	102.0	0.497	1.140	192.8	465.2	0.573	---	1.81	1.072	118.9	53.4	22.5	0.534
4-3600	4-3850	0.207	137.1	19.1	0.81	0.547	97.0	0.512	1.109	186.7	469.3	0.541	---	1.85	1.062	120.2	61.9	24.1	0.552
4-3600	4-3860	0.211	153.1	14.5	1.17	0.527	91.1	0.537	1.084	181.0	473.7	0.502	---	1.96	1.054	122.1	70.6	25.3	0.579
4-3600	4-3870	0.236	167.8	9.1	1.58	0.510	84.5	0.573	1.063	175.7	478.6	0.453	1.672	2.15	1.045	124.8	79.1	26.1	0.620
4-3600	4-3880	0.284	179.4	4.1	2.10	0.494	76.0	0.625	1.045	171.2	484.3	0.392	1.698	2.47	1.038	128.6	87.3	26.4	0.679
4-3600	4-3890	0.358	187.5	0.5	2.83	0.481	65.6	0.696	1.031	168.0	491.3	0.314	1.749	3.02	1.031	134.0	94.8	26.3	0.766
4-3600	4-3900	0.463	191.9	-1.7	4.02	0.471	52.4	0.788	1.022	166.9	500.3	0.217	1.827	4.04	1.026	142.0	101.1	25.9	0.890
4-3600	4-4010	0.577	211.1	-12.2	0.18	0.671	41.6	0.766	1.333	150.9	233.5	---	2.355	-1.82	1.108	41.5	70.3	20.7	0.881
4-3600	4-4020	0.543	213.4	-13.3	0.48	0.682	45.0	0.725	1.360	147.7	239.9	---	2.347	-1.81	1.113	45.4	77.3	21.2	0.816
4-3600	4-4030	0.510	215.7	-13.7	0.79	0.692	48.1	0.685	1.387	144.6	246.4	---	2.336	-1.84	1.118	49.1	84.3	21.3	0.753
4-3600	4-4040	0.479	217.9	-13.9	1.12	0.702	50.9	0.646	1.412	141.6	252.7	---	2.324	-1.94	1.123	52.7	91.2	20.9	0.693
4-3600	4-4050	0.450	220.1	-14.0	1.49	0.710	53.5	0.608	1.436	138.7	259.6	---	2.310	-2.10	1.128	56.1	97.9	20.1	0.635
4-3600	4-4060	0.424	222.2	-13.8	1.95	0.718	55.9	0.573	1.459	135.9	266.4	---	2.295	-2.37	1.132	59.3	104.4	18.8	0.579
4-3600	4-4070	0.400	224.3	-13.2	2.56	0.725	58.0	0.540	1.480	133.3	273.3	---	2.279	-2.80	1.137	62.4	110.4	16.7	0.527
4-3600	4-4080	0.379	226.5	-11.8	3.47	0.731	60.0	0.510	1.499	130.9	280.4	---	2.263	-3.55	1.141	65.3	116.0	13.4	0.478
4-3600	4-4090	0.362	228.7	-8.9	5.12	0.736	61.7	0.482	1.516	128.7	287.7	---	2.248	-5.04	1.145	68.2	120.7	7.8	0.435
4-3600	4-4100	0.357	231.4	-1.1	9.34	0.740	63.2	0.458	1.531	126.7	295.2	---	2.232	-9.11	1.150	70.9	123.9	-0.5	0.413
4-3600	4-4120	0.343	218.8	-42.0	-12.28	0.747	65.7	0.416	1.556	123.2	311.3	---	2.203	12.81	1.158	76.2	140.8	53.8	0.376
4-3600	4-4130	0.304	227.6	-30.6	-5.23	0.749	66.6	0.401	1.565	121.8	319.6	---	2.192	5.92	1.161	78.7	148.3	39.4	0.279
4-3600	4-4140	0.291	230.3	-26.5	-3.06	0.751	67.4	0.389	1.572	120.7	328.2	---	2.183	3.91	1.165	81.3	145.5	34.5	0.235
4-3600	4-4150	0.283	231.8	-24.3	-1.96	0.753	67.9	0.380	1.578	119.9	337.2	---	2.177	2.98	1.168	83.8	142.0	33.1	0.204
4-3600	4-4160	0.278	232.7	-22.8	-1.26	0.754	68.2	0.374	1.582	119.3	346.4	---	2.174	2.46	1.172	86.3	136.0	33.4	0.183
4-3600	4-4170	0.277	233.3	-21.6	-0.76	0.755	68.3	0.373	1.585	119.0	356.1	---	2.175	2.15	1.174	88.9	127.2	34.2	0.174
4-3600	4-4180	0.279	233.5	-20.6	-0.35	0.755	68.1	0.375	1.586	119.0	366.0	0.991	2.181	1.96	1.177	91.6	117.4	34.2	0.180
4-3600	4-4190	0.286	233.4	-19.7	-0.00	0.755	67.7	0.383	1.586	119.3	376.3	0.979	2.194	1.85	1.179	94.5	109.3	33.3	0.200
4-3600	4-4200	0.296	233.0	-18.8	0.32	0.755	66.8	0.396	1.586	119.9	387.1	0.957	2.214	1.81	1.181	97.6	104.6	31.9	0.233
4-3600	4-4210	0.313	232.3	-17.9	0.69	0.755	65.5	0.417	1.584	120.9	398.2	0.924	2.244	1.82	1.182	101.0	103.0	30.5	0.278
4-3600	4-4220	0.336	231.2	-17.1	0.98	0.754	63.7	0.446	1.582	122.4	409.8	0.877	2.287	1.89	1.183	104.8	103.6	29.3	0.336
4-3600	4-4220	0.297	121.1	22.5	0.98	0.523	108.7	0.607	1.078	193.1	840.5	0.424	1.733	1.89	1.051	127.1	61.5	23.3	0.365
4-3600	4-4220	0.504	102.4	24.3	0.98	0.585	132.6	0.747	1.164	202.3	849.7	0.295	2.034	1.89	1.083	137.7	57.4	21.7	0.858
4-3600	4-4230	0.369	229.6	-16.2	1.35	0.753	61.1	0.486	1.580	124.5	422.1	0.813	2.347	2.04	1.183	109.3	105.7	28.3	0.409
4-3600	4-4230	0.249	145.0	17.2	1.35	0.497	95.5	0.593	1.049	183.8	841.4	0.426	1.671	2.04	1.039	126.2	71.8	25.1	0.644
4-3600	4-4240	0.414	227.5	-15.3	1.81	0.753	57.5	0.540	1.577	127.5	435.3	0.726	2.429	2.28	1.183	114.7	108.6	27.3	0.500
4-3600	4-4240	0.261	165.2	10.1	1.81	0.482	84.8	0.617	1.033	176.8	844.5	0.395	1.670	2.28	1.032	128.0	81.2	26.0	0.669
4-3600	4-4250	0.477	224.7	-14.2	2.41	0.752	52.4	0.612	1.575	131.9	449.8	0.611	2.539	2.69	1.183	121.4	111.6	26.4	0.616
4-3600	4-4250	0.314	179.5	4.0	2.41	0.471	73.7	0.667	1.022	171.4	849.3	0.341	1.703	2.69	1.027	131.8	89.8	26.3	0.728
4-3600	4-4260	0.565	220.9	-13.0	3.31	0.752	45.2	0.706	1.574	138.2	466.3	0.463	2.686	3.42	1.182	130.2	114.1	25.7	0.768
4-3600	4-4260	0.400	188.0	0.1	3.31	0.464	61.0	0.742	1.015	168.2	856.3	0.262	1.767	3.42	1.023	137.9	97.3	26.1	0.824
4-3600	4-4270	0.520	191.7	-1.8	4.94	0.459	55.5	0.840	1.010	167.9	866.2	0.162	1.859	4.87	1.020	147.1	103.1	25.7	0.968
4-3600	4-4310	0.553	162.7	5.7	-4.92	0.208	66.8	0.939	0.864	178.4	917.1	0.052	1.676	-5.63	0.925	20.3	27.2	9.5	1.119
4-3600	4-4310	0.520	136.1	14.7	-4.92	0.301	124.2	0.899	0.901	184.5	923.2	0.091	1.711	-5.63	0.950	26.1	23.9	7.6	1.052
4-3600	4-4320	0.580	87.8	21.5	-2.90	0.726	136.3	0.728	1.484	217.0	605.6	0.403	2.564	-2.77	1.155	46.5	12.8	1.4	0.830
4-3600	4-4330	0.480	83.6	21.6	-1.86	0.726	127.9	0.622	1.483	223.1	621.6	0.560	2.406	-2.90	1.152	55.9	15.2	2.0	0.666
4-3600	4-4340	0.407	80.7	21.9	-1.19	0.725	121.9	0.539	1.480	226.7	636.1	0.682	2.279	-2.41	1.149	62.9	18.2	2.8	0.543
4-3600	4-4350	0.581	201.3	-9.6	-0.71	0.573	39.0	0.828	1.147	161.1	579.3	0.197	2.096	-2.12	1.057	34.4	52.3	17.6	0.973
4-3600	4-4350	0.352	78.8	22.3	-0.71	0.724	117.5	0.475	1.477	228.7	646.9	0.775	2.179	-2.12	1.146	68.2	21.7	3.7	0.448
4-3600	4-4360	0.525	203.3	-10.2	-0.32	0.585	44.7	0.773	1.164	158.4	586.2	0.265	2.063	-1.95	1.061	39.8	58.8	18.8	0.887
4-3600	4-4360	0.310	77.5	22.8	-0.32	0.723	114.2	0.426	1.473	229.6	657.5	0.845	2.101	-1.95	1.143	72.5	25.1	4.3	0.374
4-3600	4-4370	0.470	205.1	-10.7	0.01	0.596	50.2	0.713	1.182	155.9	593.5	0.339	2.025	-1.85	1.065	45.1	65.2	19.7	0.801
4-3600	4-4370	0.278	76.6	23.4	0.01	0.721	111.6	0.388	1.470	229.8	667.3	0.899	2.040	-1.85	1.140	76.0	28.3	4.6	0.314
4-3600	4-4380	0.415	206.8	-10.9	0.32	0.607	55.4	0.650	1.202	153.8	601.0	0.420	1.983	-1.81	1.070	50.3	71.5	20.3	0.715
4-3600	4-4380	0.253	76.1	24.2	0.32	0.720	109.6	0.359	1.466	229.5	676.6	0.939	1.993	-1.81	1.138	78.9	30.8	4.4	0.265
4-3600	4-4390	0.362	208.2	-10.9	0.62	0.618	60.4	0.587	1.221	152.2	609.0	0.505	1.938	-1.82	1.074	55.3	77.6	20.4	0.631
4-3600	4-4390	0.234	75.8	25.2	0.62	0.719	108.1	0.337	1.463	228.9	685.7	0.969	1.956	-1.82	1.135	81.5	32.2	3.4	0.226
4-3600	4-4400	0.310	209.4	-10.5	0.94	0.628	65.1	0.523	1.241	151.3	617.6	0.592	1.890	-1.88	1.079	60.1	83.3	20.1	0.548
4-3600	4-4400	0.220	75.7	26.3	0.94	0.718	106.9	0.321	1.460	228.3	694.6	0.991	1.929	-1.88	1.134	83.9	32.1	1.3	0.194
4-3610	4-3770	0.537	78.6	17.9	-4.74	0.828	129.5	0.646	1.940	240.2	438.7	0.688	---	5.58	1.215	119.3	356.5	8.9	0.622
4-3610	4-3780	0.482	81.4	20.2	-2.74	0.780	126.9	0.601	1.690	234.2	442.5	0.675	---	3.73	1.185	118.9	5.0	9.3	0.594
4-3610	4-3790	0.431	84.9	21.5	-1.71	0.738	124.1	0.566	1.524	228.1	446.2	0.662	---	2.87	1.160	118.5	13.0	11.1	0.574
4-3610	4-3800	0.385	89.1	22.4	-1.05	0.700	121.0	0.539	1.406	221.9	449.9	0.648	---	2.38	1.139	118.3	20.8	13.4	0.558
4-3610	4-3810	0.342	94.4	23.0	-0.56	0.665	117.7	0.520	1.318	215.6	453.6	0.632	---	2.09	1.120	118.2	28.7	15.8	0.547

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3610	4-3820	0.303	100.9	23.3	-0.17	0.633	114.1	0.509	1.251	209.3	457.3	0.615	---	1.91	1.104	118.3	36.8	18.2	0.540
4-3610	4-3830	0.268	109.2	23.2	0.17	0.604	110.7	0.504	1.197	203.0	461.0	0.594	---	1.81	1.090	118.7	45.1	20.4	0.539
4-3610	4-3840	0.239	119.9	22.2	0.49	0.578	105.8	0.506	1.154	196.7	464.8	0.570	---	1.77	1.077	119.3	53.6	22.4	0.544
4-3610	4-3850	0.219	133.3	20.0	0.80	0.554	100.9	0.516	1.119	190.6	468.8	0.542	---	1.79	1.066	120.3	62.3	24.0	0.555
4-3610	4-3860	0.214	148.7	16.0	1.13	0.532	95.3	0.534	1.090	184.6	473.0	0.507	---	1.86	1.056	121.9	71.0	25.2	0.576
4-3610	4-3870	0.227	164.2	10.6	1.51	0.512	88.7	0.564	1.065	179.0	477.6	0.465	1.666	2.01	1.047	124.1	79.7	26.0	0.608
4-3610	4-3880	0.263	177.5	5.1	1.97	0.494	81.0	0.607	1.045	174.0	482.8	0.411	1.680	2.27	1.038	127.3	88.1	26.3	0.657
4-3610	4-3890	0.324	187.4	0.6	2.58	0.478	71.4	0.648	1.029	170.1	489.0	0.342	1.716	2.69	1.030	131.8	96.0	26.2	0.728
4-3610	4-3900	0.414	193.7	-2.3	3.50	0.466	59.4	0.749	1.017	167.8	496.9	0.255	1.779	3.44	1.024	138.5	102.9	25.7	0.833
4-3610	4-3910	0.537	196.3	-3.8	5.21	0.459	43.9	0.850	1.010	168.1	507.3	0.152	1.868	4.99	1.019	148.2	108.3	25.1	0.982
4-3610	4-4010	0.593	214.4	-14.0	0.18	0.663	80.3	0.782	1.313	152.5	230.7	---	2.340	-1.81	1.103	39.9	71.6	20.9	0.905
4-3610	4-4020	0.558	216.8	-14.5	0.48	0.674	43.9	0.740	1.341	149.3	237.1	---	2.334	-1.77	1.108	43.9	78.7	21.4	0.839
4-3610	4-4030	0.524	219.1	-14.9	0.78	0.685	47.1	0.699	1.368	146.1	243.6	---	2.324	-1.78	1.114	47.7	85.7	21.5	0.775
4-3610	4-4040	0.493	221.3	-15.1	1.09	0.695	50.0	0.659	1.394	143.1	250.1	---	2.313	-1.85	1.119	51.3	92.6	21.2	0.713
4-3610	4-4050	0.463	223.5	-15.2	1.43	0.704	52.7	0.621	1.419	140.2	256.7	---	2.300	-1.98	1.124	54.8	99.4	20.4	0.654
4-3610	4-4060	0.436	225.7	-15.1	1.83	0.712	55.2	0.585	1.442	137.4	263.4	---	2.285	-2.19	1.129	58.1	105.9	19.1	0.598
4-3610	4-4070	0.411	227.8	-14.6	2.35	0.719	57.4	0.551	1.464	134.8	270.3	---	2.270	-2.53	1.133	61.2	112.1	17.2	0.544
4-3610	4-4080	0.389	229.9	-13.7	3.08	0.726	59.4	0.519	1.484	132.3	277.4	---	2.254	-3.09	1.138	64.2	117.8	14.4	0.494
4-3610	4-4090	0.370	232.0	-11.6	4.28	0.731	61.2	0.490	1.502	130.0	284.7	---	2.239	-4.13	1.143	67.1	122.8	10.0	0.447
4-3610	4-4100	0.357	234.3	-6.9	6.81	0.736	62.8	0.465	1.518	127.9	292.1	---	2.223	-6.33	1.147	69.9	126.6	1.4	0.415
4-3610	4-4110	0.389	236.2	10.1	16.72	0.740	64.2	0.442	1.532	126.0	299.7	---	2.209	-16.18	1.151	72.5	128.4	-25.1	0.458
4-3610	4-4120	0.444	203.2	-55.2	-25.62	0.744	65.5	0.420	1.544	124.3	308.3	---	2.193	26.22	1.155	75.3	201.1	60.9	0.567
4-3610	4-4130	0.316	230.5	-34.6	-6.89	0.746	66.5	0.404	1.554	122.9	316.3	---	2.182	7.64	1.159	77.8	155.0	42.5	0.303
4-3610	4-4140	0.297	234.2	-28.5	-3.60	0.749	67.3	0.391	1.562	121.7	324.8	---	2.172	4.50	1.163	80.3	150.6	34.7	0.248
4-3610	4-4150	0.288	235.9	-25.7	-2.18	0.750	67.9	0.380	1.568	120.8	333.7	---	2.165	3.25	1.167	82.8	147.7	32.2	0.213
4-3610	4-4160	0.282	237.0	-23.9	-1.36	0.752	68.3	0.373	1.573	120.1	342.9	---	2.160	2.60	1.170	85.4	142.8	32.0	0.188
4-3610	4-4170	0.280	237.7	-22.7	-0.80	0.752	68.5	0.370	1.576	119.7	352.4	---	2.160	2.22	1.173	88.0	135.0	32.8	0.174
4-3610	4-4180	0.281	238.0	-21.6	-0.37	0.753	68.4	0.371	1.578	119.6	362.3	0.992	2.164	1.99	1.176	90.6	125.3	33.4	0.174
4-3610	4-4190	0.286	238.0	-20.7	-0.00	0.753	68.1	0.377	1.579	119.7	372.4	0.983	2.174	1.85	1.178	93.4	116.4	33.0	0.189
4-3610	4-4200	0.294	237.7	-19.8	0.32	0.753	67.4	0.388	1.578	120.2	383.0	0.966	2.191	1.78	1.180	96.4	110.4	31.9	0.217
4-3610	4-4210	0.308	237.1	-19.0	0.64	0.753	66.3	0.406	1.577	121.0	393.9	0.938	2.217	1.77	1.181	99.6	107.7	30.5	0.257
4-3610	4-4220	0.328	236.1	-18.2	0.96	0.752	64.7	0.431	1.575	122.3	405.3	0.897	2.254	1.81	1.182	103.2	107.6	29.3	0.310
4-3610	4-4230	0.357	234.7	-17.5	1.31	0.752	62.4	0.466	1.573	124.0	417.3	0.840	2.306	1.92	1.182	107.4	109.2	28.1	0.376
4-3610	4-4230	0.267	138.3	19.0	1.31	0.504	102.2	0.602	1.057	188.3	841.6	0.421	1.693	1.92	1.042	126.8	71.8	24.9	0.655
4-3610	4-4230	0.564	107.3	23.9	1.31	0.596	138.7	0.798	1.184	201.6	854.8	0.239	2.128	1.92	1.090	142.3	65.7	23.0	0.934
4-3610	4-4240	0.396	232.9	-16.7	1.71	0.751	59.3	0.513	1.570	126.6	430.0	0.764	2.377	2.12	1.182	112.3	111.9	27.0	0.458
4-3610	4-4240	0.254	160.6	11.9	1.71	0.484	90.5	0.609	1.035	180.3	843.7	0.405	1.666	2.12	1.033	127.4	81.7	25.9	0.660
4-3610	4-4250	0.451	230.4	-15.8	2.23	0.750	54.9	0.578	1.568	130.2	443.8	0.662	2.474	2.44	1.182	118.4	114.9	26.1	0.562
4-3610	4-4250	0.289	177.7	4.9	2.23	0.471	79.4	0.646	1.022	174.1	847.7	0.362	1.682	2.44	1.027	130.2	90.7	26.2	0.701
4-3610	4-4260	0.528	227.0	-14.7	2.96	0.750	48.7	0.662	1.567	135.5	459.2	0.529	2.604	2.99	1.181	126.2	117.7	25.2	0.696
4-3610	4-4260	0.361	188.7	-0.0	2.96	0.462	67.3	0.709	1.013	169.7	853.5	0.295	1.731	2.99	1.022	135.1	98.8	26.0	0.779
4-3610	4-4270	0.466	194.5	-2.8	4.16	0.456	53.0	0.797	1.007	168.0	861.9	0.205	1.809	4.02	1.018	142.8	105.4	25.5	0.899
4-3610	4-4310	0.598	167.4	3.8	-6.37	0.173	58.6	0.964	0.854	178.7	913.0	0.031	1.678	-7.14	0.918	15.7	29.3	10.4	1.178
4-3610	4-4310	0.575	138.7	14.0	-6.37	0.293	135.9	0.933	0.897	184.4	918.8	0.060	1.735	-7.14	0.948	21.1	26.1	8.5	1.121
4-3610	4-4330	0.512	90.4	21.8	-2.06	0.723	131.1	0.665	1.475	220.4	614.6	0.494	2.456	-3.15	1.150	52.1	18.1	3.4	0.731
4-3610	4-4340	0.428	87.1	22.2	-1.28	0.722	124.2	0.572	1.473	224.9	638.9	0.630	2.315	-2.55	1.148	60.0	20.9	4.2	0.593
4-3610	4-4350	0.365	84.9	22.6	-0.75	0.721	119.1	0.500	1.470	227.4	641.2	0.735	2.205	-2.19	1.145	65.9	24.3	5.1	0.487
4-3610	4-4360	0.550	206.7	-11.6	-0.33	0.577	42.6	0.795	1.152	159.7	583.2	0.236	2.069	-1.97	1.057	37.7	60.3	19.2	0.920
4-3610	4-4360	0.318	83.4	23.2	-0.33	0.720	115.3	0.445	1.466	228.6	652.1	0.814	2.118	-1.97	1.141	70.6	27.9	5.9	0.405
4-3610	4-4370	0.494	208.7	-12.0	0.01	0.588	48.3	0.737	1.170	157.1	590.3	0.308	2.033	-1.85	1.061	43.0	66.8	20.1	0.833
4-3610	4-4370	0.282	82.5	23.8	0.01	0.719	112.4	0.402	1.462	228.9	662.1	0.874	2.050	-1.85	1.139	74.3	31.3	6.4	0.340
4-3610	4-4380	0.439	210.5	-12.3	0.32	0.600	53.6	0.675	1.189	158.9	597.7	0.386	1.992	-1.78	1.065	48.3	73.2	20.6	0.747
4-3610	4-4380	0.254	82.0	24.6	0.32	0.717	110.1	0.369	1.458	228.6	671.4	0.920	1.997	-1.78	1.136	77.5	34.3	6.4	0.287
4-3610	4-4390	0.384	212.0	-12.4	0.62	0.611	56.8	0.611	1.209	193.2	605.6	0.470	1.948	-1.77	1.070	53.3	79.3	20.8	0.661
4-3610	4-4390	0.232	81.8	25.6	0.62	0.716	108.4	0.344	1.455	228.0	680.4	0.954	1.955	-1.77	1.134	80.2	36.5	5.9	0.243
4-3610	4-4400	0.331	213.3	-12.1	0.92	0.622	63.6	0.546	1.229	152.0	614.0	0.558	1.901	-1.81	1.076	58.3	85.2	20.5	0.577
4-3610	4-4400	0.215	81.8	26.7	0.92	0.715	107.0	0.325	1.451	227.2	689.2	0.980	1.923	-1.81	1.139	82.6	37.5	4.5	0.208
4-3610	4-4410	0.280	214.1	-11.2	1.24	0.633	68.2	0.483	1.249	151.6	623.1	0.646	1.853	-1.90	1.081	63.0	90.5	19.8	0.496
4-3610	4-4410	0.203	81.9	28.0	1.24	0.714	106.0	0.311	1.449	226.4	698.0	0.999	1.900	-1.90	1.131	84.8	36.6	19.9	0.181
4-3620	4-3770	0.599	81.6	17.1	-6.16	0.876	132.7	0.709	2.309	244.1	438.3	0.673	---	7.05	1.248	121.2	555.9	10.4	0.679
4-3620	4-3780	0.535	85.2	20.1	-3.21	0.821	130.2	0.652	1.899	238.1	442.1	0.661	---	4.25	1.212	120.6	5.0	9.7	0.640
4-3620	4-3790	0.479	87.5	21.5	-1.90	0.772	127.4	0.607	1.654	232.1	445.8	0.649	---	3.10	1.182	120.1	13.1	11.2	0.613
4-3620	4-3800	0.427	91.4	22.4	-1.13	0.728	124.4	0.573	1.491	225.9	449.5	0.636	---	2.49	1.156	119.7	21.0	13.4	0.591
4-3620	4-3810	0.380	96.1	22.9	-0.59	0.689	121.2	0.548	1.376	219.7	453.2	0.622	---	2.14	1.134	119.4	28.9	15.8	0.575
4-3620	4-3820	0.336	101.9	23.2	-0.18	0.653	117.6	0.530	1.291	213.4	456.9	0.606	---	1.92	1.115	119.4	37.0	18.1	0.563
4-3620	4-3830	0.297	109.1	23.1	0.17	0.620	113.8	0.520	1.225	207.0	460.7	0.588	---	1.79	1.099	119.5	45.3	20.4	0.557
4-3620	4-3840	0.263	118.5	22.4	0.49	0.591	109.5	0.517	1.173	200.7	464.4	0.566	---	1.73	1.084	119.9	53.9	22.3	0.556
4-3620	4-3850	0.237	130.3	20.6	0.80	0.564	104.8	0.522	1.132	194.5	468.3	0.541	---	1.72	1.071	120.7	62.5	23.9	0.562
4-3620	4-3860	0.222	144.6	17.3	1.11	0.539	99.4	0.535	1.098	188.4	472.4	0.510	---	1.77	1.059	121.9	71.3	25.1	0.577
4-3620	4-3870	0.224	160.1	12.2	1.45	0.516	93.2	0.558	1.070	182.5	476.7	0.473	---	1.89	1.048	123.7	80.1	25.9	0.601
4-3620	4-3880	0.248	174.7	6.4	1.86	0.496	85.9	0.594	1.047	177.2	481.5	0.425	1.668	2.09	1.039	126.3	88.8	26.2	0.640
4-3620	4-3890	0.297	186.4	1.2	2.38	0.478	77.0	0.645	1.028	172.6	487.1	0.365	1.691	2.42	1.030	130.1	97.0	26.0	0.699
4-3620	4-3900	0.373	194.5	-2.5	3.11	0.463	65.9	0.715	1.013	169.3	494.0	0.289	1.738	2.98	1.022	135.6	104.4	25.5	0.785
4-3620	4-3910	0.480	199.0	-4.7	4.35	0.452	51.8	0.807	1.003	168.2	503.0	0.194	1.813	4.05	1.016	143.8	110.6	24.8	0.911
4-3620	4-4020	0.574	220.1	-15.6	0.48	0.666	42.7	0.756	1.321	150.8	234.3	---	2.320	-1.73	1.103	42.3	80.1	21.6	0.862
4-3620	4-4030	0.539	222.5	-16.0	0.77	0.678	46.0	0.714	1.348	147.7	240.7	---	2.312	-1.72	1.109	46.2	87.1	21.7	0.797
4-3620	4-4040	0.507	224.8	-16.3	1.07	0.688	49.1	0.674	1.375	144.6	247.2	---	2.301	-1.76	1.114	50.0	94.1	21.3	0.735
4-3620	4-4050	0.477	227.1	-16.4	1.38	0.698	51.9	0.634	1.400	141.6	253.8	---	2.289	-1.86	1.120	53.5	100.9	20.6	0.675
4-3620	4-4060	0.449	229.2	-16.3	1.74	0.707	54.5	0.597	1.425	138.8	260.5	---	2.275	-2.02	1.125	56.9	107.5	19.4	0.617
4-3620	4-4070	0.423	231.3	-16.0	2.19	0.714	56.8	0.562	1.447	136.2	267.4	---	2.260	-2.29	1.130	60.1	113.7	17.6	0.563

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3620	4-4080	0.400	233.4	-15.2	2.	0.721	58.9	0.529	1.468	133.6	274.4	---	2.245	-2.72	1.135	63.1	119.6	15.2	0.511
4-3620	4-4090	0.379	235.5	-13.8		0.727	60.8	0.499	1.487	131.3	281.6	---	2.229	-3.47	1.140	66.0	124.8	11.5	0.462
4-3620	4-4100	0.363	237.5	-10.7	.8	0.732	62.5	0.472	1.504	129.2	289.0	---	2.214	-5.00	1.144	68.9	129.1	5.4	0.420
4-3620	4-4110	0.361	239.7	-2.1	9.94	0.737	63.9	0.448	1.519	127.2	296.6	---	2.199	-9.41	1.149	71.6	131.3	-9.2	0.403
4-3620	4-4130	0.335	231.8	-41.0	-10.13	0.744	66.4	0.408	1.543	123.9	313.0	---	2.171	10.99	1.157	76.9	165.7	48.2	0.346
4-3620	4-4140	0.305	238.0	-30.9	-4.39	0.746	67.2	0.393	1.551	122.7	321.4	---	2.161	5.35	1.161	79.4	156.0	35.6	0.264
4-3620	4-4150	0.294	240.1	-27.1	-2.48	0.748	67.9	0.381	1.558	121.7	330.2	---	2.153	3.60	1.165	81.9	153.0	31.4	0.224
4-3620	4-4160	0.287	241.3	-25.0	-1.49	0.749	68.4	0.373	1.564	120.9	339.3	---	2.147	2.77	1.168	84.4	149.0	30.4	0.195
4-3620	4-4170	0.283	242.1	-23.6	-0.85	0.750	68.7	0.369	1.567	120.4	348.7	---	2.145	2.30	1.171	87.0	142.4	31.1	0.177
4-3620	4-4180	0.284	242.5	-22.5	-0.38	0.751	68.7	0.368	1.570	120.2	358.5	---	2.147	2.02	1.174	89.6	133.4	32.1	0.171
4-3620	4-4190	0.286	242.5	-21.6	-0.00	0.751	68.4	0.372	1.571	120.2	368.5	0.987	2.155	1.85	1.176	92.3	123.9	32.3	0.180
4-3620	4-4200	0.293	242.3	-20.7	0.33	0.751	67.9	0.381	1.571	120.5	378.9	0.973	2.169	1.76	1.178	95.2	116.7	31.6	0.203
4-3620	4-4210	0.305	241.8	-19.9	0.64	0.751	67.0	0.395	1.570	121.2	389.7	0.949	2.190	1.72	1.180	98.3	112.8	30.4	0.238
4-3620	4-4220	0.322	241.0	-19.2	0.94	0.751	65.6	0.417	1.568	122.2	400.9	0.914	2.222	1.74	1.181	101.7	111.8	29.1	0.285
4-3620	4-4230	0.347	239.8	-18.5	1.27	0.750	63.6	0.448	1.566	123.7	412.5	0.865	2.267	1.82	1.181	105.6	112.9	27.9	0.345
4-3620	4-4230	0.312	130.3	20.8	1.27	0.519	111.2	0.629	1.073	193.9	842.8	0.399	1.748	1.82	1.049	128.7	71.3	24.5	0.689
4-3620	4-4230	0.481	114.4	23.2	1.27	0.571	131.2	0.743	1.143	201.3	850.1	0.294	1.993	1.82	1.076	137.4	67.9	23.5	0.848
4-3620	4-4240	0.382	238.2	-17.8	1.64	0.749	60.9	0.490	1.563	125.8	424.8	0.798	2.329	1.97	1.181	110.1	115.2	26.7	0.419
4-3620	4-4240	0.257	154.9	14.0	1.64	0.489	96.5	0.608	1.040	184.2	843.3	0.407	1.672	1.97	1.036	127.4	81.9	25.7	0.659
4-3620	4-4250	0.429	236.0	-17.1	2.08	0.749	57.1	0.546	1.561	128.8	438.0	0.708	2.414	2.22	1.180	115.6	118.2	25.6	0.512
4-3620	4-4250	0.272	174.6	6.3	2.08	0.473	85.1	0.631	1.023	177.1	846.4	0.377	1.669	2.22	1.028	129.1	91.4	26.0	0.683
4-3620	4-4260	0.495	233.0	-16.3	2.69	0.748	51.7	0.622	1.559	133.2	452.6	0.590	2.528	2.64	1.179	122.6	121.1	24.6	0.632
4-3620	4-4260	0.328	186.4	0.2	2.69	0.461	73.5	0.681	1.012	171.8	851.2	0.322	1.701	2.64	1.022	132.9	100.0	25.8	0.742
4-3620	4-4270	0.587	229.0	-15.2	3.61	0.748	44.1	0.719	1.558	139.7	469.2	0.437	2.679	3.40	1.178	131.7	125.5	23.8	0.789
4-3620	4-4270	0.418	196.5	-3.5	3.61	0.453	60.1	0.757	1.004	168.7	858.3	0.244	1.765	3.40	1.017	139.2	107.3	25.2	0.841
4-3620	4-4280	0.542	199.8	-5.3	5.33	0.449	43.8	0.856	1.000	168.7	868.4	0.144	1.857	4.96	1.014	148.8	112.9	24.4	0.989
4-3620	4-4320	0.518	164.3	5.0	-4.07	0.221	89.3	0.919	0.868	179.9	919.9	0.071	1.665	-5.06	0.925	23.5	35.3	12.2	1.073
4-3620	4-4320	0.503	155.1	8.5	-4.07	0.256	108.9	0.903	0.880	182.1	922.0	0.085	1.676	-5.06	0.934	25.7	34.0	11.6	1.048
4-3620	4-4330	0.551	97.5	21.6	-2.33	0.721	134.9	0.712	1.467	217.4	607.2	0.423	2.511	-3.46	1.149	47.8	21.2	5.0	0.804
4-3620	4-4340	0.454	93.6	22.2	-1.40	0.720	126.8	0.609	1.465	222.9	622.5	0.574	2.357	-2.70	1.146	56.8	23.7	5.6	0.648
4-3620	4-4350	0.382	91.1	22.7	-0.80	0.719	120.9	0.528	1.463	226.1	635.5	0.691	2.234	-2.27	1.143	63.4	27.0	6.4	0.530
4-3620	4-4360	0.575	210.2	-12.8	-0.35	0.569	40.4	0.838	1.140	161.0	580.1	0.208	2.073	-2.00	1.053	35.4	61.9	19.6	0.953
4-3620	4-4360	0.329	89.4	23.3	-0.35	0.718	116.6	0.466	1.459	227.6	646.8	0.780	2.138	-2.00	1.140	68.5	30.6	7.3	0.439
4-3620	4-4370	0.519	212.2	-13.3	0.01	0.581	46.2	0.761	1.158	158.3	587.2	0.277	2.039	-1.85	1.057	40.8	68.4	20.5	0.866
4-3620	4-4370	0.288	88.5	24.0	0.01	0.717	113.3	0.418	1.455	228.2	657.0	0.847	2.063	-1.85	1.137	72.6	34.2	7.9	0.567
4-3620	4-4380	0.463	214.1	-13.7	0.33	0.593	51.7	0.700	1.177	156.0	594.5	0.353	2.000	-1.76	1.061	46.2	74.9	21.0	0.779
4-3620	4-4380	0.256	88.0	24.8	0.33	0.715	110.3	0.381	1.451	228.0	666.4	0.899	2.003	-1.76	1.134	76.0	37.6	8.2	0.309
4-3620	4-4390	0.408	215.8	-13.8	0.62	0.604	57.0	0.636	1.196	154.1	602.1	0.436	1.957	-1.72	1.066	51.3	81.1	21.1	0.693
4-3620	4-4390	0.231	87.8	25.8	0.62	0.714	108.8	0.352	1.447	227.3	675.3	0.938	1.956	-1.72	1.132	78.8	40.3	8.0	0.262
4-3620	4-4400	0.354	217.2	-13.6	0.91	0.616	62.1	0.571	1.217	152.7	610.3	0.522	1.911	-1.74	1.071	56.4	87.1	20.9	0.608
4-3620	4-4400	0.212	88.0	26.9	0.91	0.713	107.2	0.330	1.443	226.4	684.0	0.967	1.920	-1.74	1.130	81.3	42.1	7.1	0.224
4-3620	4-4410	0.301	218.2	-12.9	1.21	0.627	66.8	0.506	1.237	152.1	619.3	0.611	1.863	-1.80	1.077	61.2	92.6	20.2	0.525
4-3620	4-4410	0.197	88.2	28.2	1.21	0.712	106.0	0.31	.1	225.4	692.6	0.989	1.892	-1.80	1.129	83.6	42.5	5.3	0.193
4-3620	4-4420	0.252	218.7	-11.6	1.54	0.637	71.3	0.444	.6	152.4	629.1	0.699	1.816	-1.93	1.083	65.9	97.3	19.0	0.444
4-3620	4-4420	0.186	88.5	29.7	1.54	0.711	105.1	0.302	1.438	224.6	701.3	1.004	1.872	-1.93	1.128	85.7	40.7	2.2	0.169
4-3630	4-3780	0.596	87.2	19.8	-3.89	0.870	133.4	0.713	2.249	242.0	441.5	0.846	---	4.98	1.246	122.5	5.0	10.4	0.694
4-3630	4-3790	0.533	90.2	21.5	-2.15	0.814	130.7	0.657	1.851	236.0	445.3	0.635	---	3.39	1.209	121.9	13.3	11.4	0.658
4-3630	4-3800	0.475	93.8	22.4	-1.23	0.763	127.8	0.613	1.612	229.9	449.1	0.623	---	2.63	1.178	121.3	21.2	13.4	0.630
4-3630	4-3810	0.422	98.1	22.9	-0.63	0.718	124.6	0.580	1.455	223.7	452.9	0.610	---	2.20	1.152	120.8	29.2	15.8	0.607
4-3630	4-3820	0.374	103.3	23.1	-0.18	0.677	121.2	0.556	1.344	217.4	456.6	0.596	---	1.94	1.129	120.0	37.3	18.1	0.590
4-3630	4-3840	0.330	109.7	23.0	0.18	0.640	117.4	0.540	1.262	211.0	460.3	0.580	---	1.78	1.109	120.5	45.6	20.3	0.579
4-3630	4-3840	0.291	117.8	22.5	0.50	0.607	113.3	0.532	1.199	204.7	464.1	0.561	---	1.69	1.092	120.7	54.1	22.2	0.573
4-3630	4-3850	0.258	128.1	21.0	0.79	0.576	108.7	0.532	1.149	198.4	467.9	0.538	---	1.66	1.077	121.2	62.8	23.8	0.573
4-3630	4-3860	0.236	141.0	18.2	1.09	0.548	103.5	0.539	1.109	192.2	471.8	0.511	---	1.69	1.063	122.0	71.7	25.0	0.561
4-3630	4-3870	0.228	155.9	13.8	1.41	0.523	97.6	0.556	1.077	186.2	476.0	0.478	---	1.77	1.051	123.5	80.6	25.8	0.599
4-3630	4-3880	0.240	171.0	8.0	1.77	0.500	90.7	0.584	1.050	180.5	480.5	0.437	---	1.92	1.040	125.6	89.3	26.0	0.629
4-3630	4-3890	0.275	184.3	2.3	2.22	0.479	82.4	0.626	1.028	175.4	485.6	0.384	1.672	2.18	1.030	128.7	97.8	25.8	0.676
4-3630	4-3900	0.338	194.4	-2.3	2.82	0.462	72.2	0.686	1.011	171.4	491.7	0.317	1.705	2.61	1.021	133.3	105.6	25.3	0.746
4-3630	4-3910	0.430	200.8	-5.3	3.75	0.448	59.3	0.767	0.998	169.0	499.5	0.232	1.764	3.38	1.013	140.1	112.4	24.5	0.851
4-3630	4-3920	0.555	203.4	-6.8	5.54	0.440	42.8	0.866	0.991	169.3	509.9	0.132	1.850	5.01	1.008	150.0	117.7	23.6	1.003
4-3630	4-4020	0.590	223.5	-16.7	0.49	0.659	41.5	0.772	1.301	152.4	231.5	---	2.305	-1.69	1.098	40.7	81.6	21.8	0.885
4-3630	4-4030	0.555	226.0	-17.0	0.77	0.671	44.9	0.730	1.328	149.2	237.9	---	2.298	-1.66	1.104	44.7	88.6	21.9	0.820
4-3630	4-4040	0.522	228.3	-17.3	1.05	0.682	48.1	0.688	1.356	146.1	244.3	---	2.289	-1.68	1.110	48.5	95.6	21.5	0.756
4-3630	4-4050	0.491	230.6	-17.4	1.36	0.692	51.1	0.648	1.382	143.1	250.9	---	2.277	-1.75	1.115	52.1	102.4	20.7	0.696
4-3630	4-4060	0.462	232.8	-17.4	1.67	0.701	53.7	0.610	1.407	140.3	257.6	---	2.264	-1.87	1.121	55.6	109.0	19.6	0.637
4-3630	4-4070	0.436	234.9	-17.2	1.96	0.709	56.1	0.574	1.430	137.5	264.4	---	2.250	-2.08	1.126	58.8	115.4	17.9	0.581
4-3630	4-4080	0.411	237.0	-16.6	2.56	0.717	58.3	0.540	1.452	135.0	271.4	---	2.235	-2.41	1.131	62.0	121.3	15.7	0.528
4-3630	4-4090	0.390	239.0	-15.5	3.27	0.723	60.3	0.508	1.471	132.6	278.5	---	2.220	-2.97	1.137	64.9	126.8	12.6	0.478
4-3630	4-4100	0.371	241.0	-13.3	4.47	0.729	62.0	0.480	1.489	130.4	285.9	---	2.204	-4.02	1.141	67.8	131.4	17.8	0.433
4-3630	4-4110	0.359	243.0	-8.4	7.07	0.733	63.6	0.465	1.505	128.4	293.5	---	2.189	-6.48	1.146	70.6	134.5	-1.4	0.398
4-3630	4-4120	0.404	243.5	10.9	18.66	0.738	64.9	0.433	1.519	126.6	301.2	---	2.176	-17.93	1.151	73.2	134.7	-31.7	0.469
4-3630	4-4130	0.396	224.9	-53.4	-19.20	0.741	66.2	0.412	1.530	124.9	309.8	---	2.160	20.07	1.155	76.0	192.8	57.0	0.471
4-3630	4-4140	0.315	241.6	-34.0	-5.68	0.744	67.1	0.396	1.540	123.6	318.0	---	2.150	6.70	1.159	78.4	162.0	37.7	0.285
4-3630	4-4150	0.300	244.3	-28.6	-2.90	0.746	67.9	0.383	1.548	122.5	326.7	---	2.141	4.06	1.163	81.0	158.1	31.0	0.236
4-3630	4-4160	0.292	245.6	-26.1	-1.65	0.748	68.4	0.375	1.554	121.7	335.7	---	2.134	2.97	1.167	83.5	154.8	29.0	0.203
4-3630	4-4170	0.287	246.5	-24.5	-0.92	0.749	68.8	0.367	1.558	121.1	345.0	---	2.131	2.40	1.170	86.0	149.4	29.2	0.181
4-3630	4-4180	0.286	246.9	-23.3	-0.40	0.750	68.9	0.365	1.561	120.7	354.7	---	2.131	2.06	1.173	88.6	141.3	30.3	0.170
4-3630	4-4190	0.287	247.1	-22.3	-0.00	0.750	68.8	0.367	1.563	120.7	364.6	0.989	2.136	1.85	1.175	91.2	131.8	31.1	0.173
4-3630	4-4200	0.293	247.0	-21.5	0.33	0.750	68.3	0.374	1.563	120.9	374.9	0.979	2.147	1.73	1.177	94.0	123.6	30.9	0.190
4-3630	4-4210	0.303	246.6	-20.7	0.64	0.750	67.6	0.386	1.562	121.3	385.5	0.959	2.165	1.67	1.178	97.0	118.4	29.9	0.221

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3630	4-4220	0.317	245.9	-20.1	0.93	0.749	66.4	0.405	1.561	122.2	396.5	0.929	2.192	1.67	1.179	100.3	116.4	28.7	0.263
4-3630	4-4230	0.339	244.8	-19.4	1.24	0.749	64.7	0.431	1.559	123.4	407.9	0.886	2.231	1.72	1.180	103.9	116.7	27.5	0.317
4-3630	4-4240	0.359	243.4	-18.8	1.57	0.748	62.3	0.468	1.556	125.2	419.8	0.827	2.285	1.83	1.180	108.1	118.7	26.3	0.384
4-3630	4-4240	0.275	148.1	10.2	1.57	0.498	103.5	0.617	1.048	188.8	843.4	0.402	1.695	1.83	1.039	128.0	81.9	25.5	0.670
4-3630	4-4240	0.550	118.5	22.5	1.57	0.587	138.3	0.798	1.166	200.9	835.6	0.235	2.097	1.83	1.085	142.4	76.2	24.1	0.932
4-3630	4-4250	0.410	241.5	-18.2	1.97	0.747	59.9	0.518	1.554	127.7	432.5	0.748	2.359	2.03	1.179	113.2	121.4	25.1	0.468
4-3630	4-4250	0.263	170.3	8.2	1.97	0.477	91.0	0.622	1.025	180.6	845.5	0.387	1.664	2.03	1.029	128.4	91.9	25.9	0.672
4-3630	4-4260	0.468	238.9	-17.6	2.48	0.747	54.4	0.585	1.551	131.4	446.4	0.644	2.459	2.35	1.178	119.4	124.5	24.0	0.575
4-3630	4-4260	0.302	186.9	1.0	2.48	0.462	79.4	0.659	1.012	174.4	849.4	0.345	1.679	2.35	1.022	131.2	101.0	25.6	0.713
4-3630	4-4270	0.547	235.4	-16.8	3.20	0.746	47.9	0.673	1.550	136.7	461.9	0.507	2.593	2.91	1.177	127.4	127.2	23.0	0.713
4-3630	4-4270	0.377	197.5	-3.8	3.20	0.453	66.8	0.723	1.002	170.2	855.3	0.278	1.727	2.91	1.016	136.3	108.9	24.9	0.792
4-3630	4-4280	0.486	202.9	-6.4	4.43	0.446	51.7	0.812	0.997	168.6	863.9	0.188	1.806	3.98	1.012	144.3	115.3	24.0	0.916
4-3630	4-4320	0.574	172.3	1.6	-5.18	0.174	75.4	0.953	0.853	179.3	914.8	0.040	1.666	-6.21	0.914	17.9	38.0	13.3	1.144
4-3630	4-4320	0.550	153.1	9.3	-5.18	0.261	126.9	0.929	0.882	183.4	918.9	0.063	1.701	-6.21	0.934	21.9	35.6	12.1	1.101
4-3630	4-4330	0.596	104.8	21.1	-2.69	0.719	139.2	0.763	1.458	213.9	599.3	0.346	2.570	-3.88	1.147	43.0	24.5	6.5	0.886
4-3630	4-4340	0.485	100.3	21.9	-1.55	0.719	129.8	0.650	1.458	220.6	615.8	0.511	2.405	-2.88	1.144	53.2	26.5	7.0	0.709
4-3630	4-4350	0.403	97.4	22.5	-0.85	0.718	123.1	0.559	1.455	224.5	629.6	0.642	2.269	-2.35	1.142	60.7	29.6	7.8	0.576
4-3630	4-4360	0.342	95.5	23.2	-0.37	0.717	118.2	0.489	1.452	226.6	641.4	0.742	2.162	-2.04	1.139	66.4	33.1	8.6	0.475
4-3630	4-4370	0.545	215.8	-14.6	0.01	0.574	44.0	0.785	1.146	159.6	584.0	0.246	2.045	-1.84	1.052	88.6	70.0	20.8	0.900
4-3630	4-4370	0.296	94.4	24.0	0.01	0.715	114.4	0.435	1.448	227.5	651.9	0.818	2.079	-1.84	1.136	70.8	36.9	9.3	0.396
4-3630	4-4380	0.489	217.8	-14.9	0.33	0.586	49.7	0.725	1.164	157.1	591.2	0.320	2.008	-1.73	1.057	84.0	76.6	21.3	0.813
4-3630	4-4380	0.260	93.9	24.8	0.33	0.714	111.6	0.394	1.444	227.4	661.5	0.876	2.013	-1.73	1.133	74.4	40.5	9.8	0.333
4-3630	4-4390	0.433	219.6	-15.1	0.62	0.598	55.1	0.662	1.184	155.1	598.7	0.401	1.967	-1.67	1.062	49.3	82.9	21.4	0.726
4-3630	4-4390	0.232	93.8	25.7	0.62	0.713	109.3	0.361	1.440	226.8	670.5	0.919	1.960	-1.67	1.131	77.4	43.8	9.9	0.282
4-3630	4-4400	0.378	221.1	-15.0	0.90	0.610	60.3	0.596	1.204	153.5	606.7	0.486	1.921	-1.67	1.067	54.4	89.0	21.2	0.640
4-3630	4-4400	0.210	94.1	26.9	0.90	0.711	107.5	0.336	1.436	225.8	679.0	0.953	1.919	-1.67	1.129	80.0	46.3	9.4	0.241
4-3630	4-4410	0.324	222.3	-14.5	1.19	0.621	65.3	0.530	1.225	152.6	615.4	0.575	1.874	-1.71	1.073	59.4	94.6	20.5	0.555
4-3630	4-4410	0.193	94.6	28.1	1.19	0.710	106.1	0.317	1.432	224.7	687.5	0.978	1.887	-1.71	1.127	82.3	47.6	8.1	0.206
4-3630	4-4420	0.272	223.0	-13.5	1.49	0.632	69.9	0.466	1.245	152.6	625.0	0.665	1.826	-1.80	1.079	64.2	99.6	19.4	0.473
4-3630	4-4420	0.180	95.2	29.6	1.49	0.709	105.0	0.303	1.429	223.6	695.9	0.996	1.863	-1.80	1.126	84.5	47.2	5.9	0.179
4-3630	4-4430	0.224	223.0	-11.5	1.84	0.642	74.3	0.406	1.266	153.8	635.7	0.752	1.780	-1.96	1.085	68.8	103.7	17.8	0.394
4-3630	4-4430	0.171	95.7	31.3	1.84	0.708	104.3	0.294	1.428	222.7	704.6	1.008	1.847	-1.96	1.126	86.5	44.5	2.3	0.159
4-3640	4-3790	0.593	93.1	21.3	-2.50	0.863	134.0	0.715	2.177	239.8	444.8	0.620	---	3.78	1.242	123.8	13.4	11.7	0.711
4-3640	4-3800	0.528	96.5	22.3	-1.36	0.805	131.2	0.661	1.796	233.8	448.6	0.610	---	2.79	1.204	123.0	21.4	13.5	0.675
4-3640	4-3810	0.469	100.4	22.8	-0.67	0.753	128.1	0.619	1.568	227.6	452.4	0.598	---	2.27	1.173	122.4	29.4	15.7	0.645
4-3640	4-3820	0.416	105.1	23.0	-0.19	0.706	124.7	0.587	1.417	221.3	456.2	0.585	---	1.95	1.146	121.9	37.5	18.0	0.622
4-3640	4-3830	0.367	110.8	22.9	0.18	0.664	121.1	0.565	1.311	215.0	459.9	0.571	---	1.76	1.123	121.6	45.9	20.2	0.605
4-3640	4-3840	0.323	117.9	22.4	0.51	0.627	117.1	0.551	1.232	208.7	463.6	0.554	---	1.65	1.102	121.6	54.4	22.1	0.593
4-3640	4-3850	0.285	126.8	21.2	0.80	0.592	112.6	0.544	1.172	202.3	467.4	0.534	---	1.60	1.085	121.8	63.1	23.7	0.588
4-3640	4-3860	0.255	138.2	18.9	1.08	0.561	107.6	0.546	1.124	196.0	471.3	0.510	---	1.60	1.069	122.4	72.0	24.9	0.590
4-3640	4-3870	0.238	151.9	15.1	1.38	0.533	102.0	0.557	1.086	189.9	475.3	0.481	---	1.66	1.055	123.5	81.0	25.6	0.601
4-3640	4-3880	0.238	166.9	9.7	1.78	0.507	95.4	0.579	1.055	184.0	479.6	0.445	---	1.77	1.042	125.2	89.8	25.9	0.622
4-3640	4-3890	0.261	181.3	3.6	2.09	0.484	87.7	0.613	1.030	178.5	484.3	0.399	1.662	1.97	1.031	127.7	98.5	25.7	0.659
4-3640	4-3900	0.309	193.2	-1.7	2.59	0.463	78.2	0.663	1.010	173.8	489.8	0.341	1.679	2.30	1.020	131.5	106.6	25.0	0.716
4-3640	4-3910	0.387	201.6	-5.5	3.31	0.446	66.4	0.732	0.995	170.5	496.6	0.266	1.723	2.87	1.012	137.1	113.9	24.1	0.802
4-3640	4-3920	0.496	206.2	-7.8	4.56	0.434	51.4	0.823	0.984	169.3	505.5	0.174	1.795	3.97	1.005	145.4	119.9	23.1	0.929
4-3640	4-4030	0.572	229.4	-18.0	0.77	0.663	43.8	0.746	1.308	150.7	235.0	---	2.284	-1.60	1.099	43.1	90.1	22.0	0.843
4-3640	4-4040	0.538	231.8	-19.3	1.04	0.675	47.1	0.704	1.336	147.6	241.4	---	2.276	-1.60	1.105	47.0	97.0	21.6	0.779
4-3640	4-4050	0.506	234.2	-18.4	1.31	0.686	50.1	0.663	1.362	144.6	248.0	---	2.265	-1.64	1.111	50.7	103.9	20.9	0.717
4-3640	4-4060	0.476	236.4	-18.4	1.61	0.696	52.9	0.623	1.388	141.7	254.6	---	2.253	-1.73	1.117	54.2	110.6	19.7	0.658
4-3640	4-4070	0.449	238.6	-18.2	1.95	0.704	55.4	0.586	1.412	138.9	261.4	---	2.239	-1.89	1.122	57.6	117.0	18.1	0.601
4-3640	4-4080	0.424	240.7	-17.8	2.37	0.712	57.7	0.551	1.435	136.3	268.3	---	2.225	-2.15	1.128	60.8	123.1	16.0	0.547
4-3640	4-4090	0.401	242.6	-16.9	2.95	0.719	59.7	0.518	1.455	133.9	275.4	---	2.210	-2.57	1.133	63.8	128.7	13.2	0.495
4-3640	4-4100	0.381	244.6	-15.4	3.63	0.725	61.6	0.489	1.474	131.6	282.7	---	2.194	-3.31	1.138	66.7	133.6	9.4	0.447
4-3640	4-4110	0.365	246.4	-12.2	5.51	0.730	63.2	0.462	1.491	129.5	290.2	---	2.179	-4.85	1.143	69.5	137.4	2.9	0.406
4-3640	4-4120	0.365	248.0	-3.1	10.35	0.735	64.6	0.438	1.505	127.6	298.0	---	2.165	-9.55	1.148	72.2	138.7	-13.0	0.392
4-3640	4-4140	0.330	248.4	-39.1	-8.11	0.742	67.0	0.399	1.528	124.5	314.6	---	2.139	9.18	1.157	77.5	170.5	42.0	0.319
4-3640	4-4150	0.307	248.4	-30.4	-3.50	0.744	67.8	0.385	1.537	123.4	323.2	---	2.129	4.72	1.161	80.0	163.2	31.1	0.251
4-3640	4-4160	0.297	250.0	-27.1	-1.87	0.746	68.4	0.374	1.544	122.4	332.1	---	2.121	3.23	1.165	82.5	160.2	27.6	0.213
4-3640	4-4170	0.291	250.9	-25.2	-1.00	0.747	68.9	0.367	1.549	121.7	341.3	---	2.116	2.51	1.168	85.0	155.9	27.1	0.186
4-3640	4-4180	0.289	251.5	-23.9	-0.43	0.748	69.1	0.363	1.552	121.3	350.8	---	2.115	2.10	1.171	87.6	148.9	28.1	0.171
4-3640	4-4190	0.289	251.7	-22.9	-0.00	0.749	69.1	0.363	1.554	121.1	360.7	0.990	2.118	1.85	1.174	90.2	139.8	29.3	0.168
4-3640	4-4200	0.293	251.7	-22.1	0.34	0.749	68.8	0.368	1.555	121.2	370.8	0.983	2.126	1.70	1.176	92.9	130.9	29.8	0.180
4-3640	4-4210	0.301	251.4	-21.4	0.65	0.749	68.1	0.378	1.554	121.5	381.3	0.967	2.141	1.62	1.177	95.8	124.5	29.2	0.205
4-3640	4-4220	0.314	250.8	-20.7	0.93	0.749	67.2	0.393	1.553	122.2	392.1	0.942	2.164	1.60	1.178	98.9	121.3	28.2	0.242
4-3640	4-4230	0.332	249.9	-20.1	1.22	0.748	65.7	0.417	1.551	123.2	403.3	0.905	2.198	1.62	1.178	102.4	120.8	27.0	0.291
4-3640	4-4240	0.358	248.6	-19.6	1.52	0.748	63.6	0.449	1.549	124.6	414.9	0.854	2.244	1.70	1.178	106.3	122.2	25.8	0.352
4-3640	4-4240	0.326	139.3	18.5	1.52	0.517	113.5	0.648	1.067	194.5	844.8	0.376	1.758	1.70	1.047	130.2	81.3	25.1	0.710
4-3640	4-4240	0.461	126.4	21.2	1.52	0.560	129.9	0.739	1.123	200.3	850.6	0.294	1.992	1.70	1.069	137.2	78.5	24.5	0.838
4-3640	4-4250	0.394	246.9	-19.1	1.87	0.747	60.8	0.493	1.546	126.8	427.2	0.784	2.308	1.95	1.178	110.9	124.7	24.5	0.427
4-3640	4-4250	0.265	164.7	10.4	1.87	0.483	97.4	0.621	1.030	184.5	845.0	0.391	1.669	1.85	1.031	128.3	92.2	25.7	0.670
4-3640	4-4260	0.444	244.7	-18.6	2.31	0.746	56.8	0.552	1.544	129.8	440.5	0.692	2.396	2.10	1.177	116.5	127.7	23.3	0.523
4-3640	4-4260	0.283	120.1	2.3	2.31	0.466	85.5	0.643	1.013	177.4	848.1	0.361	1.664	2.10	1.022	130.0	101.7	25.4	0.693
4-3640	4-4270	0.513	241.6	-18.0	2.89	0.746	51.2	0.630	1.542	134.3	455.1	0.571	2.514	2.53	1.175	123.6	130.6	22.2	0.645
4-3640	4-4270	0.342	197.4	-3.6	2.89	0.453	73.2	0.694	1.001	172.2	853.0	0.307	1.696	2.53	1.016	133.9	110.1	24.6	0.753
4-3640	4-4280	0.436	205.1	-7.1	3.81	0.445	59.2	0.771	0.994	169.2	860.1	0.228	1.760	3.29	1.010	140.4	117.2	23.4	0.854
4-3640	4-4290	0.565	208.0	-8.7	5.58	0.441	42.2	0.870	0.990	169.4	870.4	0.129	1.851	4.91	1.006	150.4	122.5	22.6	1.004
4-3640	4-4340	0.522	107.3	21.3	-1.74	0.717	133.4	0.695	1.450	217.9	608.7	0.442	2.458	-3.11	1.143	49.1	29.6	8.4	0.778
4-3640	4-4350	0.429	103.8	22.1	-0.93	0.717	125.6	0.594	1.448	222.8	623.5	0.588	2.309	-2.45	1.140	57.7	32.3	9.0	0.620
4-3640	4-4360	0.359	101.7	22.9	-0.39	0.716	119.9	0.516	1.445	225.6	635.9	0.700	2.190	-2.07	1.137	64.0	35.7	9.8	0.515

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3640	4-4370	0.572	219.4	-15.7	0.01	0.567	41.7	0.808	1.133	160.8	580.9	0.217	2.050	-1.84	1.048	36.3	71.7	21.1	0.934
4-3640	4-4370	0.307	100.4	23.7	0.01	0.715	115.7	0.455	1.442	226.8	646.8	0.785	2.098	-1.84	1.134	68.9	39.5	10.6	0.428
4-3640	4-4380	0.516	221.5	-16.1	0.34	0.580	47.5	0.750	1.151	158.3	587.9	0.288	2.015	-1.70	1.052	41.8	78.3	21.6	0.847
4-3640	4-4380	0.267	99.9	24.5	0.34	0.713	112.5	0.409	1.437	226.9	656.6	0.850	2.025	-1.70	1.132	72.8	43.3	11.2	0.359
4-3640	4-4390	0.460	223.4	-16.3	0.63	0.592	53.1	0.688	1.171	156.0	595.3	0.366	1.976	-1.63	1.058	47.1	84.7	21.7	0.759
4-3640	4-4390	0.235	99.8	25.5	0.63	0.712	110.0	0.372	1.433	226.4	665.7	0.899	1.967	-1.63	1.129	76.0	46.9	11.5	0.304
4-3640	4-4400	0.404	225.0	-16.3	0.90	0.604	58.4	0.622	1.191	154.3	603.1	0.450	1.932	-1.60	1.063	52.3	90.8	21.4	0.672
4-3640	4-4400	0.210	100.2	26.6	0.90	0.710	107.9	0.344	1.429	225.4	674.3	0.937	1.921	-1.60	1.127	78.8	49.9	11.3	0.258
4-3640	4-4410	0.349	226.4	-15.9	1.17	0.616	63.5	0.556	1.211	153.1	611.5	0.538	1.885	-1.61	1.069	57.4	96.6	20.8	0.587
4-3640	4-4410	0.190	100.9	27.8	1.17	0.709	106.3	0.323	1.425	224.2	682.6	0.965	1.884	-1.61	1.125	81.1	52.0	10.5	0.221
4-3640	4-4420	0.295	227.3	-15.1	1.45	0.627	68.4	0.490	1.235	152.9	620.8	0.629	1.836	-1.68	1.075	62.3	101.9	19.6	0.503
4-3640	4-4420	0.175	101.7	29.2	1.45	0.708	105.0	0.306	1.421	222.9	690.8	0.986	1.856	-1.66	1.124	83.3	52.8	8.9	0.190
4-3640	4-4430	0.244	227.5	-13.6	1.76	0.638	72.9	0.427	1.254	153.7	631.1	0.718	1.789	-1.80	1.082	67.1	106.2	18.3	0.422
4-3640	4-4430	0.164	102.7	30.9	1.76	0.707	104.1	0.294	1.419	221.7	699.2	1.002	1.836	-1.80	1.124	85.3	51.5	6.3	0.167
4-3640	4-4440	0.197	226.9	-10.9	2.14	0.648	77.1	0.370	1.274	155.9	642.9	0.803	1.746	-2.00	1.088	71.6	109.3	16.2	0.345
4-3640	4-4440	0.158	103.5	32.8	2.14	0.706	103.5	0.287	1.418	221.0	707.9	1.011	1.824	-2.00	1.124	87.3	47.8	2.2	0.151
4-3650	4-3860	0.280	136.2	19.3	1.08	0.577	111.8	0.557	1.144	199.9	470.8	0.507	---	1.52	1.076	123.0	72.3	24.7	0.603
4-3650	4-3870	0.256	148.5	16.1	1.35	0.545	106.3	0.562	1.099	193.7	474.7	0.481	---	1.55	1.060	123.7	81.3	25.5	0.607
4-3650	4-3880	0.243	162.7	11.3	1.64	0.516	100.1	0.577	1.063	187.6	478.9	0.450	---	1.63	1.046	125.0	90.3	25.7	0.621
4-3650	4-3890	0.253	177.6	5.3	1.98	0.490	92.8	0.603	1.034	181.9	483.3	0.410	---	1.78	1.033	127.0	99.0	25.5	0.648
4-3650	4-3900	0.288	191.0	-0.6	2.40	0.467	84.1	0.644	1.011	176.7	488.3	0.360	1.662	2.03	1.021	130.1	107.4	24.8	0.692
4-3650	4-4150	0.316	252.5	-32.8	-4.47	0.743	67.7	0.388	1.525	124.2	319.6	---	2.117	5.73	1.159	79.0	168.7	32.2	0.269
4-3650	4-4160	0.303	254.4	-28.2	-2.17	0.745	68.4	0.375	1.533	123.1	328.4	---	2.108	3.56	1.163	81.5	165.2	26.5	0.224
4-3650	4-4170	0.296	255.4	-25.9	-1.10	0.746	68.9	0.366	1.538	122.4	337.5	---	2.102	2.64	1.166	84.0	161.8	25.0	0.194
4-3650	4-4180	0.292	256.0	-24.5	-0.46	0.747	69.2	0.361	1.543	121.8	347.0	---	2.100	2.15	1.169	86.6	156.0	25.7	0.174
4-3650	4-4190	0.292	256.3	-23.4	0.00	0.748	69.3	0.360	1.545	121.5	356.7	---	2.101	1.85	1.172	89.1	147.8	27.1	0.165
4-3650	4-4200	0.294	256.3	-22.5	0.35	0.749	69.1	0.362	1.546	121.5	366.8	0.986	2.107	1.67	1.174	91.8	138.7	28.1	0.171
4-3650	4-4210	0.300	256.1	-21.8	0.66	0.749	68.7	0.370	1.546	121.7	377.1	0.974	2.119	1.57	1.176	94.6	131.2	28.1	0.191
4-3650	4-4220	0.311	255.6	-21.2	0.93	0.748	67.8	0.383	1.546	122.2	387.7	0.953	2.138	1.53	1.177	97.6	126.7	27.4	0.223
4-3650	4-4230	0.327	254.9	-20.7	1.21	0.748	66.6	0.403	1.544	123.0	398.7	0.922	2.166	1.53	1.177	100.9	125.3	26.3	0.267
4-3650	4-4250	0.283	157.9	12.8	1.80	0.494	104.7	0.629	1.039	189.1	845.1	0.385	1.692	1.69	1.035	128.9	92.2	25.4	0.682
4-3650	4-4260	0.272	179.9	4.2	2.17	0.471	91.5	0.633	1.015	180.9	847.1	0.372	1.657	1.89	1.023	129.2	102.2	25.2	0.681
4-3650	4-4380	0.275	105.8	24.0	0.35	0.713	113.6	0.425	1.431	226.5	651.8	0.822	2.040	-1.67	1.130	71.2	46.0	12.5	0.386
4-3650	4-4390	0.240	105.7	25.0	0.64	0.711	110.7	0.385	1.427	226.2	661.0	0.877	1.976	-1.58	1.123	74.6	49.8	12.9	0.326
4-3650	4-4400	0.212	106.2	26.0	0.91	0.710	108.5	0.353	1.422	225.2	669.7	0.919	1.925	-1.53	1.116	77.5	53.2	12.9	0.277
4-3650	4-4410	0.190	107.0	27.2	1.16	0.708	106.7	0.329	1.418	223.9	677.9	0.951	1.885	-1.52	1.124	80.0	56.0	12.4	0.236
4-3650	4-4420	0.172	108.2	28.6	1.42	0.707	105.2	0.310	1.414	222.5	686.0	0.976	1.852	-1.56	1.123	82.1	57.6	11.3	0.203
4-3650	4-4430	0.267	232.1	-15.4	1.70	0.633	71.4	0.450	1.241	153.5	626.6	0.682	1.799	-1.69	1.078	65.2	108.7	18.7	0.451
4-3650	4-4430	0.159	109.6	30.2	1.70	0.706	104.0	0.296	1.411	221.0	694.1	0.993	1.828	-1.65	1.122	84.2	57.6	9.4	0.176
4-3650	4-4440	0.217	231.8	-13.2	2.03	0.644	75.9	0.389	1.262	155.3	637.9	0.771	1.754	-1.80	1.084	69.9	112.3	16.9	0.372
4-3650	4-4440	0.150	110.9	32.0	2.03	0.705	103.2	0.286	1.408	219.9	702.5	1.006	1.811	-1.80	1.122	86.1	55.4	6.3	0.157
4-3650	4-4450	0.173	230.2	-9.5	2.43	0.654	79.9	0.337	1.282	158.7	650.8	0.850	1.715	-2.05	1.097	74.3	114.1	14.3	0.298
4-3650	4-4450	0.146	111.8	34.1	2.43	0.705	102.8	0.281	1.408	219.3	711.4	1.013	1.803	-2.05	1.122	88.1	50.5	1.9	0.145
4-3700	4-3900	0.297	172.0	7.0	1.90	0.531	111.0	0.620	1.053	194.3	483.4	0.400	---	1.06	1.040	128.2	110.0	23.5	0.667
4-3700	4-3910	0.286	185.7	1.4	2.12	0.493	103.7	0.634	1.012	188.2	487.5	0.370	---	1.15	1.020	129.3	118.6	22.2	0.676
4-3700	4-4170	0.329	278.0	-29.9	-2.89	0.745	68.7	0.375	1.481	125.3	318.1	---	2.036	4.55	1.155	78.9	186.5	19.6	0.257
4-3700	4-4180	0.310	278.7	-25.6	-0.84	0.748	69.4	0.362	1.488	124.3	327.0	---	2.027	2.60	1.159	81.4	184.0	13.5	0.216
4-3700	4-4190	0.311	279.2	-23.7	-0.01	0.750	70.0	0.352	1.494	123.5	336.2	---	2.021	1.86	1.163	83.9	181.5	12.0	0.186
4-3700	4-4200	0.307	279.6	-22.6	0.47	0.751	70.3	0.346	1.499	122.9	345.7	---	2.017	1.48	1.165	86.3	176.8	12.8	0.165
4-3700	4-4210	0.306	279.7	-21.8	0.80	0.752	70.4	0.344	1.501	122.6	355.5	---	2.018	1.26	1.167	88.9	169.7	14.8	0.155
4-3700	4-4220	0.308	279.7	-21.3	1.05	0.752	70.3	0.346	1.503	122.5	365.5	0.983	2.022	1.12	1.169	91.4	161.4	16.9	0.158
4-3700	4-4230	0.313	279.5	-20.9	1.25	0.752	69.9	0.352	1.503	122.6	375.8	0.974	2.032	1.05	1.170	94.1	154.2	18.2	0.175
4-3700	4-4240	0.322	279.0	-20.6	1.44	0.752	69.2	0.364	1.502	122.9	386.4	0.956	2.049	1.01	1.170	96.9	149.6	18.5	0.203
4-3700	4-4250	0.337	278.4	-20.4	1.62	0.751	68.1	0.381	1.501	123.5	397.2	0.928	2.073	1.01	1.169	100.0	147.8	18.1	0.243
4-3700	4-4260	0.353	277.5	-20.3	1.80	0.751	66.4	0.407	1.499	124.3	408.3	0.889	2.109	1.03	1.168	103.4	148.2	17.1	0.293
4-3700	4-4280	0.287	193.5	-1.9	2.23	0.477	99.0	0.642	0.997	185.1	849.2	0.357	1.636	1.21	1.012	129.9	122.7	21.5	0.682
4-3700	4-4400	0.252	134.4	20.4	1.02	0.716	113.2	0.422	1.393	225.3	647.6	0.805	1.982	-1.14	1.119	70.4	67.0	18.6	0.389
4-3700	4-4410	0.215	135.4	21.3	1.22	0.715	110.2	0.380	1.389	225.0	656.6	0.862	1.916	-1.06	1.117	73.8	71.3	18.8	0.328
4-3700	4-4420	0.185	137.1	22.2	1.40	0.713	107.7	0.347	1.384	223.8	664.9	0.905	1.864	-1.02	1.116	76.6	75.3	18.8	0.279
4-3700	4-4430	0.161	139.5	23.1	1.57	0.712	105.8	0.321	1.380	222.1	672.7	0.937	1.822	-1.00	1.115	79.0	78.8	18.4	0.239
4-3700	4-4440	0.142	142.5	24.0	1.73	0.710	104.1	0.301	1.375	220.1	680.2	0.962	1.789	-1.02	1.114	81.1	81.4	17.7	0.205
4-3700	4-4450	0.295	256.2	-19.4	1.91	0.637	71.5	0.452	1.253	154.0	623.7	0.664	1.761	-1.07	1.070	64.7	130.2	16.0	0.452
4-3700	4-4450	0.127	146.1	25.0	1.91	0.708	102.7	0.285	1.371	218.0	687.7	0.980	1.762	-1.07	1.114	83.0	82.8	16.6	0.178
4-3700	4-4460	0.241	255.7	-17.7	2.12	0.649	76.3	0.387	1.235	156.6	635.3	0.757	1.714	-1.15	1.078	69.6	133.5	14.2	0.369
4-3700	4-4460	0.116	150.1	26.2	2.12	0.707	101.6	0.273	1.368	216.0	695.3	0.994	1.741	-1.15	1.114	84.8	82.4	15.0	0.156
4-3700	4-4470	0.193	253.7	-15.0	2.36	0.660	80.7	0.330	1.258	160.1	649.0	0.843	1.673	-1.29	1.087	74.3	134.9	12.2	0.290
4-3700	4-4470	0.108	153.8	27.6	2.36	0.706	100.9	0.265	1.365	214.4	703.3	1.003	1.727	-1.29	1.115	86.5	79.5	12.7	0.139
4-3700	4-4480	0.147	249.4	-10.2	2.69	0.610	84.7	0.285	1.279	166.4	664.9	0.914	1.643	-1.51	1.095	78.6	133.1	9.9	0.220
4-3700	4-4480	0.106	156.1	29.5	2.69	0.704	100.5	0.261	1.365	213.8	712.3	1.008	1.722	-1.51	1.117	88.4	73.2	9.4	0.131
4-3700	4-4490	0.116	243.0	-2.5	3.17	0.674	87.9	0.256	1.296	173.7	681.9	0.964	1.628	-1.90	1.102	82.5	126.3	6.3	0.167
4-3700	4-4490	0.112	155.1	32.2	3.17	0.707	101.0	0.264	1.369	215.1	723.3	1.007	1.731	-1.90	1.120	90.7	63.2	4.9	0.135
4-3700	4-4500	0.104	237.5	7.6	4.03	0.683	89.7	0.243	1.307	179.2	697.1	0.990	1.625	-2.67	1.107	85.6	115.1	-0.0	0.138
4-3700	4-4500	0.132	150.2	35.7	4.03	0.711	102.6	0.278	1.380	218.9	736.9	0.996	1.764	-2.67	1.125	93.6	52.2	-0.5	0.162
4-3750	4-4190	0.343	301.8	-20.4	-0.02	0.757	69.4	0.364	1.431	125.4	314.4	---	1.952	1.87	1.150	78.3	203.0	-0.6	0.251
4-3750	4-4200	0.332	302.0	-18.5	0.98	0.760	70.2	0.349	1.440	124.2	323.4	---	1.942	0.90	1.153	80.8	203.3	-4.6	0.215
4-3750	4-4210	0.324	302.4	-17.6	1.30	0.762	70.9	0.338	1.446	123.3	332.6	---	1.935	0.60	1.156	83.2	202.8	-5.5	0.186
4-3750	4-4220	0.319	302.7	-17.1	1.47	0.763	71.3	0.330	1.451	122.6	342.0	---	1.930	0.46	1.159	85.6	199.9	-4.9	0.163
4-3750	4-4230	0.316	302.9	-16.8	1.58	0.764	71.6	0.326	1.455	122.1	351.7	---	1.928	0.39	1.160	88.0	194.4	-2.9	0.148
4-3750	4-4240	0.316	303.0	-16.6	1.69	0.765	71.6	0.325	1.457	121.9	361.7	0.983	1.930	0.34	1.161	90.4	186.8	0.0	0.144
4-3750	4-4250	0.320	302.9	-16.5	1.72	0.765	71.3	0.329	1.458	121.9	371.8	0.978	1.937	0.31	1.161	92.9	179.4	2.8	0.154

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3750	4-4260	0.327	302.7	-16.[illegible]	1.78	0.765	70.8	0.337	1.457	122.0	382.2	0.966	1.949	0.30	1.160	[illegible].6	174.0	4.7	0.175
4-3750	4-4270	0.338	302.4	-16.6	1.63	0.765	69.9	0.352	1.456	122.4	392.8	0.944	1.963	0.30	1.159	98.4	171.3	5.5	0.208
4-3750	4-4280	0.355	301.8	-16.9	1.88	0.764	68.6	0.372	1.455	123.1	403.6	0.913	1.996	0.30	1.157	101.4	170.9	5.4	0.250
4-3750	4-4410	0.299	160.[illegible]	2.1	1.56	0.734	117.4	0.479	1.365	226.[illegible]	634.1	0.711	2.019	-0.40	1.112	65.2	84.5	22.5	0.[illegible]
4-3750	4-4420	0.246	161	2.9	1.64	0.733	113.2	0.489	1.361	226.9	644.3	0.791	1.932	-0.35	1.110	69.8	88.8	22.5	0.289
4-3750	4-4430	0.206	163.1	13.5	1.70	0.731	110.0	0.374	1.357	226.4	653.4	0.850	1.865	-0.32	1.109	73.4	93.2	22.4	0.[illegible]
4-3750	4-4440	0.175	165.6	13.9	1.76	0.730	107.6	0.339	1.353	225.3	661.8	0.894	1.812	-0.30	1.109	76.3	97.4	22.1	0.275
4-3750	4-4450	0.151	168.9	14.1	1.81	0.728	105.5	0.312	1.349	223.6	669.7	0.928	1.770	-0.30	1.108	78.7	101.1	21.7	0.234
4-3750	4-4460	0.132	172.7	14.1	1.86	0.727	103.9	0.291	1.345	221.7	677.3	0.953	1.736	-0.30	1.109	80.8	104.1	21.2	0.201
4-3750	4-4470	0.118	177.1	13.9	1.91	0.725	102.5	0.275	1.341	219.6	684.8	0.972	1.710	-0.31	1.109	82.6	105.8	20.7	0.173
4-3750	4-4480	0.290	282.1	-19.2	1.96	0.661	74.1	0.407	1.198	153.6	628.5	0.710	1.686	-0.33	1.070	67.6	156.5	8.9	0.394
4-3750	4-4480	0.107	181.6	13.7	1.96	0.724	101.4	0.263	1.336	217.5	692.4	0.986	1.689	-0.33	1.110	84.4	105.8	20.2	0.150
4-3750	4-4490	0.236	280.8	-17.9	2.03	0.672	78.7	0.345	1.220	156.6	641.2	0.799	1.641	-0.36	1.080	72.4	159.2	7.5	0.514
4-3750	4-4490	0.099	185.7	13.5	2.03	0.723	100.6	0.254	1.335	215.9	700.4	0.996	1.675	-0.36	1.112	86.1	103.2	19.9	0.[illegible]
4-3750	4-4500	0.187	277.8	-16.1	2.11	0.683	82.9	0.292	1.242	162.0	656.3	0.878	1.605	-0.41	1.089	76.9	159.5	6.7	0.239
4-3750	4-4500	0.096	188.2	13.8	2.11	0.723	100.2	0.250	1.334	215.0	709.3	1.001	1.667	-0.41	1.114	87.9	97.0	19.5	0.121
4-3750	4-4510	0.148	272.5	-13.5	2.23	0.691	86.4	0.255	1.260	169.3	673.4	0.938	1.582	-0.56	1.097	81.0	155.9	6.7	0.177
4-3750	4-4510	0.098	187.2	14.9	2.[illegible]	0.724	100.4	0.250	1.337	215.7	719.8	1.002	1.672	-0.56	1.117	90.0	86.[illegible]	18.7	0.121
4-3750	4-4520	0.122	266.4	-10.0	2.43	0.697	88.8	0.236	1.274	176.1	690.0	0.974	1.574	-0.67	1.103	84.4	147.3	7.3	0.133
4-3750	4-4520	0.109	180.[illegible]	17.2	2.43	0.727	101.7	0.261	1.345	219.0	732.9	0.994	1.697	-0.67	1.122	92.7	73.4	17.1	0.139
4-3750	4-4530	0.113	262.6	-5.8	2.84	0.701	89.9	0.228	1.281	179.8	703.4	0.989	1.573	-1.06	1.108	87.0	135.6	5.7	0.113
4-3750	4-4530	0.136	172.4	19.8	2.84	0.733	104.1	0.287	1.361	224.1	747.9	0.971	1.752	-1.06	1.128	96.1	64.0	14.4	0.182
4-3750	4-4540	0.120	262.2	3.8	4.53	0.701	90.1	0.226	1.283	180.3	714.1	0.993	1.573	-2.72	1.111	88.9	122.7	-7.8	0.116
4-3750	4-4540	0.191	167.7	25.1	4.53	0.740	107.5	0.328	1.[illegible]	228.8	762.6	0.929	1.835	-2.72	1.136	100.1	61.[illegible]	8.2	0.248
4-3750	4-4550	0.113	261.8	-40.2	-2.62	0.701	89.7	0.227	1.282	179.0	732.8	0.991	1.573	4.46	1.113	90.5	137.[illegible]	58.5	0.135
4-3750	4-4550	0.222	153.3	2.5	-2.62	0.749	111.3	0.380	1.406	231.8	775.6	0.873	1.940	4.46	1.143	104.9	55.5	35.4	0.326
4-3800	4-4220	0.345	323.1	-6.[illegible]	3.86	0.778	70.8	0.339	1.389	123.3	317.2	---	1.859	-2.[illegible]	1.145	79.6	225.3	-28.0	0.233
4-3800	4-4230	0.333	324.4	-7.6	2.93	0.780	71.6	0.325	1.397	122.1	326.2	---	1.850	-1.27	1.148	81.9	229.1	-25.4	0.200
4-3800	4-4240	0.324	325.1	-8.1	2.54	0.782	72.2	0.314	1.403	121.2	335.5	---	1.843	-0.92	1.149	84.2	228.0	-24.2	0.172
4-3800	4-4250	0.319	325.6	-8.4	2.30	0.784	72.6	0.307	1.407	120.5	345.0	---	1.839	-0.74	1.150	86.5	224.8	-22.9	0.151
4-3800	4-4260	0.316	[illegible].9	-8.6	2.14	0.785	72.8	0.303	1.410	120.0	354.7	---	1.837	-0.64	1.150	88.8	218.6	-20.7	0.130
4-3800	4-4270	0.316	326.2	-8.8	2.02	0.785	72.8	0.303	1.412	119.8	364.7	0.985	1.840	-0.57	1.150	91.1	210.6	-17.6	0.136
4-3800	4-4280	0.319	326.2	-9.1	1.91	0.785	72.5	0.307	1.413	119.8	374.8	0.979	1.846	-0.54	1.149	93.5	203.2	-14.2	0.146
4-3800	4-4290	0.[illegible]27	326.2	-9.5	1.82	0.785	72.0	0.316	1.413	120.0	385.1	0.966	1.859	-0.52	1.147	95.9	198.3	-11.6	0.160
4-3800	4-4300	0.[illegible].9	326.[illegible]	-9.9	1.73	0.785	73.1	0.330	1.412	120.4	395.5	0.9[illegible]	1.878	-0.52	1.144	98.[illegible]	196.1	-10.1	0.199
4-3800	4-4310	0.356	325.8	-10.5	1.63	0.785	69.8	0.352	1.410	121.1	406.2	0.914	1.907	-0.54	1.142	101.6	196.1	-9.6	0.241
4-3800	4-4320	0.382	325.3	-11.1	1.53	0.784	67.9	0.387	1.408	122.2	417.3	0.870	1.947	-0.57	1.139	104.9	197.6	-9.8	0.294
4-3800	4-4440	0.263	186.8	3.3	2.20	0.758	113.9	0.[illegible]	1.334	229.5	640.6	0.769	1.898	0.67	1.104	68.9	111.9	23.7	0.396
4-3800	4-4450	0.218	188.5	3.6	2.07	0.757	110.5	0.572	1.331	229.7	650.3	0.835	1.826	0.60	1.104	72.8	116.1	23.2	0.327
4-3800	4-4460	0.185	190.9	3.5	1.96	0.756	107.9	0.534	1.327	229.0	659.2	0.884	1.771	0.55	1.104	75.9	120.2	22.8	0.273
4-3800	4-4470	0.160	193.9	3.2	1.87	0.755	105.9	0.505	1.324	227.8	667.6	0.920	1.728	0.53	1.105	78.5	123.3	22.4	0.230
4-3800	4-4480	0.140	197.2	2.6	1.78	0.753	104.3	0.283	1.321	226.3	675.7	0.947	1.698	0.52	1.106	80.7	126.6	22.2	0.195
4-3800	4-4490	0.[illegible]26	200.7	1.8	1.69	0.752	103.0	0.266	1.318	224.7	683.8	0.967	1.668	0.53	1.107	82.6	128.2	22.4	0.166
4-3800	4-4500	0.115	204.0	0.8	1.60	0.751	102.0	0.254	1.315	223.2	692.0	0.981	1.[illegible]49	0.55	1.109	84.4	[illegible]9	23.3	0.143
4-3800	4-4510	0.108	206.6	-0.3	1.49	0.751	101.4	0.246	1.313	222.0	700.6	0.991	1.636	0.59	1.111	86.2	[illegible]6	25.0	0.125
4-3800	4-4520	0.250	307.6	-15.6	1.36	0.699	78.6	0.325	1.195	154.0	642.5	0.807	1.583	0.66	1.079	73.5	[illegible]7.6	-0.7	0.292
4-3800	4-4520	0.105	207.6	-1.5	1.36	0.751	101.1	0.[illegible]1	1.313	221.5	710.0	0.996	1.631	0.66	1.114	88.1	[illegible]7.9	27.5	0.115
4-3800	4-4530	0.205	305.2	-15.8	1.19	0.708	82.8	0.276	1.214	158.8	657.1	0.879	1.549	0.78	1.088	77.7	[illegible]9.5	0.0	0.224
4-3800	4-4530	0.106	206.6	-2.1	1.19	0.751	101.3	0.243	1.316	222.2	720.6	0.996	1.635	0.78	1.117	90.1	106.8	30.2	0.116
4-3800	4-4540	0.169	301.7	-16.7	0.93	0.715	85.3	0.242	1.230	164.8	673.1	0.932	1.527	0.99	[illegible].[illegible]	81.4	[illegible]8.6	3.2	0.168
4-3800	4-4540	0.114	200.9	-2.5	0.93	0.754	102.2	0.252	1.322	224.5	732.8	0.989	1.656	0.99	1.121	9[illegible]	[illegible]3	31.8	0.133
4-3800	4-4550	0.146	298.4	-19.0	0.47	0.720	87.2	0.222	1.240	170.1	688.5	0.964	1.516	1.41	1.101	9[illegible]	[illegible].7	10.6	0.130
4-3800	4-4550	0.133	193.2	-3.0	0.47	0.758	104.0	0.274	1.334	228.2	746.5	0.969	1.699	1.41	1.126	9[illegible]	[illegible]1	32.[illegible]	0.159
4-3800	4-4560	0.135	297.2	-25.7	-0.75	0.723	88.2	0.214	1.246	173.3	701.7	0.980	1.513	2.58	1.105	6[illegible]	[illegible]0	26.4	0.114
4-3800	4-4560	0.186	184.9	-5.8	-0.75	0.765	106.7	0.309	1.351	231.9	760.3	0.953	1.769	2.58	1.133	9[illegible]	[illegible].0	36.1	0.226
4-3800	4-4570	0.263	308.8	-75.7	-17.06	0.724	88.5	0.211	1.249	174.2	712.6	0.985	1.512	18.84	1.107	88.[illegible]	[illegible].1	66.2	0.359
4-3800	4-4580	0.150	291.0	3.6	5.20	0.724	88.3	0.211	1.249	173.6	722.3	0.985	1.512	-3.46	1.109	90.[illegible]	[illegible].0	23.4	0.115
4-3800	4-4580	0.268	186.4	12.5	5.20	0.780	113.8	0.410	1.396	235.7	784.3	0.823	1.968	-3.46	1.146	107.[illegible]	[illegible].8	13.0	0.306
4-3800	4-4590	0.145	294.3	-5.1	3.30	0.723	87.8	0.213	1.247	172.0	730.8	0.981	1.514	-1.61	1.109	91.[illegible]	[illegible].1	-4.6	0.106
4-3800	4-4600	0.150	296.9	-8.2	2.71	0.722	87.2	0.218	1.245	169.7	738.7	0.974	1.516	-1.07	1.109	93.[illegible]	[illegible].9	2.2	0.178
4-3850	4-4250	0.335	344.5	7.1	5.59	0.800	72.1	0.316	1.347	120.8	317.7	---	1.772	-4.45	1.136	80.2	260.8	-44.8	0.236
4-3850	4-4260	0.319	346.7	4.3	3.86	0.803	72.9	0.302	1.355	119.6	326.6	---	1.763	-2.83	1.138	82.4	263.5	-39.7	0.198
4-3850	4-4270	0.309	347.9	2.9	3.03	0.805	73.5	0.291	1.361	118.5	335.7	---	1.756	-2.13	1.138	84.6	263.7	-37.7	0.170
4-3850	4-4280	0.302	348.6	2.1	2.52	0.806	73.9	0.283	1.366	117.8	345.0	---	1.753	-1.75	1.138	86.7	[illegible]0.6	-36.8	0.148
4-3850	4-4290	0.298	349.2	1.4	2.15	0.807	74.2	0.278	1.369	117.2	354.6	---	1.750	-1.53	1.137	88.8	253.9	-35.8	0.133
4-3850	4-4300	0.297	349.7	0.8	1.86	0.808	74.2	0.277	1.371	116.9	364.3	0.991	1.751	-1.39	1.135	90.9	244.7	-34.0	0.129
4-3850	4-4310	0.300	350.0	0.2	1.62	0.808	74.0	0.280	1.372	116.8	374.2	0.987	1.756	-1.33	1.133	93.1	235.7	-31.1	0.136
4-3850	4-4320	0.306	350.2	-0.5	1.39	0.808	73.5	0.286	1.372	117.0	384.3	0.977	1.767	-1.29	1.131	95.4	229.4	-28.1	0.153
4-3850	4-4330	0.317	350.4	-[illegible].1	1.17	0.808	72.8	0.301	1.371	117.3	394.6	0.958	1.784	-1.30	1.128	97.8	226.3	-25.8	0.181
4-3850	4-4340	0.333	350.5	-[illegible].9	0.93	0.808	71.6	0.321	1.370	118.0	405.1	0.930	1.810	-1.35	1.125	100.5	225.8	-24.4	0.219
4-3850	4-4350	0.358	350.4	-2.7	0.68	0.807	69.8	0.349	1.369	119.0	416.0	0.890	1.847	-1.44	1.122	103.6	227.1	-23.8	0.267
4-3850	4-4470	0.256	213.2	-6.6	2.33	0.786	111.8	0.384	1.307	233.2	645.3	0.805	1.809	1.63	1.101	71.4	140.2	20.7	0.345
4-3850	4-4480	0.216	215.0	-6.9	2.02	0.785	108.8	0.339	1.305	233.4	655.1	0.863	1.746	1.46	1.102	75.0	144.1	20.1	0.283
4-3850	4-4490	0.187	217.1	-7.5	1.76	0.784	106.6	0.305	1.302	232.9	664.2	0.905	1.699	1.36	1.103	77.8	147.6	19.7	0.235
4-3850	4-4500	0.165	219.6	-8.[illegible]	1.53	0.783	104.9	0.280	1.299	231.9	673.0	0.935	1.663	1.30	1.105	80.2	150.6	19.7	0.197
4-3850	4-4510	0.149	222.0	-9.6	1.31	0.782	103.7	0.262	1.297	230.8	681.7	0.957	1.636	1.29	1.107	82.3	152.5	20.5	0.166
4-3850	4-4520	0.137	224.2	-10.9	1.09	0.781	102.7	0.248	1.295	229.8	690.5	0.973	1.616	1.[illegible]	1.109	84.3	152.7	22.2	0.141
4-3850	4-4530	0.130	225.8	-12.5	0.85	0.780	102.1	0.239	1.294	228.9	699.5	0.984	1.603	1.37	1.111	86.1	[illegible]0.3	25.4	0.123
4-3850	4-4540	0.126	226.3	-14.2	0.57	0.780	101.8	0.234	1.294	228.6	709.1	0.990	1.597	1.49	1.114	87.9	148.4	29.9	0.113
4-3850	4-4550	0.265	334.5	-10.2	0.23	0.725	77.5	0.319	1.167	149.8	640.4	0.795	1.539	1.69	1.078	73.5	218.8	-8.9	0.295

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3850	4-4550	0.126	225.1	-16.1	0.23	0.781	101.8	0.235	1.295	229.0	719.6	0.991	1.600	1.69	1.116	89.9	134.8	34.9	0.113
4-3850	4-4560	0.221	333.0	-12.3	-0.24	0.733	80.9	0.270	1.184	153.4	654.0	0.864	1.504	2.03	1.085	77.5	222.3	-6.5	0.231
4-3850	4-4550	0.132	221.8	-18.0	-0.24	0.783	102.4	0.242	1.300	230.4	731.0	0.985	1.615	2.03	1.120	92.1	123.4	38.6	0.126
4-3850	4-4570	0.188	331.2	-16.1	-0.96	0.740	83.7	0.234	1.198	158.2	668.9	0.917	1.479	2.63	1.092	81.0	224.8	-0.4	0.180
4-3850	4-4570	0.148	216.5	-20.1	-0.96	0.786	103.7	0.259	1.308	232.8	743.5	0.970	1.646	2.63	1.124	94.8	114.6	41.0	0.156
4-3850	4-4580	0.168	330.6	-23.6	-2.37	0.745	85.5	0.212	1.208	162.9	683.7	0.952	1.464	3.92	1.097	83.9	227.2	18.3	0.151
4-3850	4-4580	0.175	209.9	-23.6	-2.37	0.791	105.8	0.287	1.321	235.6	756.4	0.942	1.700	3.92	1.128	97.9	110.7	44.1	0.205
4-3850	4-4590	0.178	335.8	-42.4	-6.77	0.747	86.6	0.200	1.214	166.3	697.2	0.971	1.457	8.21	1.100	86.3	236.9	40.7	0.184
4-3850	4-4590	0.228	201.3	-34.1	-6.77	0.797	108.5	0.326	1.338	237.8	768.8	0.902	1.774	8.21	1.134	101.4	111.5	55.4	0.291
4-3850	4-4610	0.179	310.7	16.7	7.67	0.749	87.2	0.193	1.219	168.3	719.8	0.983	1.434	-6.47	1.102	90.0	158.1	-56.6	0.146
4-3850	4-4620	0.160	316.2	5.9	4.57	0.749	87.0	0.194	1.219	167.4	729.1	0.982	1.455	-3.49	1.101	91.5	169.8	-37.5	0.109
4-3850	4-4630	0.159	319.5	1.0	3.40	0.749	86.6	0.197	1.217	165.8	737.6	0.977	1.458	-2.44	1.100	92.9	172.9	-25.5	0.106
4-3850	4-4640	0.163	322.2	-1.8	2.76	0.748	85.9	0.202	1.216	163.6	745.6	0.970	1.462	-1.92	1.098	94.2	175.4	-18.6	0.114
4-3850	4-4650	0.170	324.8	-3.5	2.32	0.747	85.2	0.209	1.214	161.1	753.1	0.960	1.468	-1.63	1.096	95.6	178.7	-14.9	0.127
4-3900	4-4280	0.304	6.8	20.7	6.21	0.816	73.3	0.294	1.311	119.4	316.7	---	1.696	-5.97	1.124	80.6	305.4	-48.7	0.243
4-3900	4-4290	0.285	10.0	16.1	5.94	0.819	74.2	0.279	1.319	118.0	325.4	---	1.687	-3.86	1.125	82.7	305.4	-42.1	0.201
4-3900	4-4300	0.273	11.6	14.1	2.83	0.821	74.8	0.268	1.325	116.9	334.3	---	1.680	-2.92	1.124	84.7	305.3	-39.6	0.171
4-3900	4-4310	0.265	12.7	12.6	2.14	0.823	75.3	0.259	1.330	116.0	343.4	---	1.675	-2.41	1.123	86.6	303.0	-39.1	0.148
4-3900	4-4320	0.260	13.5	11.4	1.65	0.824	75.6	0.254	1.333	115.3	352.7	---	1.672	-2.11	1.121	88.5	297.3	-39.7	0.132
4-3900	4-4330	0.258	14.1	10.4	1.25	0.825	75.7	0.252	1.336	114.9	362.2	0.999	1.672	-1.93	1.119	90.5	288.1	-40.2	0.124
4-3900	4-4340	0.259	14.7	9.5	0.92	0.825	75.5	0.254	1.337	114.7	371.9	0.998	1.676	-1.82	1.117	92.4	277.5	-39.6	0.127
4-3900	4-4350	0.264	15.2	8.6	0.60	0.825	75.2	0.260	1.337	114.8	381.7	0.990	1.685	-1.78	1.115	94.4	268.8	-37.8	0.140
4-3900	4-4360	0.273	15.6	7.8	0.30	0.825	74.5	0.270	1.337	115.0	391.7	0.976	1.699	-1.79	1.112	96.6	263.7	-35.6	0.163
4-3900	4-4370	0.288	16.0	6.9	-0.01	0.825	73.5	0.287	1.336	115.6	401.9	0.952	1.720	-1.85	1.110	99.0	261.8	-33.7	0.195
4-3900	4-4380	0.310	16.3	6.1	-0.36	0.825	72.0	0.312	1.335	116.5	412.4	0.918	1.752	-1.98	1.108	101.7	262.3	-32.3	0.232
4-3900	4-4390	0.341	16.4	5.3	-0.76	0.824	69.8	0.348	1.334	117.9	423.4	0.869	1.798	-2.19	1.106	105.1	264.3	-31.3	0.293
4-3900	4-4500	0.277	240.9	-15.9	1.44	0.806	110.8	0.366	1.282	235.6	646.7	0.813	1.751	2.28	1.100	72.4	169.0	12.8	0.323
4-3900	4-4510	0.238	242.3	-16.6	1.50	0.805	108.0	0.321	1.280	235.9	656.8	0.868	1.691	2.04	1.102	75.9	172.7	12.1	0.264
4-3900	4-4520	0.209	244.1	-17.6	1.13	0.804	105.9	0.289	1.277	235.5	666.2	0.908	1.647	1.88	1.104	78.7	176.2	11.9	0.218
4-3900	4-4530	0.188	246.0	-18.8	0.80	0.803	104.4	0.266	1.275	234.7	675.3	0.936	1.614	1.80	1.106	81.1	179.1	12.3	0.182
4-3900	4-4540	0.173	247.8	-20.1	0.49	0.802	103.2	0.248	1.273	233.8	684.4	0.957	1.589	1.78	1.108	83.1	181.0	13.6	0.153
4-3900	4-4550	0.162	249.4	-21.7	0.18	0.801	102.4	0.236	1.271	232.9	693.5	0.971	1.571	1.81	1.110	85.0	181.1	16.4	0.131
4-3900	4-4560	0.156	250.4	-23.6	-0.16	0.801	101.8	0.228	1.270	232.3	702.9	0.981	1.560	1.90	1.112	86.9	178.8	20.9	0.115
4-3900	4-4570	0.153	250.6	-25.6	-0.55	0.801	101.6	0.225	1.271	232.2	712.9	0.985	1.556	2.07	1.115	88.7	173.1	26.8	0.108
4-3900	4-4580	0.259	359.9	-3.2	-1.03	0.744	76.9	0.315	1.142	147.2	638.1	0.783	1.502	2.35	1.075	73.4	251.1	-14.2	0.303
4-3900	4-4580	0.155	249.5	-27.9	-1.03	0.802	101.8	0.226	1.273	232.7	723.6	0.985	1.561	2.35	1.116	90.7	164.5	33.0	0.112
4-3900	4-4590	0.215	358.3	-7.2	-1.69	0.753	80.4	0.263	1.159	150.5	651.5	0.854	1.465	2.83	1.082	77.4	255.1	-10.1	0.240
4-3900	4-4590	0.164	246.9	-30.5	-1.69	0.804	102.5	0.235	1.278	234.2	735.2	0.978	1.578	2.83	1.118	92.9	155.1	37.6	0.129
4-3900	4-4600	0.188	356.6	-13.9	-2.73	0.760	83.2	0.225	1.174	155.1	666.3	0.910	1.437	3.69	1.087	80.9	257.6	-1.6	0.191
4-3900	4-4600	0.383	242.7	-33.6	-2.73	0.807	103.8	0.253	1.286	236.4	747.6	0.961	1.611	3.69	1.121	95.5	148.6	40.8	0.163
4-3900	4-4610	0.170	356.8	-25.4	-4.77	0.764	85.2	0.200	1.184	160.0	681.4	0.948	1.420	5.57	1.091	83.8	259.3	15.4	0.170
4-3900	4-4610	0.216	237.5	-38.5	-4.77	0.812	105.8	0.282	1.299	238.8	760.2	0.932	1.665	5.57	1.124	98.5	147.1	45.0	0.217
4-3900	4-4620	0.216	5.0	-47.7	-11.38	0.768	86.4	0.186	1.191	163.9	695.4	0.970	1.412	12.02	1.092	86.2	265.6	44.9	0.245
4-3900	4-4620	0.292	231.5	-52.0	-11.38	0.818	108.5	0.323	1.315	240.7	772.1	0.891	1.740	12.02	1.128	102.0	153.7	58.7	0.332
4-3900	4-4640	0.184	323.4	28.2	8.85	0.770	87.3	0.176	1.196	167.3	719.4	0.986	1.407	-8.53	1.092	89.9	159.5	-76.4	0.175
4-3900	4-4650	0.151	331.5	15.7	4.89	0.770	87.2	0.176	1.197	166.8	728.9	0.986	1.407	-4.72	1.091	91.3	193.7	-61.9	0.117
4-3900	4-4660	0.145	336.1	9.2	3.34	0.770	86.9	0.178	1.196	165.4	737.6	0.983	1.409	-3.34	1.088	92.6	200.0	-49.0	0.105
4-3900	4-4670	0.146	339.9	5.5	2.47	0.769	86.4	0.182	1.195	163.4	745.6	0.977	1.412	-2.65	1.086	93.9	203.5	-40.0	0.107
4-3900	4-4680	0.150	343.3	3.2	1.89	0.769	85.7	0.188	1.193	161.0	753.2	0.969	1.417	-2.25	1.083	95.1	207.2	-34.2	0.116
4-3900	4-4690	0.443	28.0	14.8	1.45	0.940	64.7	0.478	1.832	88.8	330.9	---	2.706	-2.01	1.208	80.7	329.0	-21.5	0.287
4-3900	4-4690	0.158	346.7	1.8	1.45	0.768	84.9	0.195	1.191	158.2	760.3	0.959	1.424	-2.01	1.079	96.3	211.5	-30.9	0.129
4-3900	4-4700	0.430	29.0	14.5	1.09	0.941	65.6	0.467	1.837	86.8	338.8	---	2.695	-1.87	1.206	83.3	329.3	-21.8	0.256
4-3900	4-4700	0.168	350.0	1.0	1.09	0.767	84.0	0.204	1.189	155.2	767.2	0.946	1.433	-1.87	1.076	97.5	216.5	-29.1	0.145
4-3950	4-4310	0.251	31.2	32.5	5.71	0.818	74.9	0.271	1.284	120.8	316.8	---	1.632	-6.45	1.111	81.2	342.0	-41.7	0.238
4-3950	4-4320	0.230	34.9	26.0	3.17	0.821	75.7	0.257	1.292	119.5	325.4	---	1.624	-4.07	1.111	83.1	339.7	-34.4	0.194
4-3950	4-4330	0.218	36.7	22.6	1.97	0.823	76.3	0.245	1.298	118.4	334.2	---	1.617	-3.04	1.110	85.0	338.7	-31.6	0.164
4-3950	4-4340	0.210	37.7	20.3	1.25	0.825	76.7	0.237	1.303	117.6	343.2	---	1.612	-2.49	1.108	86.8	336.4	-31.3	0.142
4-3950	4-4350	0.206	38.5	18.5	0.73	0.826	77.0	0.232	1.307	116.9	352.4	---	1.610	-2.16	1.107	88.6	331.3	-32.5	0.126
4-3950	4-4360	0.204	39.2	17.1	0.33	0.827	77.1	0.230	1.309	116.5	361.7	1.008	1.610	-1.96	1.105	90.3	323.3	-34.2	0.118
4-3950	4-4370	0.205	39.8	15.9	-0.01	0.827	77.0	0.232	1.310	116.3	371.2	1.006	1.614	-1.85	1.103	92.1	313.6	-35.3	0.120
4-3950	4-4380	0.210	40.5	14.8	-0.32	0.827	76.6	0.237	1.310	116.2	380.7	1.000	1.621	-1.79	1.101	93.9	305.0	-35.0	0.132
4-3950	4-4390	0.219	41.2	13.9	-0.62	0.827	76.0	0.247	1.310	116.3	390.4	0.986	1.634	-1.79	1.100	95.9	299.5	-33.8	0.153
4-3950	4-4400	0.232	41.9	13.2	-0.93	0.827	75.1	0.263	1.309	116.6	400.3	0.965	1.653	-1.83	1.098	98.1	297.2	-32.3	0.182
4-3950	4-4410	0.252	42.6	12.6	-1.26	0.827	73.7	0.286	1.308	117.2	410.4	0.934	1.681	-1.94	1.097	100.5	297.3	-30.8	0.221
4-3950	4-4420	0.281	43.1	12.1	-1.64	0.826	71.7	0.318	1.306	118.2	420.9	0.891	1.722	-2.12	1.096	103.5	298.9	-29.3	0.271
4-3950	4-4540	0.276	273.2	-22.4	0.57	0.806	107.9	0.323	1.252	234.4	653.5	0.848	1.656	2.08	1.102	75.3	202.7	-0.8	0.273
4-3950	4-4550	0.245	274.8	-23.3	0.19	0.805	105.6	0.288	1.249	233.6	662.8	0.889	1.609	1.91	1.103	78.2	206.9	-1.3	0.226
4-3950	4-4560	0.221	276.8	-24.4	-0.15	0.803	103.9	0.262	1.246	232.5	671.6	0.920	1.573	1.81	1.105	80.5	210.9	-1.4	0.190
4-3950	4-4570	0.203	278.9	-25.6	-0.47	0.802	102.5	0.242	1.244	231.0	680.3	0.942	1.545	1.78	1.106	82.6	214.2	-0.7	0.160
4-3950	4-4580	0.190	281.0	-26.9	-0.79	0.801	101.5	0.227	1.241	229.4	688.8	0.959	1.524	1.81	1.107	84.4	216.4	1.1	0.137
4-3950	4-4590	0.181	282.9	-28.4	-1.13	0.801	100.7	0.217	1.239	228.0	697.6	0.971	1.508	1.89	1.107	86.1	217.1	4.3	0.119
4-3950	4-4600	0.270	24.3	6.1	1.51	0.738	74.2	0.361	1.108	147.0	626.7	0.708	1.507	2.05	1.063	69.8	277.9	-17.7	0.367
4-3950	4-4600	0.175	284.5	-30.2	-1.51	0.800	100.1	0.209	1.238	226.9	706.7	0.979	1.497	2.05	1.107	87.7	215.4	9.2	0.106
4-3950	4-4610	0.215	21.0	1.7	-1.99	0.750	78.7	0.294	1.129	149.6	639.5	0.797	1.461	2.33	1.071	74.5	282.0	-14.6	0.290
4-3950	4-4610	0.173	285.4	-32.4	-1.99	0.800	99.9	0.206	1.238	226.6	716.5	0.983	1.494	2.33	1.107	89.4	210.7	15.8	0.101
4-3950	4-4620	0.172	15.5	-5.8	-2.63	0.760	82.7	0.238	1.148	155.0	655.1	0.875	1.422	2.78	1.078	78.9	283.9	-9.3	0.221
4-3950	4-4620	0.177	284.9	-35.1	-2.63	0.801	100.1	0.208	1.241	227.5	727.6	0.982	1.499	2.78	1.108	91.3	202.8	23.2	0.107
4-3950	4-4630	0.146	8.7	-17.4	-3.62	0.768	85.9	0.199	1.165	162.8	673.1	0.933	1.397	3.60	1.083	82.7	282.5	0.7	0.169
4-3950	4-4630	0.191	282.6	-38.6	-3.62	0.804	101.1	0.219	1.247	230.1	740.4	0.974	1.520	3.60	1.109	93.6	193.8	29.7	0.129
4-3950	4-4640	0.144	4.4	-32.2	-5.51	0.773	88.0	0.178	1.176	170.6	691.0	0.967	1.385	5.32	1.086	85.7	277.7	19.2	0.149

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3950	4-4640	0.222	278.8	-43.7	-5.51	0.808	103.0	0.244	1.259	234.1	754.5	0.952	1.565	5.32	1.111	96.5	187.9	35.4	0.177
4-3950	4-4650	0.198	11.5	-50.7	-11.14	0.776	89.1	0.168	1.183	175.6	706.0	0.984	1.382	10.79	1.086	88.0	273.9	46.9	0.216
4-3950	4-4650	0.293	277.5	-55.0	-11.14	0.815	105.8	0.283	1.276	237.9	768.3	0.915	1.437	10.79	1.111	100.1	190.6	47.5	0.283
4-3950	4-4670	0.170	322.7	32.8	8.84	0.778	89.5	0.165	1.186	177.6	728.4	0.991	1.382	-9.50	1.080	91.2	139.0	-80.9	0.189
4-3950	4-4680	0.128	333.2	17.2	4.21	0.777	89.2	0.166	1.186	176.0	736.7	0.989	1.382	-5.03	1.080	92.4	215.7	-69.8	0.121
4-3950	4-4690	0.120	340.2	9.3	2.51	0.777	88.7	0.168	1.184	173.6	744.3	0.985	1.383	-3.50	1.077	93.4	226.3	-56.7	0.108
4-3950	4-4700	0.120	346.3	5.3	1.59	0.776	88.1	0.172	1.182	170.7	751.2	0.980	1.385	-2.74	1.074	94.4	231.7	-47.7	0.109
4-3950	4-4710	0.122	352.0	3.3	0.98	0.775	87.3	0.176	1.180	167.4	757.7	0.972	1.388	-2.32	1.070	95.4	236.7	-42.1	0.117
4-3950	4-4720	0.398	59.5	22.1	0.53	0.946	65.2	0.470	1.806	87.8	327.9	---	2.655	-2.06	1.197	79.9	359.3	-9.3	0.295
4-3950	4-4720	0.127	357.6	2.5	0.53	0.774	86.5	0.183	1.178	163.9	764.0	0.963	1.393	-2.06	1.067	96.4	242.0	-38.5	0.129
4-3950	4-4730	0.384	60.6	21.6	0.16	0.946	66.1	0.459	1.811	85.6	335.4	---	2.682	-1.90	1.196	82.3	0.2	-9.3	0.263
4-3950	4-4730	0.134	3.0	2.4	0.16	0.775	85.9	0.191	1.176	160.2	770.0	0.951	1.401	-1.90	1.064	97.4	247.8	-36.2	0.143
4-3950	4-4740	0.374	61.5	21.0	-0.16	0.947	66.9	0.450	1.816	83.9	343.4	---	2.633	-1.81	1.195	84.9	359.1	-10.4	0.236
4-3950	4-4740	0.144	8.3	2.7	-0.16	0.772	86.3	0.202	1.173	156.5	775.9	0.936	1.410	-1.81	1.061	98.5	254.0	-34.6	0.161
4-3950	4-4750	0.367	62.2	20.4	-0.47	0.948	67.3	0.445	1.819	82.7	351.8	---	2.628	-1.78	1.194	87.5	355.6	-12.6	0.217
4-3950	4-4750	0.137	13.4	3.4	-0.47	0.771	83.0	0.216	1.171	152.7	781.7	0.918	1.424	-1.78	1.059	99.8	260.5	-33.5	0.181
4-4000	4-4280	0.284	61.1	14.6	-2.58	0.762	69.5	0.392	1.177	137.1	271.4	---	1.639	1.76	1.085	68.8	321.8	-10.4	0.404
4-4000	4-4290	0.260	62.1	12.5	-3.12	0.772	71.3	0.358	1.199	134.8	279.2	---	1.628	2.17	1.090	71.5	327.2	-6.6	0.361
4-4000	4-4300	0.240	63.1	10.9	-3.99	0.781	72.8	0.328	1.218	132.8	287.2	---	1.617	2.93	1.094	74.1	331.6	-4.4	0.322
4-4000	4-4310	0.230	64.2	1.7	-5.89	0.787	74.1	0.302	1.234	130.9	295.4	---	1.606	4.71	1.097	76.4	334.2	8.0	0.292
4-4000	4-4320	0.282	65.1	-20.3	-14.09	0.793	75.3	0.279	1.248	129.3	303.6	---	1.597	12.80	1.098	78.6	330.0	36.7	0.337
4-4000	4-4330	0.281	33.3	62.6	14.86	0.798	76.3	0.260	1.260	128.0	312.6	---	1.586	-16.26	1.099	80.8	30.6	-50.7	0.362
4-4000	4-4340	0.179	56.4	36.9	3.63	0.801	77.1	0.244	1.269	126.9	321.2	---	1.579	-5.14	1.099	82.7	4.4	-29.4	0.205
4-4000	4-4350	0.163	58.8	28.2	1.49	0.804	77.7	0.232	1.276	126.0	330.0	---	1.573	-3.11	1.098	84.5	1.1	-22.4	0.166
4-4000	4-4360	0.155	59.7	23.8	0.54	0.806	78.2	0.223	1.282	125.3	339.1	---	1.568	-2.27	1.098	86.2	358.6	-20.2	0.141
4-4000	4-4370	0.150	60.2	21.0	-0.02	0.808	78.5	0.217	1.286	124.8	348.2	---	1.565	-1.84	1.097	87.9	354.4	-20.5	0.123
4-4000	4-4380	0.148	60.7	19.0	-0.40	0.809	78.6	0.214	1.288	124.4	357.4	---	1.564	-1.58	1.095	89.5	347.7	-22.1	0.113
4-4000	4-4390	0.149	61.3	17.5	-0.70	0.809	78.6	0.215	1.290	124.0	366.7	1.013	1.567	-1.42	1.094	91.2	339.3	-23.9	0.112
4-4000	4-4400	0.152	62.1	16.4	-0.95	0.809	78.3	0.218	1.290	123.8	375.9	1.008	1.572	-1.33	1.093	92.8	331.2	-24.8	0.119
4-4000	4-4410	0.159	63.2	15.7	-1.17	0.809	77.8	0.226	1.290	123.5	385.2	0.998	1.581	-1.28	1.092	94.6	325.5	-24.7	0.136
4-4000	4-4420	0.169	64.5	15.3	-1.38	0.809	77.1	0.238	1.289	123.3	394.6	0.982	1.595	-1.26	1.091	96.4	322.6	-23.8	0.159
4-4000	4-4430	0.184	65.9	15.2	-1.59	0.808	76.1	0.255	1.287	123.1	403.9	0.959	1.615	-1.29	1.091	98.5	322.3	-22.6	0.190
4-4000	4-4440	0.204	67.4	15.3	-1.82	0.808	74.6	0.279	1.285	123.1	413.5	0.926	1.644	-1.35	1.091	100.9	323.6	-21.1	0.229
4-4000	4-4450	0.233	68.9	15.6	-2.08	0.807	72.5	0.312	1.283	123.4	423.3	0.882	1.684	-1.46	1.091	103.8	326.1	-19.5	0.278
4-4000	4-4460	0.274	70.1	16.0	-2.39	0.806	69.6	0.359	1.281	124.3	433.7	0.821	1.740	-1.64	1.092	107.4	329.1	-17.9	0.341
4-4000	4-4580	0.275	308.7	-21.5	-0.84	0.779	105.2	0.301	1.213	225.5	653.5	0.848	1.579	1.36	1.098	76.1	241.9	-15.3	0.261
4-4000	4-4590	0.245	311.3	-22.0	-1.09	0.777	102.9	0.270	1.209	222.7	660.8	0.882	1.536	1.29	1.098	78.5	248.1	-15.6	0.224
4-4000	4-4600	0.221	314.0	-22.3	-1.31	0.774	100.9	0.247	1.204	219.1	667.4	0.907	1.501	1.26	1.097	80.3	254.6	-15.6	0.195
4-4000	4-4610	0.199	316.5	-22.6	-1.54	0.772	99.0	0.228	1.198	214.6	673.1	0.926	1.478	1.28	1.095	81.8	261.4	-15.1	0.172
4-4000	4-4620	0.248	45.3	12.4	-1.78	0.712	74.3	0.389	1.083	151.7	620.3	0.662	1.505	1.33	1.054	67.7	342.3	-16.9	0.407
4-4000	4-4620	0.180	323.8	-22.7	-1.78	0.769	97.2	0.213	1.192	208.8	677.5	0.938	1.445	1.33	1.093	82.9	268.8	-14.1	0.156
4-4000	4-4630	0.179	34.4	5.3	-2.05	0.729	80.8	0.299	1.113	156.9	635.7	0.781	1.446	1.44	1.065	73.9	304.9	-14.6	0.303
4-4000	4-4640	0.160	332.3	-22.2	-2.05	0.764	94.9	0.201	1.182	200.3	679.1	0.944	1.420	1.44	1.089	83.5	278.3	-12.6	0.148
4-4000	4-4700	0.202	312.0	8.5	6.56	0.775	97.5	0.205	1.206	212.2	761.3	0.958	1.454	-8.01	1.082	94.7	195.1	-62.1	0.196
4-4000	4-4700	0.293	301.4	-3.0	6.56	0.794	105.7	0.293	1.251	231.6	780.7	0.885	1.618	-8.01	1.095	102.8	193.3	-41.8	0.274
4-4000	4-4710	0.157	323.6	-2.6	2.35	0.770	94.9	0.191	1.193	201.5	760.4	0.965	1.421	-3.91	1.075	96.2	228.2	-50.2	0.141
4-4000	4-4720	0.141	332.4	-6.0	0.96	0.766	93.2	0.187	1.186	194.2	762.8	0.964	1.408	-2.64	1.070	96.4	242.0	-42.9	0.133
4-4000	4-4730	0.132	340.4	-6.9	0.25	0.764	91.8	0.187	1.181	187.9	766.2	0.960	1.401	-2.04	1.066	96.8	251.6	-38.6	0.136
4-4000	4-4740	0.126	348.4	-6.5	-0.21	0.762	90.5	0.189	1.176	182.1	770.0	0.954	1.398	-1.70	1.062	97.4	259.7	-35.8	0.143
4-4000	4-4750	0.352	93.0	22.6	-0.55	0.935	65.3	0.461	1.784	89.4	327.0	---	2.607	-1.50	1.189	79.7	24.8	3.8	0.289
4-4000	4-4750	0.123	356.5	-5.3	-0.55	0.760	89.2	0.194	1.172	176.5	774.1	0.945	1.399	-1.50	1.059	98.0	267.4	-33.7	0.153
4-4000	4-4760	0.339	94.0	21.9	-0.82	0.934	66.2	0.450	1.790	87.4	334.6	---	2.596	-1.37	1.189	82.2	25.4	3.8	0.258
4-4000	4-4760	0.123	5.0	-3.3	-0.82	0.758	87.8	0.200	1.168	171.2	778.4	0.934	1.402	-1.37	1.056	98.8	274.8	-32.0	0.166
4-4000	4-4770	0.329	94.8	21.2	-1.05	0.934	66.9	0.442	1.794	85.8	342.5	---	2.587	-1.30	1.188	84.7	24.0	2.9	0.231
4-4000	4-4770	0.126	13.8	-1.0	-1.05	0.756	86.4	0.210	1.165	166.0	782.8	0.920	1.409	-1.30	1.054	99.7	282.1	-30.5	0.181
4-4000	4-4780	0.323	95.3	20.6	-1.27	0.935	67.3	0.437	1.798	84.7	351.0	---	2.583	-1.26	1.188	87.3	20.1	0.9	0.213
4-4000	4-4780	0.132	22.2	1.7	-1.27	0.755	84.8	0.223	1.161	161.0	787.3	0.903	1.420	-1.26	1.052	100.7	289.4	-28.8	0.200
4-4000	4-4790	0.321	95.5	19.9	-1.48	0.935	67.5	0.435	1.800	84.3	360.1	1.017	2.584	-1.27	1.188	90.0	13.9	-2.0	0.206
4-4000	4-4790	0.144	30.6	4.5	-1.48	0.753	82.9	0.239	1.158	156.2	792.0	0.881	1.436	-1.27	1.051	102.0	296.5	-27.2	0.223
4-4000	4-4800	0.324	95.3	19.4	-1.70	0.936	67.2	0.439	1.802	84.6	370.0	1.012	2.593	-1.31	1.189	93.0	6.2	-5.2	0.215
4-4000	4-4800	0.161	38.5	7.2	-1.70	0.752	80.8	0.262	1.156	151.6	797.0	0.853	1.458	-1.31	1.050	103.5	303.4	-25.3	0.252
4-4050	4-4280	0.278	78.8	19.2	-1.91	0.690	68.8	0.465	1.101	150.1	254.3	---	1.613	0.43	1.058	62.9	330.7	-11.1	0.498
4-4050	4-4290	0.246	79.4	18.2	-1.99	0.707	71.0	0.418	1.131	147.9	262.2	---	1.604	0.46	1.067	66.3	336.6	-8.7	0.443
4-4050	4-4300	0.218	79.6	17.0	-2.09	0.722	72.9	0.377	1.158	146.0	270.4	---	1.595	0.50	1.075	69.4	342.1	-6.2	0.393
4-4050	4-4310	0.194	79.4	15.5	-2.21	0.734	74.6	0.341	1.182	144.3	278.7	---	1.585	0.58	1.080	72.2	347.4	-3.5	0.346
4-4050	4-4320	0.174	78.9	13.6	-2.38	0.744	76.1	0.309	1.203	142.9	287.3	---	1.576	0.71	1.085	74.9	352.1	-0.7	0.303
4-4050	4-4330	0.157	78.0	11.0	-2.66	0.752	77.3	0.283	1.221	141.8	296.1	---	1.567	0.96	1.088	77.3	356.1	2.5	0.264
4-4050	4-4340	0.145	77.0	8.5	-3.26	0.759	78.4	0.261	1.236	141.0	305.1	---	1.559	1.52	1.090	79.5	358.7	7.2	0.229
4-4050	4-4350	0.149	76.3	-6.7	-5.69	0.764	79.2	0.243	1.249	---	314.2	---	1.551	3.91	1.091	81.5	356.4	21.1	0.208
4-4050	4-4360	0.134	66.2	50.0	4.69	0.768	79.9	0.228	1.258	139.9	323.6	---	1.545	-6.51	1.091	83.5	23.9	-30.4	0.204
4-4050	4-4370	0.110	70.9	22.4	-0.05	0.771	80.4	0.217	1.265	139.6	332.9	---	1.541	-1.80	1.091	85.3	11.4	-9.8	0.146
4-4050	4-4380	0.106	70.6	16.8	-0.82	0.773	80.7	0.210	1.271	139.3	342.3	---	1.538	-1.06	1.091	87.0	7.2	-7.1	0.124
4-4050	4-4390	0.104	70.5	14.1	-1.15	0.774	80.9	0.206	1.274	139.0	351.6	---	1.536	-0.77	1.090	88.6	1.5	-7.7	0.110
4-4050	4-4400	0.104	70.9	12.7	-1.34	0.775	80.9	0.204	1.276	138.7	360.8	1.015	1.537	-0.62	1.089	90.1	354.0	-9.6	0.105
4-4050	4-4410	0.105	72.0	12.0	-1.47	0.775	80.8	0.206	1.277	138.2	369.9	1.014	1.540	-0.53	1.089	91.7	348.4	-11.6	0.108
4-4050	4-4420	0.109	73.8	11.9	-1.57	0.775	80.4	0.211	1.277	137.6	378.8	1.007	1.546	-0.47	1.088	93.3	340.5	-12.9	0.120
4-4050	4-4430	0.115	76.2	12.2	-1.66	0.775	79.9	0.219	1.275	136.8	387.6	0.996	1.555	-0.44	1.088	94.9	337.3	-13.2	0.137
4-4050	4-4440	0.123	79.1	12.8	-1.73	0.774	79.1	0.231	1.273	135.9	396.2	0.979	1.567	-0.42	1.088	96.6	336.5	-12.9	0.161
4-4050	4-4450	0.135	82.5	13.7	-1.80	0.773	78.0	0.247	1.271	134.9	404.7	0.957	1.584	-0.42	1.088	98.4	337.7	-11.9	0.189
4-4050	4-4460	0.152	86.0	14.7	-1.87	0.772	76.6	0.268	1.268	133.9	413.3	0.928	1.607	-0.42	1.088	100.5	340.1	-10.6	0.224

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	V 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4050	4-4470	0.175	89.5	15.7	-1.95	0.770	74.8	0.296	1.264	132.9	422.0	0.889	1.639	-0.44	1.089	102.9	343.4	-8.9	0.266
4-4050	4-4480	0.207	92.7	16.7	-2.03	0.769	72.3	0.334	1.261	132.3	431.0	0.840	1.682	-0.47	1.090	105.9	347.2	-7.2	0.317
4-4050	4-4490	0.250	95.4	17.8	-2.13	0.767	69.0	0.385	1.257	132.2	440.6	0.773	1.741	-0.53	1.091	109.7	351.2	-5.3	0.384
4-4050	4-4610	0.277	343.0	-12.0	-1.64	0.725	103.5	0.329	1.165	211.5	639.9	0.782	1.549	0.45	1.084	72.9	282.0	-21.5	0.320
4-4050	4-4620	0.287	347.9	-10.9	-1.72	0.721	99.8	0.299	1.156	209.0	643.6	0.810	1.503	0.42	1.081	74.8	291.0	-20.5	0.289
4-4050	4-4630	0.276	48.2	18.4	-1.79	0.650	71.2	0.489	1.040	157.6	606.4	0.531	1.550	0.42	1.035	80.9	319.7	-14.9	0.523
4-4050	4-4630	0.200	356.3	-8.7	-1.79	0.714	95.9	0.281	1.144	195.4	644.4	0.822	1.466	0.42	1.076	75.7	301.3	-18.7	0.273
4-4050	4-4640	0.180	46.2	10.5	-1.87	0.681	82.1	0.355	1.086	165.1	624.4	0.701	1.472	0.42	1.053	69.9	321.3	-14.0	0.372
4-4050	4-4640	0.163	19.7	-0.2	-1.87	0.699	89.1	0.294	1.117	177.8	636.7	0.788	1.445	0.42	1.064	74.2	315.3	-15.5	0.299
4-4050	4-4760	0.231	342.6	-11.9	-1.25	0.742	100.1	0.266	1.200	211.1	788.2	0.881	1.520	-0.69	1.067	102.7	266.8	-26.5	0.233
4-4050	4-4770	0.1[illegible]	350.5	-10.1	-1.41	0.735	96.4	0.249	1.184	200.5	787.1	0.893	1.475	-0.57	1.060	101.7	278.3	-24.1	0.216
4-4050	4-4780	0.[illegible]4	124.0	16.1	-1.52	0.704	65.3	0.449	1.766	93.1	329.4	---	2.559	-0.50	1.188	80.6	47.6	15.5	0.269
4-4050	4-4780	0.[illegible]68	358.3	-8.0	-1.52	0.730	93.7	0.230	1.174	192.0	788.2	0.893	1.455	-0.50	1.054	101.5	288.1	-24.8	0.215
4-4050	4-4790	0.303	124.8	15.5	-1.62	0.905	66.0	0.439	1.771	91.5	337.2	---	2.549	-0.46	1.184	83.1	46.8	15.2	0.239
4-4050	4-4790	0.152	6.8	-5.4	-1.62	0.726	91.4	0.240	1.166	184.5	790.2	0.887	1.446	-0.46	1.073	101.8	296.9	-23.3	0.221
4-4050	4-4800	0.296	125.4	15.0	-1.69	0.906	66.6	0.433	1.775	90.2	345.5	---	2.543	-0.45	1.186	85.6	43.7	14.2	0.217
4-4050	4-4800	0.142	16.5	-2.2	-1.69	0.723	89.2	0.246	1.160	177.5	792.8	0.875	1.445	-0.49	1.052	102.3	305.2	-21.5	0.232
4-4050	4-4810	0.292	125.7	14.7	-1.77	0.906	66.8	0.429	1.778	89.5	354.4	---	2.541	-0.42	1.186	88.3	37.9	12.4	0.203
4-4050	4-4810	0.137	27.4	1.6	-1.77	0.720	87.0	0.256	1.155	171.1	795.9	0.859	1.451	-0.42	1.050	103.2	313.0	-19.4	0.248
4-4050	4-4820	0.293	125.7	14.5	-1.83	0.907	66.8	0.430	1.780	89.5	363.9	1.014	2.546	-0.42	1.187	91.2	30.3	9.8	0.204
4-4050	4-4820	0.139	39.2	5.7	-1.83	0.718	84.6	0.272	1.150	165.1	799.5	0.837	1.463	-0.42	1.050	104.3	320.4	-17.1	0.269
4-4050	4-4830	0.299	125.2	14.5	-1.91	0.907	66.4	0.437	1.782	90.3	374.3	1.004	2.560	-0.43	1.189	94.3	22.6	7.0	0.222
4-4050	4-4830	0.189	51.4	9.7	-1.91	0.715	81.9	0.294	1.146	159.5	803.5	0.809	1.483	-0.43	1.050	105.8	327.5	-14.7	0.297
4-4050	4-4840	0.313	124.3	14.8	-1.98	0.907	65.4	0.450	1.783	92.1	385.7	0.980	2.585	-0.45	1.190	97.9	16.4	4.8	0.259
4-4050	4-4840	0.169	62.9	13.2	-1.98	0.713	78.8	0.324	1.142	154.5	808.1	0.772	1.513	-0.45	1.050	107.8	334.3	-12.1	0.333
4-4050	4-4850	0.202	72.9	15.9	-2.08	0.711	75.1	0.365	1.139	150.2	813.4	0.723	1.555	-0.50	1.051	110.5	340.7	-9.5	0.382
4-4100	4-4280	0.279	89.3	20.2	-1.90	0.591	71.5	0.550	1.023	183.3	239.8	---	1.585	-0.69	1.024	56.7	338.0	-10.0	0.594
4-4100	4-4290	0.239	89.3	19.5	-1.82	0.621	74.0	0.488	1.062	161.6	248.2	---	1.581	-0.48	1.040	61.0	343.5	-7.9	0.526
4-4100	4-4300	0.205	88.4	18.7	-1.73	0.646	76.1	0.433	1.099	160.2	256.8	---	1.575	-0.48	1.053	64.9	348.9	-5.8	0.463
4-4100	4-4310	0.176	86.7	17.8	-1.65	0.667	78.0	0.384	1.133	159.2	265.8	---	1.569	-0.49	1.063	68.5	354.2	-3.8	0.406
4-4100	4-4320	0.152	84.0	17.0	-1.55	0.683	79.6	0.343	1.163	158.5	275.1	---	1.562	-0.53	1.077	71.7	359.2	-2.6	0.354
4-4100	4-4330	0.133	80.5	16.2	-1.44	0.697	80.9	0.307	1.190	158.2	284.7	---	1.555	-0.59	1.077	74.6	4.0	-0.5	0.306
4-4100	4-4340	0.117	76.2	15.6	-1.29	0.708	82.1	0.278	1.212	158.2	294.5	---	1.549	-0.69	1.082	77.2	8.3	0.6	0.263
4-4100	4-4350	0.105	71.6	15.5	-1.08	0.717	83.0	0.255	1.230	158.4	304.5	---	1.548	-0.85	1.085	79.6	12.1	0.8	0.224
4-4100	4-4360	0.097	66.6	16.7	-0.73	0.723	83.7	0.236	1.245	158.8	314.6	---	1.539	-1.16	1.087	81.8	15.3	-0.6	0.191
4-4100	4-4370	0.091	61.3	21.7	0.05	0.728	84.3	0.223	1.256	159.2	324.7	---	1.535	-1.89	1.088	83.8	18.5	-5.8	0.164
4-4100	4-4380	0.101	49.3	48.3	3.78	0.732	84.7	0.213	1.264	159.6	334.7	---	1.533	-5.59	1.089	85.6	29.8	-29.6	0.169
4-4100	4-4390	0.331	66.7	-24.9	-7.47	0.734	84.9	0.206	1.270	159.7	344.5	---	1.532	5.71	1.089	87.4	347.7	43.4	0.156
4-4100	4-4400	0.097	61.8	-8.0	-3.64	0.736	85.0	0.203	1.273	159.6	353.9	---	1.531	1.92	1.088	89.0	354.7	18.4	0.112
4-4100	4-4410	0.091	61.3	-2.8	-2.86	0.736	84.9	0.203	1.274	159.2	363.0	1.016	1.532	1.17	1.088	90.5	350.5	9.1	0.106
4-4100	4-4420	0.089	62.8	0.2	-2.58	0.736	84.7	0.205	1.274	158.3	371.8	1.013	1.535	0.86	1.087	92.0	345.7	3.1	0.111
4-4100	4-4430	0.089	65.8	2.6	-2.30	0.735	84.3	0.209	1.272	157.2	380.1	1.006	1.539	0.70	1.087	93.8	342.6	-0.7	0.122
4-4100	4-4440	0.090	70.2	4.9	-2.15	0.734	83.7	0.216	1.270	155.7	388.1	0.995	1.544	0.60	1.087	94.9	341.7	-2.7	0.139
4-4100	4-4450	0.094	75.8	7.2	-2.04	0.733	82.9	0.226	1.266	153.9	395.9	0.980	1.552	0.54	1.086	96.4	342.6	-3.4	0.159
4-4100	4-4460	0.099	82.5	9.4	-1.95	0.731	81.9	0.239	1.262	151.8	403.5	0.960	1.563	0.50	1.086	98.0	345.0	-3.2	0.184
4-4100	4-4470	0.108	89.8	11.5	-1.86	0.729	80.6	0.255	1.257	149.7	410.9	0.936	1.578	0.48	1.087	99.7	348.5	-2.3	0.211
4-4100	4-4480	0.122	97.2	13.3	-1.78	0.727	79.0	0.276	1.252	147.4	418.3	0.906	1.598	0.47	1.087	101.6	352.6	-0.9	0.244
4-4100	4-4490	0.141	104.3	14.7	-1.70	0.724	77.1	0.303	1.247	145.2	425.8	0.870	1.624	0.48	1.088	103.8	357.2	0.8	0.282
4-4100	4-4500	0.168	110.6	15.8	-1.61	0.722	76.6	0.337	1.242	143.2	433.5	0.824	1.659	0.51	1.089	106.4	2.1	2.7	0.327
4-4100	4-4510	0.204	115.9	16.7	-1.51	0.720	71.4	0.381	1.236	141.7	441.7	0.785	1.707	0.55	1.090	109.7	7.1	4.7	0.387
4-4100	4-4520	0.255	120.0	17.4	-1.39	0.717	67.2	0.440	1.232	140.8	450.7	0.690	1.773	0.62	1.091	113.9	12.0	6.6	0.458
4-4100	4-4530	0.287	15.2	1.7	-2.05	0.653	103.0	0.414	1.111	199.9	620.9	0.650	1.571	-0.54	1.064	66.3	313.3	-18.8	0.435
4-4100	4-4540	0.231	26.5	5.4	-1.95	0.642	96.2	0.392	1.093	189.8	621.0	0.665	1.522	-0.50	1.055	67.6	323.4	-15.8	0.414
4-4100	4-4800	0.299	149.7	8.4	-2.22	0.868	64.6	0.445	1.742	99.5	327.0	---	2.517	0.64	1.180	80.0	68.1	24.7	0.270
4-4100	4-4810	0.289	150.6	6.2	-2.10	0.869	65.4	0.435	1.747	98.0	335.0	---	2.507	0.57	1.182	82.5	67.5	24.6	0.240
4-4100	4-4810	0.254	9.2	-2.1	-2.10	0.697	101.5	0.331	1.138	205.7	802.7	0.795	1.581	0.57	1.062	107.5	308.1	-17.0	0.326
4-4100	4-4820	0.282	151.3	6.0	-1.99	0.869	65.9	0.428	1.752	96.8	343.4	---	2.501	0.52	1.183	85.0	64.3	24.2	0.215
4-4100	4-4820	0.207	17.5	0.5	-1.99	0.687	96.8	0.310	1.170	195.6	802.1	0.808	1.532	0.52	1.057	106.4	317.9	-14.4	0.308
4-4100	4-4830	0.278	151.8	6.0	-1.90	0.8..	66.2	0.424	1.755	96.1	352.3	---	2.495	0.49	1.185	87.7	58.1	23.2	0.201
4-4100	4-4830	0.178	26.9	3.6	-1.90	0.681	93.1	0.306	1.158	187.0	803.2	0.804	1.512	0.49	1.054	106.3	326.6	-11.7	0.308
4-4100	4-4840	0.278	151.9	6.2	-1.82	0.870	66.2	0.425	1.757	96.0	361.8	1.011	2.509	0.48	1.187	90.5	50.0	21.3	0.200
4-4100	4-4840	0.159	38.4	7.3	-1.82	0.676	89.7	0.312	1.149	179.4	805.2	0.791	1.507	0.48	1.053	106.8	334.6	-8.9	0.318
4-4100	4-4850	0.283	151.8	6.6	-1.74	0.871	65.8	0.430	1.759	96.6	372.0	1.002	2.515	0.48	1.189	93.6	41.8	18.9	0.215
4-4100	4-4850	0.150	52.4	11.4	-1.74	0.672	86.4	0.325	1.142	172.4	807.9	0.770	1.514	0.48	1.052	107.8	342.3	-6.0	0.336
4-4100	4-4860	0.294	151.2	7.3	-1.66	0.871	65.0	0.442	1.759	97.9	383.1	0.982	2.537	0.49	1.191	97.0	35.6	16.6	0.248
4-4100	4-4860	0.154	68.0	15.2	-1.66	0.668	82.8	0.348	1.136	166.1	811.2	0.741	1.531	0.49	1.052	109.3	349.5	-3.0	0.364
4-4100	4-4870	0.314	150.1	8.3	-1.57	0.871	63.6	0.463	1.759	100.3	395.2	0.946	2.573	0.52	1.194	100.9	31.9	15.1	0.300
4-4100	4-4870	0.172	83.5	17.9	-1.57	0.665	78.8	0.380	1.131	160.5	815.4	0.701	1.560	0.52	1.053	111.4	356.5	-0.1	0.401
4-4100	4-4880	0.208	96.7	19.4	-1.46	0.662	74.1	0.425	1.126	155.9	820.6	0.647	1.605	0.58	1.054	114.4	3.1	2.7	0.454
4-4100	4-4890	0.263	106.6	20.0	-1.32	0.660	68.3	0.488	1.122	152.5	827.1	0.595	1.670	0.67	1.055	118.6	9.2	5.2	0.527
4-4150	4-4290	0.259	87.2	19.7	-2.07	0.528	84.4	0.568	1.005	175.7	236.8	---	1.577	-1.37	1.014	55.4	349.1	-6.7	0.615
4-4150	4-4300	0.217	84.2	19.1	-1.82	0.570	85.6	0.495	1.054	175.5	246.6	---	1.576	-1.27	1.034	60.5	353.9	-4.9	0.535
4-4150	4-4310	0.184	79.7	18.4	-1.60	0.604	86.8	0.431	1.100	175.8	256.8	---	1.574	-1.21	1.051	65.1	358.6	-3.5	0.462
4-4150	4-4320	0.160	73.8	17.6	-1.39	0.631	87.9	0.377	1.142	176.5	267.6	---	1.573	-1.20	1.064	69.1	3.1	-1.9	0.397
4-4150	4-4330	0.143	66.9	16.8	-1.18	0.652	88.9	0.332	1.180	177.8	278.7	---	1.571	-1.22	1.074	72.6	7.4	-0.8	0.339
4-4150	4-4340	0.132	59.8	16.1	-0.95	0.669	89.8	0.297	1.211	179.4	290.2	---	1.571	-1.28	1.082	75.8	11.2	-0.3	0.267
4-4150	4-4350	0.125	53.2	15.7	-0.70	0.682	90.5	0.269	1.237	181.2	301.8	---	---	-1.39	1.087	78.7	14.4	-0.5	0.242
4-4150	4-4360	0.122	47.6	15.9	-0.39	0.692	91.0	0.249	1.258	183.1	313.3	---	---	-1.57	1.091	81.2	16.9	-1.9	0.203
4-4150	4-4370	0.121	42.9	17.0	0.02	0.699	91.4	0.235	1.273	184.6	324.6	---	---	-1.66	1.093	83.5	18.2	-5.2	0.171
4-4150	4-4380	0.120	39.2	19.6	0.63	0.703	91.7	0.225	1.284	185.8	335.3	---	---	-2.37	1.094	85.5	18.6	-11.4	0.148

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4150	4-4390	0.121	35.5	25.3	1.75	0.706	91.8	0.219	1.291	186.3	345.5	---	---	-3.37	1.095	87.4	19.0	-22.5	0.137
4-4150	4-4400	0.132	29.3	39.7	4.61	0.707	91.7	0.216	1.294	186.2	354.9	---	---	-6.14	1.094	89.1	24.9	-42.4	0.158
4-4150	4-4420	0.172	57.9	-26.3	-10.03	0.707	91.2	0.216	1.292	184.4	372	1.013	---	8.70	1.092	92.2	317.8	46.1	0.195
4-4150	4-4410	0.129	53.1	-11.3	-5.23	0.705	90.7	0.219	1.288	182.5	380	1.006	---	4.01	1.091	93.6	332.0	22.4	0.146
4-4150	4-4440	0.117	54.1	-4.2	-3.77	0.703	90.1	0.224	1.283	180.3	387.2	0.996	---	2.65	1.090	94.9	336.6	11.4	0.149
4-4150	4-4450	0.109	57.7	0.3	-3.03	0.700	89.3	0.230	1.277	177.6	394.1	0.983	1.571	2.02	1.089	96.2	340.3	6.3	0.163
4-4150	4-4460	0.104	63.2	3.5	-2.56	0.697	88.3	0.239	1.270	174.7	400.7	0.967	1.573	1.67	1.089	97.5	344.3	4.2	0.180
4-4150	4-4470	0.101	70.7	7.1	-2.23	0.693	87.2	0.249	1.262	171.4	407.1	0.948	1.577	1.45	1.088	98.9	348.8	3.7	0.201
4-4150	4-4480	0.099	80.1	10.0	-1.96	0.690	85.8	0.262	1.254	168.1	413.4	0.925	1.583	1.32	1.088	100.3	353.8	4.2	0.224
4-4150	4-4490	0.102	91.2	12.4	-1.73	0.686	84.2	0.278	1.246	164.6	419.6	0.899	1.593	1.24	1.087	101.9	359.1	5.4	0.250
4-4150	4-4500	0.110	103.1	14.0	-1.52	0.682	82.4	0.298	1.238	161.1	425.8	0.869	1.607	1.20	1.087	103.6	4.7	7.0	0.280
4-4150	4-4510	0.125	114.7	14.9	-1.37	0.678	80.1	0.323	1.230	157.7	432.2	0.832	1.627	1.20	1.087	105.6	10.6	8.9	0.314
4-4150	4-4520	0.150	124.9	15.0	-1.10	0.674	77.3	0.355	1.222	154.5	438.8	0.788	1.655	1.24	1.088	108.0	16.5	10.9	0.356
4-4150	4-4530	0.181	133.1	14.8	-0.87	0.671	73.9	0.395	1.214	151.6	445.9	0.734	1.694	1.32	1.088	111.0	22.5	13.0	0.407
4-4150	4-4540	0.226	139.4	14.4	-0.59	0.667	69.7	0.448	1.207	149.5	453.6	0.667	1.747	1.45	1.088	114.7	28.5	14.9	0.471
4-4150	4-4550	0.288	143.6	14.2	-0.24	0.664	64.1	0.517	1.201	148.3	462.5	0.580	1.822	1.67	1.089	119.6	36.1	16.7	0.556
4-4150	4-4650	0.274	57.9	16.1	-2.23	0.557	97.9	0.526	1.038	187.2	602.9	0.692	1.585	-1.45	1.031	58.4	341.6	-10.2	0.569
4-4150	4-4820	0.294	172.3	-4.4	-2.79	0.831	64.4	0.439	1.716	105.5	326.6	---	2.469	1.83	1.178	80.0	89.1	31.4	0.266
4-4150	4-4830	0.284	173.4	-4.0	-2.39	0.832	65.1	0.428	1.722	104.2	334.8	---	2.460	1.55	1.180	82.5	88.1	31.2	0.235
4-4150	4-4840	0.278	174.3	-3.7	-2.09	0.833	65.6	0.422	1.726	103.2	343.4	---	2.454	1.38	1.183	85.1	84.2	31.1	0.211
4-4150	4-4850	0.274	174.9	-3.3	-1.85	0.834	65.8	0.418	1.730	102.6	352.5	---	2.453	1.28	1.185	87.8	77.1	30.4	0.197
4-4150	4-4860	0.278	33.4	9.3	-1.85	0.652	104.5	0.407	1.180	203.5	813.4	0.700	1.660	1.28	1.065	112.6	339.0	-5.6	0.424
4-4150	4-4860	0.275	175.2	-2.8	-1.63	0.834	65.8	0.419	1.732	102.6	362.2	1.006	2.458	1.22	1.187	90.6	68.1	29.4	0.197
4-4150	4-4860	0.217	44.2	12.2	-1.63	0.639	97.8	0.380	1.156	193.0	812.6	0.716	1.596	1.22	1.059	111.1	348.2	-1.8	0.398
4-4150	4-4870	0.280	175.2	-2.1	-1.42	0.834	65.4	0.425	1.733	103.1	372.4	0.997	2.479	1.20	1.190	93.7	59.6	27.3	0.214
4-4150	4-4870	0.183	57.3	15.5	-1.42	0.630	92.7	0.378	1.142	184.5	813.8	0.710	1.574	1.20	1.057	111.2	356.5	1.7	0.399
4-4150	4-4880	0.291	174.8	-1.1	-1.22	0.834	64.6	0.437	1.734	104.2	383.4	0.976	2.491	1.21	1.192	97.1	53.5	25.2	0.247
4-4150	4-4880	0.166	73.8	18.6	-1.22	0.624	88.0	0.390	1.131	176.9	816.1	0.690	1.572	1.21	1.056	112.0	4.4	5.0	0.413
4-4150	4-4890	0.308	178.9	0.1	-0.99	0.838	63.3	0.457	1.733	106.2	395.2	0.941	2.526	1.27	1.195	100.9	50.2	23.6	0.297
4-4150	4-4890	0.168	92.7	20.3	-0.99	0.619	83.3	0.413	1.123	170.2	819.3	0.659	1.587	1.27	1.055	113.4	11.9	8.1	0.441
4-4150	4-4900	0.191	110.4	20.3	-0.74	0.614	78.0	0.449	1.116	164.5	823.4	0.615	1.617	1.37	1.056	116.0	19.2	11.0	0.483
4-4150	4-4910	0.235	124.1	19.1	-0.44	0.611	72.0	0.501	1.111	159.9	828.8	0.554	1.667	1.54	1.056	119.5	26.2	13.6	0.543
4-4200	4-4310	0.278	65.8	18.2	-1.87	0.593	105.2	0.490	1.136	197.1	254.5	---	---	-1.98	1.064	61.5	0.0	-3.8	0.529
4-4200	4-4320	0.250	59.6	17.2	-1.50	0.629	103.9	0.422	1.196	200.9	268.2	---	---	-1.80	1.082	66.8	3.3	-3.0	0.443
4-4200	4-4330	0.234	53.7	16.4	-1.19	0.657	103.3	0.371	1.250	205.1	282.3	---	---	-1.71	1.096	71.4	6.2	-2.6	0.369
4-4200	4-4340	0.225	48.6	15.7	-0.89	0.678	103.0	0.334	1.295	209.3	296.4	---	---	-1.67	1.106	75.4	8.4	-2.7	0.306
4-4200	4-4350	0.220	44.6	15.4	-0.61	0.693	102.8	0.308	1.331	213.2	310.1	---	---	-1.68	1.113	78.9	9.8	-3.7	0.252
4-4200	4-4360	0.218	41.7	15.5	-0.31	0.704	102.7	0.292	1.357	216.4	322.9	---	---	-1.74	1.117	81.9	9.8	-5.8	0.209
4-4200	4-4370	0.215	39.8	15.9	0.01	0.710	102.6	0.281	1.374	218.4	334.7	---	---	-1.86	1.119	84.5	8.2	-9.3	0.176
4-4200	4-4380	0.213	38.5	16.9	0.40	0.714	102.4	0.274	1.384	219.4	345.3	---	---	-2.05	1.120	86.8	5.0	-14.3	0.154
4-4200	4-4390	0.210	37.8	18.4	0.88	0.715	102.2	0.269	1.386	219.3	354.8	---	---	-2.37	1.119	88.9	0.6	-20.5	0.142
4-4200	4-4400	0.206	37.5	20.8	1.57	0.713	101.8	0.266	1.383	218.4	363.4	1.015	---	-2.90	1.117	90.7	356.4	-27.3	0.142
4-4200	4-4410	0.202	37.2	24.9	2.69	0.711	101.3	0.264	1.375	216.7	371.2	1.012	---	-3.88	1.114	92.3	354.5	-34.8	0.153
4-4200	4-4420	0.203	36.1	33.2	5.03	0.707	100.7	0.263	1.365	214.3	378.3	1.006	---	-6.07	1.111	93.8	358.0	-45.5	0.182
4-4200	4-4430	0.254	40.5	56.9	13.89	0.702	100.0	0.262	1.352	211.3	384.8	0.997	---	-14.79	1.108	95.1	23.5	-67.4	0.310
4-4200	4-4450	0.195	58.3	-9.6	-8.11	0.690	98.2	0.286	1.324	204.4	397.3	0.972	---	7.49	1.102	97.6	325.5	27.1	0.230
4-4200	4-4460	0.168	58.2	0.2	-4.85	0.684	97.1	0.269	1.309	200.4	402.8	0.957	---	4.37	1.099	98.7	337.3	14.8	0.217
4-4200	4-4470	0.152	61.2	5.4	-3.47	0.678	95.9	0.273	1.294	196.1	408.1	0.940	---	3.14	1.097	99.8	345.0	10.1	0.225
4-4200	4-4480	0.140	66.3	9.0	-2.68	0.671	94.5	0.280	1.279	191.7	413.3	0.921	---	2.51	1.095	100.9	351.7	8.7	0.240
4-4200	4-4490	0.129	73.3	11.9	-2.14	0.664	92.9	0.288	1.264	187.2	418.4	0.900	---	2.13	1.093	102.0	358.2	8.9	0.257
4-4200	4-4500	0.120	82.7	14.3	-1.73	0.656	91.1	0.299	1.250	182.6	423.6	0.877	---	1.90	1.091	103.3	4.7	10.0	0.277
4-4200	4-4510	0.115	94.6	16.0	-1.39	0.651	89.1	0.313	1.237	177.9	428.7	0.850	1.624	1.76	1.090	104.7	11.3	11.6	0.300
4-4200	4-4520	0.115	108.7	16.8	-1.08	0.644	86.7	0.330	1.224	173.4	434.0	0.819	1.628	1.69	1.088	106.2	18.1	13.5	0.325
4-4200	4-4530	0.124	123.5	16.2	-0.79	0.638	84.1	0.353	1.212	168.9	439.4	0.784	1.640	1.66	1.087	108.1	24.9	15.5	0.356
4-4200	4-4540	0.142	137.0	14.6	-0.50	0.632	80.9	0.382	1.200	164.7	445.2	0.742	1.659	1.69	1.086	110.2	31.9	17.6	0.393
4-4200	4-4550	0.171	148.1	12.5	-0.19	0.620	77.2	0.419	1.190	160.9	451.3	0.692	1.688	1.78	1.085	112.9	38.8	19.5	0.438
4-4200	4-4560	0.213	156.3	10.6	0.17	0.620	72.7	0.466	1.180	157.6	458.1	0.630	1.730	1.93	1.084	116.3	45.8	21.2	0.495
4-4200	4-4570	0.270	162.1	9.2	0.62	0.615	66.9	0.528	1.172	155.2	465.9	0.552	1.791	2.19	1.083	120.7	52.4	22.7	0.571
4-4200	4-4630	0.309	191.8	-15.6	-4.09	0.798	63.8	0.443	1.681	112.2	319.1	---	2.425	3.68	1.175	77.8	110.3	36.7	0.296
4-4200	4-4840	0.297	193.7	-14.1	-3.05	0.800	64.6	0.430	1.688	110.7	327.2	---	2.414	2.80	1.177	80.3	110.9	34.9	0.258
4-4200	4-4850	0.288	195.1	-13.2	-2.40	0.801	65.3	0.420	1.694	109.5	335.7	---	2.406	2.31	1.180	82.9	109.1	34.4	0.227
4-4200	4-4860	0.282	196.1	-12.5	-1.93	0.802	65.7	0.414	1.698	108.7	344.6	---	2.401	2.01	1.183	85.5	104.2	34.5	0.204
4-4200	4-4870	0.279	196.7	-11.8	-1.56	0.803	65.9	0.411	1.702	108.3	353.9	---	2.401	1.83	1.185	88.2	96.2	34.6	0.193
4-4200	4-4880	0.281	197.1	-11.0	-1.24	0.803	65.8	0.413	1.703	108.3	363.7	1.000	2.407	1.72	1.188	91.1	86.5	33.9	0.196
4-4200	4-4890	0.286	197.1	-10.1	-0.94	0.803	65.3	0.420	1.704	108.8	374.1	0.989	2.419	1.67	1.191	94.2	77.9	32.3	0.214
4-4200	4-4890	0.247	66.9	20.0	-0.94	0.602	102.4	0.456	1.150	195.7	821.0	0.626	1.674	1.67	1.065	116.1	11.0	8.3	0.488
4-4200	4-4900	0.297	196.7	-9.0	-0.65	0.803	64.5	0.433	1.704	109.8	385.0	0.967	2.442	1.67	1.193	97.5	72.2	30.4	0.249
4-4200	4-4900	0.200	83.6	21.9	-0.65	0.589	95.1	0.445	1.129	186.4	821.6	0.627	1.631	1.67	1.060	115.6	89.8	12.0	0.477
4-4200	4-4910	0.315	195.9	-7.8	-0.35	0.803	63.1	0.454	1.704	111.5	396.7	0.931	2.476	1.73	1.195	101.3	69.6	28.9	0.300
4-4200	4-4910	0.182	103.7	22.2	-0.35	0.579	88.8	0.455	1.116	178.6	823.8	0.608	1.632	1.73	1.058	116.4	28.2	15.1	0.490
4-4200	4-4920	0.191	124.2	20.1	-0.02	0.572	82.7	0.482	1.105	172.0	827.2	0.573	1.638	1.84	1.056	118.2	36.3	17.9	0.520
4-4200	4-4930	0.225	140.7	16.7	0.37	0.567	75.9	0.524	1.097	166.4	831.8	0.522	1.673	2.04	1.055	121.2	44.2	20.2	0.569
4-4200	4-4940	0.284	151.9	13.6	0.88	0.562	68.1	0.586	1.091	162.4	837.8	0.452	1.731	2.37	1.055	125.5	51.5	22.0	0.642
4-4210	4-4280	0.542	77.2	20.9	-4.80	0.470	131.8	0.823	0.995	192.6	215.3	---	---	-4.48	1.011	34.9	350.1	-7.3	0.947
4-4210	4-4290	0.436	74.0	19.7	-3.35	0.515	120.3	0.703	1.041	195.6	228.3	---	---	-3.19	1.031	45.4	353.3	-6.1	0.788
4-4210	4-4300	0.364	69.4	19.0	-2.53	0.565	113.9	0.597	1.102	198.8	241.6	---	---	-2.54	1.054	53.8	356.5	-5.1	0.658
4-4210	4-4310	0.316	63.8	18.1	-1.98	0.608	110.2	0.508	1.169	202.7	255.5	---	---	-2.16	1.076	60.6	359.7	-4.2	0.549
4-4210	4-4320	0.285	57.9	17.2	-1.56	0.644	108.2	0.438	1.233	207.3	270.0	---	---	-1.99	1.094	66.4	2.6	-3.5	0.456
4-4210	4-4330	0.267	52.5	16.4	-1.21	0.672	107.0	0.386	1.291	212.2	284.9	---	---	-1.81	1.108	71.2	5.0	-3.3	0.378
4-4210	4-4340	0.257	48.0	15.9	-0.90	0.692	106.3	0.350	1.340	217.1	299.5	---	---	-1.74	1.118	75.4	6.8	-3.7	0.311

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4210	4-4350	0.251	44.6	15.6	-0.60	0.707	105.9	0.327	1.377	221.2	313.4	---	---	-1.72	1.124	79.0	7.5	-4.9	0.256
4-4210	4-4360	0.247	42.1	15.7	-0.31	0.717	105.6	0.311	1.404	224.2	326.3	---	---	-1.76	1.128	82.2	6.8	-7.2	0.212
4-4210	4-4370	0.244	40.5	16.2	0.01	0.722	105.3	0.301	1.420	226.1	337.8	---	---	-1.85	1.130	84.9	4.5	-10.8	0.180
4-4210	4-4380	0.240	39.6	17.0	0.38	0.725	105.0	0.294	1.427	226.8	348.1	---	---	-2.02	1.129	87.3	0.5	-15.6	0.159
4-4210	4-4390	0.236	39.2	18.3	0.02	0.724	104.7	0.289	1.426	226.5	357.3	---	---	-2.28	1.128	89.4	355.6	-21.1	0.149
4-4210	4-4400	0.230	39.2	20.2	1.42	0.722	104.2	0.285	1.419	225.2	365.6	1.014	---	-2.71	1.125	91.2	351.3	-26.5	0.149
4-4210	4-4410	0.225	39.3	23.3	2.31	0.718	103.7	0.282	1.408	223.1	373.1	1.010	---	-3.45	1.121	92.9	349.2	-32.1	0.159
4-4210	4-4420	0.220	39.2	28.9	3.94	0.713	103.0	0.280	1.393	220.5	380.0	1.003	---	-4.93	1.118	94.3	350.8	-39.4	0.179
4-4210	4-4430	0.230	37.4	42.1	8.21	0.707	102.2	0.278	1.377	217.3	386.3	0.994	---	-9.05	1.114	95.6	1.0	-53.7	0.235
4-4210	4-4450	0.242	63.0	-16.6	-12.47	0.693	100.4	0.279	1.341	209.9	398.3	0.968	---	11.92	1.107	98.1	315.5	-37.2	0.292
4-4210	4-4460	0.189	59.6	-1.6	-6.03	0.686	99.2	0.280	1.323	205.7	403.5	0.953	---	5.63	1.103	99.1	334.4	18.7	0.224
4-4210	4-4470	0.169	61.6	5.0	-4.00	0.678	97.9	0.283	1.306	201.2	408.6	0.936	---	3.74	1.100	100.1	343.6	11.9	0.236
4-4210	4-4480	0.154	65.8	9.0	-2.96	0.671	96.5	0.287	1.289	196.6	413.7	0.918	---	2.86	1.097	101.2	350.9	9.7	0.248
4-4210	4-4490	0.143	71.9	12.0	-2.30	0.663	94.9	0.294	1.272	191.9	418.6	0.898	---	2.37	1.095	102.3	357.8	9.6	0.263
4-4210	4-4500	0.130	80.1	14.4	-1.82	0.656	93.1	0.303	1.256	187.1	423.5	0.875	---	2.07	1.093	103.5	4.5	10.5	0.281
4-4210	4-4510	0.121	90.9	16.3	-1.43	0.648	91.1	0.315	1.241	182.3	428.5	0.850	---	1.88	1.091	104.7	11.3	12.0	0.301
4-4210	4-4520	0.118	104.2	17.3	-1.10	0.641	88.8	0.331	1.227	177.5	433.6	0.821	1.632	1.78	1.089	106.2	18.2	13.9	0.325
4-4210	4-4530	0.121	119.3	17.0	-0.79	0.634	86.2	0.350	1.213	172.8	438.8	0.788	1.638	1.73	1.088	107.8	25.1	15.9	0.352
4-4210	4-4540	0.134	134.0	15.4	-0.49	0.627	83.1	0.376	1.201	168.3	444.2	0.750	1.652	1.73	1.086	109.8	32.2	17.9	0.385
4-4210	4-4550	0.158	146.6	13.0	-0.18	0.620	79.6	0.408	1.189	164.1	450.0	0.704	1.674	1.79	1.085	112.2	39.4	19.8	0.426
4-4210	4-4560	0.193	156.4	10.7	0.17	0.614	75.3	0.450	1.178	160.4	456.4	0.648	1.709	1.92	1.084	115.2	46.6	21.6	0.476
4-4210	4-4570	0.243	163.4	8.7	0.58	0.608	70.0	0.505	1.169	157.4	463.5	0.578	1.759	2.15	1.082	119.1	53.5	23.1	0.542
4-4210	4-4580	0.317	168.0	7.4	1.13	0.603	63.3	0.577	1.160	155.6	471.8	0.491	1.830	2.49	1.081	124.3	60.1	24.2	0.630
4-4210	4-4590	0.402	170.3	6.8	1.92	0.600	54.5	0.671	1.154	155.6	481.9	0.380	1.928	3.11	1.080	131.4	65.9	25.0	0.750
4-4210	4-4600	0.526	170.7	7.1	3.30	0.598	42.7	0.788	1.151	158.8	494.9	0.244	2.058	4.33	1.079	141.5	70.3	25.4	0.916
4-4210	4-4650	0.507	133.7	15.7	-3.99	0.300	59.5	0.894	0.880	175.9	563.3	0.094	1.667	-3.74	0.943	26.9	0.5	-1.4	1.035
4-4210	4-4650	0.479	78.4	20.3	-3.99	0.472	124.1	0.770	0.997	192.6	580.1	0.229	1.764	-3.74	1.011	39.7	352.3	-6.4	0.872
4-4210	4-4660	0.395	125.3	17.2	-2.92	0.367	78.5	0.790	0.917	176.9	574.4	0.193	1.641	-2.83	0.964	38.0	4.3	-0.2	0.880
4-4210	4-4660	0.365	92.6	20.5	-2.92	0.447	105.6	0.703	0.974	186.9	584.4	0.289	1.659	-2.63	0.997	45.3	359.5	-3.0	0.776
4-4210	4-4720	0.576	181.9	-1.3	-0.46	0.742	41.2	0.755	1.479	143.9	240.8	---	2.597	-1.74	1.145	43.8	46.3	15.8	0.867
4-4210	4-4730	0.542	184.0	-1.9	-0.16	0.749	44.2	0.719	1.504	140.5	247.1	---	2.585	-1.80	1.148	47.4	53.2	17.2	0.805
4-4210	4-4740	0.510	186.0	-2.5	0.18	0.756	47.0	0.683	1.527	137.2	253.4	---	2.570	-1.92	1.150	50.9	60.1	18.3	0.746
4-4210	4-4750	0.480	188.1	-2.8	0.57	0.762	49.6	0.649	1.549	134.0	259.8	---	2.555	-2.13	1.153	56.2	67.0	18.8	0.688
4-4210	4-4760	0.451	190.1	-2.9	1.08	0.767	52.0	0.616	1.570	130.8	266.3	---	2.538	-2.46	1.155	57.4	73.8	18.8	0.633
4-4210	4-4770	0.425	192.3	-2.5	1.79	0.773	54.2	0.585	1.590	127.9	272.9	---	2.520	-3.00	1.158	60.4	80.5	17.9	0.580
4-4210	4-4780	0.402	194.7	-1.3	2.95	0.777	56.2	0.556	1.608	125.1	279.6	---	2.502	-4.01	1.160	63.3	86.9	15.6	0.531
4-4210	4-4790	0.384	197.7	2.3	5.35	0.781	58.0	0.529	1.624	122.4	286.4	---	2.484	-6.27	1.162	66.2	93.1	9.7	0.490
4-4210	4-4800	0.401	203.0	17.1	14.40	0.785	59.6	0.505	1.639	119.9	293.3	---	2.467	-15.17	1.165	68.9	100.7	-11.0	0.509
4-4210	4-4810	0.497	163.8	-40.3	-29.17	0.788	61.2	0.481	1.651	117.5	301.1	---	2.446	28.55	1.168	71.7	160.9	71.2	0.641
4-4210	4-4820	0.340	190.3	-23.4	-8.25	0.790	62.4	0.463	1.663	115.5	308.4	---	2.432	7.78	1.170	74.3	113.8	46.4	0.369
4-4210	4-4830	0.316	194.9	-18.5	-4.86	0.792	63.5	0.446	1.672	113.7	316.1	---	2.418	4.53	1.173	76.8	114.5	38.6	0.312
4-4210	4-4840	0.302	197.3	-16.4	-3.43	0.794	64.4	0.433	1.680	112.1	324.1	---	2.406	3.26	1.176	79.4	115.3	35.6	0.271
4-4210	4-4850	0.292	198.9	-15.2	-2.61	0.795	65.1	0.422	1.686	110.9	332.5	---	2.397	2.60	1.179	81.9	114.4	34.6	0.237
4-4210	4-4860	0.285	200.1	-14.3	-2.05	0.797	65.6	0.414	1.691	109.9	341.3	---	2.391	2.21	1.182	84.5	110.7	34.6	0.211
4-4210	4-4870	0.282	200.9	-13.5	-1.62	0.797	65.9	0.410	1.694	109.4	350.5	---	2.389	1.97	1.184	87.2	103.7	35.0	0.195
4-4210	4-4880	0.282	201.3	-12.7	-1.27	0.798	65.9	0.410	1.697	109.2	360.1	1.001	2.392	1.82	1.187	90.0	94.2	34.7	0.192
4-4210	4-4890	0.285	201.5	-11.9	-0.95	0.798	65.6	0.415	1.698	109.3	370.3	0.993	2.402	1.75	1.190	93.0	84.9	33.5	0.205
4-4210	4-4900	0.320	62.3	19.8	-0.95	0.612	110.9	0.508	1.175	203.6	824.4	0.578	1.773	1.75	1.074	119.4	9.6	7.4	0.548
4-4210	4-4890	0.437	56.3	19.1	-0.95	0.640	121.8	0.598	1.224	210.0	830.7	0.492	1.957	1.75	1.090	125.4	7.1	5.6	0.658
4-4210	4-4900	0.294	201.2	-10.9	-0.65	0.798	64.9	0.426	1.698	110.3	381.0	0.975	2.421	1.72	1.192	96.2	78.0	31.8	0.234
4-4210	4-4900	0.226	78.8	21.9	-0.65	0.589	99.7	0.461	1.137	191.8	822.5	0.613	1.661	1.72	1.063	114.5	19.4	11.8	0.495
4-4210	4-4900	0.575	55.3	19.5	-0.65	0.669	132.6	0.717	1.285	210.6	841.3	0.364	2.207	1.72	1.110	134.3	12.0	7.0	0.819
4-4210	4-4910	0.309	200.6	-9.8	-0.35	0.798	63.8	0.443	1.698	111.7	392.3	0.945	2.450	1.75	1.194	99.8	74.3	30.1	0.278
4-4210	4-4910	0.192	97.8	22.7	-0.35	0.577	92.7	0.459	1.119	183.2	823.8	0.605	1.634	1.75	1.059	116.6	28.2	15.2	0.494
4-4210	4-4920	0.331	199.5	-8.5	-0.02	0.798	62.0	0.470	1.697	113.8	404.5	0.899	2.494	1.84	1.196	103.9	73.3	28.9	0.338
4-4210	4-4920	0.187	119.0	21.2	-0.02	0.568	86.3	0.477	1.107	175.9	826.6	0.579	1.635	1.84	1.057	117.9	36.6	18.0	0.514
4-4210	4-4930	0.365	197.9	-7.1	0.35	0.798	59.5	0.508	1.695	116.8	417.6	0.833	2.557	2.01	1.198	108.6	74.1	28.2	0.415
4-4210	4-4930	0.209	137.8	17.6	0.35	0.561	79.6	0.511	1.098	169.7	830.5	0.537	1.659	2.01	1.055	120.2	44.7	20.4	0.553
4-4210	4-4940	0.413	195.7	-5.4	0.82	0.797	55.8	0.562	1.694	121.1	431.9	0.741	2.647	2.28	1.199	114.5	75.8	27.7	0.514
4-4210	4-4940	0.256	151.5	13.8	0.82	0.556	72.2	0.563	1.090	164.9	835.7	0.477	1.704	2.28	1.054	123.9	52.5	22.3	0.614
4-4210	4-4950	0.481	192.6	-3.5	1.46	0.797	56.5	0.637	1.693	127.0	448.0	0.615	2.771	2.74	1.200	121.9	77.9	27.3	0.643
4-4210	4-4950	0.330	160.0	11.0	1.46	0.551	68.3	0.636	1.085	161.7	842.7	0.395	1.775	2.74	1.053	129.2	59.7	23.8	0.703
4-4210	4-4960	0.581	188.3	-1.2	2.46	0.797	42.7	0.735	1.693	135.4	466.5	0.448	2.938	3.58	1.201	131.7	79.4	27.0	0.814
4-4210	4-4960	0.434	164.3	9.5	2.46	0.549	52.0	0.734	1.081	161.1	852.3	0.287	1.875	3.58	1.053	137.0	65.6	24.7	0.832
4-4210	4-4970	0.575	164.8	9.5	4.43	0.547	37.4	0.853	1.080	164.4	965.4	0.159	2.001	5.39	1.053	148.4	69.9	25.1	1.014
4-4210	4-4970	0.533	121.1	22.7	4.43	0.224	81.1	0.920	0.850	179.2	1240.5	0.068	1.633	5.39	0.926	156.7	59.4	22.4	1.073
4-4210	4-5010	0.552	76.4	20.3	-4.91	0.476	133.1	0.824	1.001	192.9	935.1	0.176	1.825	-4.58	1.014	34.3	349.6	-7.4	0.954
4-4220	4-4290	0.508	72.2	19.7	-3.84	0.557	129.3	0.739	1.099	199.7	227.9	---	---	-3.75	1.055	42.7	353.3	-6.3	0.844
4-4220	4-4300	0.421	67.6	18.9	-2.78	0.595	120.7	0.625	1.155	204.1	242.4	---	---	-2.84	1.072	52.0	356.2	-5.4	0.695
4-4220	4-4310	0.364	62.2	18.1	-2.31	0.634	115.7	0.531	1.223	209.0	257.3	---	---	-2.37	1.093	59.6	359.0	-4.7	0.574
4-4220	4-4320	0.329	56.7	17.3	-1.63	0.668	112.8	0.460	1.291	214.5	272.7	---	---	-2.08	1.110	65.8	1.4	-4.2	0.473
4-4220	4-4330	0.307	51.8	16.6	-1.25	0.698	111.0	0.409	1.353	220.2	288.3	---	---	-1.91	1.124	71.0	3.4	-4.2	0.389
4-4220	4-4340	0.295	47.8	16.2	-0.91	0.713	109.9	0.374	1.405	225.4	303.3	---	---	-1.81	1.133	75.5	4.6	-4.8	0.319
4-4220	4-4350	0.287	44.9	15.9	-0.60	0.726	109.1	0.352	1.444	229.6	317.3	---	---	-1.77	1.139	79.3	4.6	-6.3	0.262
4-4220	4-4360	0.281	42.8	16.0	-0.30	0.735	108.6	0.338	1.469	232.5	329.9	---	---	-1.79	1.142	82.5	3.2	-8.8	0.218
4-4220	4-4370	0.276	41.6	16.5	0.01	0.739	108.2	0.328	1.483	234.0	341.1	---	---	-1.85	1.143	85.4	0.1	-12.5	0.186
4-4220	4-4380	0.271	41.0	17.3	0.36	0.740	107.8	0.320	1.485	234.3	351.1	---	---	-1.98	1.141	87.8	355.5	-17.0	0.166
4-4220	4-4390	0.265	40.9	18.4	0.77	0.738	107.3	0.314	1.479	233.6	359.9	---	---	-2.20	1.139	90.0	350.4	-21.6	0.158
4-4220	4-4400	0.258	41.1	19.0	1.30	0.734	106.7	0.309	1.467	231.9	367.9	1.013	---	-2.55	1.135	91.9	346.3	-25.9	0.160
4-4220	4-4410	0.250	41.5	22.4	2.04	0.728	106.1	0.305	1.450	229.6	375.0	1.008	---	-3.13	1.131	93.5	344.3	-30.0	0.169

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4220	4-4420	0.242	41.9	26.4	3.27	0.722	105.4	0.300	1.430	226.6	381.6	1.000	---	-4.19	1.126	94.9	345.4	-34.9	0.185
4-4220	4-4430	0.240	41.7	34.5	5.86	0.714	104.6	0.297	1.408	223.2	387.7	0.990	---	-6.63	1.121	96.2	341.3	-43.9	0.217
4-4220	4-4440	0.296	38.8	58.5	16.15	0.706	103.6	0.294	1.386	219.4	393.2	0.979	---	-16.77	1.117	97.4	15.6	-67.2	0.360
4-4220	4-4450	0.385	75.9	-28.7	-26.31	0.698	102.6	0.294	1.364	215.4	399.5	0.963	---	25.83	1.112	98.7	288.6	49.0	0.510
4-4220	4-4460	0.216	62.0	-4.9	-8.02	0.689	101.4	0.293	1.342	211.0	404.3	0.949	---	7.69	1.100	99.6	330.0	24.3	0.262
4-4220	4-4470	0.188	62.6	4.1	-4.73	0.681	100.1	0.294	1.321	206.3	409.2	0.932	---	4.56	1.104	100.6	341.9	14.2	0.249
4-4220	4-4480	0.170	66.0	8.9	-3.31	0.672	98.6	0.297	1.301	201.6	414.1	0.914	---	3.30	1.101	101.6	350.0	10.9	0.257
4-4220	4-4490	0.155	71.2	12.1	-2.49	0.663	96.9	0.302	1.282	196.7	418.9	0.895	---	2.64	1.098	102.6	357.3	10.3	0.270
4-4220	4-4500	0.142	78.4	14.6	-1.92	0.655	95.1	0.309	1.264	191.7	423.6	0.873	---	2.25	1.095	103.7	4.3	11.0	0.286
4-4220	4-4510	0.130	87.9	16.6	-1.49	0.647	93.1	0.319	1.247	186.7	428.4	0.849	---	2.01	1.093	104.9	11.2	12.4	0.305
4-4220	4-4520	0.123	100.2	17.8	-1.13	0.638	90.9	0.332	1.231	181.7	433.3	0.822	---	1.87	1.090	106.2	18.2	14.2	0.326
4-4220	4-4530	0.122	114.8	17.6	-0.80	0.631	88.3	0.349	1.216	176.8	438.2	0.791	1.640	1.79	1.088	107.7	25.3	16.2	0.350
4-4220	4-4540	0.129	130.2	16.3	-0.49	0.623	85.4	0.372	1.202	172.1	443.4	0.755	1.648	1.77	1.087	109.5	32.5	18.2	0.380
4-4220	4-4550	0.147	144.3	13.8	-0.18	0.616	81.9	0.400	1.189	167.6	448.9	0.713	1.665	1.81	1.085	111.7	39.9	20.1	0.416
4-4220	4-4560	0.177	155.6	11.0	0.16	0.609	77.9	0.437	1.177	163.5	454.9	0.662	1.692	1.90	1.083	114.4	47.2	21.9	0.461
4-4220	4-4570	0.220	164.1	8.5	0.55	0.602	73.0	0.486	1.166	160.0	461.5	0.600	1.733	2.08	1.081	117.8	54.5	23.4	0.519
4-4220	4-4580	0.279	169.8	6.7	1.04	0.597	66.9	0.549	1.157	157.4	469.1	0.522	1.792	2.37	1.080	122.3	61.5	24.6	0.595
4-4220	4-4590	0.359	173.3	5.6	1.72	0.592	59.0	0.632	1.149	156.3	478.1	0.423	1.875	2.87	1.078	128.4	67.8	25.4	0.698
4-4220	4-4600	0.467	174.3	5.4	2.80	0.589	48.5	0.738	1.144	157.5	489.5	0.300	1.989	3.77	1.077	137.0	73.1	25.8	0.841
4-4220	4-4650	0.540	176.9	14.9	-4.73	0.262	57.3	0.921	0.869	176.8	559.7	0.068	1.669	-4.55	0.935	23.1	2.4	-0.6	1.086
4-4220	4-4650	0.528	84.1	20.8	-4.73	0.454	130.6	0.822	0.986	191.7	574.7	0.176	1.797	-4.55	1.006	34.7	354.8	-5.2	0.948
4-4220	4-4660	0.430	131.0	16.0	-3.26	0.331	76.4	0.831	0.980	177.2	570.1	0.152	1.649	-3.25	0.954	34.0	6.4	0.7	0.936
4-4220	4-4660	0.401	94.5	20.6	-3.26	0.434	111.4	0.740	0.969	188.1	581.1	0.252	1.686	-3.25	0.994	42.3	1.1	-2.4	0.825
4-4220	4-4720	0.589	185.3	-2.8	-0.46	0.732	40.1	0.769	1.462	145.7	238.1	---	2.582	-1.77	1.142	42.3	47.5	16.2	0.890
4-4220	4-4730	0.555	187.4	-3.4	-0.16	0.740	43.2	0.733	1.487	142.3	244.4	---	2.576	-1.81	1.145	46.0	54.4	17.6	0.828
4-4220	4-4740	0.522	189.5	-4.0	0.17	0.747	46.1	0.696	1.511	139.0	250.7	---	2.563	-1.91	1.147	49.5	61.4	18.6	0.767
4-4220	4-4750	0.491	191.5	-4.4	0.54	0.754	48.8	0.661	1.533	135.7	257.0	---	2.547	-2.07	1.150	52.9	68.3	19.2	0.709
4-4220	4-4760	0.462	193.6	-4.6	1.00	0.760	51.2	0.628	1.555	132.6	263.5	---	2.531	-2.34	1.152	56.1	75.2	19.3	0.652
4-4220	4-4770	0.436	195.7	-4.4	1.61	0.765	53.5	0.596	1.575	129.6	270.1	---	2.514	-2.78	1.155	59.2	81.9	18.6	0.598
4-4220	4-4780	0.411	198.0	-3.6	2.53	0.770	55.6	0.566	1.594	126.8	276.7	---	2.496	-3.54	1.158	62.2	88.4	16.8	0.547
4-4220	4-4790	0.391	200.6	-1.3	4.21	0.774	57.5	0.538	1.611	124.1	283.6	---	2.478	-5.06	1.160	65.1	94.5	12.7	0.502
4-4220	4-4800	0.382	204.4	5.9	8.58	0.778	59.2	0.513	1.627	121.6	290.5	---	2.460	-9.26	1.163	67.9	100.5	1.6	0.476
4-4220	4-4820	0.367	189.1	-30.9	-12.64	0.784	62.1	0.468	1.652	117.0	305.4	---	2.425	12.23	1.169	73.3	123.5	55.4	0.419
4-4220	4-4840	0.326	197.7	-21.9	-6.04	0.787	63.2	0.451	1.662	115.2	313.1	---	2.411	5.78	1.172	75.9	119.0	41.4	0.331
4-4220	4-4860	0.309	200.8	-18.8	-3.95	0.789	64.2	0.436	1.671	113.0	321.0	---	2.399	3.84	1.175	78.4	119.7	36.7	0.285
4-4220	4-4870	0.297	202.7	-17.2	-2.88	0.790	65.0	0.424	1.678	112.2	329.3	---	2.388	2.94	1.177	81.0	119.4	34.9	0.248
4-4220	4-4880	0.288	204.0	-16.2	-2.20	0.791	65.5	0.415	1.683	111.2	338.0	---	2.381	2.43	1.180	83.6	119.8	34.5	0.219
4-4220	4-4870	0.285	204.9	-15.3	-1.70	0.792	65.9	0.409	1.687	110.5	347.0	---	2.378	2.12	1.183	86.2	110.9	34.9	0.198
4-4220	4-4880	0.283	205.5	-14.5	-1.31	0.793	66.0	0.408	1.690	110.2	356.5	---	2.379	1.93	1.186	89.0	102.1	35.2	0.190
4-4220	4-4890	0.286	205.8	-13.6	-0.97	0.793	65.8	0.411	1.691	110.3	366.5	0.396	2.386	1.82	1.189	91.9	92.3	34.5	0.197
4-4220	4-4900	0.292	205.7	-12.6	-0.65	0.793	65.3	0.419	1.692	110.9	377.0	0.982	2.401	1.78	1.191	95.0	84.3	32.9	0.220
4-4220	4-4900	0.272	78.3	21.8	-0.65	0.594	106.0	0.491	1.152	198.2	824.3	0.587	1.718	1.78	1.069	118.4	18.7	11.3	0.530
4-4220	4-4900	0.497	60.8	20.5	-0.65	0.647	127.6	0.660	1.247	210.2	836.3	0.424	2.069	1.78	1.099	129.9	13.9	8.2	0.739
4-4220	4-4910	0.305	205.2	-11.6	-0.34	0.793	64.3	0.434	1.691	112.0	388.1	0.957	2.426	1.78	1.193	98.4	79.4	31.3	0.259
4-4220	4-4910	0.211	92.2	23.0	-0.34	0.576	97.1	0.469	1.125	188.1	824.3	0.597	1.654	1.78	1.062	117.2	28.0	15.1	0.505
4-4220	4-4920	0.324	204.3	-10.4	-0.02	0.793	62.8	0.457	1.691	113.8	399.9	0.918	2.463	1.84	1.195	102.2	77.6	29.9	0.312
4-4220	4-4920	0.190	113.1	22.2	-0.02	0.565	90.1	0.477	1.110	180.1	826.3	0.581	1.639	1.84	1.058	117.8	36.7	18.1	0.514
4-4220	4-4930	0.352	202.9	-9.1	0.34	0.793	60.7	0.491	1.689	116.3	412.5	0.860	2.518	1.97	1.197	106.7	77.9	28.9	0.382
4-4220	4-4930	0.198	133.8	18.8	0.34	0.557	83.4	0.502	1.099	173.3	829.5	0.547	1.650	1.97	1.056	119.6	45.2	20.6	0.543
4-4220	4-4940	0.393	200.9	-7.6	0.77	0.792	57.5	0.538	1.688	119.9	426.2	0.780	2.595	2.20	1.198	112.0	79.4	28.3	0.470
4-4220	4-4940	0.234	150.0	18.4	0.77	0.550	76.1	0.544	1.090	167.7	834.7	0.487	1.684	2.20	1.054	122.6	53.3	22.6	0.591
4-4220	4-4950	0.452	198.2	-5.9	1.33	0.792	53.0	0.603	1.686	124.9	441.4	0.670	2.703	2.57	1.199	118.7	81.6	27.9	0.595
4-4220	4-4950	0.296	160.7	10.8	1.33	0.545	67.8	0.607	1.084	163.7	840.1	0.426	1.741	2.57	1.053	127.0	60.9	24.1	0.666
4-4220	4-4960	0.536	194.5	-3.9	2.16	0.792	46.3	0.691	1.686	132.0	458.6	0.522	2.850	3.22	1.200	127.3	83.5	27.5	0.736
4-4220	4-4960	0.385	166.9	8.6	2.16	0.541	57.6	0.693	1.079	161.7	848.3	0.331	1.826	3.22	1.052	133.6	67.6	25.1	0.774
4-4220	4-4970	0.508	169.0	7.8	3.60	0.539	44.4	0.803	1.076	162.7	859.5	0.212	1.940	4.50	1.051	143.2	72.9	25.6	0.930
4-4220	4-4980	0.587	132.2	20.3	7.13	0.190	61.2	0.955	0.845	178.5	1245.4	0.038	1.651	7.86	0.922	162.5	67.3	23.7	1.149
4-4220	4-5020	0.559	188.4	11.4	-3.91	0.346	42.5	0.916	0.909	173.9	921.6	0.077	1.741	-3.81	0.960	23.8	5.3	0.8	1.089
4-4220	4-5030	0.468	85.2	20.7	-3.91	0.460	123.0	0.773	0.992	191.9	939.6	0.226	1.758	-3.81	1.007	39.4	356.9	-4.4	0.875
4-4230	4-4300	0.495	66.2	18.9	-3.10	0.646	128.0	0.663	1.253	210.1	243.9	---	---	-3.25	1.104	50.0	355.5	-6.0	0.745
4-4230	4-4310	0.426	61.0	18.1	-2.28	0.675	121.5	0.565	1.316	216.3	260.0	---	---	-2.61	1.119	58.4	357.9	-5.4	0.607
4-4230	4-4320	0.382	55.9	17.4	-1.72	0.703	117.6	0.492	1.386	222.7	276.4	---	---	-2.24	1.134	65.1	359.9	-5.1	0.495
4-4230	4-4330	0.356	51.5	16.7	-1.29	0.725	115.1	0.441	1.451	228.9	292.5	---	---	-2.02	1.146	70.8	1.3	-5.3	0.404
4-4230	4-4340	0.339	48.0	16.4	-0.93	0.742	113.6	0.409	1.504	234.3	307.7	---	---	-1.89	1.154	75.5	1.8	-6.2	0.330
4-4230	4-4350	0.328	45.5	16.3	-0.61	0.753	112.5	0.388	1.542	238.3	321.5	---	---	-1.82	1.158	79.5	1.2	-7.9	0.271
4-4230	4-4360	0.320	43.8	16.4	-0.30	0.759	111.8	0.374	1.564	240.8	333.8	---	---	-1.81	1.160	82.9	358.9	-10.6	0.226
4-4230	4-4370	0.313	42.9	16.9	0.01	0.761	111.2	0.363	1.571	241.9	344.5	---	---	-1.85	1.159	85.9	355.1	-14.2	0.195
4-4230	4-4380	0.309	42.6	17.6	0.35	0.760	110.6	0.355	1.567	241.8	354.0	---	---	-1.95	1.157	88.4	350.1	-18.2	0.177
4-4230	4-4390	0.297	42.7	18.6	0.73	0.756	110.0	0.347	1.552	240.6	362.5	1.014	---	-2.18	1.153	90.6	345.1	-22.1	0.171
4-4230	4-4400	0.298	43.1	20.0	1.20	0.750	109.4	0.339	1.531	238.6	370.0	1.011	---	-2.41	1.148	92.5	341.4	-25.4	0.173
4-4230	4-4410	0.328	43.8	22.0	1.84	0.742	108.7	0.332	1.506	235.9	376.9	1.005	---	-2.87	1.142	94.2	339.9	-28.2	0.182
4-4230	4-4420	0.318	44.5	25.0	2.80	0.734	107.9	0.326	1.478	232.7	383.2	0.997	---	-3.67	1.136	95.6	341.1	-31.5	0.196
4-4230	4-4430	0.260	45.1	30.3	4.58	0.725	107.0	0.320	1.449	229.1	389.1	0.986	---	-5.29	1.130	96.9	345.5	-37.2	0.218
4-4230	4-4440	0.267	44.4	43.3	9.38	0.715	106.0	0.315	1.420	225.1	394.5	0.973	---	-9.93	1.124	98.1	356.7	-50.9	0.275
4-4230	4-4460	0.259	66.2	-11.1	-11.98	0.695	103.7	0.309	1.366	216.2	405.2	0.943	---	11.73	1.114	100.2	321.9	32.9	0.316
4-4230	4-4470	0.211	64.2	2.7	-5.83	0.685	102.3	0.308	1.340	211.5	409.9	0.927	---	5.73	1.109	101.1	339.6	17.3	0.268
4-4230	4-4480	0.109	66.7	8.6	-3.79	0.675	100.8	0.309	1.316	206.5	414.6	0.910	---	3.85	1.105	102.0	349.0	12.3	0.269
4-4230	4-4490	0.171	71.2	12.2	-2.73	0.665	99.1	0.312	1.294	201.5	419.2	0.891	---	2.96	1.101	103.0	356.7	11.0	0.280
4-4230	4-4500	0.155	77.5	14.8	-2.05	0.656	97.3	0.317	1.273	196.3	423.8	0.870	---	2.45	1.098	104.0	3.9	11.5	0.293
4-4230	4-4510	0.142	85.8	16.8	-1.56	0.646	95.3	0.324	1.254	191.2	428.4	0.847	---	2.15	1.095	105.1	11.0	12.8	0.309

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4230	4-4520	0.131	96.8	18.2	-1.16	0.637	93.0	0.335	1.236	186.0	433.1	0.822	---	1.96	1.092	106.3	18.2	14.5	0.328
4-4230	4-4530	0.126	110.5	18.5	-0.81	0.629	90.5	0.350	1.219	180.9	437.8	0.795	---	1.93	1.090	107.7	25.4	16.4	0.350
4-4230	4-4540	0.128	125.9	17.4	-0.49	0.620	87.6	0.369	1.204	175.9	442.8	0.759	1.648	1.91	1.087	109.3	32.8	18.5	0.377
4-4230	4-4550	0.140	141.1	14.8	-0.17	0.612	84.3	0.394	1.189	171.1	448.0	0.720	1.658	1.82	1.085	111.2	40.3	20.4	0.409
4-4230	4-4560	0.164	154.0	11.6	0.16	0.604	80.5	0.427	1.176	166.7	453.6	0.674	1.679	1.89	1.083	113.6	47.8	22.1	0.449
4-4230	4-4570	0.201	164.0	8.7	0.53	0.597	75.8	0.469	1.165	162.8	459.8	0.618	1.711	2.03	1.081	116.7	55.3	23.7	0.499
4-4230	4-4580	0.252	171.1	6.3	0.98	0.591	70.2	0.525	1.154	159.6	466.8	0.548	1.760	2.27	1.079	120.6	62.6	24.8	0.566
4-4230	4-4590	0.322	175.7	4.7	1.57	0.585	63.0	0.598	1.145	157.6	474.9	0.461	1.830	2.67	1.077	125.9	69.4	25.7	0.655
4-4230	4-4600	0.416	177.9	4.0	2.45	0.581	53.7	0.692	1.139	157.5	485.0	0.350	1.927	3.37	1.075	133.3	75.4	26.2	0.777
4-4230	4-4610	0.543	177.6	-4.2	4.01	0.578	41.2	0.809	1.135	160.3	497.9	0.217	2.054	4.76	1.074	143.6	79.8	26.3	0.946
4-4230	4-4650	0.573	139.8	14.1	-5.82	0.223	55.1	0.946	0.858	177.7	556.1	0.046	1.669	-5.72	0.927	19.2	4.3	0.2	1.136
4-4230	4-4660	0.581	90.6	21.1	-5.82	0.435	137.9	0.874	0.974	190.2	568.7	0.123	1.826	-5.72	0.999	29.1	357.6	-4.0	1.032
4-4230	4-4660	0.466	135.6	14.9	-3.72	0.294	74.8	0.868	0.886	177.6	566.1	0.117	1.655	-3.79	0.944	30.0	8.4	1.7	0.991
4-4230	4-4660	0.442	97.7	20.7	-3.72	0.419	117.6	0.782	0.962	188.7	577.2	0.209	1.714	-3.79	0.990	38.6	2.9	-1.6	0.882
4-4230	4-4730	0.568	196.8	-4.9	-0.15	0.731	42.1	0.746	1.470	144.1	241.6	---	2.566	-1.82	1.141	44.5	95.7	18.0	0.850
4-4230	4-4740	0.535	192.9	-5.5	0.17	0.739	45.1	0.710	1.494	140.7	247.9	---	2.554	-1.89	1.144	48.1	62.7	19.0	0.789
4-4230	4-4750	0.503	194.9	-5.9	0.52	0.746	47.9	0.674	1.517	137.5	254.3	---	2.540	-2.08	1.147	51.6	69.6	19.6	0.729
4-4230	4-4760	0.474	197.0	-6.2	0.94	0.752	50.4	0.639	1.540	134.3	260.7	---	2.524	-2.25	1.150	54.9	76.5	19.7	0.672
4-4230	4-4770	0.446	199.1	-6.1	1.48	0.758	52.8	0.606	1.561	131.3	267.3	---	2.507	-2.60	1.152	58.0	83.3	19.2	0.617
4-4230	4-4780	0.421	201.3	-5.6	2.24	0.763	54.9	0.576	1.580	128.4	273.9	---	2.489	-3.19	1.155	61.1	89.9	17.7	0.565
4-4230	4-4790	0.399	203.7	-4.1	3.49	0.768	56.9	0.547	1.598	125.7	280.7	---	2.472	-4.28	1.158	64.0	96.0	14.7	0.516
4-4230	4-4800	0.383	208.7	0.1	6.14	0.772	58.7	0.520	1.614	123.3	287.7	---	2.454	-6.78	1.161	66.8	101.7	7.7	0.478
4-4230	4-4810	0.412	211.4	17.0	16.71	0.775	60.2	0.497	1.629	120.8	294.7	---	2.438	-17.20	1.164	69.5	108.6	-16.5	0.518
4-4230	4-4820	0.470	175.3	-43.0	-26.35	0.778	61.8	0.473	1.641	118.5	302.7	---	2.418	26.02	1.167	72.4	165.7	68.3	0.598
4-4230	4-4830	0.339	199.6	-26.5	-8.00	0.781	62.9	0.455	1.652	116.6	310.0	---	2.404	7.81	1.170	74.9	124.7	45.8	0.357
4-4230	4-4840	0.316	204.1	-21.5	-4.66	0.783	64.0	0.439	1.661	114.9	317.9	---	2.391	4.63	1.173	77.5	124.1	38.2	0.301
4-4230	4-4850	0.303	206.4	-19.3	-3.22	0.785	64.8	0.426	1.669	113.5	326.1	---	2.380	3.35	1.176	80.1	124.2	35.2	0.260
4-4230	4-4860	0.294	207.9	-18.0	-2.38	0.786	65.4	0.416	1.675	112.4	334.7	---	2.371	2.69	1.179	82.6	122.4	34.4	0.228
4-4230	4-4870	0.288	209.0	-17.0	-1.80	0.787	65.9	0.409	1.679	111.6	343.6	---	2.366	2.29	1.182	85.3	117.7	34.6	0.204
4-4230	4-4880	0.286	209.7	-16.1	-1.36	0.788	66.1	0.406	1.682	111.1	353.0	---	2.366	2.05	1.185	88.0	109.9	35.1	0.191
4-4230	4-4890	0.286	210.1	-15.2	-0.99	0.788	66.0	0.408	1.684	111.1	362.8	0.998	2.371	1.90	1.188	90.8	100.1	35.0	0.192
4-4230	4-4900	0.292	210.1	-14.3	-0.66	0.789	65.6	0.414	1.685	111.5	373.1	0.987	2.383	1.83	1.190	93.8	91.1	33.9	0.209
4-4230	4-4910	0.302	209.8	-13.3	-0.34	0.789	64.8	0.426	1.685	112.3	384.0	0.957	2.403	1.81	1.192	97.1	85.0	32.3	0.242
4-4230	4-4910	0.242	87.1	23.2	-0.34	0.578	102.4	0.488	1.135	193.7	825.3	0.581	1.690	1.81	1.065	118.4	27.6	14.8	0.527
4-4230	4-4910	0.540	66.1	21.8	-0.34	0.650	132.0	0.707	1.262	209.3	841.0	0.370	2.154	1.81	1.106	133.6	21.3	10.9	0.805
4-4230	4-4920	0.318	209.0	-12.2	-0.02	0.788	63.5	0.446	1.684	113.8	395.5	0.933	2.435	1.85	1.194	100.7	82.2	30.8	0.289
4-4230	4-4920	0.200	107.1	23.0	-0.02	0.564	94.3	0.481	1.174	184.6	826.3	0.578	1.651	1.85	1.060	118.1	36.7	18.0	0.519
4-4230	4-4930	0.342	207.8	-11.0	0.33	0.788	61.7	0.475	1.683	116.0	407.7	0.884	2.482	1.95	1.196	104.9	81.8	29.6	0.352
4-4230	4-4930	0.196	128.7	20.1	0.33	0.554	87.2	0.497	1.101	177.2	828.9	0.554	1.648	1.95	1.057	119.3	45.5	20.7	0.537
4-4230	4-4940	0.377	206.1	-9.7	0.73	0.788	59.0	0.516	1.681	119.0	420.9	0.814	2.549	2.13	1.197	109.8	83.1	28.9	0.452
4-4230	4-4940	0.217	147.4	15.4	0.73	0.546	80.0	0.530	1.090	170.9	832.8	0.512	1.669	2.13	1.054	121.6	54.0	22.7	0.575
4-4230	4-4950	0.428	203.7	-8.1	1.23	0.787	55.0	0.573	1.680	123.3	435.3	0.717	2.643	2.43	1.198	115.8	85.2	28.3	0.534
4-4230	4-4950	0.267	160.5	11.0	1.23	0.540	72.1	0.583	1.083	166.0	838.0	0.452	1.713	2.43	1.052	125.3	62.0	24.3	0.636
4-4230	4-4960	0.499	200.5	-6.3	1.93	0.787	49.4	0.651	1.679	129.3	451.4	0.566	2.771	2.95	1.199	123.5	87.4	27.8	0.667
4-4230	4-4960	0.344	168.6	7.9	1.93	0.535	62.6	0.657	1.077	163.0	845.1	0.369	1.784	2.95	1.051	130.8	69.3	25.3	0.727
4-4230	4-4970	0.451	172.5	6.4	3.06	0.532	50.8	0.756	1.073	162.4	854.7	0.262	1.883	3.89	1.050	138.9	75.4	25.9	0.858
4-4230	4-4980	0.593	172.6	6.3	5.34	0.531	35.5	0.872	1.072	165.4	867.9	0.137	2.006	6.01	1.049	150.6	79.6	26.1	1.043
4-4230	4-4980	0.555	126.5	21.6	5.34	0.796	93.8	0.937	0.850	180.3	1242.7	0.053	1.646	6.01	0.926	159.3	69.0	23.8	1.107
4-4230	4-5020	0.592	152.1	10.1	-4.61	0.324	37.7	0.939	0.900	174.9	918.1	0.055	1.786	-4.59	0.955	20.2	7.0	1.6	1.137
4-4230	4-5020	0.519	89.8	20.9	-4.61	0.450	130.0	0.821	0.987	191.5	934.7	0.177	1.798	-4.59	1.005	34.8	359.1	-3.4	0.947
4-4230	4-5030	0.590	55.3	17.0	-3.15	0.768	132.9	0.681	1.600	225.3	618.6	0.510	2.689	-3.30	1.190	52.3	348.9	-9.3	0.741
4-4230	4-5030	0.492	150.5	10.4	-3.15	0.352	54.1	0.871	0.916	173.6	926.9	0.118	1.715	-3.30	0.963	29.5	12.0	3.5	1.007
4-4230	4-5030	0.397	98.1	20.5	-3.15	0.442	112.4	0.735	0.980	188.9	942.1	0.260	1.700	-3.30	0.999	42.7	4.9	-0.8	0.820
4-4240	4-4300	0.595	65.1	18.9	-3.52	0.724	135.3	0.717	1.456	217.1	246.5	---	---	-3.74	1.154	47.3	354.4	-6.7	0.814
4-4240	4-4310	0.505	60.2	18.2	-2.49	0.735	127.5	0.614	1.490	224.5	263.8	---	---	-2.89	1.158	56.8	356.3	-6.3	0.652
4-4240	4-4320	0.449	55.5	17.5	-1.83	0.753	122.5	0.540	1.552	231.7	281.0	---	---	-2.42	1.167	64.3	357.8	-6.3	0.526
4-4240	4-4330	0.415	51.5	17.0	-1.35	0.769	119.4	0.491	1.614	238.3	297.4	---	---	-2.13	1.176	70.4	358.6	-6.7	0.426
4-4240	4-4340	0.393	48.4	16.7	-0.96	0.781	117.3	0.459	1.664	243.5	312.5	---	---	-1.96	1.181	75.5	358.5	-7.7	0.366
4-4240	4-4350	0.378	46.3	16.6	-0.62	0.788	116.0	0.438	1.695	247.1	325.9	---	---	-1.87	1.183	79.8	357.0	-9.6	0.285
4-4240	4-4360	0.366	45.0	16.8	-0.30	0.791	115.0	0.423	1.708	249.3	337.6	---	---	-1.83	1.183	83.4	354.1	-12.4	0.240
4-4240	4-4370	0.355	44.4	17.3	0.01	0.790	114.2	0.411	1.703	249.7	347.8	---	---	-1.85	1.180	86.5	349.7	-15.8	0.210
4-4240	4-4380	0.345	44.3	18.0	0.34	0.786	113.5	0.399	1.684	249.0	356.9	---	---	-1.93	1.176	89.1	344.8	-19.3	0.193
4-4240	4-4390	0.334	44.6	18.8	0.70	0.779	112.8	0.388	1.655	247.5	364.9	1.013	---	-2.06	1.170	91.4	340.0	-22.4	0.188
4-4240	4-4400	0.323	45.2	20.1	1.13	0.771	112.1	0.377	1.620	245.1	372.1	1.009	---	-2.29	1.163	93.3	337.0	-24.8	0.191
4-4240	4-4410	0.310	46.1	21.8	1.68	0.761	111.3	0.366	1.581	242.2	378.7	1.002	---	-2.66	1.156	96.0	336.1	-26.7	0.199
4-4240	4-4420	0.298	47.1	24.1	2.47	0.750	110.5	0.356	1.542	238.7	384.8	0.992	---	-3.28	1.148	96.4	337.4	-28.8	0.211
4-4240	4-4430	0.286	48.1	27.9	3.79	0.739	109.5	0.347	1.502	234.8	390.4	0.981	---	-4.43	1.141	97.7	341.3	-32.3	0.228
4-4240	4-4440	0.279	48.6	35.7	6.63	0.727	108.5	0.339	1.465	230.6	395.7	0.968	---	-7.12	1.134	98.8	348.9	-40.4	0.259
4-4240	4-4450	0.342	49.1	60.5	18.81	0.715	107.3	0.332	1.429	226.1	400.5	0.955	---	-19.14	1.127	99.8	11.1	-65.8	0.420
4-4240	4-4460	0.372	76.5	-23.0	-23.37	0.703	106.1	0.329	1.396	221.5	406.1	0.937	---	23.19	1.121	100.9	300.7	44.8	0.487
4-4240	4-4470	0.238	66.6	0.0	-7.63	0.692	104.7	0.325	1.365	216.6	410.6	0.922	---	7.59	1.115	101.7	336.1	21.8	0.294
4-4240	4-4480	0.209	68.0	8.0	-4.45	0.680	103.1	0.323	1.336	211.5	415.1	0.905	---	4.58	1.110	102.6	347.6	14.0	0.284
4-4240	4-4490	0.189	71.8	12.2	-3.05	0.669	101.4	0.323	1.310	206.3	419.5	0.886	---	3.34	1.105	103.5	356.0	11.9	0.291
4-4240	4-4500	0.171	77.2	15.0	-2.22	0.658	99.5	0.326	1.285	201.0	424.0	0.866	---	2.69	1.101	104.4	3.6	11.9	0.302
4-4240	4-4510	0.155	84.5	17.1	-1.65	0.648	97.5	0.332	1.263	195.7	428.4	0.844	---	2.30	1.097	105.4	10.9	13.1	0.316
4-4240	4-4520	0.142	94.2	18.5	-1.20	0.637	95.2	0.340	1.243	190.4	432.9	0.820	---	2.06	1.094	106.5	18.1	14.7	0.333
4-4240	4-4530	0.132	106.6	19.1	-0.83	0.628	92.7	0.352	1.224	185.1	437.5	0.793	---	1.92	1.091	107.7	25.5	16.7	0.352
4-4240	4-4540	0.130	121.5	18.4	-0.50	0.618	89.9	0.369	1.207	179.9	442.3	0.762	1.651	1.85	1.088	109.2	33.0	18.7	0.375
4-4240	4-4550	0.136	137.2	16.0	-0.17	0.609	86.7	0.390	1.191	174.9	447.3	0.726	1.656	1.83	1.086	110.9	40.6	20.6	0.404
4-4240	4-4560	0.154	151.6	12.6	0.15	0.601	83.0	0.419	1.176	170.1	452.6	0.684	1.669	1.88	1.085	113.1	48.3	22.4	0.439

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4240	4-4570	0.184	163.1	9.1	0.51	0.593	78.6	0.456	1.163	165.8	458.4	0.633	1.694	1.98	1.080	115.8	56.0	23.9	0.483
4-4240	4-4580	0.229	171.6	6.2	0.93	0.585	73.4	0.505	1.152	162.1	464.8	0.570	1.733	2.18	1.078	119.3	63.6	25.1	0.541
4-4240	4-4590	0.290	177.5	4.0	1.45	0.579	66.8	0.569	1.142	159.4	472.2	0.492	1.791	2.50	1.075	123.9	70.8	25.4	0.618
4-4240	4-4600	0.373	180.8	2.8	2.19	0.574	58.4	0.653	1.134	158.2	481.2	0.394	1.874	3.05	1.073	130.2	77.3	26.4	0.723
4-4240	4-4610	0.483	181.8	2.4	3.38	0.570	47.3	0.759	1.128	159.4	492.6	0.272	1.985	4.07	1.071	138.0	82.6	26.6	0.868
4-4240	4-4660	0.501	139.6	13.8	-4.36	0.256	73.8	0.901	0.873	178.2	562.2	0.086	1.659	-4.50	0.935	26.0	10.4	2.6	1.046
4-4240	4-4660	0.487	102.0	20.5	-4.36	0.402	124.3	0.827	0.953	188.6	572.7	0.165	1.741	-4.50	0.985	34.2	5.1	-0.7	0.947
4-4240	4-4730	0.581	194.1	-6.3	-0.15	0.723	41.0	0.760	1.452	145.8	238.9	---	2.556	-1.86	1.158	43.0	57.0	18.3	0.873
4-4240	4-4740	0.548	196.2	-6.9	0.16	0.731	44.1	0.723	1.477	142.5	245.2	---	2.545	-1.88	1.141	46.7	64.0	19.3	0.811
4-4240	4-4750	0.516	198.3	-7.4	0.50	0.738	46.9	0.687	1.501	139.2	251.6	---	2.531	-1.98	1.144	50.2	71.0	20.0	0.751
4-4240	4-4760	0.486	200.4	-7.7	0.89	0.745	49.6	0.651	1.524	136.0	258.0	---	2.516	-2.16	1.147	53.6	77.9	20.1	0.692
4-4240	4-4770	0.458	202.5	-7.8	1.37	0.751	52.0	0.618	1.545	133.0	264.5	---	2.500	-2.45	1.150	56.8	84.7	19.6	0.636
4-4240	4-4780	0.432	204.6	-7.4	2.02	0.757	54.3	0.586	1.566	130.1	271.1	---	2.483	-2.92	1.153	59.9	91.3	18.4	0.583
4-4240	4-4790	0.409	206.9	-6.4	3.00	0.762	56.3	0.558	1.584	127.3	277.9	---	2.465	-3.73	1.156	62.9	97.6	16.0	0.533
4-4240	4-4800	0.390	209.5	-3.8	4.81	0.766	58.1	0.529	1.601	124.7	284.8	---	2.447	-5.38	1.159	65.8	103.3	11.1	0.488
4-4240	4-4810	0.384	213.1	4.4	9.72	0.770	59.8	0.504	1.616	122.3	291.9	---	2.430	-10.13	1.162	68.5	108.5	-1.8	0.468
4-4240	4-4830	0.362	199.2	-33.4	-11.88	0.776	62.6	0.460	1.641	118.1	307.1	---	2.396	11.77	1.168	74.0	134.5	53.4	0.403
4-4240	4-4840	0.326	207.0	-24.7	-5.73	0.778	63.7	0.443	1.651	116.3	314.8	---	2.383	5.77	1.172	76.5	126.9	40.4	0.319
4-4240	4-4850	0.310	210.0	-21.5	-3.68	0.780	64.5	0.429	1.659	114.8	323.0	---	2.371	3.88	1.175	79.1	128.8	35.8	0.274
4-4240	4-4860	0.299	211.8	-19.8	-2.61	0.782	65.3	0.418	1.666	113.6	331.4	---	2.361	2.99	1.178	81.7	127.7	34.2	0.238
4-4240	4-4870	0.292	213.0	-18.6	-1.93	0.783	65.8	0.410	1.671	112.7	340.3	---	2.355	2.48	1.181	84.3	124.1	34.1	0.211
4-4240	4-4880	0.289	213.8	-17.7	-1.42	0.784	66.1	0.405	1.675	112.1	349.5	---	2.353	2.18	1.184	87.0	117.4	34.7	0.193
4-4240	4-4890	0.288	214.3	-16.8	-1.02	0.784	66.3	0.405	1.677	111.9	359.2	---	2.356	1.99	1.187	89.8	108.0	35.1	0.189
4-4240	4-4900	0.292	214.5	-15.9	-0.67	0.784	65.9	0.409	1.678	112.1	369.3	0.991	2.365	1.88	1.189	92.7	98.4	34.5	0.200
4-4240	4-4910	0.300	214.3	-14.9	-0.34	0.784	65.2	0.419	1.678	112.8	379.9	0.975	2.382	1.83	1.191	95.9	91.1	33.1	0.227
4-4240	4-4910	0.306	81.5	23.1	-0.34	0.589	110.5	0.532	1.157	200.7	827.9	0.542	1.773	1.83	1.073	121.2	26.5	14.1	0.578
4-4240	4-4910	0.446	72.7	22.6	-0.34	0.624	124.3	0.636	1.216	208.0	835.2	0.442	1.990	1.83	1.092	128.3	23.6	12.2	0.709
4-4240	4-4920	0.313	215.7	-13.9	-0.02	0.784	64.2	0.436	1.678	114.0	391.2	0.947	2.409	1.85	1.194	99.3	87.2	31.5	0.269
4-4240	4-4920	0.221	101.3	23.5	-0.02	0.565	99.1	0.493	1.121	189.6	826.8	0.569	1.674	1.85	1.062	118.8	36.5	17.9	0.532
4-4240	4-4920	0.578	71.8	22.9	-0.02	0.653	136.0	0.748	1.275	208.1	845.3	0.322	2.228	1.85	1.112	137.0	28.9	13.6	0.865
4-4240	4-4930	0.334	212.7	-12.8	0.32	0.784	62.6	0.461	1.677	115.8	403.0	0.904	2.449	1.92	1.195	103.2	86.0	30.3	0.325
4-4240	4-4930	0.197	122.9	21.4	0.32	0.552	91.3	0.497	1.104	181.3	828.6	0.555	1.652	1.92	1.058	119.2	45.7	20.7	0.536
4-4240	4-4940	0.364	211.1	-11.6	0.70	0.784	60.2	0.497	1.675	118.4	415.7	0.843	2.507	2.06	1.196	107.8	86.8	29.3	0.397
4-4240	4-4940	0.206	143.6	16.7	0.70	0.543	84.0	0.521	1.091	174.4	831.8	0.523	1.660	2.06	1.055	120.9	54.5	22.8	0.563
4-4240	4-4950	0.407	209.0	-10.2	1.16	0.783	56.9	0.547	1.673	122.0	429.5	0.758	2.589	2.31	1.197	113.3	88.7	28.6	0.489
4-4240	4-4950	0.244	159.3	11.6	1.16	0.536	76.2	0.563	1.082	168.8	836.3	0.472	1.692	2.31	1.052	124.0	62.9	24.5	0.612
4-4240	4-4960	0.469	206.2	-8.6	1.76	0.783	52.0	0.615	1.672	127.9	444.8	0.643	2.701	2.72	1.198	120.1	91.1	28.1	0.607
4-4240	4-4960	0.309	169.5	7.7	1.76	0.530	67.4	0.627	1.075	164.7	842.4	0.401	1.749	2.72	1.050	128.5	70.7	25.5	0.688
4-4240	4-4970	0.556	202.3	-6.7	2.67	0.783	45.1	0.706	1.672	134.2	462.1	0.491	2.852	3.45	1.198	129.0	93.1	27.6	0.763
4-4240	4-4970	0.401	175.2	5.3	2.67	0.526	56.6	0.713	1.070	162.9	850.7	0.307	1.834	3.45	1.049	135.3	77.5	26.1	0.799
4-4240	4-4980	0.527	177.0	4.5	4.30	0.524	42.8	0.823	1.068	164.1	862.1	0.189	1.946	4.91	1.047	145.2	82.6	26.3	0.958
4-4240	4-5020	0.574	95.2	21.0	-5.65	0.439	137.7	0.870	0.982	190.5	929.3	0.127	1.837	-5.70	1.002	29.5	1.6	-2.3	1.028
4-4240	4-5030	0.524	155.0	8.9	-3.59	0.330	49.1	0.902	0.907	174.4	923.2	0.089	1.725	-3.80	0.957	25.7	13.8	4.3	1.059
4-4240	4-5030	0.439	100.4	20.5	-3.59	0.433	119.0	0.774	0.977	189.8	938.6	0.220	1.734	-3.80	0.997	39.3	6.5	-0.2	0.874
4-4240	4-5040	0.532	57.9	17.8	-2.53	0.763	128.8	0.628	1.590	228.4	627.2	0.592	2.539	-2.92	1.177	57.1	354.3	-7.2	0.657
4-4240	4-5040	0.409	148.0	11.0	-2.53	0.369	70.2	0.804	0.930	174.9	933.7	0.182	1.678	-2.92	0.969	36.6	17.9	5.6	0.903
4-4240	4-5040	0.346	119.7	18.1	-2.53	0.415	99.1	0.723	0.962	183.1	942.0	0.267	1.658	-2.92	0.987	43.7	14.1	3.3	0.799
4-4250	4-4320	0.535	55.4	17.6	-1.97	0.823	127.5	0.617	1.899	241.6	286.4	---	---	-2.62	1.216	63.3	355.1	-7.6	0.571
4-4250	4-4330	0.488	51.8	17.2	-1.42	0.829	123.7	0.566	1.921	248.0	302.7	---	---	-2.26	1.217	70.0	355.3	-8.2	0.458
4-4250	4-4340	0.457	49.1	17.0	-0.99	0.833	121.2	0.533	1.948	252.8	317.3	---	---	-2.04	1.218	75.5	354.5	-9.4	0.372
4-4250	4-4350	0.436	47.3	17.0	-0.63	0.835	119.4	0.509	1.957	255.8	330.1	---	---	-1.92	1.216	80.0	352.4	-11.5	0.306
4-4250	4-4360	0.419	46.3	17.3	-0.30	0.832	118.2	0.491	1.943	257.1	341.2	---	---	-1.86	1.213	83.8	348.9	-14.2	0.260
4-4250	4-4370	0.404	46.0	17.8	0.01	0.827	117.3	0.473	1.910	257.2	350.9	---	---	-1.85	1.207	87.1	344.2	-17.2	0.231
4-4250	4-4380	0.390	46.1	18.4	0.33	0.819	116.5	0.457	1.862	256.1	359.5	---	---	-1.90	1.200	89.8	339.3	-20.2	0.215
4-4250	4-4390	0.376	46.6	19.3	0.67	0.809	115.7	0.440	1.807	254.1	367.1	1.012	---	-2.01	1.191	92.2	335.3	-22.5	0.211
4-4250	4-4400	0.362	47.5	20.4	1.07	0.797	114.9	0.424	1.747	251.5	374.0	1.006	---	-2.19	1.182	94.2	333.0	-24.2	0.214
4-4250	4-4410	0.347	48.5	21.8	1.56	0.784	114.1	0.408	1.686	248.2	380.3	0.998	---	-2.49	1.173	95.9	332.7	-25.4	0.221
4-4250	4-4420	0.331	49.7	23.7	2.22	0.770	113.2	0.394	1.628	244.5	386.2	0.987	---	-2.98	1.163	97.3	334.4	-26.7	0.234
4-4250	4-4430	0.316	51.0	26.5	3.24	0.756	112.2	0.380	1.573	240.5	391.6	0.975	---	-3.83	1.154	98.6	338.1	-28.7	0.245
4-4250	4-4440	0.303	52.1	31.6	5.16	0.742	111.0	0.368	1.523	236.1	396.8	0.962	---	-5.58	1.145	99.7	344.3	-33.4	0.265
4-4250	4-4450	0.307	52.7	44.4	10.54	0.728	109.8	0.358	1.476	231.5	401.6	0.948	---	-10.81	1.137	100.6	355.9	-47.0	0.321
4-4250	4-4470	0.278	70.3	-5.1	-11.06	0.701	107.1	0.344	1.395	221.6	411.2	0.915	---	11.10	1.122	102.4	329.8	28.9	0.341
4-4250	4-4480	0.233	69.8	6.9	-5.43	0.687	105.5	0.339	1.360	216.4	415.6	0.899	---	5.63	1.116	103.2	345.9	16.4	0.303
4-4250	4-4490	0.209	72.8	12.0	-3.47	0.675	103.8	0.337	1.329	211.1	419.9	0.881	---	3.83	1.110	104.0	355.2	12.9	0.304
4-4250	4-4500	0.189	77.6	15.1	-2.43	0.662	101.9	0.338	1.301	205.7	424.2	0.862	---	2.96	1.105	104.8	3.2	12.5	0.313
4-4250	4-4510	0.171	84.0	17.3	-1.75	0.650	99.8	0.341	1.275	200.2	428.6	0.841	---	2.47	1.101	105.7	10.7	13.4	0.324
4-4250	4-4520	0.155	92.5	18.8	-1.26	0.639	97.6	0.347	1.251	194.7	432.9	0.818	---	2.17	1.097	106.7	18.1	15.0	0.338
4-4250	4-4530	0.142	103.5	19.6	-0.85	0.628	95.1	0.356	1.230	189.3	437.4	0.792	---	1.99	1.093	107.9	25.5	16.8	0.355
4-4250	4-4540	0.135	117.3	19.2	-0.50	0.618	92.3	0.370	1.211	183.9	441.9	0.765	---	1.89	1.089	109.2	33.1	18.8	0.376
4-4250	4-4550	0.135	132.9	17.2	-0.17	0.608	89.2	0.388	1.193	178.7	446.7	0.730	1.656	1.85	1.086	110.8	40.8	20.8	0.401
4-4250	4-4560	0.147	148.3	13.8	0.15	0.598	85.6	0.413	1.177	173.7	451.7	0.691	1.663	1.87	1.083	112.7	48.7	22.5	0.432
4-4250	4-4570	0.171	161.4	9.9	0.50	0.590	81.4	0.445	1.163	169.0	457.2	0.645	1.681	1.94	1.080	115.1	56.6	24.0	0.471
4-4250	4-4580	0.209	171.5	6.4	0.88	0.581	76.4	0.488	1.150	164.9	463.1	0.589	1.711	2.10	1.077	118.1	64.4	25.2	0.521
4-4250	4-4590	0.263	178.6	3.7	1.36	0.574	70.4	0.544	1.139	161.5	470.0	0.519	1.758	2.36	1.074	122.1	72.0	26.1	0.588
4-4250	4-4600	0.335	183.2	1.9	1.99	0.567	62.7	0.618	1.129	159.4	478.0	0.431	1.827	2.79	1.072	127.6	79.0	26.6	0.678
4-4250	4-4610	0.432	185.3	1.0	2.94	0.563	52.8	0.714	1.122	159.3	488.1	0.321	1.923	3.57	1.069	135.1	85.0	26.7	0.803
4-4250	4-4620	0.562	184.9	1.1	4.70	0.560	39.6	0.829	1.119	162.1	501.0	0.191	2.047	5.15	1.068	145.7	89.4	26.6	0.974
4-4250	4-4660	0.538	143.0	12.8	-5.29	0.214	73.9	0.930	0.861	178.8	558.4	0.060	1.661	-5.50	0.927	21.8	12.4	3.5	1.100
4-4250	4-4660	0.537	107.2	20.2	-5.29	0.382	131.7	0.874	0.942	187.9	567.5	0.119	1.765	-5.50	0.979	29.2	7.5	0.4	1.021
4-4250	4-4730	0.596	197.4	-7.7	-0.15	0.714	39.8	0.774	1.434	147.5	236.2	---	2.545	-1.85	1.134	41.5	58.3	18.7	0.897

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4250	4-4740	0.561	199.6	-8.3	0.16	0.723	43.0	0.737	1.459	144.2	242.5	---	2.535	-1.87	1.137	45.3	65.3	19.7	0.833
4-4250	4-4750	0.529	201.7	-8.8	0.49	0.730	46.0	0.700	1.484	140.9	248.8	---	2.522	-1.94	1.140	48.9	72.3	20.3	0.772
4-4250	4-4760	0.498	203.8	-9.2	0.85	0.738	48.7	0.664	1.507	137.7	255.2	---	2.508	-2.08	1.144	52.3	79.3	20.4	0.713
4-4250	4-4770	0.470	205.9	-9.3	1.29	0.744	51.2	0.629	1.530	134.6	261.7	---	2.492	-2.31	1.147	55.6	86.2	20.1	0.656
4-4250	4-4780	0.443	208.0	-9.1	1.85	0.750	53.6	0.596	1.551	131.7	268.3	---	2.475	-2.69	1.150	58.7	92.8	19.0	0.601
4-4250	4-4790	0.419	210.2	-8.4	2.64	0.755	55.7	0.566	1.570	128.9	275.1	---	2.458	-3.32	1.153	61.8	99.1	17.0	0.550
4-4250	4-4800	0.398	212.6	-6.6	3.98	0.760	57.6	0.537	1.588	126.3	281.9	---	2.441	-4.48	1.157	64.7	105.0	13.3	0.502
4-4250	4-4810	0.384	215.5	-1.9	6.87	0.764	59.3	0.511	1.604	123.8	289.0	---	2.423	-7.22	1.160	67.5	110.1	5.2	0.466
4-4250	4-4820	0.429	219.2	17.6	19.45	0.768	60.8	0.488	1.618	121.6	296.1	---	2.407	-19.64	1.163	70.2	116.2	-23.0	0.536
4-4250	4-4830	0.440	188.7	-44.9	-22.81	0.771	62.3	0.465	1.630	119.4	304.2	---	2.388	23.77	1.167	73.0	167.3	64.7	0.545
4-4250	4-4840	0.338	209.4	-28.8	-7.46	0.773	63.4	0.447	1.641	117.6	311.8	---	2.375	7.58	1.170	75.6	134.7	44.1	0.344
4-4250	4-4850	0.317	213.5	-23.9	-4.31	0.776	64.4	0.432	1.650	116.1	319.8	---	2.362	4.59	1.173	78.2	133.4	36.8	0.289
4-4250	4-4860	0.305	215.6	-21.7	-2.91	0.777	65.2	0.420	1.657	114.8	328.2	---	2.352	3.35	1.176	80.7	132.7	34.1	0.249
4-4250	4-4870	0.297	217.0	-20.3	-2.08	0.778	65.8	0.410	1.662	113.7	336.9	---	2.344	2.70	1.180	83.3	130.1	33.5	0.219
4-4250	4-4880	0.292	218.0	-19.2	-1.50	0.779	66.1	0.405	1.667	113.1	346.0	---	2.341	2.31	1.183	86.0	124.6	34.0	0.197
4-4250	4-4890	0.291	218.6	-18.2	-1.06	0.780	66.3	0.403	1.669	112.7	355.6	---	2.342	2.08	1.185	88.7	116.0	34.7	0.188
4-4250	4-4900	0.292	218.8	-17.3	-0.68	0.780	66.1	0.405	1.671	112.8	365.5	0.994	2.348	1.93	1.188	91.6	106.2	34.7	0.193
4-4250	4-4910	0.299	218.8	-16.4	-0.34	0.781	65.6	0.413	1.671	113.2	376.0	0.981	2.362	1.88	1.190	94.7	97.8	33.6	0.214
4-4250	4-4920	0.310	218.3	-15.5	-0.02	0.781	64.7	0.427	1.671	114.2	386.9	0.958	2.385	1.85	1.193	98.0	92.6	32.2	0.250
4-4250	4-4920	0.259	95.7	23.8	-0.02	0.570	105.1	0.516	1.134	195.3	828.0	0.549	1.719	1.85	1.067	120.3	36.0	17.5	0.559
4-4250	4-4920	0.507	77.4	23.4	-0.02	0.633	130.4	0.697	1.239	208.0	840.8	0.375	2.102	1.85	1.101	132.9	30.8	14.5	0.791
4-4250	4-4930	0.328	217.4	-14.4	0.31	0.780	63.4	0.448	1.670	115.7	398.5	0.921	2.419	1.89	1.194	101.7	90.5	30.8	0.300
4-4250	4-4950	0.209	116.9	22.5	0.31	0.553	95.8	0.502	1.108	185.8	828.6	0.552	1.665	1.89	1.060	119.5	45.7	20.6	0.542
4-4250	4-4940	0.354	216.1	-13.3	0.67	0.780	61.3	0.480	1.669	117.9	410.8	0.868	2.469	2.01	1.196	105.9	90.7	29.8	0.366
4-4250	4-4940	0.201	138.7	18.3	0.67	0.541	88.1	0.516	1.093	178.2	831.1	0.530	1.657	2.01	1.055	120.6	54.8	22.9	0.557
4-4250	4-4950	0.391	214.3	-12.1	1.09	0.780	58.4	0.524	1.667	121.0	424.1	0.794	2.540	2.20	1.196	111.0	92.3	28.9	0.448
4-4250	4-4950	0.226	156.9	12.6	1.09	0.533	80.4	0.549	1.082	171.9	835.0	0.488	1.676	2.20	1.052	122.9	63.6	24.6	0.595
4-4250	4-4960	0.444	211.7	-10.7	1.63	0.779	54.3	0.584	1.665	125.3	438.5	0.693	2.638	2.54	1.197	117.1	94.7	28.3	0.554
4-4250	4-4960	0.279	169.5	7.8	1.63	0.526	71.9	0.602	1.074	167.0	840.3	0.428	1.720	2.54	1.050	126.7	71.8	25.7	0.656
4-4250	4-4970	0.519	208.3	-9.0	2.38	0.779	48.3	0.665	1.664	131.4	454.8	0.558	2.771	3.10	1.197	125.1	97.0	27.7	0.692
4-4250	4-4970	0.359	177.1	4.6	2.38	0.521	61.9	0.677	1.068	164.0	847.4	0.345	1.791	3.10	1.048	132.4	79.2	26.3	0.749
4-4250	4-4980	0.469	180.5	3.3	3.62	0.518	49.4	0.776	1.044	163.6	857.2	0.238	1.890	4.16	1.046	140.8	85.2	26.5	0.884
4-4250	4-4990	0.595	127.7	21.2	6.25	0.195	123.0	0.956	0.855	181.7	1245.5	0.037	1.672	6.62	0.929	162.8	78.6	24.6	1.154
4-4250	4-5030	0.565	159.0	7.4	-4.19	0.307	43.9	0.928	0.898	175.2	919.6	0.064	1.732	-4.47	0.951	22.0	15.6	5.1	1.110
4-4250	4-5030	0.487	103.9	20.4	-4.19	0.424	126.1	0.818	0.973	190.0	934.4	0.177	1.769	-4.47	0.995	35.1	8.5	0.7	0.938
4-4250	4-5040	0.563	64.7	19.1	-2.81	0.759	132.0	0.671	1.582	225.0	619.4	0.521	2.643	-3.27	1.175	55.0	357.7	-5.6	0.727
4-4250	4-5040	0.455	155.3	8.5	-2.81	0.343	63.3	0.848	0.917	174.7	929.1	0.139	1.696	-3.27	0.961	32.1	20.2	6.6	0.967
4-4250	4-5040	0.376	117.1	18.6	-2.81	0.411	106.3	0.746	0.963	185.8	940.2	0.245	1.681	-3.27	0.987	41.8	15.0	3.6	0.830
4-4250	4-5050	0.482	60.9	18.6	-2.00	0.758	125.4	0.581	1.581	230.7	635.1	0.663	2.499	-2.64	1.173	61.2	360.0	-5.1	0.584
4-4260	4-4330	0.580	52.2	17.5	-1.50	0.911	128.0	0.683	2.661	257.8	308.1	---	---	-2.40	1.275	69.3	351.5	-9.8	0.508
4-4260	4-4340	0.537	49.9	17.3	-1.03	0.903	124.9	0.642	2.565	261.8	322.0	---	---	-2.13	1.267	75.3	350.1	-11.2	0.410
4-4260	4-4350	0.506	48.4	17.4	-0.64	0.895	122.9	0.610	2.477	264.1	334.0	---	---	-1.97	1.260	80.2	347.5	-13.2	0.339
4-4260	4-4360	0.482	47.7	17.7	-0.30	0.886	121.5	0.582	2.379	264.8	344.5	---	---	-1.88	1.251	84.3	343.6	-15.7	0.290
4-4260	4-4370	0.462	47.7	18.2	0.01	0.874	120.4	0.556	2.271	264.3	353.6	---	---	-1.85	1.241	87.7	339.0	-18.4	0.260
4-4260	4-4380	0.443	48.0	18.9	0.33	0.861	119.4	0.531	2.158	262.8	361.8	1.012	---	-1.87	1.230	90.6	334.5	-20.7	0.245
4-4260	4-4390	0.425	48.8	19.7	0.65	0.846	118.6	0.506	2.045	260.5	369.0	1.010	---	-1.95	1.210	93.0	331.2	-22.4	0.240
4-4260	4-4400	0.406	49.8	20.7	1.02	0.830	117.7	0.483	1.938	257.5	375.7	1.003	---	-2.10	1.205	95.1	329.6	-23.5	0.242
4-4260	4-4410	0.388	51.0	21.9	1.46	0.813	116.9	0.460	1.840	254.1	381.8	0.993	---	-2.34	1.194	96.8	329.9	-24.3	0.248
4-4260	4-4420	0.369	52.3	23.5	2.03	0.796	115.9	0.439	1.751	250.2	387.4	0.982	---	-2.72	1.182	98.3	332.0	-24.9	0.256
4-4260	4-4430	0.350	53.8	25.7	2.85	0.779	114.8	0.420	1.671	246.0	392.7	0.969	---	-3.37	1.170	99.5	335.7	-26.0	0.266
4-4260	4-4440	0.333	55.3	29.3	4.24	0.762	113.7	0.403	1.600	241.5	397.7	0.955	---	-4.60	1.159	100.6	341.2	-28.6	0.280
4-4260	4-4450	0.321	56.6	36.7	7.34	0.745	112.4	0.388	1.538	236.7	402.5	0.941	---	-7.54	1.149	101.5	349.6	-35.9	0.308
4-4260	4-4460	0.395	61.7	62.6	22.09	0.728	111.0	0.375	1.483	231.7	406.8	0.927	---	-22.13	1.139	102.3	9.5	-64.1	0.491
4-4260	4-4470	0.363	77.9	-15.9	-20.04	0.713	109.6	0.367	1.435	226.6	412.0	0.906	---	20.15	1.131	103.3	314.0	40.1	0.468
4-4260	4-4480	0.262	72.1	4.8	-6.99	0.697	108.0	0.359	1.392	221.3	416.1	0.892	---	7.26	1.123	103.9	343.3	19.8	0.329
4-4260	4-4490	0.232	74.3	11.6	-4.04	0.683	106.2	0.354	1.354	215.9	420.3	0.875	---	4.47	1.116	104.7	354.3	14.2	0.320
4-4260	4-4500	0.209	78.4	15.1	-2.70	0.669	104.3	0.351	1.320	210.4	424.5	0.856	---	3.30	1.110	105.4	2.7	13.1	0.325
4-4260	4-4510	0.189	84.1	17.4	-1.89	0.655	102.2	0.352	1.290	204.8	428.7	0.836	---	2.67	1.105	106.2	10.4	13.7	0.334
4-4260	4-4520	0.170	91.5	19.0	-1.32	0.642	100.0	0.355	1.263	199.2	432.9	0.814	---	2.29	1.100	107.1	18.0	15.2	0.346
4-4260	4-4530	0.154	101.3	20.0	-0.88	0.630	97.5	0.362	1.238	193.6	437.2	0.790	---	2.06	1.095	108.1	25.6	17.0	0.361
4-4260	4-4540	0.143	113.7	19.9	-0.51	0.619	94.7	0.373	1.216	188.0	441.6	0.763	---	1.93	1.091	109.3	33.2	18.9	.378
4-4260	4-4550	0.138	128.6	18.4	-0.17	0.608	91.6	0.388	1.197	182.6	446.2	0.732	---	1.86	1.087	110.7	41.1	20.9	0.400
4-4260	4-4560	0.143	144.4	15.2	0.15	0.597	88.2	0.409	1.179	177.4	451.0	0.697	1.661	1.85	1.084	112.4	49.0	22.6	0.427
4-4260	4-4570	0.161	158.9	11.0	0.49	0.587	84.2	0.437	1.163	172.4	456.1	0.655	1.671	1.90	1.080	114.5	57.1	24.2	0.461
4-4260	4-4580	0.193	170.5	6.9	0.85	0.578	79.5	0.474	1.149	167.9	461.7	0.604	1.694	2.02	1.077	117.2	65.1	25.4	0.505
4-4260	4-4590	0.239	179.1	3.6	1.28	0.570	73.8	0.524	1.136	164.0	468.0	0.541	1.731	2.23	1.073	120.7	72.9	26.2	0.563
4-4260	4-4600	0.302	185.0	1.2	1.83	0.562	66.6	0.588	1.125	161.1	475.4	0.463	1.788	2.58	1.070	125.4	80.4	26.7	0.640
4-4260	4-4610	0.387	188.3	-0.2	2.62	0.556	57.8	0.673	1.117	159.9	484.3	0.365	1.869	3.18	1.067	131.9	87.0	26.8	0.747
4-4260	4-4620	0.502	189.1	-0.6	3.93	0.552	48.0	0.780	1.112	161.1	495.6	0.245	1.979	4.31	1.065	141.0	92.2	26.7	0.895
4-4260	4-4660	0.577	145.8	12.0	-6.76	0.110	76.1	0.955	0.851	179.3	554.6	0.039	1.662	-7.04	0.919	17.6	14.5	4.4	1.154
4-4260	4-4660	0.590	113.5	19.5	-6.76	0.358	139.9	0.918	0.929	186.6	561.8	0.076	1.781	-7.04	0.972	23.5	10.3	1.7	1.101
4-4260	4-4740	0.576	202.9	-9.7	0.16	0.715	41.9	0.751	1.441	145.8	239.8	---	2.524	-1.85	1.133	43.8	66.6	20.0	0.856
4-4260	4-4750	0.542	205.1	-10.2	0.48	0.723	45.0	0.713	1.466	142.5	246.1	---	2.512	-1.90	1.137	47.5	73.7	20.6	0.794
4-4260	4-4760	0.511	207.2	-10.6	0.82	0.731	47.8	0.677	1.490	139.3	252.5	---	2.499	-2.01	1.140	51.0	80.7	20.7	0.734
4-4260	4-4770	0.482	209.3	-10.8	1.22	0.738	50.4	0.641	1.513	136.3	258.9	---	2.484	-2.20	1.144	54.3	87.6	20.4	0.676
4-4260	4-4780	0.455	211.5	-10.7	1.71	0.744	52.8	0.608	1.535	133.3	265.5	---	2.468	-2.58	1.147	57.5	94.3	19.5	0.621
4-4260	4-4790	0.430	213.6	-10.2	2.38	0.749	55.0	0.576	1.555	130.5	272.2	---	2.451	-2.99	1.151	60.6	100.7	17.8	0.567
4-4260	4-4800	0.408	215.8	-9.0	3.41	0.755	57.0	0.546	1.574	127.8	279.1	---	2.433	-3.85	1.154	63.6	106.7	14.8	0.518
4-4260	4-4810	0.390	218.3	-6.0	5.34	0.759	58.8	0.519	1.590	125.3	286.1	---	2.416	-5.62	1.158	66.4	111.9	9.1	0.474
4-4260	4-4820	0.388	221.6	3.3	10.85	0.763	60.4	0.495	1.605	123.0	293.2	---	2.399	-10.97	1.161	69.2	116.3	-5.8	0.461

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4260	4-4840	0.358	209.9	-35.0	-10.75	0.769	63.2	0.452	1.630	118.9	308.7	---	2.366	10.94	1.168	74.6	143.9	50.3	0.384
4-4260	4-4850	0.326	216.7	-26.8	-5.24	0.771	64.2	0.436	1.639	117.3	316.7	---	2.353	5.59	1.172	77.2	138.2	39.5	0.306
4-4260	4-4860	0.312	219.4	-23.6	-3.30	0.773	65.0	0.422	1.647	115.9	324.9	---	2.342	3.91	1.175	79.8	137.4	34.2	0.262
4-4260	4-4870	0.302	221.0	-21.9	-2.27	0.775	65.7	0.411	1.653	114.8	333.6	---	2.334	2.95	1.178	82.4	135.6	32.8	0.229
4-4260	4-4880	0.296	222.1	-20.6	-1.60	0.776	66.1	0.404	1.658	114.0	342.6	---	2.329	2.47	1.181	85.0	131.3	33.0	0.203
4-4260	4-4890	0.293	222.8	-19.6	-1.10	0.776	66.4	0.401	1.661	113.5	352.0	---	2.328	2.17	1.184	87.7	123.8	33.9	0.188
4-4260	4-4900	0.294	223.2	-18.7	-0.70	0.777	66.3	0.402	1.663	113.4	361.8	0.995	2.332	1.99	1.187	90.5	114.2	34.4	0.188
4-4260	4-4910	0.299	223.2	-17.8	-0.35	0.777	65.9	0.408	1.664	113.7	372.1	0.986	2.343	1.89	1.189	93.5	105.0	33.9	0.203
4-4260	4-4920	0.308	222.9	-16.9	-0.02	0.777	65.2	0.419	1.664	114.4	382.8	0.967	2.362	1.85	1.191	96.7	98.5	32.7	0.235
4-4260	4-4930	0.323	222.2	-15.9	0.31	0.777	64.1	0.437	1.663	115.7	394.1	0.936	2.391	1.87	1.193	100.2	95.3	31.3	0.278
4-4260	4-4930	0.232	110.8	23.3	0.31	0.556	101.0	0.515	1.116	190.8	829.2	0.542	1.691	1.87	1.063	120.3	45.5	20.4	0.557
4-4260	4-4930	0.553	82.9	24.1	0.31	0.638	135.0	0.743	1.254	207.1	845.5	0.322	2.187	1.87	1.108	136.8	38.5	16.9	0.858
4-4260	4-4940	0.345	221.0	-14.9	0.65	0.777	62.3	0.464	1.662	117.5	406.1	0.890	2.434	1.95	1.195	104.2	94.8	30.1	0.337
4-4260	4-4940	0.204	133.0	19.8	0.65	0.541	92.4	0.515	1.097	182.3	830.8	0.532	1.661	1.95	1.057	120.5	55.0	22.8	0.557
4-4260	4-4950	0.377	219.4	-13.8	1.05	0.776	59.8	0.503	1.660	120.2	418.9	0.826	2.495	2.11	1.195	108.9	96.0	29.1	0.412
4-4260	4-4950	0.215	153.4	14.0	1.05	0.531	84.5	0.538	1.083	175.3	834.0	0.500	1.667	2.11	1.053	122.2	64.1	24.6	0.582
4-4260	4-4960	0.423	217.2	-12.6	1.52	0.776	56.2	0.556	1.659	123.8	432.7	0.737	2.580	2.38	1.196	114.5	98.2	28.3	0.507
4-4260	4-4960	0.255	168.5	8.4	1.52	0.523	76.3	0.581	1.074	169.6	838.5	0.450	1.698	2.38	1.050	125.3	72.7	25.7	0.631
4-4260	4-4970	0.487	214.1	-11.2	2.17	0.775	51.1	0.628	1.657	129.0	448.0	0.617	2.697	2.82	1.196	121.6	100.7	27.7	0.629
4-4260	4-4970	0.323	178.2	4.3	2.17	0.517	66.9	0.645	1.066	165.6	844.7	0.378	1.755	2.82	1.047	130.0	80.6	26.4	0.708
4-4260	4-4980	0.578	210.0	-9.4	3.14	0.775	43.8	0.722	1.657	136.3	465.6	0.461	2.853	3.62	1.196	130.8	102.7	27.1	0.739
4-4260	4-4980	0.419	183.4	1.9	3.14	0.512	55.4	0.733	1.061	163.9	853.1	0.283	1.840	3.62	1.045	137.0	87.4	26.6	0.822
4-4260	4-4990	0.548	184.8	1.2	4.95	0.510	41.0	0.842	1.059	165.3	864.7	0.167	1.950	5.26	1.043	147.3	92.5	26.4	0.985
4-4260	4-5030	0.540	108.2	20.1	-5.06	0.415	133.9	0.863	0.969	189.5	929.6	0.132	1.805	-5.41	0.993	30.3	10.7	1.7	1.011
4-4260	4-5040	0.497	160.8	6.5	-3.18	0.318	57.2	0.884	0.906	175.0	925.0	0.105	1.708	-3.70	0.954	28.0	22.2	7.6	1.025
4-4260	4-5040	0.413	117.0	18.7	-3.18	0.406	113.8	0.778	0.962	187.5	937.5	0.214	1.709	-3.70	0.987	39.0	16.3	4.1	0.874
4-4260	4-5050	0.506	67.4	19.7	-2.18	0.754	126.0	0.617	1.573	227.9	627.8	0.602	2.544	-2.88	1.181	57.7	3.1	-3.5	0.684
4-4260	4-5060	0.438	64.3	19.6	-1.53	0.754	122.5	0.540	1.571	232.4	642.2	0.723	2.419	-2.42	1.168	64.7	5.7	-2.9	0.522
4-4270	4-4330	0.701	52.8	17.7	-1.61	1.023	132.2	0.867	6.425	267.2	313.1	---	---	-2.56	1.359	68.3	347.4	-11.4	0.583
4-4270	4-4340	0.637	50.8	17.7	-1.08	0.995	128.7	0.804	4.722	270.3	326.1	---	---	-2.23	1.336	74.9	345.5	-12.8	0.468
4-4270	4-4350	0.592	49.6	17.8	-0.66	0.974	126.3	0.753	3.932	271.8	337.4	---	---	-2.02	1.318	80.3	342.6	-14.7	0.388
4-4270	4-4360	0.558	49.2	18.2	-0.31	0.954	124.6	0.708	3.419	272.0	347.3	---	---	-1.90	1.301	84.7	338.6	-17.0	0.334
4-4270	4-4370	0.530	49.4	18.7	0.01	0.934	123.4	0.667	3.031	271.0	355.9	---	---	-1.85	1.285	88.4	334.3	-19.1	0.301
4-4270	4-4380	0.505	50.0	19.3	0.32	0.914	122.4	0.628	2.719	269.1	363.7	1.011	---	-1.85	1.268	91.4	330.4	-20.9	0.283
4-4270	4-4390	0.481	50.9	20.1	0.64	0.893	121.5	0.591	2.463	266.5	370.7	1.007	---	-1.90	1.252	94.0	327.8	-22.2	0.276
4-4270	4-4400	0.457	52.1	21.0	0.99	0.871	120.6	0.556	2.253	263.3	377.1	0.999	---	-2.01	1.235	96.1	326.8	-22.9	0.276
4-4270	4-4410	0.435	53.5	22.1	1.38	0.849	119.6	0.524	2.078	259.7	383.0	0.989	---	-2.20	1.219	97.9	327.6	-23.2	0.280
4-4270	4-4420	0.412	55.0	23.4	1.88	0.828	118.7	0.495	1.932	255.6	388.5	0.976	---	-2.51	1.204	99.3	330.0	-23.4	0.286
4-4270	4-4430	0.389	56.6	25.2	2.56	0.806	117.6	0.468	1.810	251.3	393.6	0.962	---	-3.02	1.189	100.6	333.8	-23.8	0.293
4-4270	4-4440	0.368	58.3	27.9	3.62	0.786	116.4	0.445	1.708	246.7	398.5	0.948	---	-3.91	1.176	101.6	338.9	-25.1	0.303
4-4270	4-4450	0.349	60.0	32.6	5.66	0.766	115.1	0.424	1.622	241.8	403.2	0.933	---	-5.78	1.163	102.5	345.9	-29.0	0.318
4-4270	4-4460	0.350	62.0	45.3	11.72	0.746	113.7	0.407	1.548	236.8	407.6	0.918	---	-11.69	1.152	103.3	357.6	-42.6	0.373
4-4270	4-4480	0.299	75.3	0.8	-9.85	0.710	110.5	0.382	1.432	226.1	416.6	0.885	---	10.19	1.132	104.8	338.6	25.4	0.369
4-4270	4-4490	0.258	76.2	10.8	-4.88	0.693	108.7	0.373	1.385	220.6	420.7	0.868	---	5.37	1.124	105.4	353.0	15.9	0.340
4-4270	4-4500	0.231	79.7	15.1	-3.05	0.677	106.8	0.368	1.344	215.0	424.8	0.850	---	3.71	1.116	106.0	2.1	13.8	0.340
4-4270	4-4510	0.209	84.7	17.6	-2.06	0.662	104.7	0.365	1.308	209.3	428.9	0.831	---	2.89	1.110	106.7	10.2	14.1	0.346
4-4270	4-4520	0.188	91.3	19.2	-1.41	0.648	102.4	0.366	1.277	203.6	433.0	0.810	---	2.43	1.104	107.5	17.9	15.4	0.356
4-4270	4-4530	0.169	99.8	20.3	-0.92	0.634	99.9	0.370	1.249	197.9	437.2	0.787	---	2.14	1.098	108.4	25.6	17.1	0.367
4-4270	4-4540	0.154	110.9	20.4	-0.53	0.621	97.2	0.377	1.224	192.2	441.4	0.762	---	1.97	1.094	109.5	33.3	19.0	0.382
4-4270	4-4550	0.144	124.6	19.3	-0.18	0.609	94.2	0.390	1.202	186.6	445.8	0.733	---	1.87	1.089	110.7	41.2	21.0	0.401
4-4270	4-4560	0.144	140.2	16.6	0.15	0.597	90.8	0.407	1.182	181.2	450.4	0.701	---	1.84	1.085	112.2	49.3	22.7	0.424
4-4270	4-4570	0.155	155.5	12.4	0.48	0.586	86.9	0.431	1.164	175.9	455.3	0.662	1.666	1.87	1.081	114.1	57.5	24.2	0.454
4-4270	4-4580	0.179	168.7	7.8	0.83	0.576	82.4	0.463	1.148	171.1	460.6	0.616	1.680	1.95	1.077	116.5	65.7	25.4	0.492
4-4270	4-4590	0.218	178.9	3.9	1.22	0.567	77.1	0.506	1.134	166.7	466.4	0.560	1.708	2.12	1.073	119.5	73.8	26.3	0.542
4-4270	4-4600	0.274	186.1	0.9	1.71	0.558	70.6	0.563	1.122	163.2	473.1	0.490	1.754	2.40	1.069	123.6	81.5	26.7	0.609
4-4270	4-4610	0.349	190.6	-1.1	2.37	0.551	62.4	0.638	1.112	161.1	481.1	0.403	1.822	2.87	1.065	129.2	88.6	26.8	0.700
4-4270	4-4620	0.449	192.7	-2.1	3.39	0.546	51.8	0.734	1.105	160.9	491.1	0.294	1.917	3.71	1.062	136.9	94.6	26.6	0.827
4-4270	4-4630	0.582	192.1	-2.0	5.33	0.543	37.9	0.849	1.102	163.7	504.0	0.167	2.038	5.48	1.060	147.9	99.0	26.3	1.002
4-4270	4-4670	0.498	137.4	14.3	-4.66	0.263	107.6	0.896	0.882	182.1	563.0	0.092	1.673	-5.17	0.939	26.6	19.3	5.9	1.039
4-4270	4-4670	0.497	133.3	15.4	-4.66	0.284	113.7	0.889	0.891	183.2	564.1	0.099	1.683	-5.17	0.945	27.4	18.7	5.6	1.030
4-4270	4-4740	0.590	206.3	-11.0	0.16	0.707	40.8	0.765	1.423	147.5	237.0	---	2.512	-1.84	1.129	42.3	67.9	20.3	0.879
4-4270	4-4750	0.557	208.5	-11.5	0.47	0.716	43.9	0.727	1.448	144.2	243.3	---	2.502	-1.87	1.133	46.0	75.0	20.9	0.816
4-4270	4-4760	0.525	210.7	-11.9	0.80	0.724	46.9	0.690	1.473	141.0	249.7	---	2.489	-1.94	1.137	49.6	82.1	21.0	0.755
4-4270	4-4770	0.495	212.8	-12.2	1.17	0.731	49.6	0.654	1.497	137.9	256.1	---	2.475	-2.09	1.141	53.0	89.0	20.7	0.696
4-4270	4-4780	0.467	214.9	-12.2	1.60	0.738	52.1	0.619	1.519	134.9	262.7	---	2.459	-2.33	1.144	56.3	95.8	19.9	0.640
4-4270	4-4790	0.441	217.0	-11.8	2.17	0.744	54.3	0.586	1.540	132.0	269.4	---	2.443	-2.72	1.148	59.4	102.3	18.4	0.585
4-4270	4-4800	0.418	219.2	-11.0	3.00	0.749	56.4	0.556	1.559	129.3	276.2	---	2.426	-3.37	1.152	62.5	108.3	15.9	0.534
4-4270	4-4810	0.398	221.5	-9.0	4.39	0.754	58.3	0.528	1.577	126.8	283.2	---	2.408	-4.66	1.155	65.4	113.8	11.6	0.488
4-4270	4-4820	0.386	224.2	-3.7	7.53	0.758	60.0	0.502	1.592	124.4	290.3	---	2.392	-7.58	1.159	68.2	118.3	2.3	0.454
4-4270	4-4830	0.453	226.3	18.9	22.88	0.762	61.4	0.479	1.606	122.3	297.5	---	2.376	-22.78	1.163	70.8	123.7	-30.6	0.565
4-4270	4-4840	0.414	203.4	-45.6	-19.18	0.765	62.9	0.457	1.619	120.2	305.7	---	2.358	19.44	1.166	73.7	168.3	60.3	0.492
4-4270	4-4850	0.337	219.6	-30.4	-6.72	0.767	64.0	0.440	1.629	118.5	313.5	---	2.345	7.13	1.170	76.2	143.9	41.3	0.329
4-4270	4-4860	0.319	223.1	-25.7	-3.84	0.769	64.9	0.425	1.637	117.0	321.7	---	2.335	4.43	1.173	78.8	142.1	34.7	0.277
4-4270	4-4870	0.308	225.0	-23.5	-2.52	0.771	65.6	0.413	1.644	115.8	330.2	---	2.323	3.26	1.177	81.4	140.8	32.3	0.239
4-4270	4-4880	0.301	226.3	-22.0	-1.72	0.772	66.1	0.405	1.649	114.9	339.1	---	2.317	2.64	1.180	84.0	137.5	32.0	0.210
4-4270	4-4890	0.297	227.1	-20.9	-1.16	0.773	66.4	0.400	1.653	114.3	348.4	---	2.314	2.28	1.183	86.7	131.2	32.8	0.191
4-4270	4-4900	0.296	227.6	-20.0	-0.73	0.774	66.5	0.399	1.656	114.1	358.1	---	2.316	2.05	1.186	89.5	122.2	33.7	0.185
4-4270	4-4910	0.299	227.7	-19.1	-0.36	0.774	66.2	0.403	1.657	114.2	368.2	0.990	2.324	1.92	1.188	92.3	112.6	33.8	0.194
4-4270	4-4920	0.307	227.5	-18.2	-0.02	0.774	65.7	0.412	1.657	114.8	378.7	0.975	2.340	1.85	1.190	95.4	105.0	32.9	0.219
4-4270	4-4930	0.319	226.9	-17.3	0.30	0.774	64.7	0.427	1.657	115.8	389.8	0.949	2.365	1.85	1.192	98.8	100.6	31.6	0.258

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4270	4-4930	0.277	104.5	23.9	0.30	0.565	108.0	0.543	1.132	196.7	830.7	0.517	1.746	1.85	1.068	122.2	44.8	19.9	0.591
4-4270	4-4930	0.475	89.1	24.3	0.30	0.616	128.6	0.687	1.215	206.6	840.7	0.380	2.051	1.85	1.096	132.3	40.6	17.8	0.777
4-4270	4-4940	0.338	225.9	-16.4	0.64	0.774	63.2	0.451	1.655	117.3	401.5	0.909	2.402	1.90	1.193	102.6	99.2	30.3	0.311
4-4270	4-4940	0.218	126.9	21.2	0.64	0.543	97.2	0.521	1.102	186.7	830.9	0.528	1.675	1.90	1.059	120.9	55.0	22.7	0.563
4-4270	4-4940	0.593	88.7	24.4	0.64	0.643	139.1	0.783	1.267	205.8	849.9	0.275	2.259	1.90	1.113	140.4	46.6	19.0	0.919
4-4270	4-4950	0.366	224.5	-15.4	1.01	0.775	61.0	0.484	1.654	119.5	413.9	0.853	2.454	2.02	1.194	106.9	99.9	29.3	0.378
4-4270	4-4950	0.209	148.8	15.7	1.01	0.530	88.8	0.533	1.085	179.0	833.3	0.507	1.663	2.02	1.054	121.8	64.5	24.6	0.575
4-4270	4-4960	0.405	222.5	-14.3	1.44	0.773	57.9	0.531	1.652	122.7	427.2	0.775	2.529	2.23	1.195	112.1	101.8	28.4	0.464
4-4270	4-4960	0.237	166.4	9.4	1.44	0.521	80.6	0.565	1.074	172.6	837.1	0.467	1.681	2.23	1.050	124.1	73.5	25.8	0.412
4-4270	4-4970	0.461	219.8	-13.1	2.00	0.772	53.5	0.594	1.650	127.1	441.7	0.670	2.631	2.59	1.195	118.4	104.3	27.6	0.573
4-4270	4-4970	0.293	178.4	4.3	2.00	0.514	71.6	0.619	1.045	167.7	842.4	0.406	1.724	2.59	1.047	128.0	81.8	26.4	0.675
4-4270	4-4980	0.539	216.2	-11.6	2.79	0.772	47.3	0.679	1.609	133.3	458.1	0.530	2.769	3.20	1.195	126.6	106.6	26.9	0.715
4-4270	4-4980	0.376	185.5	1.2	2.79	0.508	61.0	0.695	1.059	164.8	849.7	0.323	1.795	3.20	1.044	133.9	89.3	26.6	0.770
4-4270	4-4990	0.490	188.6	-0.3	4.14	0.505	47.9	0.795	1.055	164.6	859.6	0.216	1.894	4.36	1.042	142.6	95.2	26.4	0.909
4-4270	4-5030	0.597	113.5	19.5	-6.42	0.406	142.5	0.908	0.963	188.4	924.0	0.089	1.838	-6.85	0.990	24.8	13.3	2.9	1.092
4-4270	4-5040	0.538	165.5	4.7	-3.67	0.295	51.2	0.915	0.896	175.6	921.2	0.076	1.716	-4.26	0.947	24.0	24.2	8.4	1.080
4-4270	4-5040	0.457	118.7	18.5	-3.67	0.400	121.5	0.815	0.959	188.4	934.0	0.177	1.741	-4.26	0.985	35.4	17.9	4.8	0.929
4-4270	4-5050	0.536	74.2	20.6	-2.41	0.751	131.0	0.658	1.564	224.8	620.4	0.535	2.594	-3.17	1.170	53.9	6.3	-1.9	0.710
4-4270	4-5050	0.405	155.7	8.2	-2.41	0.346	78.1	0.810	0.923	177.2	932.7	0.175	1.672	-3.17	0.962	36.0	27.8	9.3	0.908
4-4270	4-5050	0.370	141.2	13.0	-2.41	0.573	94.6	0.770	0.941	181.4	936.9	0.216	1.665	-3.17	0.972	39.7	25.7	8.2	0.855
4-4270	4-5060	0.457	70.6	20.5	-1.64	0.750	124.6	0.571	1.563	230.1	635.5	0.671	2.455	-2.59	1.167	61.7	8.7	-1.3	0.573
4-4270	4-5070	0.400	67.9	20.6	-1.10	0.750	120.0	0.504	1.561	233.5	648.8	0.774	2.347	-2.24	1.164	67.7	11.4	-0.7	0.467
4-4280	4-4340	0.768	51.7	18.0	-1.14	1.121	132.2	1.052	17.999	278.0	329.4	---	---	-2.33	1.432	74.3	341.1	-14.2	0.557
4-4280	4-4350	0.701	50.9	18.2	-0.69	1.078	129.6	0.961	25.074	278.9	340.1	---	---	-2.08	1.397	80.2	338.0	-15.9	0.459
4-4280	4-4360	0.651	50.7	18.6	-0.32	1.042	127.7	0.885	8.664	278.5	349.5	---	---	-1.93	1.367	85.0	334.3	-17.8	0.395
4-4280	4-4370	0.612	51.1	19.1	0.01	1.010	126.3	0.817	5.526	277.2	357.8	---	---	-1.85	1.341	89.0	330.4	-19.5	0.355
4-4280	4-4380	0.577	52.0	19.8	0.32	0.980	125.3	0.756	4.145	275.0	365.2	1.010	---	-1.82	1.317	92.2	327.2	-20.9	0.333
4-4280	4-4390	0.546	53.1	20.5	0.63	0.950	124.3	0.701	3.356	272.2	372.0	1.005	---	-1.85	1.294	94.9	325.2	-21.8	0.322
4-4280	4-4400	0.517	54.5	21.4	0.96	0.922	123.4	0.650	2.844	268.8	378.2	0.995	---	-1.93	1.272	97.1	324.7	-22.2	0.318
4-4280	4-4410	0.488	56.0	22.3	1.32	0.894	122.4	0.604	2.485	265.0	383.9	0.983	---	-2.08	1.251	99.0	325.9	-22.2	0.319
4-4280	4-4420	0.461	57.7	23.5	1.76	0.867	121.4	0.563	2.221	260.9	389.3	0.976	---	-2.33	1.232	100.5	328.5	-22.1	0.322
4-4280	4-4430	0.434	59.4	25.0	2.34	0.840	120.3	0.527	2.020	256.4	394.4	0.955	---	-2.72	1.213	101.7	332.3	-22.1	0.326
4-4280	4-4440	0.408	61.3	27.0	3.18	0.815	119.1	0.495	1.863	251.7	399.2	0.940	---	-3.40	1.196	102.8	337.3	-22.5	0.331
4-4280	4-4450	0.384	63.2	30.3	4.62	0.791	117.8	0.468	1.738	246.8	403.8	0.925	---	-4.68	1.181	103.6	343.6	-24.4	0.339
4-4280	4-4460	0.366	65.3	37.3	7.97	0.768	116.3	0.444	1.637	241.7	408.2	0.910	---	-7.87	1.167	104.3	352.3	-31.1	0.361
4-4280	4-4470	0.459	77.4	64.7	26.40	0.747	114.7	0.423	1.553	236.4	412.2	0.895	---	-26.15	1.154	104.9	9.8	-62.9	0.580
4-4280	4-4480	0.365	80.8	-8.1	-16.73	0.726	113.2	0.409	1.483	230.9	417.1	0.876	---	17.14	1.143	105.7	327.4	35.1	0.461
4-4280	4-4490	0.287	78.5	9.2	-6.18	0.707	111.3	0.396	1.425	225.3	421.0	0.860	---	6.75	1.133	106.2	351.1	18.5	0.366
4-4280	4-4500	0.256	81.4	14.8	-3.53	0.688	109.4	0.387	1.375	219.6	425.0	0.843	---	4.25	1.124	106.8	1.5	14.7	0.358
4-4280	4-4510	0.231	85.8	17.6	-2.27	0.671	107.3	0.381	1.332	213.9	429.1	0.825	---	3.17	1.116	107.4	9.9	14.5	0.361
4-4280	4-4520	0.207	91.6	19.4	-1.51	0.655	105.0	0.378	1.294	208.1	433.1	0.805	---	2.58	1.109	108.1	17.7	15.5	0.367
4-4280	4-4530	0.186	99.2	20.5	-0.97	0.639	102.5	0.379	1.262	202.3	437.1	0.783	---	2.23	1.102	108.8	25.5	17.2	0.376
4-4280	4-4540	0.168	108.9	20.8	-0.54	0.625	99.8	0.384	1.234	196.4	441.3	0.760	---	2.01	1.096	109.7	33.4	19.1	0.388
4-4280	4-4550	0.154	121.3	20.1	-0.18	0.611	96.8	0.393	1.208	190.7	445.5	0.733	---	1.89	1.091	110.8	41.4	21.0	0.404
4-4280	4-4560	0.148	136.0	17.8	0.15	0.598	93.5	0.407	1.186	185.0	449.9	0.703	---	1.83	1.086	112.2	49.6	22.8	0.423
4-4280	4-4570	0.152	151.7	13.9	0.47	0.586	89.7	0.428	1.166	179.6	454.6	0.668	1.665	1.83	1.081	113.8	57.9	24.3	0.449
4-4280	4-4580	0.170	166.1	9.1	0.81	0.575	85.4	0.455	1.149	174.4	459.6	0.626	1.671	1.89	1.077	115.9	66.2	25.5	0.482
4-4280	4-4590	0.202	177.8	4.5	1.18	0.565	80.3	0.492	1.133	169.7	465.0	0.575	1.691	2.02	1.072	118.6	74.5	26.3	0.525
4-4280	4-4600	0.249	186.5	0.9	1.61	0.555	74.3	0.542	1.120	165.7	471.2	0.513	1.726	2.24	1.068	122.1	82.5	26.8	0.582
4-4280	4-4610	0.315	192.4	-1.7	2.18	0.547	66.8	0.607	1.108	162.7	478.4	0.435	1.781	2.61	1.064	126.9	90.1	26.8	0.661
4-4280	4-4620	0.403	195.7	-5.2	3.00	0.540	57.2	0.693	1.099	161.4	487.2	0.338	1.861	3.25	1.060	133.5	96.7	26.5	0.769
4-4280	4-4630	0.521	196.4	-3.7	4.41	0.536	44.7	0.800	1.094	162.6	498.6	0.219	1.969	4.48	1.057	142.9	101.9	26.1	0.920
4-4280	4-4670	0.544	142.4	12.9	-5.84	0.221	113.1	0.931	0.968	181.8	558.3	0.060	1.676	-6.42	0.929	21.6	21.7	7.0	1.105
4-4280	4-4670	0.545	136.3	14.7	-5.84	0.260	123.7	0.923	0.982	183.2	559.7	0.067	1.697	-6.42	0.939	22.7	20.9	6.5	1.094
4-4280	4-4750	0.572	211.9	-12.8	0.47	0.709	42.9	0.741	1.430	145.8	240.6	---	2.490	-1.83	1.129	44.6	76.4	21.1	0.839
4-4280	4-4760	0.539	214.1	-13.2	0.78	0.717	45.9	0.704	1.455	142.6	246.9	---	2.479	-1.88	1.133	46.2	83.4	21.3	0.777
4-4280	4-4770	0.509	216.2	-13.5	1.12	0.725	48.7	0.667	1.479	139.4	253.3	---	2.466	-1.99	1.137	51.7	90.4	21.0	0.737
4-4280	4-4780	0.480	218.4	-13.5	1.52	0.732	51.3	0.631	1.502	136.4	259.9	---	2.451	-2.19	1.141	55.0	97.2	20.2	0.659
4-4280	4-4790	0.453	220.5	-13.3	2.01	0.738	53.6	0.598	1.524	133.5	266.5	---	2.435	-2.49	1.145	58.2	103.8	18.8	0.604
4-4280	4-4800	0.429	222.6	-12.7	2.69	0.744	55.8	0.566	1.544	130.8	273.3	---	2.418	-3.00	1.149	61.3	110.0	16.6	0.552
4-4280	4-4810	0.408	224.8	-11.3	3.75	0.749	57.7	0.537	1.562	128.2	280.2	---	2.401	-3.89	1.153	64.3	115.6	13.2	0.503
4-4280	4-4820	0.391	227.1	-8.0	5.79	0.754	59.5	0.510	1.579	125.8	287.3	---	2.384	-5.77	1.157	67.1	120.4	6.8	0.461
4-4280	4-4830	0.394	229.9	2.4	11.97	0.758	61.1	0.486	1.594	123.6	294.6	---	2.368	-11.79	1.161	69.8	123.7	-10.2	0.456
4-4280	4-4850	0.354	221.2	-35.7	-9.41	0.764	63.7	0.444	1.618	119.7	310.4	---	2.336	9.90	1.168	75.3	152.0	46.2	0.364
4-4280	4-4860	0.328	226.7	-28.2	-4.62	0.766	64.7	0.428	1.627	118.1	318.4	---	2.323	5.26	1.172	77.9	146.9	35.7	0.293
4-4280	4-4870	0.315	229.0	-25.1	-2.84	0.768	65.5	0.415	1.634	116.9	326.9	---	2.313	3.64	1.175	80.4	145.6	31.9	0.251
4-4280	4-4880	0.306	230.4	-23.4	-1.87	0.769	66.1	0.405	1.640	115.9	335.7	---	2.305	2.85	1.179	83.0	143.2	30.8	0.219
4-4280	4-4890	0.301	231.3	-22.2	-1.23	0.770	66.5	0.399	1.645	115.1	344.8	---	2.301	2.39	1.182	85.7	138.2	31.4	0.196
4-4280	4-4900	0.299	231.9	-21.1	-0.76	0.771	66.6	0.397	1.647	114.8	354.4	---	2.301	2.11	1.185	88.4	130.2	32.5	0.184
4-4280	4-4910	0.301	232.1	-20.2	-0.36	0.771	66.5	0.399	1.649	114.7	364.3	0.992	2.307	1.95	1.187	91.2	120.3	33.2	0.187
4-4280	4-4920	0.306	232.1	-19.4	-0.02	0.771	66.1	0.406	1.650	115.1	374.7	0.981	2.319	1.85	1.189	94.2	111.9	32.8	0.206
4-4280	4-4930	0.317	231.6	-18.5	0.30	0.771	65.3	0.418	1.650	115.9	385.6	0.959	2.340	1.82	1.191	97.5	106.3	31.7	0.239
4-4280	4-4940	0.333	230.8	-17.7	0.63	0.771	64.0	0.439	1.648	117.2	397.0	0.926	2.371	1.85	1.192	101.1	103.9	30.4	0.287
4-4280	4-4940	0.242	120.6	22.4	0.63	0.548	102.8	0.535	1.111	191.7	631.5	0.517	1.705	1.85	1.062	121.8	54.8	22.5	0.580
4-4280	4-4940	0.530	94.2	24.5	0.65	0.626	134.2	0.740	1.235	206.1	845.9	0.321	2.149	1.85	1.104	136.7	48.4	19.7	0.852
4-4280	4-4950	0.357	229.5	-16.8	0.98	0.771	62.1	0.468	1.647	119.1	409.0	0.877	2.417	1.94	1.193	105.1	103.9	29.3	0.348
4-4280	4-4950	0.211	148.3	17.5	0.98	0.532	93.4	0.532	1.089	183.0	832.9	0.510	1.667	1.94	1.055	121.7	64.7	24.5	0.574
4-4280	4-4960	0.391	227.8	-15.8	1.37	0.770	59.4	0.506	1.645	121.7	421.8	0.809	2.481	2.11	1.194	109.9	105.4	28.3	0.425
4-4280	4-4960	0.224	163.2	10.8	1.37	0.520	85.0	0.554	1.075	175.9	836.0	0.479	1.670	2.11	1.050	123.3	74.0	25.7	0.548
4-4280	4-4970	0.439	225.4	-14.8	1.86	0.770	55.7	0.664	1.643	125.5	435.7	0.716	2.570	2.39	1.194	115.7	107.8	27.4	0.523

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL
4-4280	4-4970	0.267	177.7	4.8	1.86	0.512	76.2	0.597	1.064	170.3	840.6	0.429	1.700
4-4280	4-4980	0.506	222.2	-13.5	2.52	0.770	50.3	0.639	1.042	130.7	451.2	0.592	2.692
4-4280	4-4980	0.339	186.8	0.7	2.52	0.505	66.3	0.663	1.057	166.3	846.8	0.357	1.757
4-4280	4-4990	0.438	191.6	-1.5	3.56	0.501	54.2	0.752	1.052	164.7	855.4	0.261	1.843
4-4280	4-5000	0.571	192.6	-2.2	5.55	0.499	39.0	0.860	1.050	166.4	867.2	0.147	1.952
4-4280	4-5040	0.577	169.6	3.0	-4.38	0.272	45.0	0.941	0.887	176.3	917.5	0.053	1.721
4-4280	4-5040	0.508	121.7	18.1	-4.38	0.393	129.6	0.856	0.955	188.5	929.7	0.137	1.774
4-4280	4-5050	0.572	81.3	21.2	-2.70	0.747	134.6	0.703	1.556	221.4	612.5	0.461	2.651
4-4280	4-5050	0.462	165.3	4.6	-2.70	0.314	67.5	0.862	0.907	176.1	927.3	0.125	1.689
4-4280	4-5050	0.394	135.5	14.7	-2.70	0.378	106.5	0.785	0.945	184.7	935.9	0.203	1.686
4-4280	4-5060	0.481	77.1	21.2	-3.78	0.747	127.1	0.606	1.555	227.6	628.6	0.613	2.497
4-4280	4-5070	0.415	74.1	21.4	-1.17	0.747	121.8	0.530	1.553	231.6	642.5	0.730	2.376
4-4280	4-5080	0.597	200.1	-9.2	-0.71	0.599	37.5	0.830	1.187	159.7	580.3	0.202	2.172
4-4280	4-5080	0.366	71.9	21.6	-0.71	0.746	117.9	0.473	1.550	234.2	654.8	0.818	2.283
4-4290	4-4350	0.842	52.1	18.5	-0.72	1.217	132.7	1.274	-3.573	285.2	342.0	---	---
4-4290	4-4360	0.768	52.2	19.0	-0.33	1.157	130.6	1.137	-7.295	284.5	351.0	---	---
4-4290	4-4370	0.711	52.9	19.5	0.01	1.107	129.1	1.02441	.754	282.8	359.0	---	---
4-4290	4-4380	0.665	53.9	20.2	0.32	1.063	128.0	0.92914	.149	280.4	366.3	1.009	---
4-4290	4-4390	0.623	55.3	20.9	0.62	1.022	127.0	0.844	6.444	277.5	372.9	1.002	---
4-4290	4-4400	0.586	56.9	21.7	0.93	0.984	126.1	0.771	4.320	274.0	379.0	0.991	---
4-4290	4-4410	0.550	58.6	22.6	1.27	0.948	125.2	0.706	3.321	270.1	384.7	0.978	---
4-4290	4-4420	0.517	60.4	23.6	1.67	0.914	124.2	0.649	2.742	265.9	390.0	0.963	---
4-4290	4-4430	0.485	62.3	24.9	2.16	0.8	123.1	0.599	2.365	261.4	395.0	0.948	---
4-4290	4-4440	0.454	64.3	26.5	2.85	0.8	121.9	0.556	2.102	256.6	399.7	0.932	---
4-4290	4-4450	0.424	66.4	28.8	3.93	0.822	120.5	0.520	1.908	251.6	404.3	0.917	---
4-4290	4-4460	0.399	68.6	33.2	6.06	0.795	119.1	0.488	1.760	246.4	408.7	0.901	---
4-4290	4-4470	0.395	72.0	45.8	12.88	0.770	117.5	0.461	1.645	241.1	412.8	0.886	---
4-4290	4-4490	0.374	81.3	6.1	-8.50	0.723	114.0	0.423	1.477	229.9	421.3	0.852	---
4-4290	4-4500	0.284	83.4	14.1	-4.22	0.702	112.0	0.409	1.414	224.2	425.3	0.835	---
4-4290	4-4510	0.255	87.3	17.5	-2.56	0.683	109.9	0.400	1.362	218.4	429.2	0.818	---
4-4290	4-4520	0.229	92.5	19.4	-1.64	0.664	107.6	0.394	1.317	212.5	433.2	0.799	---
4-4290	4-4530	0.205	99.1	20.6	-1.03	0.647	105.1	0.391	1.279	206.6	437.1	0.779	---
4-4290	4-4540	0.184	107.7	21.1	-0.56	0.631	102.4	0.393	1.246	200.7	441.2	0.756	---
4-4290	4-4550	0.166	118.7	20.6	-0.18	0.616	99.4	0.399	1.217	194.8	445.3	0.732	---
4-4290	4-4560	0.155	132.2	18.9	0.15	0.601	96.2	0.410	1.192	189.0	449.6	0.704	---
4-4290	4-4570	0.153	147.5	15.4	0.47	0.588	92.5	0.426	1.170	183.4	454.0	0.671	---
4-4290	4-4580	0.163	162.7	10.6	0.79	0.575	88.4	0.440	1.150	178.0	458.7	0.633	1.667
4-4290	4-4590	0.188	175.9	5.5	1.14	0.564	83.5	0.481	1.133	172.9	463.8	0.588	1.678
4-4290	4-4600	0.228	186.1	1.3	1.53	0.553	77.8	0.524	1.118	168.4	469.5	0.532	1.703
4-4290	4-4610	0.285	193.4	-1.9	2.03	0.544	70.9	0.581	1.105	164.8	476.1	0.463	1.746
4-4290	4-4620	0.363	198.1	-4.3	2.71	0.536	62.2	0.656	1.094	162.5	484.0	0.376	1.813
4-4290	4-4630	0.467	200.1	-5.1	3.77	0.530	50.9	0.754	1.087	162.3	493.9	0.268	1.907
4-4290	4-4750	0.567	215.3	-14.0	0.46	0.702	41.7	0.756	1.411	147.4	237.8	---	2.478
4-4290	4-4760	0.554	217.5	-14.4	0.77	0.710	44.9	0.718	1.437	144.1	244.9	---	2.468
4-4290	4-4770	0.523	219.7	-14.7	1.09	0.719	47.8	0.680	1.462	141.0	250.5	---	2.456
4-4290	4-4780	0.493	221.9	-14.8	1.45	0.726	50.4	0.644	1.485	137.9	257.0	---	2.441
4-4290	4-4790	0.466	224.0	-14.7	1.89	0.733	52.9	0.609	1.507	135.0	263.6	---	2.426
4-4290	4-4800	0.441	226.1	-14.2	2.46	0.739	55.1	0.577	1.528	132.2	270.4	---	2.409
4-4290	4-4810	0.418	228.2	-13.2	3.29	0.745	57.2	0.546	1.547	129.6	277.3	---	2.393
4-4290	4-4820	0.399	230.4	-11.0	4.73	0.749	59.0	0.518	1.565	127.1	284.3	---	2.376
4-4290	4-4830	0.389	232.8	-5.3	8.09	0.754	60.6	0.493	1.580	124.9	291.6	---	2.359
4-4290	4-4840	0.490	232.3	21.1	27.44	0.757	62.0	0.471	1.594	122.8	298.9	---	2.345
4-4290	4-4850	0.394	218.4	-45.1	-15.77	0.760	63.4	0.449	1.606	120.8	307.2	---	2.326
4-4290	4-4860	0.338	230.0	-31.2	-5.84	0.763	64.5	0.432	1.616	119.2	315.2	---	2.314
4-4290	4-4870	0.322	233.0	-26.9	-3.28	0.765	65.3	0.418	1.624	117.9	323.5	---	2.303
4-4290	4-4880	0.312	234.6	-24.7	-2.07	0.766	66.0	0.407	1.631	116.7	332.2	---	2.294
4-4290	4-4890	0.306	235.6	-23.3	-1.32	0.768	66.5	0.399	1.635	115.9	341.3	---	2.288
4-4290	4-4900	0.303	236.3	-22.2	-0.79	0.768	66.7	0.395	1.639	115.4	350.7	---	2.287
4-4290	4-4910	0.303	236.6	-21.3	-0.38	0.769	66.7	0.395	1.641	115.3	360.5	0.992	2.290
4-4290	4-4920	0.307	236.6	-20.4	-0.02	0.769	66.4	0.400	1.642	115.5	370.7	0.985	2.299
4-4290	4-4930	0.315	236.3	-19.6	0.30	0.769	65.8	0.411	1.642	116.1	381.4	0.968	2.316
4-4290	4-4940	0.329	235.6	-18.8	0.62	0.769	64.7	0.427	1.641	117.1	392.5	0.940	2.343
4-4290	4-4940	0.296	113.4	23.3	0.62	0.562	111.0	0.570	1.130	198.0	833.4	0.486	1.774
4-4290	4-4940	0.443	101.3	24.3	0.62	0.601	123.7	0.677	1.192	205.2	840.7	0.385	1.999
4-4290	4-4950	0.349	234.5	-18.0	0.95	0.769	63.1	0.453	1.640	118.7	404.3	0.898	2.382
4-4290	4-4950	0.224	137.2	19.2	0.95	0.535	98.4	0.537	1.094	187.4	833.0	0.506	1.682
4-4290	4-4950	0.576	99.8	24.4	0.95	0.633	136.7	0.783	1.250	205.0	850.5	0.271	2.228
4-4290	4-4960	0.379	233.0	-17.1	1.32	0.768	60.8	0.488	1.638	121.0	416.7	0.838	2.438
4-4290	4-4960	0.217	158.9	12.5	1.32	0.521	89.4	0.548	1.076	179.5	835.3	0.487	1.666
4-4290	4-4970	0.420	230.8	-16.2	1.75	0.768	57.5	0.537	1.636	124.1	430.0	0.757	2.515
4-4290	4-4970	0.247	175.9	5.7	1.75	0.511	80.7	0.580	1.064	173.2	839.1	0.447	1.682
4-4290	4-4980	0.478	228.0	-15.2	2.32	0.767	52.9	0.604	1.634	128.6	444.7	0.647	2.621
4-4290	4-4980	0.307	187.3	0.7	2.32	0.503	71.3	0.635	1.056	168.3	844.4	0.386	1.726
4-4290	4-4990	0.560	224.2	-14.0	3.14	0.767	46.2	0.692	1.633	135.0	461.2	0.503	2.764
4-4290	4-4990	0.394	193.9	-2.4	3.14	0.498	60.1	0.712	1.049	165.5	851.8	0.302	1.797
4-4290	4-5000	0.511	196.6	-3.8	4.57	0.494	46.3	0.813	1.046	165.5	861.9	0.195	1.896
4-4290	4-5040	0.564	125.8	17.3	-5.47	0.386	138.3	0.899	0.951	187.9	924.8	0.096	1.806
4-4290	4-5050	0.510	171.5	2.1	-3.10	0.288	59.7	0.899	0.895	176.2	923.0	0.090	1.699
4-4290	4-5050	0.433	134.4	15.1	-3.10	0.376	115.7	0.814	0.944	186.5	933.3	0.176	1.713
4-4290	4-5060	0.509	83.9	21.7	-1.96	0.748	129.9	0.645	1.547	224.8	621.5	0.550	2.545

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4280	4-4970	2.39	1.046	126.5	82.0	26.4	0.648			
4-4280	4-4980	2.86	1.194	122.9	110.3	26.6	0.649			
4-4280	4-4980	2.86	1.043	131.3	90.8	26.5	0.727			
4-4280	4-4990	3.72	1.040	138.6	97.4	26.3	0.844			
4-4280	4-5000	5.54	1.038	149.2	102.3	25.9	1.011			
4-4280	4-5040	-5.04	0.941	20.0	26.1	9.3	1.132			
4-4280	4-5040	-5.04	0.983	31.1	19.9	5.6	0.994			
4-4280	4-5050	-3.52	1.168	49.6	9.5	-0.2	0.784			
4-4280	4-5050	-3.52	0.951	30.6	30.5	10.6	0.984			
4-4280	4-5050	-3.52	0.974	38.4	26.2	8.3	0.877			
4-4280	4-5060	-2.78	1.166	58.4	11.7	0.3	0.629			
4-4280	4-5070	-2.35	1.163	65.1	14.4	0.9	0.511			
4-4280	4-5080	-2.09	1.071	34.4	51.1	17.3	0.982			
4-4280	4-5080	-2.09	1.160	70.3	17.2	1.4	0.420			
4-4290	4-4350	-2.14	1.507	79.9	334.2	-16.7	0.565			
4-4290	4-4360	-1.96	1.457	85.2	330.8	-18.2	0.481			
4-4290	4-4370	-1.85	1.416	85.5	327.5	-19.6	0.428			
4-4290	4-4380	-1.80	1.380	93.0	324.8	-20.6	0.397			
4-4290	4-4390	-1.80	1.348	95.9	323.3	-21.3	0.379			
4-4290	4-4400	-1.86	1.319	98.3	323.3	-21.5	0.370			
4-4290	4-4410	-1.97	1.291	100.2	324.7	-21.3	0.366			
4-4290	4-4420	-2.17	1.266	101.7	327.4	-21.0	0.364			
4-4290	4-4430	-2.48	1.243	103.0	331.2	-20.6	0.364			
4-4290	4-4440	-2.99	1.222	104.0	336.0	-20.5	0.365			
4-4290	4-4450	-3.91	1.202	104.8	341.9	-21.1	0.368			
4-4290	4-4460	-5.88	1.185	105.5	349.3	-24.3	0.377			
4-4290	4-4470	-12.55	1.170	106.0	0.9	-38.0	0.429			
4-4290	4-4490	9.13	1.144	107.2	347.9	22.7	0.402			
4-4290	4-4500	5.00	1.133	107.6	0.6	15.9	0.380			
4-4290	4-4510	3.50	1.123	108.1	9.5	14.9	0.378			
4-4290	4-4520	2.76	1.115	108.7	17.6	15.8	0.381			
4-4290	4-4530	2.32	1.107	109.3	25.5	17.3	0.387			
4-4290	4-4540	2.06	1.100	110.1	33.4	19.1	0.397			
4-4290	4-4550	1.90	1.094	111.1	41.5	21.0	0.409			
4-4290	4-4560	1.82	1.088	112.2	49.8	22.8	0.425			
4-4290	4-4570	1.79	1.083	113.7	58.2	24.3	0.446			
4-4290	4-4580	1.83	1.077	115.5	66.6	25.5	0.474			
4-4290	4-4590	1.92	1.072	117.8	75.1	26.3	0.511			
4-4290	4-4600	2.09	1.067	120.9	83.4	26.7	0.560			
4-4290	4-4610	2.35	1.063	125.0	91.2	26.8	0.628			
4-4290	4-4620	2.88	1.058	130.7	98.4	26.4	0.720			
4-4290	4-4630	3.78	1.054	138.7	104.3	25.9	0.850			
4-4290	4-4750	-1.79	1.125	43.0	77.7	21.4	0.862			
4-4290	4-4760	-1.82	1.129	46.8	84.8	21.5	0.799			
4-4290	4-4770	-1.90	1.134	50.3	91.9	21.2	0.738			
4-4290	4-4780	-2.05	1.138	53.7	98.7	20.4	0.680			
4-4290	4-4790	-2.30	1.142	57.0	105.3	19.1	0.624			
4-4290	4-4800	-2.69	1.146	60.1	111.6	17.2	0.570			
4-4290	4-4810	-3.36	1.150	63.1	117.4	14.3	0.519			
4-4290	4-4820	-4.63	1.154	66.0	122.5	9.5	0.474			
4-4290	4-4830	-7.85	1.158	68.8	126.2	-0.8	0.442			
4-4290	4-4840	-21.04	1.162	71.4	131.2	-39.4	0.616			
4-4290	4-4850	16.31	1.166	74.3	169.8	54.8	0.445			
4-4290	4-4860	6.54	1.170	76.9	152.2	37.6	0.314			
4-4290	4-4870	4.14	1.174	79.5	150.3	31.7	0.265			
4-4290	4-4880	3.09	1.177	82.1	148.5	29.8	0.229			
4-4290	4-4890	2.52	1.180	84.7	144.6	29.8	0.202			
4-4290	4-4900	2.18	1.183	87.4	137.8	30.9	0.186			
4-4290	4-4910	1.98	1.186	90.1	128.6	32.0	0.183			
4-4290	4-4920	1.86	1.188	93.1	119.4	32.3	0.196			
4-4290	4-4930	1.80	1.190	96.2	112.6	31.5	0.223			
4-4290	4-4940	1.80	1.191	99.6	109.0	30.4	0.265			
4-4290	4-4940	1.80	1.069	124.1	54.0	22.0	0.622			
4-4290	4-4940	1.80	1.091	131.7	50.7	20.6	0.761			
4-4290	4-4950	1.86	1.192	103.4	108.1	29.2	0.320			
4-4290	4-4950	1.86	1.057	122.0	64.7	24.3	0.581			
4-4290	4-4950	1.86	1.110	140.5	56.7	21.4	0.917			
4-4290	4-4960	1.99	1.193	107.8	109.2	28.1	0.390			
4-4290	4-4960	1.99	1.051	122.9	74.4	25.7	0.590			
4-4290	4-4970	2.22	1.193	113.1	111.3	27.1	0.478			
4-4290	4-4970	2.22	1.046	125.2	83.6	26.3	0.627			
4-4290	4-4980	2.59	1.192	119.7	113.9	26.2	0.590			
4-4290	4-4980	2.59	1.042	129.2	92.0	26.5	0.691			
4-4290	4-4990	3.23	1.192	128.1	116.1	25.5	0.737			
4-4290	4-4990	3.23	1.039	135.3	99.3	26.2	0.789			
4-4290	4-5000	4.49	1.036	144.3	105.1	25.6	0.932			
4-4290	4-5040	-6.18	0.981	26.0	22.3	6.7	1.068			
4-4290	4-5050	-3.98	0.943	26.2	32.7	11.5	1.045			
4-4290	4-5050	-3.98	0.974	35.6	27.5	8.7	0.921			
4-4290	4-5060	-3.00	1.164	54.8	14.7	1.8	0.691			

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4290	4-5070	0.433	80.4	21.9	-1.25	0.744	123.8	0.559	1.545	229.6	636.1	0.681	2.410	-2.47	1.162	62.3	17.3	2.4	0.559
4-4290	4-5080	0.377	77.9	22.2	-0.74	0.743	119.3	0.494	1.543	232.6	648.9	0.780	2.306	-2.16	1.159	68.1	20.2	3.0	0.458
4-4290	4-5090	0.568	205.6	-11.2	-0.35	0.601	40.9	0.800	1.192	158.1	584.2	0.239	2.145	-1.96	1.071	37.4	59.2	19.0	0.931
4-4290	4-5090	0.336	76.1	22.7	-0.35	0.742	116.0	0.445	1.540	234.5	660.5	0.855	2.225	-1.96	1.156	72.6	22.9	3.4	0.378
4-4300	4-4370	0.838	54.5	19.9	0.01	1.232	131.8	1.321	-3.144	288.0	359.8	---	---	-1.85	1.516	89.9	325.6	-19.4	0.528
4-4300	4-4380	0.772	55.9	20.6	0.32	1.168	130.6	1.165	-6.099	285.5	366.9	1.008	---	-1.77	1.463	93.7	323.4	-20.2	0.481
4-4300	4-4390	0.716	57.4	21.3	0.62	1.112	129.6	1.038	27.473	282.4	373.5	1.060	---	-1.75	1.417	96.9	322.3	-20.6	0.452
4-4300	4-4400	0.668	59.2	22.1	0.92	1.062	128.7	0.928	13.709	278.8	379.5	0.987	---	-1.78	1.377	99.4	322.5	-20.7	0.434
4-4300	4-4410	0.623	61.1	22.9	1.22	1.016	127.8	0.835	9.904	274.9	385.1	0.973	---	-1.87	1.341	101.4	324.0	-20.4	0.423
4-4300	4-4420	0.582	63.1	23.8	1.59	0.972	126.9	0.756	8.923	270.6	390.4	0.957	---	-2.02	1.309	103.0	326.7	-20.0	0.416
4-4300	4-4430	0.543	65.1	24.8	2.02	0.932	125.8	0.689	8.019	266.1	395.4	0.940	---	-2.27	1.279	104.3	330.5	-19.4	0.410
4-4300	4-4440	0.506	67.3	26.1	2.59	0.895	124.6	0.631	7.504	261.3	400.1	0.928	---	-2.66	1.253	105.3	335.2	-18.8	0.406
4-4300	4-4450	0.471	69.5	27.9	3.43	0.860	123.3	0.582	7.172	256.3	404.6	0.908	---	-3.34	1.229	106.1	340.8	-18.7	0.404
4-4300	4-4460	0.439	71.8	30.9	4.91	0.828	121.8	0.541	6.942	251.1	409.0	0.892	---	-4.66	1.207	106.8	347.5	-19.9	0.405
4-4300	4-4470	0.416	74.6	37.5	8.48	0.798	120.2	0.506	6.774	245.7	413.2	0.876	---	-8.08	1.188	107.3	356.3	-26.0	0.420
4-4300	4-4480	0.541	97.5	66.2	32.52	0.770	118.4	0.476	1.646	240.3	417.0	0.862	---	-31.97	1.172	107.6	10.3	-62.7	0.698
4-4300	4-4490	0.378	85.4	-0.6	-13.66	0.744	116.7	0.855	1.546	234.5	421.6	0.842	---	14.36	1.157	108.2	340.4	30.4	0.470
4-4300	4-4500	0.316	85.6	12.9	-5.27	0.720	114.7	0.638	1.496	228.8	425.5	0.827	---	6.12	1.144	108.6	359.4	17.8	0.406
4-4300	4-4510	0.283	89.1	17.3	-2.94	0.697	112.6	0.422	1.400	222.9	429.3	0.810	---	3.94	1.132	109.0	9.1	15.5	0.398
4-4300	4-4520	0.254	93.8	19.4	-1.80	0.677	110.2	0.412	1.346	217.0	433.2	0.792	---	2.97	1.122	109.4	17.5	16.0	0.397
4-4300	4-4530	0.227	99.7	20.6	-1.10	0.657	107.8	0.406	1.300	211.0	437.1	0.773	---	2.43	1.113	109.9	25.5	17.4	0.401
4-4300	4-4540	0.203	107.3	21.2	-0.59	0.639	105.1	0.404	1.262	205.0	441.1	0.752	---	2.11	1.105	110.6	33.5	19.2	0.407
4-4300	4-4550	0.182	114.9	21.0	-0.19	0.622	102.1	0.407	1.228	199.0	445.1	0.729	---	1.92	1.097	111.4	41.6	21.0	0.416
4-4300	4-4560	0.166	129.0	19.6	0.16	0.606	98.9	0.414	1.200	193.1	449.2	0.703	---	1.81	1.091	112.4	50.0	22.8	0.429
4-4300	4-4570	0.158	143.4	16.7	0.47	0.591	95.3	0.427	1.175	187.3	453.5	0.674	---	1.76	1.084	113.6	58.4	24.3	0.446
4-4300	4-4580	0.161	158.8	12.2	0.78	0.577	91.3	0.446	1.153	181.6	458.0	0.639	---	1.77	1.078	115.2	67.0	25.5	0.470
4-4300	4-4590	0.178	173.2	6.9	1.11	0.564	86.7	0.472	1.133	176.3	462.9	0.598	1.669	1.83	1.072	117.2	75.6	26.3	0.501
4-4300	4-4600	0.211	185.0	2.0	1.47	0.552	81.3	0.509	1.117	171.4	468.2	0.548	1.685	1.96	1.067	119.9	84.1	26.7	0.543
4-4300	4-4610	0.260	193.0	-1.9	1.91	0.542	74.9	0.558	1.102	167.2	474.2	0.487	1.718	2.19	1.062	123.4	92.2	26.7	0.600
4-4300	4-4620	0.328	199.8	-4.6	2.48	0.532	66.9	0.625	1.090	164.1	481.2	0.409	1.771	2.58	1.056	128.3	99.8	26.3	0.679
4-4300	4-4630	0.419	203.1	-6.2	3.32	0.525	56.7	0.711	1.081	162.8	490.0	0.312	1.850	3.24	1.052	135.1	106.3	25.7	0.789
4-4300	4-4640	0.540	203.8	-6.8	4.80	0.521	43.4	0.818	1.076	164.0	501.4	0.196	1.956	4.57	1.048	144.8	111.4	24.9	0.943
4-4300	4-4760	0.570	221.0	-15.6	0.76	0.704	43.8	0.732	1.418	145.7	241.3	---	2.456	-1.76	1.125	45.3	86.3	21.7	0.821
4-4300	4-4770	0.538	223.2	-15.9	1.06	0.713	46.8	0.694	1.443	142.5	247.7	---	2.445	-1.82	1.130	48.9	93.3	21.4	0.760
4-4300	4-4780	0.508	225.4	-16.0	1.40	0.721	49.6	0.657	1.468	139.4	254.2	---	2.431	-1.93	1.134	52.4	100.2	20.6	0.701
4-4300	4-4790	0.480	227.5	-15.9	1.78	0.728	52.1	0.621	1.491	136.5	260.7	---	2.417	-2.12	1.139	55.7	106.9	19.4	0.643
4-4300	4-4800	0.454	229.6	-15.6	2.27	0.734	54.4	0.588	1.512	133.7	267.4	---	2.401	-2.43	1.143	58.9	113.2	17.6	0.589
4-4300	4-4810	0.430	231.7	-14.9	2.94	0.740	56.5	0.556	1.532	131.0	274.3	---	2.384	-2.94	1.147	62.0	119.2	15.1	0.537
4-4300	4-4820	0.409	233.7	-13.3	4.01	0.745	58.5	0.527	1.550	128.5	281.3	---	2.367	-3.85	1.152	64.9	124.5	11.2	0.489
4-4300	4-4830	0.393	235.9	-9.8	6.13	0.750	60.2	0.500	1.567	126.1	288.5	---	2.351	-5.81	1.156	67.7	128.7	4.2	0.448
4-4300	4-4840	0.401	238.1	1.8	13.05	0.754	61.7	0.477	1.581	124.0	295.9	---	2.335	-12.59	1.160	70.5	130.9	-15.0	0.452
4-4300	4-4860	0.352	232.7	-35.7	-7.98	0.760	64.2	0.436	1.604	120.3	311.9	---	2.304	8.75	1.168	75.9	159.3	41.4	0.344
4-4300	4-4870	0.330	236.9	-28.9	-3.92	0.762	65.2	0.421	1.613	118.2	320.1	---	2.292	4.83	1.172	78.5	155.0	32.1	0.280
4-4300	4-4880	0.319	238.7	-26.0	-2.32	0.764	65.9	0.408	1.621	117.6	328.7	---	2.283	3.40	1.175	81.1	153.4	28.8	0.240
4-4300	4-4890	0.311	239.9	-24.4	-1.43	0.765	66.5	0.399	1.626	116.7	337.7	---	2.276	2.68	1.179	83.7	150.5	28.2	0.210
4-4300	4-4900	0.307	240.7	-23.2	-0.84	0.766	66.8	0.394	1.630	116.1	347.0	---	2.272	2.26	1.182	86.3	145.0	29.0	0.189
4-4300	4-4910	0.306	241.1	-22.2	-0.39	0.767	66.9	0.392	1.633	115.8	356.6	---	2.274	2.01	1.184	89.1	136.6	30.4	0.181
4-4300	4-4920	0.308	241.2	-21.3	-0.02	0.767	66.7	0.395	1.634	115.8	366.7	0.988	2.280	1.86	1.187	91.9	127.2	31.3	0.187
4-4300	4-4930	0.315	241.0	-20.6	0.31	0.767	66.2	0.403	1.635	116.3	377.2	0.975	2.294	1.78	1.189	94.9	119.3	31.0	0.209
4-4300	4-4940	0.326	240.4	-19.8	0.62	0.767	65.3	0.418	1.634	117.1	388.1	0.952	2.316	1.75	1.190	98.1	114.5	30.1	0.245
4-4300	4-4950	0.343	239.5	-19.1	0.94	0.767	64.0	0.439	1.633	118.4	399.6	0.916	2.350	1.79	1.191	101.8	112.7	29.0	0.294
4-4300	4-4950	0.250	130.6	20.7	0.94	0.543	104.5	0.553	1.104	192.4	833.6	0.494	1.714	1.79	1.061	121.0	64.4	24.1	0.599
4-4300	4-4950	0.512	105.6	24.0	0.94	0.615	133.5	0.739	1.216	205.2	846.4	0.318	2.115	1.79	1.100	136.6	58.6	21.9	0.848
4-4300	4-4960	0.369	238.1	-18.3	1.27	0.767	62.0	0.470	1.631	120.3	413.7	0.864	2.[illegible]	1.88	1.192	105.9	113.1	27.9	0.357
4-4300	4-4960	0.219	153.5	14.5	1.27	0.524	94.2	0.546	1.080	183.5	834.9	0.490	1.[illegible]	1.88	1.052	122.8	74.7	25.5	0.589
4-4300	4-4970	0.405	236.3	-17.5	1.67	0.766	59.1	0.513	1.629	123.0	424.6	0.793	2.[illegible]	2.06	1.192	110.8	114.9	28.8	0.437
4-4300	4-4970	0.233	173.0	7.1	1.67	0.512	85.3	0.568	1.065	176.4	838.0	0.460	1.670	2.06	1.047	124.4	84.2	26.2	0.612
4-4300	4-4980	0.455	233.1	-16.7	2.15	0.766	55.1	0.572	1.627	126.8	438.6	0.697	2.558	2.35	1.191	116.7	117.4	25.8	0.537
4-4300	4-4980	0.280	186.8	1.[illegible]	2.15	0.503	76.1	0.612	1.055	170.8	842.5	0.410	1.700	2.35	1.042	127.5	93.1	26.4	0.662
4-4300	4-4990	0.526	230.4	-15.7	2.83	0.765	49.4	0.650	1.626	132.2	454.1	0.568	2.683	2.84	1.191	124.2	119.8	24.9	0.667
4-4300	4-4990	0.355	195.5	-2.9	2.83	0.496	65.7	0.678	1.047	166.9	848.8	0.337	1.757	2.84	1.038	132.6	100.9	26.0	0.743
4-4300	4-5000	0.458	199.9	-5.0	3.90	0.491	53.0	0.768	1.042	165.5	857.5	0.241	1.843	3.75	1.035	140.1	107.4	25.4	0.863
4-4300	4-5010	0.594	200.5	-5.6	6.05	0.489	37.1	0.876	1.040	167.4	869.5	0.129	1.952	5.74	1.032	151.2	112.0	24.7	1.034
4-4300	4-5050	0.554	176.4	0.1	-3.66	0.264	52.4	0.929	0.884	176.5	919.0	0.063	1.706	-4.60	0.936	21.9	34.9	12.4	1.102
4-4300	4-5050	0.480	135.5	14.9	-3.66	0.373	124.7	0.850	0.942	187.3	929.8	0.141	1.743	-4.60	0.973	31.8	29.2	9.4	0.977
4-4300	4-5060	0.543	90.9	21.8	-2.19	0.742	133.3	0.688	1.539	221.7	614.1	0.480	2.598	-3.28	1.163	50.8	17.8	3.4	0.760
4-4300	4-5070	0.455	86.9	22.2	-1.35	0.742	126.1	0.593	1.538	227.4	629.6	0.624	2.450	-2.61	1.160	59.2	20.2	3.9	0.612
4-4300	4-5080	0.391	84.1	22.6	-0.79	0.741	120.9	0.519	1.536	231.0	643.0	0.730	2.333	-2.23	1.157	65.6	23.0	4.6	0.499
4-4300	4-5090	0.593	209.1	-12.4	-0.36	0.594	36.8	0.821	1.180	159.5	581.2	0.211	2.149	-1.99	1.067	35.3	60.7	19.4	0.963
4-4300	4-5090	0.344	82.1	23.1	-0.36	0.740	117.2	0.463	1.533	233.2	654.9	0.823	2.243	-1.99	1.155	70.6	25.9	5.1	0.411
4-4300	4-5100	0.540	211.2	-13.0	-0.00	0.604	44.1	0.768	1.197	156.7	588.0	0.278	2.116	-1.85	1.070	40.4	67.4	20.3	0.830
4-4300	4-5100	0.309	80.7	23.7	-0.00	0.740	114.4	0.421	1.530	234.5	665.9	0.806	2.174	-1.85	1.152	74.7	28.5	5.2	0.341
4-4310	4-4380	0.907	57.7	21.0	0.33	1.304	133.0	1.504	-2.000	290.0	367.1	1.007	---	-1.75	1.574	94.3	322.8	-19.6	0.592
4-4310	4-4390	0.830	59.5	21.7	0.62	1.226	132.1	1.301	-3.316	286.9	373.7	0.998	---	-1.71	1.508	97.7	322.0	-19.9	0.545
4-4310	4-4400	0.766	61.5	22.4	0.91	1.158	131.2	1.138	-7.144	283.4	379.7	0.984	---	-1.73	1.453	100.5	322.3	-19.9	0.514
4-4310	4-4410	0.709	63.6	23.2	1.20	1.098	130.4	1.004	42.366	279.4	385.3	0.968	---	-1.77	1.404	102.7	323.8	-19.6	0.493
4-4310	4-4420	0.658	65.8	24.0	1.53	1.044	129.5	0.893	8.911	275.2	390.5	0.950	---	-1.89	1.362	104.4	326.5	-19.0	0.477
4-4310	4-4430	0.611	68.0	24.9	1.91	0.994	128.4	0.801	4.683	270.6	395.5	0.933	---	-2.08	1.324	105.7	330.2	-18.2	0.465
4-4310	4-4440	0.569	70.2	25.9	2.39	0.948	127.3	0.723	3.308	265.8	400.3	0.915	---	-2.39	1.291	106.8	334.8	-17.4	0.455
4-4310	4-4450	0.525	72.5	27.3	3.06	0.906	126.0	0.659	2.631	260.8	404.8	0.898	---	-2.90	1.261	107.5	340.1	-16.8	0.447

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4310	4-4460	0.487	75.0	29.4	4.14	0.868	124.6	0.604	2.229	255.6	409.1	0.882	---	-3.83	1.235	108.1	346.3	-16.9	0.442
4-4310	4-4470	0.453	77.7	33.3	6.34	0.832	123.0	0.559	1.965	250.2	413.3	0.866	---	-5.87	1.211	108.6	353.9	-19.5	0.442
4-4310	4-4480	0.444	82.5	45.7	14.00	0.799	121.3	0.522	1.776	244.7	417.4	0.851	---	-13.39	1.191	108.9	5.2	-33.3	0.489
4-4310	4-4490	0.553	97.7	-18.2	-33.51	0.769	119.5	0.493	1.640	238.9	422.0	0.831	---	34.27	1.173	109.5	311.7	41.8	0.717
4-4310	4-4500	0.353	88.3	10.7	-1.09	0.741	117.5	0.467	1.534	233.2	425.6	0.817	---	7.99	1.157	109.6	357.2	20.8	0.440
4-4310	4-4510	0.313	91.2	16.8	-3.49	0.716	115.3	0.448	1.450	227.3	429.4	0.801	---	4.54	1.143	109.9	8.6	16.4	0.421
4-4310	4-4520	0.281	95.4	19.3	-2.02	0.692	113.0	0.433	1.383	221.4	433.3	0.784	---	3.23	1.131	110.2	17.3	16.3	0.416
4-4310	4-4530	0.252	100.8	20.6	-1.19	0.670	110.5	0.423	1.328	215.4	437.1	0.766	---	2.56	1.120	110.7	26.5	17.5	0.416
4-4310	4-4540	0.225	107.4	21.3	-0.63	0.649	107.8	0.418	1.282	209.3	441.0	0.747	---	2.17	1.110	111.2	33.6	19.2	0.419
4-4310	4-4550	0.200	115.9	21.2	-0.20	0.630	104.9	0.417	1.243	203.2	445.0	0.725	---	1.94	1.102	111.8	41.8	21.0	0.425
4-4310	4-4560	0.180	126.6	20.2	0.16	0.612	101.7	0.420	1.210	197.2	449.0	0.701	---	1.79	1.094	112.6	50.1	22.7	0.435
4-4310	4-4570	0.167	139.8	17.8	0.48	0.596	98.2	0.429	1.181	191.2	453.1	0.674	---	1.72	1.087	113.7	58.7	24.2	0.448
4-4310	4-4580	0.163	154.7	13.7	0.78	0.580	94.3	0.444	1.157	185.4	457.4	0.643	---	1.71	1.080	115.1	67.3	25.4	0.467
4-4310	4-4590	0.173	169.7	8.4	1.09	0.566	89.9	0.460	1.135	179.9	462.0	0.606	1.665	1.74	1.073	116.8	76.1	26.2	0.493
4-4310	4-4600	0.197	182.9	3.0	1.42	0.553	84.7	0.497	1.117	174.6	467.0	0.561	1.672	1.84	1.067	119.1	84.7	26.6	0.529
4-4310	4-4610	0.238	193.3	-1.5	1.81	0.541	78.7	0.540	1.100	170.0	472.5	0.508	1.694	2.02	1.061	122.2	93.1	26.6	0.577
4-4310	4-4620	0.297	200.8	-4.8	2.29	0.530	71.3	0.597	1.087	166.2	479.0	0.438	1.736	2.32	1.055	126.3	101.0	26.1	0.644
4-4310	4-4630	0.377	205.5	-7.0	2.97	0.522	62.0	0.673	1.076	163.8	486.7	0.351	1.800	2.83	1.050	132.1	108.0	25.4	0.738
4-4310	4-4640	0.484	207.6	-8.1	4.07	0.515	50.1	0.771	1.069	163.6	496.6	0.284	1.893	3.76	1.045	140.3	113.8	24.6	0.869
4-4310	4-4760	0.586	224.5	-16.7	0.76	0.698	42.7	0.747	1.399	147.3	238.5	---	2.444	-1.70	1.121	43.8	87.7	21.9	0.844
4-4310	4-4770	0.553	226.7	-17.0	1.05	0.707	45.8	0.708	1.425	144.1	244.9	---	2.433	-1.74	1.126	47.5	94.7	21.5	0.782
4-4310	4-4780	0.522	228.9	-17.1	1.35	0.715	48.6	0.670	1.449	140.9	251.3	---	2.421	-1.82	1.130	51.0	101.7	20.8	0.722
4-4310	4-4790	0.494	231.1	-17.1	1.70	0.723	51.3	0.634	1.473	138.0	257.8	---	2.407	-1.97	1.135	54.4	108.4	19.6	0.666
4-4310	4-4800	0.467	233.2	-16.9	2.12	0.730	53.7	0.599	1.495	135.1	264.5	---	2.391	-2.21	1.140	57.7	114.8	17.9	0.608
4-4310	4-4810	0.442	235.3	-16.3	2.68	0.736	55.9	0.567	1.516	132.4	271.3	---	2.375	-2.60	1.144	60.8	120.9	15.6	0.555
4-4310	4-4820	0.420	237.3	-15.1	3.50	0.742	57.9	0.537	1.535	129.8	278.3	---	2.359	-3.26	1.149	63.8	126.4	12.4	0.505
4-4310	4-4830	0.402	239.3	-12.8	4.96	0.746	59.7	0.509	1.552	127.4	285.4	---	2.342	-4.57	1.153	66.6	131.1	7.1	0.460
4-4310	4-4840	0.392	241.3	-6.7	8.52	0.751	61.3	0.484	1.568	125.2	292.8	---	2.326	-7.98	1.158	69.4	134.1	-4.0	0.431
4-4310	4-4850	0.548	236.7	24.1	34.01	0.754	62.6	0.462	1.581	123.2	300.1	---	2.312	-32.33	1.162	72.0	139.7	-49.6	0.702
4-4310	4-4860	0.380	232.9	-43.5	-12.69	0.757	64.0	0.441	1.593	121.3	308.6	---	2.294	13.51	1.166	74.9	172.3	48.5	0.403
4-4310	4-4870	0.339	240.6	-31.3	-4.88	0.760	65.0	0.424	1.602	119.8	316.7	---	2.282	5.85	1.170	77.5	160.0	33.3	0.299
4-4310	4-4880	0.326	242.9	-27.4	-2.67	0.762	65.8	0.411	1.610	118.5	325.2	---	2.271	3.79	1.174	80.1	158.1	28.1	0.253
4-4310	4-4890	0.317	244.2	-25.4	-1.58	0.763	66.5	0.400	1.616	117.5	334.1	---	2.263	2.86	1.177	82.7	155.9	26.6	0.219
4-4310	4-4900	0.311	245.0	-24.0	-0.90	0.764	66.9	0.393	1.621	116.7	343.2	---	2.259	2.35	1.180	85.3	151.6	27.0	0.195
4-4310	4-4910	0.309	245.6	-23.0	-0.41	0.765	67.1	0.390	1.624	116.3	352.8	---	2.258	2.04	1.183	88.0	144.7	28.4	0.181
4-4310	4-4920	0.310	245.8	-22.1	-0.02	0.766	67.0	0.391	1.626	116.2	362.7	0.990	2.262	1.86	1.186	90.8	135.3	29.7	0.181
4-4310	4-4930	0.315	245.6	-21.4	0.31	0.766	66.6	0.397	1.627	116.5	373.0	0.981	2.273	1.75	1.187	93.7	126.6	30.3	0.197
4-4310	4-4940	0.324	245.2	-20.6	0.62	0.766	65.9	0.409	1.626	117.1	383.8	0.962	2.291	1.71	1.189	96.8	120.5	29.6	0.227
4-4310	4-4950	0.339	244.4	-19.9	0.92	0.766	64.8	0.427	1.625	118.2	395.0	0.931	2.320	1.72	1.190	100.3	117.6	28.6	0.271
4-4310	4-4950	0.318	121.9	22.2	0.92	0.562	114.4	0.598	1.129	199.3	836.1	0.454	1.804	1.72	1.070	126.1	63.3	23.5	0.655
4-4310	4-4950	0.410	114.0	23.2	0.92	0.587	124.4	0.665	1.168	203.7	840.6	0.391	1.944	1.72	1.084	130.9	61.3	22.8	0.742
4-4310	4-4960	0.361	243.2	-19.3	1.24	0.765	63.0	0.454	1.624	119.8	406.8	0.887	2.361	1.78	1.191	104.2	117.2	27.5	0.328
4-4310	4-4960	0.250	247.4	16.5	1.24	0.529	99.5	0.551	1.085	187.9	834.9	0.487	1.684	1.78	1.054	123.1	74.7	25.4	0.595
4-4310	4-4960	0.562	110.9	23.5	1.24	0.620	136.5	0.784	1.233	204.3	851.3	0.266	2.200	1.78	1.105	140.7	67.0	23.1	0.916
4-4310	4-4970	0.392	241.6	-18.6	1.60	0.765	60.6	0.491	1.622	122.1	419.3	0.825	2.419	1.92	1.191	108.7	118.0	26.4	0.399
4-4310	4-4970	0.225	168.9	8.9	1.60	0.514	89.9	0.560	1.067	180.0	837.1	0.469	1.665	1.92	1.047	123.8	84.7	26.1	0.603
4-4310	4-4980	0.435	239.4	-17.9	2.02	0.764	57.1	0.543	1.620	125.3	432.7	0.740	2.499	2.15	1.190	114.1	120.8	25.3	0.490
4-4310	4-4980	0.259	185.3	1.9	2.02	0.503	80.8	0.593	1.054	173.6	840.9	0.425	1.680	2.15	1.042	126.2	93.9	26.2	0.639
4-4310	4-4990	0.496	236.4	-17.1	2.58	0.764	52.3	0.612	1.618	129.9	447.4	0.627	2.609	2.53	1.189	120.8	123.4	24.3	0.605
4-4310	4-4990	0.321	196.2	-3.0	2.58	0.495	70.9	0.648	1.046	168.8	846.3	0.360	1.723	2.53	1.037	130.3	102.2	25.8	0.704
4-4310	4-5000	0.582	232.4	-16.1	3.42	0.764	45.3	0.701	1.617	136.4	464.1	0.479	2.756	3.19	1.188	129.5	125.6	23.4	0.756
4-4310	4-5000	0.412	202.5	-5.9	3.42	0.489	59.2	0.728	1.039	166.1	853.8	0.283	1.795	3.19	1.033	136.6	109.4	25.1	0.805
4-4310	4-5010	0.533	204.7	-7.2	4.91	0.486	44.7	0.829	1.036	166.3	864.1	0.177	1.694	4.52	1.030	146.0	114.9	24.3	0.952
4-4310	4-5050	0.597	180.7	-1.7	-4.50	0.291	44.7	0.953	0.875	177.1	915.2	0.041	1.708	-5.49	0.930	17.7	36.9	13.2	1.155
4-4310	4-5050	0.534	138.2	14.2	-4.50	0.369	113.9	0.890	0.939	187.3	925.4	0.103	1.774	-5.49	0.971	27.2	31.4	10.2	1.045
4-4310	4-5060	0.584	98.2	21.6	-2.49	0.740	137.2	0.736	1.531	218.2	606.2	0.404	2.657	-3.64	1.161	46.2	21.1	5.0	0.838
4-4310	4-5060	0.480	176.6	-0.0	-2.49	0.289	69.8	0.879	0.894	177.1	925.0	0.108	1.481	-3.64	0.940	28.7	1.3	14.3	1.006
4-4310	4-5060	0.417	151.2	10.0	-2.49	0.352	108.3	0.816	0.928	184.3	932.3	0.170	1.686	-3.64	0.961	35.4	37.5	12.5	0.916
4-4310	4-5070	0.483	93.6	22.2	-1.48	0.740	128.8	0.630	1.530	225.0	622.8	0.566	2.495	-2.78	1.159	55.8	23.1	5.4	0.670
4-4310	4-5080	0.409	90.4	22.7	-0.84	0.740	122.8	0.547	1.528	229.3	636.9	0.692	2.365	-2.31	1.156	63.0	25.8	6.0	0.544
4-4310	4-5090	0.355	88.2	23.3	-0.37	0.739	118.5	0.484	1.526	232.0	649.3	0.787	2.284	-2.05	1.153	68.5	28.8	6.5	0.446
4-4310	4-5100	0.565	214.7	-14.2	-0.00	0.598	42.1	0.790	1.185	158.0	585.0	0.249	2.122	-1.85	1.066	38.3	68.9	20.7	0.982
4-4310	4-5100	0.315	86.6	23.9	-0.00	0.738	115.3	0.436	1.523	233.5	660.5	0.859	2.186	-1.85	1.151	72.9	31.6	7.0	0.370
4-4310	4-5110	0.512	216.8	-14.6	0.31	0.608	47.3	0.755	1.203	155.3	591.9	0.319	2.086	-1.75	1.070	43.4	75.6	21.2	0.829
4-4310	4-5110	0.285	85.5	24.7	0.31	0.737	112.9	0.399	1.520	234.4	671.0	0.913	2.127	-1.75	1.188	76.6	34.0	6.9	0.308
4-4320	4-4410	0.813	66.1	23.4	1.18	1.200	132.8	1.229	4.208	283.7	385.2	0.963	---	-1.68	1.485	103.9	324.2	-18.7	0.579
4-4320	4-4420	0.748	68.4	24.2	1.48	1.131	131.9	1.072	13.158	279.5	390.5	0.944	---	-1.76	1.429	105.8	326.7	-18.0	0.552
4-4320	4-4430	0.690	70.8	24.9	1.82	1.069	131.0	0.944	16.500	275.0	395.5	0.925	---	-1.91	1.381	107.2	330.2	-17.2	0.531
4-4320	4-4440	0.637	73.2	25.8	2.23	1.013	129.9	0.839	5.433	270.2	400.2	0.907	---	-2.15	1.338	108.3	334.6	-16.2	0.513
4-4320	4-4450	0.588	75.6	26.9	2.78	0.962	128.7	0.753	3.596	265.2	404.8	0.889	---	-2.54	1.301	109.1	339.7	-15.3	0.499
4-4320	4-4460	0.542	78.1	28.4	3.60	0.915	127.3	0.682	2.739	260.0	409.2	0.872	---	-3.21	1.268	109.6	345.6	-14.7	0.486
4-4320	4-4470	0.500	80.8	30.9	5.08	0.873	125.7	0.627	2.279	254.6	413.4	0.855	---	-4.54	1.239	110.0	352.4	-14.4	0.478
4-4320	4-4480	0.468	84.2	37.0	8.84	0.835	124.0	0.571	1.975	249.1	417.5	0.840	---	-8.15	1.214	110.3	1.2	-20.8	0.484
4-4320	4-4500	0.402	91.5	5.8	-10.90	0.767	120.2	0.504	1.627	237.6	425.6	0.807	---	11.86	1.173	110.8	352.6	20.5	0.494
4-4320	4-4510	0.348	93.5	15.9	-4.31	0.737	118.1	0.470	1.517	231.7	429.5	0.792	---	5.41	1.156	111.0	7.9	17.7	0.449
4-4320	4-4520	0.312	97.4	19.1	-2.31	0.710	115.8	0.458	1.432	225.7	433.3	0.776	---	3.56	1.142	111.2	17.2	16.7	0.439
4-4320	4-4530	0.279	102.2	20.6	-1.30	0.685	113.3	0.444	1.363	219.7	437.1	0.759	---	2.71	1.129	111.5	25.5	17.6	0.435
4-4320	4-4540	0.249	108.2	21.2	-0.67	0.662	110.6	0.434	1.308	213.6	440.9	0.740	---	2.24	1.117	111.9	33.6	19.2	0.434
4-4320	4-4550	0.222	115.6	21.3	-0.21	0.641	107.7	0.429	1.262	207.5	444.8	0.720	---	1.95	1.107	112.4	41.9	20.9	0.437
4-4320	4-4560	0.198	125.1	20.5	0.16	0.621	104.6	0.429	1.223	201.3	448.7	0.698	---	1.78	1.098	113.0	50.3	22.7	0.443

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4320	4-4570	0.180	136.8	18.6	0.48	0.602	101.1	0.434	1.191	195.3	452.8	0.674	---	1.68	1.089	113.9	58.9	24.2	0.453
4-4320	4-4580	0.170	150.8	15.1	0.78	0.585	97.3	0.445	1.163	189.3	457.0	0.645	---	1.65	1.082	115.0	67.6	25.3	0.468
4-4320	4-4590	0.171	165.8	10.1	1.07	0.570	93.0	0.463	1.138	183.5	461.3	0.611	---	1.66	1.074	116.5	76.4	26.1	0.489
4-4320	4-4600	0.188	180.1	4.4	1.38	0.555	88.1	0.489	1.118	178.0	466.0	0.571	1.664	1.73	1.067	118.5	85.2	26.5	0.518
4-4320	4-4610	0.221	192.0	-0.7	1.73	0.542	82.4	0.525	1.100	173.0	471.2	0.523	1.676	1.87	1.060	121.1	93.8	26.4	0.559
4-4320	4-4620	0.271	201.0	-4.7	2.15	0.530	75.5	0.574	1.084	168.7	477.0	0.462	1.706	2.10	1.054	124.7	102.0	26.0	0.615
4-4320	4-4630	0.341	207.2	-7.4	2.71	0.519	67.1	0.640	1.072	165.4	484.0	0.385	1.758	2.48	1.048	129.0	109.5	25.2	0.694
4-4320	4-4640	0.435	210.7	-9.1	3.55	0.511	56.5	0.728	1.062	164.0	492.7	0.289	1.835	3.16	1.043	136.5	115.9	24.2	0.806
4-4330	4-4650	0.560	211.3	-9.7	5.09	0.507	42.2	0.835	1.057	165.2	504.0	0.175	1.940	4.55	1.039	146.5	120.8	23.2	0.963
4-4320	4-4770	0.569	230.3	-18.0	1.03	0.701	44.7	0.723	1.405	145.6	242.0	---	2.421	-1.65	1.121	46.0	96.2	21.7	0.805
4-4320	4-4780	0.538	232.5	-18.1	1.32	0.710	47.6	0.684	1.431	142.4	248.4	---	2.410	-1.71	1.126	49.6	103.2	20.9	0.744
4-4320	4-4790	0.508	234.7	-18.1	1.63	0.718	50.4	0.647	1.455	139.4	254.9	---	2.396	-1.82	1.131	53.1	109.9	19.8	0.685
4-4320	4-4800	0.481	236.8	-18.0	2.00	0.725	52.9	0.612	1.478	136.5	261.5	---	2.382	-2.01	1.136	56.4	116.4	18.1	0.628
4-4320	4-4810	0.455	238.9	-17.5	2.47	0.732	55.2	0.578	1.499	133.7	268.3	---	2.366	-2.31	1.141	59.6	122.6	16.0	0.574
4-4320	4-4820	0.432	240.9	-16.7	3.12	0.738	57.3	0.547	1.519	131.1	275.2	---	2.350	-2.81	1.146	62.6	128.3	13.2	0.523
4-4320	4-4830	0.412	242.8	-15.0	4.18	0.743	59.1	0.518	1.537	128.6	282.3	---	2.333	-3.71	1.151	65.5	133.3	9.0	0.475
4-4320	4-4840	0.397	244.2	-11.3	6.34	0.748	60.8	0.491	1.553	126.4	289.6	---	2.317	-5.73	1.155	68.3	137.1	1.5	0.435
4-4320	4-4850	0.409	246.0	1.5	14.06	0.752	62.3	0.468	1.568	124.3	297.1	---	2.301	-13.31	1.160	71.1	138.0	-19.9	0.448
4-4320	4-4860	0.511	213.2	-58.7	-30.13	0.755	63.7	0.445	1.580	122.3	305.5	---	2.284	31.02	1.164	73.9	214.1	55.3	0.654
4-4320	4-4870	0.352	244.1	-34.8	-6.53	0.758	64.8	0.428	1.590	120.7	313.3	---	2.272	7.56	1.168	76.5	166.1	35.9	0.324
4-4320	4-4880	0.333	247.1	-28.9	-3.15	0.760	65.7	0.414	1.599	119.4	321.7	---	2.260	4.33	1.172	79.1	162.6	27.9	0.268
4-4320	4-4890	0.323	248.5	-26.3	-1.78	0.762	66.4	0.402	1.606	118.2	330.4	---	2.251	3.09	1.175	81.6	160.9	25.1	0.230
4-4320	4-4900	0.317	249.5	-24.8	-0.97	0.763	66.9	0.393	1.611	117.4	339.5	---	2.245	2.45	1.179	84.3	157.7	24.9	0.202
4-4320	4-4910	0.313	250.0	-23.7	-0.43	0.764	67.2	0.389	1.615	116.8	348.9	---	2.243	2.08	1.182	86.9	151.7	26.1	0.183
4-4320	4-4920	0.313	250.3	-22.8	-0.02	0.765	67.3	0.388	1.617	116.6	358.7	---	2.245	1.86	1.184	89.6	143.3	27.7	0.178
4-4320	4-4930	0.316	250.3	-22.0	0.32	0.765	67.0	0.392	1.619	116.7	368.9	0.984	2.253	1.73	1.186	92.5	134.2	28.7	0.187
4-4320	4-4940	0.323	250.0	-21.3	0.63	0.765	66.4	0.401	1.619	117.1	379.5	0.970	2.267	1.66	1.188	95.5	127.1	28.7	0.211
4-4320	4-4950	0.335	249.4	-20.7	0.92	0.765	65.5	0.416	1.618	118.0	390.5	0.945	2.291	1.65	1.189	98.8	123.0	28.0	0.249
4-4320	4-4960	0.354	248.3	-20.1	1.22	0.764	64.0	0.439	1.616	119.4	402.0	0.907	2.326	1.69	1.189	102.5	121.7	26.9	0.300
4-4320	4-4960	0.258	140.6	18.4	1.22	0.539	105.9	0.568	1.096	192.9	835.6	0.474	1.718	1.69	1.059	128.2	74.4	25.1	0.615
4-4320	4-4960	0.497	116.9	22.8	1.22	0.607	133.0	0.738	1.199	204.5	847.1	0.314	2.084	1.69	1.095	136.7	69.0	23.6	0.844
4-4320	4-4970	0.381	246.9	-19.5	1.54	0.764	61.9	0.472	1.615	121.3	414.1	0.853	2.376	1.78	1.189	106.7	122.4	25.8	0.365
4-4320	4-4970	0.225	163.7	11.0	1.54	0.518	94.9	0.558	1.070	183.9	836.7	0.473	1.667	1.78	1.049	123.6	84.9	26.0	0.600
4-4320	4-4980	0.418	245.0	-18.9	1.92	0.763	58.9	0.517	1.613	124.0	427.0	0.779	2.446	1.96	1.189	111.6	124.4	24.7	0.446
4-4320	4-4980	0.243	182.7	3.2	1.92	0.505	85.5	0.579	1.055	176.7	839.7	0.444	1.666	1.96	1.042	125.2	94.5	26.1	0.622
4-4320	4-4990	0.471	242.3	-18.3	2.39	0.763	54.7	0.578	1.611	127.9	441.1	0.679	2.542	2.26	1.188	117.7	126.8	23.6	0.549
4-4320	4-4990	0.293	196.0	-2.7	2.39	0.495	75.9	0.624	1.044	171.1	844.3	0.393	1.696	2.26	1.037	128.5	103.3	25.6	0.673
4-4320	4-5000	0.545	238.8	-17.5	3.06	0.763	48.7	0.660	1.609	133.4	456.8	0.547	2.671	2.76	1.187	125.4	129.2	22.6	0.683
4-4320	4-5000	0.371	204.3	-6.4	3.06	0.488	65.0	0.691	1.037	167.3	850.7	0.320	1.753	2.76	1.032	133.7	111.0	24.8	0.755
4-4320	4-5010	0.479	208.5	-8.4	4.14	0.484	51.8	0.783	1.032	166.0	859.5	0.224	1.840	3.68	1.029	141.5	117.3	23.8	0.879
4-4320	4-5050	0.695	142.1	13.0	-5.90	0.363	143.8	0.929	0.934	186.5	920.2	0.066	1.802	-6.94	0.968	21.7	33.9	11.3	1.122
4-4320	4-5060	0.533	183.1	-2.8	-2.92	0.262	60.2	0.916	0.881	176.9	920.5	0.074	1.689	-4.11	0.931	23.9	43.8	15.2	1.070
4-4320	4-5060	0.458	149.6	10.6	-2.92	0.355	119.2	0.845	0.928	186.0	929.6	0.144	1.713	-4.11	0.962	32.4	38.8	12.9	0.962
4-4320	4-5070	0.516	100.6	21.9	-1.65	0.739	132.0	0.672	1.523	222.2	615.6	0.499	2.546	-2.99	1.157	52.0	26.2	6.9	0.736
4-4320	4-5080	0.431	96.9	22.6	-0.90	0.739	125.0	0.579	1.521	227.4	630.6	0.640	2.402	-2.40	1.155	60.1	28.6	7.4	0.593
4-4320	4-5090	0.369	94.4	23.2	-0.40	0.738	120.1	0.508	1.519	230.6	643.6	0.748	2.289	-2.06	1.152	66.2	31.6	8.0	0.485
4-4320	4-5100	0.590	218.2	-15.4	-0.00	0.592	39.9	0.812	1.173	159.3	581.9	0.221	2.126	-1.85	1.082	36.1	70.5	21.0	0.945
4-4320	4-5100	0.323	92.6	24.0	-0.00	0.737	116.4	0.453	1.516	232.5	655.2	0.829	2.203	-1.85	1.149	71.0	34.6	8.5	0.400
4-4320	4-5110	0.538	220.4	-15.8	0.32	0.602	45.3	0.758	1.191	156.5	588.8	0.280	2.093	-1.73	1.066	41.3	77.2	21.5	0.861
4-4320	4-5110	0.288	91.4	24.7	0.32	0.736	113.7	0.412	1.513	233.6	665.8	0.890	2.136	-1.73	1.147	74.9	37.3	8.7	0.333
4-4320	4-5120	0.485	222.4	-16.1	0.61	0.613	50.4	0.700	1.208	154.0	595.9	0.362	2.064	-1.66	1.070	46.3	83.8	21.7	0.778
4-4320	4-5120	0.263	90.5	25.6	0.61	0.735	111.6	0.381	1.510	234.0	675.9	0.935	2.084	-1.66	1.145	78.2	39.2	8.3	0.279
4-4330	4-4440	0.720	76.1	25.7	2.10	1.091	132.5	0.98766	782	274.4	400.0	0.898	---	-1.9	1.398	109.9	334.8	-15.2	0.583
4-4330	4-4450	0.660	78.7	26.6	2.56	1.029	131.3	0.871	6.802	269.4	404.6	0.879	---	-2.24	1.350	110.7	339.7	-14.0	0.560
4-4330	4-4460	0.606	81.2	27.7	3.20	0.973	130.0	0.777	3.865	264.3	409.0	0.861	---	-2.73	1.309	111.2	345.3	-13.0	0.540
4-4330	4-4470	0.556	83.9	29.4	4.26	0.922	128.5	0.701	2.822	258.9	413.3	0.844	---	-3.64	1.273	111.6	351.6	-12.6	0.523
4-4330	4-4480	0.513	87.0	32.8	6.46	0.877	126.8	0.638	2.292	253.4	417.4	0.828	---	-5.71	1.243	111.8	359.1	-14.5	0.514
4-4330	4-4490	0.498	93.2	44.9	15.03	0.835	125.0	0.587	1.972	247.8	421.4	0.813	---	-14.14	1.216	111.9	10.1	-28.4	0.553
4-4330	4-4500	0.509	98.2	-7.8	-23.42	0.798	123.1	0.548	1.759	241.9	425.7	0.796	---	24.44	1.192	112.2	335.3	38.4	0.653
4-4330	4-4510	0.388	96.1	14.2	-5.68	0.764	120.9	0.514	1.608	236.1	429.4	0.782	---	6.84	1.172	112.2	6.6	19.8	0.484
4-4330	4-4520	0.346	99.6	18.6	-2.72	0.733	118.6	0.488	1.496	230.1	433.2	0.765	---	4.01	1.155	112.3	16.9	17.2	0.465
4-4330	4-4530	0.309	104.0	20.4	-1.45	0.704	116.1	0.468	1.410	224.0	437.0	0.750	---	2.89	1.139	112.4	25.5	17.7	0.457
4-4330	4-4540	0.276	109.4	21.1	-0.72	0.678	113.4	0.454	1.341	217.9	440.8	0.733	---	2.31	1.126	112.7	33.7	19.2	0.452
4-4330	4-4550	0.246	116.0	21.2	-0.22	0.654	110.6	0.444	1.286	211.7	444.2	0.715	---	1.97	1.114	113.0	42.0	20.9	0.451
4-4330	4-4560	0.218	124.3	20.7	0.17	0.632	107.5	0.440	1.241	205.5	448.5	0.694	---	1.77	1.103	113.5	50.5	22.6	0.454
4-4330	4-4570	0.196	134.6	19.1	0.49	0.611	104.1	0.442	1.203	199.4	452.5	0.671	---	1.65	1.093	114.2	59.1	24.1	0.460
4-4330	4-4580	0.180	147.3	16.2	0.78	0.592	100.4	0.449	1.171	193.3	456.5	0.645	---	1.59	1.084	115.2	67.9	25.2	0.471
4-4330	4-4590	0.175	161.8	11.7	1.06	0.575	96.2	0.462	1.143	187.3	460.7	0.615	---	1.58	1.076	116.4	76.8	26.0	0.487
4-4330	4-4600	0.183	176.6	6.0	1.35	0.559	91.5	0.483	1.120	181.6	465.2	0.579	---	1.62	1.068	118.1	85.7	26.4	0.511
4-4330	4-4610	0.207	189.8	0.4	1.67	0.544	86.1	0.513	1.100	176.2	470.0	0.536	1.663	1.72	1.060	120.3	94.4	26.3	0.545
4-4330	4-4620	0.249	200.4	-4.2	2.03	0.530	79.6	0.555	1.082	171.4	475.4	0.482	1.683	1.90	1.053	123.3	102.8	25.8	0.592
4-4330	4-4630	0.309	208.2	-7.6	2.50	0.518	71.8	0.612	1.068	167.5	481.7	0.415	1.721	2.19	1.047	127.5	110.6	24.9	0.658
4-4330	4-4640	0.391	213.1	-9.8	3.16	0.509	62.0	0.688	1.057	165.0	489.3	0.329	1.784	2.70	1.040	133.4	117.6	23.8	0.752
4-4330	4-4650	0.501	215.2	-11.0	4.26	0.502	49.4	0.787	1.049	164.8	499.2	0.224	1.875	3.65	1.035	141.8	123.2	22.6	0.886
4-4330	4-4770	0.586	233.9	-18.9	1.03	0.695	43.5	0.738	1.386	147.1	239.2	---	2.408	-1.58	1.117	44.5	97.7	21.8	0.828
4-4330	4-4780	0.554	236.1	-19.1	1.29	0.705	46.6	0.699	1.412	143.9	245.5	---	2.398	-1.61	1.122	48.2	104.6	21.0	0.766
4-4330	4-4790	0.524	238.4	-19.1	1.58	0.713	49.4	0.661	1.436	140.9	252.0	---	2.386	-1.69	1.127	51.7	111.4	19.8	0.706
4-4330	4-4800	0.495	240.5	-18.9	1.90	0.721	52.0	0.624	1.460	137.9	258.6	---	2.372	-1.83	1.133	55.1	118.0	18.3	0.649
4-4330	4-4810	0.469	242.6	-18.6	2.30	0.728	54.4	0.590	1.482	135.1	265.3	---	2.356	-2.06	1.138	58.3	124.3	16.3	0.594
4-4330	4-4820	0.445	244.6	-17.9	2.83	0.730	56.6	0.557	1.503	132.4	272.1	---	2.340	-2.44	1.143	61.4	130.1	13.7	0.541

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4330	4-4830	0.423	246.9	-16.7	3.63	0.740	58.6	0.527	1.522	129.9	279.2	---	2.324	-3.09	1.148	64.4	135.4	10.1	0.492
4-4330	4-4840	0.405	248.3	-14.3	5.06	0.745	60.3	0.500	1.539	127.5	286.5	---	2.308	-4.38	1.152	67.2	139.7	4.7	0.447
4-4330	4-4850	0.397	249.9	-7.8	6.76	0.749	61.9	0.475	1.554	125.4	293.9	---	2.292	-7.95	1.157	70.0	142.0	-7.2	0.419
4-4330	4-4870	0.372	251.4	-40.9	-9.95	0.756	64.5	0.433	1.578	121.7	309.9	---	2.261	11.04	1.166	75.4	175.7	41.5	0.368
4-4330	4-4880	0.342	251.2	-30.8	-3.80	0.758	65.5	0.417	1.588	120.2	318.2	---	2.249	5.11	1.170	78.0	167.3	28.3	0.285
4-4330	4-4890	0.330	252.9	-27.3	-2.02	0.760	66.3	0.404	1.595	119.0	326.8	---	2.239	3.38	1.174	80.6	165.6	23.9	0.243
4-4330	4-4900	0.322	253.9	-25.5	-1.07	0.762	66.9	0.394	1.601	118.0	335.7	---	2.232	2.57	1.177	83.2	163.2	22.8	0.211
4-4330	4-4910	0.317	254.5	-24.2	-0.46	0.763	67.3	0.388	1.605	117.3	345.0	---	2.228	2.13	1.180	85.8	158.5	23.5	0.188
4-4330	4-4920	0.316	254.9	-23.3	-0.02	0.764	67.4	0.385	1.608	117.0	354.7	---	2.228	1.86	1.183	88.5	151.1	25.2	0.177
4-4330	4-4930	0.317	255.0	-22.5	0.33	0.764	67.3	0.387	1.610	116.9	364.7	0.987	2.233	1.70	1.185	91.3	142.2	26.8	0.180
4-4330	4-4940	0.323	254.8	-21.8	0.63	0.764	66.9	0.394	1.611	117.2	375.1	0.976	2.245	1.61	1.186	94.3	134.1	27.4	0.198
4-4330	4-4950	0.333	254.3	-21.2	0.92	0.764	66.1	0.406	1.610	117.9	386.0	0.956	2.264	1.58	1.188	97.4	128.8	27.0	0.230
4-4330	4-4960	0.349	253.4	-20.7	1.20	0.764	64.9	0.426	1.609	119.0	397.2	0.929	2.294	1.59	1.188	100.9	126.4	26.2	0.275
4-4330	4-4970	0.372	252.2	-20.2	1.50	0.763	63.1	0.454	1.607	120.6	409.0	0.878	2.337	1.66	1.188	104.8	126.4	25.1	0.333
4-4330	4-4970	0.236	157.6	13.1	1.50	0.525	100.3	0.563	1.076	188.2	836.7	0.470	1.682	1.66	1.051	123.9	85.0	25.8	0.606
4-4330	4-4970	0.552	121.8	21.9	1.50	0.619	138.4	0.786	1.217	203.7	852.1	0.260	2.174	1.66	1.101	141.0	77.5	24.2	0.916
4-4330	4-4980	0.404	250.5	-19.7	1.83	0.763	60.5	0.493	1.605	122.9	421.6	0.813	2.397	1.79	1.188	109.4	128.0	24.0	0.406
4-4330	4-4980	0.233	178.8	4.9	1.83	0.509	90.3	0.571	1.057	180.2	838.9	0.454	1.660	1.79	1.043	124.6	95.0	25.9	0.612
4-4330	4-4990	0.449	248.2	19.2	2.24	0.762	56.9	0.547	1.603	126.2	435.0	0.726	2.480	2.02	1.187	114.8	130.3	22.8	0.499
4-4330	4-4990	0.270	194.8	-2.0	2.24	0.497	80.8	0.604	1.044	173.9	842.6	0.414	1.674	2.02	1.037	127.0	104.2	25.4	0.648
4-4330	4-5000	0.513	245.1	-18.7	2.78	0.762	51.8	0.619	1.601	130.9	449.8	0.609	2.593	2.40	1.186	121.7	132.8	21.7	0.617
4-4330	4-5000	0.336	205.3	-6.7	2.78	0.489	70.5	0.660	1.035	169.1	843.1	0.352	1.718	2.40	1.032	131.2	112.4	24.5	0.714
4-4330	4-5010	0.430	211.2	-9.3	3.60	0.483	58.3	0.740	1.029	166.5	855.6	0.267	1.790	3.07	1.027	137.7	119.3	23.4	0.817
4-4330	4-5020	0.556	213.1	-10.4	5.11	0.479	43.2	0.845	1.025	166.9	866.1	0.161	1.890	4.43	1.024	147.4	124.5	22.3	0.969
4-4330	4-5060	0.581	188.3	-4.9	-3.55	0.237	51.2	0.944	0.871	177.2	916.4	0.048	1.693	-4.79	0.924	19.4	46.0	16.0	1.128
4-4330	4-5060	0.510	150.5	10.3	-3.55	0.354	129.4	0.881	0.926	186.7	925.9	0.110	1.743	-4.79	0.960	28.3	40.7	13.6	1.022
4-4330	4-5070	0.556	107.7	21.2	-1.87	0.738	135.7	0.719	1.515	219.0	608.0	0.426	2.603	-3.25	1.156	47.6	29.4	8.4	0.810
4-4330	4-5070	0.438	177.8	-0.4	-1.87	0.305	85.9	0.846	0.899	179.3	928.3	0.138	1.660	-3.25	0.940	32.4	49.3	16.4	0.950
4-4330	4-5070	0.422	172.2	1.9	-1.87	0.320	94.4	0.831	0.907	180.9	929.9	0.153	1.661	-3.25	0.945	34.0	48.4	16.1	0.929
4-4330	4-5080	0.458	183.6	22.3	-0.99	0.738	127.6	0.615	1.514	225.3	624.1	0.583	2.445	-2.51	1.153	56.8	31.5	8.8	0.649
4-4330	4-5090	0.386	100.7	22.9	-0.42	0.737	121.9	0.534	1.512	229.2	637.7	0.704	2.320	-2.10	1.151	63.7	34.4	9.4	0.527
4-4330	4-5100	0.334	98.7	23.7	-0.01	0.736	117.7	0.473	1.509	231.5	649.8	0.795	2.223	-1.85	1.148	69.0	37.4	9.9	0.434
4-4330	4-5110	0.564	234.0	-16.9	0.33	0.597	43.2	0.781	1.178	157.8	585.7	0.258	2.099	-1.70	1.062	39.1	78.8	21.8	0.894
4-4330	4-5110	0.294	97.3	24.6	0.33	0.736	114.6	0.426	1.506	232.8	660.7	0.864	2.148	-1.70	1.146	73.2	40.4	10.2	0.360
4-4330	4-5120	0.511	226.1	-17.2	0.62	0.607	48.4	0.724	1.196	155.2	592.7	0.330	2.062	-1.61	1.066	44.2	85.5	21.9	0.811
4-4330	4-5120	0.265	96.5	25.4	0.62	0.735	112.3	0.391	1.503	233.4	670.9	0.915	2.090	-1.61	1.143	76.8	42.8	10.2	0.301
4-4330	4-5130	0.459	228.1	-17.3	0.89	0.618	53.4	0.665	1.214	152.9	599.9	0.407	2.021	-1.58	1.071	49.2	92.0	21.7	0.728
4-4330	4-5130	0.243	95.9	26.4	0.89	0.734	110.5	0.364	1.500	233.6	680.6	0.954	2.046	-1.58	1.142	79.8	44.2	9.5	0.253
4-4340	4-4470	0.622	87.1	28.3	3.68	0.981	131.2	0.796	4.087	263.1	413.0	0.833	---	-2.99	1.236	113.3	351.2	-10.6	0.578
4-4340	4-4480	0.569	90.1	30.4	5.11	0.927	129.6	0.716	2.873	257.6	417.2	0.817	---	-4.29	1.278	113.4	358.0	-10.7	0.558
4-4340	4-4490	0.526	93.9	35.8	8.97	0.879	127.8	0.651	2.294	252.0	421.2	0.802	---	-8.02	1.245	113.5	6.6	-15.4	0.553
4-4340	4-4510	0.436	98.9	10.8	-8.43	0.795	123.7	0.557	1.738	240.3	429.3	0.771	---	9.64	1.192	113.5	3.9	23.7	0.531
4-4340	4-4520	0.384	102.0	17.9	-3.32	0.759	121.4	0.523	1.584	234.4	433.1	0.756	---	4.66	1.171	113.5	16.6	18.0	0.496
4-4340	4-4530	0.344	106.1	20.1	-1.65	0.727	119.0	0.497	1.471	228.3	436.9	0.741	---	3.12	1.152	113.5	25.5	17.9	0.482
4-4340	4-4540	0.307	111.0	20.9	-0.79	0.697	116.3	0.477	1.385	222.1	440.7	0.725	---	2.40	1.136	113.6	33.8	19.2	0.474
4-4340	4-4550	0.273	116.9	21.1	-0.23	0.670	113.5	0.463	1.317	215.9	444.5	0.708	---	2.00	1.122	113.8	42.2	20.8	0.469
4-4340	4-4560	0.242	124.1	20.7	0.18	0.645	110.4	0.455	1.263	209.7	448.3	0.689	---	1.75	1.110	114.2	50.6	22.5	0.467
4-4340	4-4570	0.215	133.2	19.4	0.51	0.622	107.1	0.452	1.218	203.5	452.2	0.668	---	1.61	1.098	114.7	59.3	23.9	0.470
4-4340	4-4580	0.194	144.5	17.0	0.79	0.601	103.4	0.454	1.181	197.3	456.1	0.644	---	1.52	1.088	115.4	68.1	25.1	0.476
4-4340	4-4590	0.182	158.0	13.1	1.06	0.582	99.4	0.462	1.150	191.2	460.2	0.617	---	1.50	1.078	116.4	77.1	25.9	0.488
4-4340	4-4600	0.182	172.6	7.2	1.33	0.564	94.9	0.479	1.124	185.3	464.5	0.585	---	1.52	1.069	117.8	86.0	26.2	0.507
4-4340	4-4610	0.198	186.8	1.9	1.62	0.547	89.7	0.504	1.101	179.7	469.1	0.546	1.656	1.59	1.061	119.7	94.9	26.1	0.534
4-4340	4-4620	0.230	198.9	-3.4	1.94	0.532	83.6	0.539	1.082	174.5	474.1	0.499	1.665	1.72	1.053	122.2	103.5	25.6	0.573
4-4340	4-4630	0.281	208.3	-7.4	2.33	0.519	76.4	0.588	1.065	170.0	479.7	0.439	1.692	1.95	1.045	125.8	111.6	24.6	0.628
4-4340	4-4640	0.353	214.7	-10.2	2.86	0.508	67.4	0.654	1.052	166.6	486.5	0.364	1.740	2.32	1.038	130.7	119.0	23.5	0.707
4-4340	4-4650	0.450	218.4	-11.9	3.68	0.499	56.0	0.742	1.043	165.1	495.1	0.269	1.816	2.89	1.032	137.8	125.2	22.1	0.819
4-4340	4-4660	0.578	219.0	-12.6	5.22	0.494	41.2	0.809	1.038	166.3	506.4	0.157	1.918	4.39	1.028	148.1	129.9	20.9	0.979
4-4340	4-4780	0.571	239.8	-19.9	1.28	0.700	45.5	0.719	1.392	145.4	242.6	---	2.385	-1.51	1.118	46.7	106.1	21.1	0.780
4-4340	4-4790	0.540	242.1	-19.9	1.54	0.709	48.4	0.679	1.417	142.3	249.0	---	2.374	-1.56	1.123	50.3	113.0	19.9	0.728
4-4340	4-4800	0.511	244.2	-19.8	1.83	0.717	51.1	0.631	1.441	139.3	255.6	---	2.361	-1.67	1.129	53.7	119.6	18.4	0.670
4-4340	4-4810	0.483	246.3	-19.5	2.17	0.725	53.6	0.682	1.464	136.4	262.2	---	2.346	-1.84	1.134	57.0	125.9	16.4	0.614
4-4340	4-4820	0.458	248.3	-19.0	2.60	0.731	55.9	0.561	1.486	133.7	269.0	---	2.331	-2.13	1.139	60.1	131.9	14.0	0.561
4-4340	4-4830	0.435	250.2	-18.6	3.22	0.737	57.9	0.530	1.505	131.1	276.0	---	2.315	-2.60	1.145	63.2	137.4	10.9	0.510
4-4340	4-4840	0.415	252.0	-16.3	4.23	0.743	59.8	0.509	1.523	128.7	283.2	---	2.298	-3.48	1.150	66.1	142.1	6.5	0.462
4-4340	4-4850	0.400	253.6	-12.6	6.37	0.747	61.4	0.483	1.539	126.5	290.6	---	2.282	-5.49	1.154	68.9	145.5	-1.2	0.423
4-4340	4-4860	0.418	254.0	1.3	14.90	0.751	62.9	0.460	1.553	124.5	298.2	---	2.267	-13.89	1.159	71.6	145.0	-24.9	0.445
4-4340	4-4870	0.442	240.1	-55.1	-20.91	0.754	64.2	0.438	1.565	122.6	306.6	---	2.251	22.15	1.164	74.4	202.7	51.7	0.516
4-4340	4-4880	0.353	255.2	-33.3	-5.11	0.757	65.3	0.421	1.576	121.0	314.6	---	2.235	6.39	1.168	77.0	172.6	29.9	0.307
4-4340	4-4890	0.338	257.2	-28.3	-2.37	0.759	66.2	0.406	1.584	119.7	323.1	---	2.220	3.76	1.172	79.6	170.0	23.0	0.257
4-4340	4-4900	0.328	258.3	-26.1	-1.19	0.761	66.8	0.395	1.591	118.6	332.0	---	2.219	2.72	1.175	82.2	168.3	20.8	0.221
4-4340	4-4910	0.323	259.1	-24.7	-0.50	0.762	67.3	0.387	1.596	117.8	341.1	---	2.214	2.18	1.178	84.8	164.8	20.9	0.194
4-4340	4-4920	0.320	259.5	-23.7	-0.03	0.763	67.6	0.383	1.599	117.3	350.7	---	2.212	1.86	1.181	87.4	158.6	22.4	0.178
4-4340	4-4930	0.320	259.6	-22.9	0.34	0.764	67.6	0.383	1.601	117.2	360.6	0.988	2.215	1.67	1.183	90.2	150.2	24.3	0.175
4-4340	4-4940	0.324	259.5	-22.2	0.65	0.764	67.3	0.388	1.602	117.3	370.8	0.981	2.223	1.56	1.185	93.0	141.6	25.6	0.186
4-4340	4-4950	0.332	259.1	-21.6	0.92	0.764	66.6	0.398	1.602	117.8	381.4	0.965	2.239	1.50	1.186	96.1	135.1	25.8	0.212
4-4340	4-4960	0.345	258.4	-21.1	1.19	0.764	65.6	0.414	1.601	118.7	392.5	0.939	2.264	1.50	1.187	99.4	131.6	25.2	0.252
4-4340	4-4970	0.364	257.4	-20.7	1.46	0.763	64.1	0.438	1.600	120.0	404.0	0.899	2.300	1.54	1.187	103.0	130.7	24.3	0.304
4-4340	4-4970	0.265	150.6	15.4	1.46	0.537	107.0	0.500	1.087	193.3	837.3	0.457	1.717	1.54	1.055	125.1	84.7	25.5	0.627
4-4340	4-4970	0.486	127.9	20.7	1.46	0.602	132.7	0.739	1.183	203.9	847.9	0.309	2.057	1.54	1.090	136.9	79.6	24.5	0.842
4-4340	4-4980	0.392	253.9	-20.3	1.76	0.763	61.9	0.472	1.598	122.0	416.2	0.844	2.352	1.64	1.187	107.3	131.7	23.2	0.370

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4340	4-4980	0.232	173.8	7.0	1.76	0.514	95.4	0.550	1.060	184.1	838.3	0.458	1.661	1.64	1.044	124.4	95.3	25.7	0.608
4-4340	4-4980	0.599	127.7	20.7	1.76	0.629	143.0	0.825	1.237	202.4	856.7	0.216	2.240	1.64	1.105	144.7	86.4	24.5	0.977
4-4340	4-4990	0.431	253.9	-19.9	2.11	0.742	58.8	0.519	1.596	124.8	429.1	0.268	2.424	1.81	1.186	112.3	133.7	22.0	0.453
4-4340	4-4990	0.252	192.2	-0.9	2.11	0.500	83.7	0.589	1.046	17.0	841.4	0.450	1.659	1.81	1.037	123.9	104.8	25.2	0.629
4-4340	4-5000	0.486	251.2	-19.5	2.56	0.762	54.4	0.583	1.594	128.7	443.2	0.669	2.522	2.10	1.184	118.4	136.2	20.8	0.558
4-4340	4-5000	0.306	205.3	-6.5	2.56	0.490	75.7	0.633	1.034	171.4	845.9	0.379	1.688	2.10	1.031	129.2	113.5	24.2	0.680
4-4340	4-5010	0.563	247.5	-19.1	3.20	0.762	46.2	0.667	1.592	134.4	459.0	0.530	2.655	2.09	1.183	126.4	138.5	19.7	0.695
4-4340	4-5010	0.387	213.3	-9.9	3.20	0.483	64.4	0.702	1.026	167.6	852.3	0.306	1.746	2.59	1.026	134.5	120.9	22.9	0.764
4-4340	4-5020	0.499	217.0	-11.6	4.27	0.478	50.7	0.795	1.021	166.5	861.3	0.209	1.834	3.51	1.022	142.7	126.9	21.6	0.892
4-4340	4-5060	0.570	153.1	9.4	-4.57	0.353	139.8	0.920	0.923	186.3	921.2	0.076	1.772	-5.86	0.958	23.2	43.1	14.4	1.095
4-4340	4-5070	0.512	189.8	-5.5	-2.18	0.265	68.0	0.901	0.879	177.4	922.1	0.087	1.671	-3.59	0.926	26.0	52.8	17.6	1.036
4-4340	4-5070	0.444	163.9	5.4	-2.18	0.339	113.1	0.842	0.915	184.7	929.3	0.145	1.685	-3.59	0.950	32.8	48.7	16.0	0.949
4-4340	4-5080	0.490	110.3	21.4	-1.10	0.738	130.7	0.656	1.507	222.8	617.2	0.518	2.495	-2.65	1.152	53.2	34.5	10.2	0.711
4-4340	4-5090	0.408	107.1	22.4	-0.49	0.737	124.0	0.565	1.505	227.6	631.7	0.654	2.353	-2.15	1.149	60.9	37.2	10.7	0.674
4-4340	4-5100	0.348	104.8	23.3	-0.01	0.738	119.2	0.496	1.502	230.5	644.3	0.758	2.247	-1.85	1.147	66.8	40.2	11.3	0.670
4-4340	4-5110	0.591	227.7	-18.0	0.34	0.592	40.5	0.804	1.166	159.1	582.5	0.229	2.104	-3.67	1.058	36.9	80.5	22.0	0.928
4-4340	4-5110	0.303	103.3	24.2	0.34	0.735	115.6	0.443	1.499	232.1	655.5	0.835	2.163	-1.67	1.144	81.5	43.3	11.7	0.389
4-4340	4-5120	0.538	229.9	-18.3	0.63	0.602	46.3	0.749	1.183	156.4	589.4	0.297	2.069	-1.56	1.062	42.1	87.2	22.1	0.844
4-4340	4-5120	0.269	102.4	25.1	0.63	0.735	113.0	0.403	1.496	232.9	666.0	0.894	2.098	-1.56	1.142	75.2	46.1	11.8	0.324
4-4340	4-5130	0.486	231.9	-18.5	0.90	0.613	51.4	0.690	1.201	153.9	596.6	0.372	2.030	-1.51	1.067	47.1	93.8	21.9	0.761
4-4340	4-5130	0.244	101.8	26.1	0.90	0.734	111.0	0.372	1.493	233.2	675.8	0.937	2.049	-1.51	1.140	78.4	48.0	11.4	0.272
4-4340	4-5140	0.434	233.8	-18.3	1.15	0.623	56.3	0.638	1.220	151.9	604.1	0.452	1.988	-1.50	1.072	52.0	100.1	21.3	0.679
4-4340	4-5140	0.225	101.5	27.1	1.15	0.733	109.5	0.350	1.491	233.1	685.3	0.969	2.012	-1.50	1.139	81.2	48.7	10.4	0.229
4-4350	4-4490	0.580	96.5	41.7	6.40	0.930	130.5	0.727	2.891	256.1	421.0	0.789	---	-5.38	1.280	115.2	4.9	-9.8	0.592
4-4350	4-4500	0.556	103.6	43.2	15.84	0.879	128.6	0.660	2.278	250.4	424.9	0.775	---	-14.70	1.246	115.0	15.6	-23.5	0.621
4-4350	4-4510	0.512	102.0	1.7	-16.44	0.833	126.6	0.607	1.931	244.5	429.1	0.758	---	17.70	1.216	115.0	354.5	33.0	0.529
4-4350	4-4520	0.428	104.5	56.7	-4.32	0.792	124.3	0.564	1.709	238.6	432.9	0.745	---	5.70	1.190	114.8	16.0	19.4	0.532
4-4350	4-4530	0.382	108.4	49.6	-1.93	0.774	121.9	0.530	1.555	232.5	436.7	0.731	---	3.43	1.168	114.7	25.5	18.2	0.532
4-4350	4-4540	0.341	112.9	40.7	-0.88	0.720	119.2	0.504	1.443	226.4	440.5	0.716	---	2.51	1.149	114.7	34.0	19.2	0.898
4-4350	4-4550	0.303	118.2	30.9	-0.25	0.689	116.4	0.485	1.358	220.2	444.3	0.700	---	2.02	1.132	114.7	42.3	20.7	0.489
4-4350	4-4560	0.269	124.6	20.5	0.19	0.661	113.4	0.472	1.292	213.9	448.1	0.682	---	1.74	1.117	114.9	50.8	19.2	0.484
4-4350	4-4570	0.238	132.6	19.5	0.52	0.636	110.1	0.444	1.239	207.6	451.9	0.663	---	1.56	1.104	115.2	59.5	23.6	0.482
4-4350	4-4580	0.213	142.5	17.5	0.81	0.612	106.5	0.463	1.195	201.4	455.8	0.652	---	1.46	1.092	115.8	68.4	25.0	0.485
4-4350	4-4590	0.194	154.6	16.2	1.07	0.591	102.4	0.468	1.159	195.2	459.8	0.617	---	1.41	1.082	116.6	77.7	26.1	0.506
4-4350	4-4600	0.180	169.1	15.6	1.58	0.573	98.3	0.498	1.104	183.3	468.2	0.554	---	1.46	1.062	117.7	86.4	25.9	0.527
4-4350	4-4610	0.198	183.1	3.5	1.58	0.553	93.3	0.498	1.104	183.3	468.2	0.554	---	1.46	1.062	119.3	95.3	25.9	0.527
4-4350	4-4620	0.217	196.5	-2.2	1.86	0.536	87.5	0.527	1.082	177.8	472.9	0.512	1.652	1.55	1.053	121.4	104.1	25.3	0.558
4-4350	4-4630	0.258	207.5	-6.9	2.20	0.521	80.8	0.568	1.064	172.8	478.1	0.460	1.668	1.72	1.045	124.4	112.4	24.3	0.603
4-4350	4-4640	0.320	215.6	-10.3	2.63	0.508	72.5	0.624	1.049	168.7	484.2	0.394	1.704	2.01	1.037	128.5	120.1	23.0	0.669
4-4350	4-4650	0.404	220.8	-12.5	3.25	0.497	62.2	0.701	1.037	166.1	491.7	0.310	1.764	2.49	1.030	134.5	126.9	21.6	0.763
4-4350	4-4660	0.518	223.0	-13.7	4.31	0.490	46.8	0.800	1.029	165.8	501.4	0.206	1.853	3.41	1.024	143.1	132.4	20.2	0.898
4-4350	4-4780	0.589	243.5	-20.6	1.27	0.695	44.3	0.729	1.372	146.9	239.7	---	2.372	-1.41	1.133	45.1	107.7	21.1	0.813
4-4350	4-4790	0.557	245.8	-20.7	1.51	0.704	47.4	0.690	1.397	143.8	245.0	---	2.362	-1.44	1.129	48.8	114.5	19.9	0.751
4-4350	4-4800	0.526	248.0	-20.6	1.76	0.713	50.2	0.652	1.422	140.7	252.5	---	2.350	-1.52	1.124	52.3	121.2	18.4	0.692
4-4350	4-4810	0.498	250.1	-20.3	2.06	0.721	52.8	0.615	1.446	137.8	259.2	---	2.336	-1.65	1.130	55.6	127.6	16.5	0.635
4-4350	4-4820	0.472	252.1	-19.9	2.42	0.728	55.1	0.581	1.468	135.0	265.9	---	2.321	-1.86	1.136	58.9	133.6	14.2	0.581
4-4350	4-4830	0.448	254.0	-19.1	2.91	0.735	57.3	0.548	1.489	132.4	272.9	---	2.305	-2.21	1.141	61.9	139.3	11.4	0.528
4-4350	4-4840	0.427	255.8	-17.9	3.65	0.740	59.2	0.519	1.507	129.9	280.0	---	2.289	-2.82	1.147	64.9	144.4	7.7	0.479
4-4350	4-4850	0.409	257.4	-15.4	5.02	0.745	60.9	0.491	1.524	127.6	287.3	---	2.278	-5.07	1.152	67.7	148.4	2.1	0.435
4-4350	4-4860	0.401	258.6	-8.9	8.75	0.750	62.5	0.467	1.539	125.5	294.9	---	2.257	-7.68	1.157	70.5	150.1	-10.2	0.408
4-4350	4-4880	0.368	258.9	-37.8	-7.54	0.756	65.0	0.425	1.563	121.8	311.0	---	2.228	6.85	1.166	75.9	180.0	33.9	0.340
4-4350	4-4890	0.346	261.6	-29.6	-2.89	0.759	66.0	0.410	1.572	120.4	319.4	---	2.216	4.33	1.170	78.5	174.4	22.6	0.272
4-4350	4-4900	0.325	262.8	-26.6	-1.35	0.761	66.7	0.397	1.580	119.2	328.1	---	2.207	2.91	1.173	81.1	173.0	19.0	0.233
4-4350	4-4910	0.328	263.6	-25.0	-0.54	0.762	67.3	0.388	1.585	118.3	337.2	---	2.200	2.24	1.177	83.7	170.5	18.3	0.203
4-4350	4-4920	0.324	264.1	-23.9	-0.03	0.763	67.7	0.382	1.589	117.7	346.6	---	2.196	1.87	1.180	86.3	165.6	19.4	0.182
4-4350	4-4930	0.323	264.3	-23.1	0.39	0.764	67.8	0.380	1.592	117.4	356.4	---	2.197	1.64	1.182	89.0	158.1	21.4	0.173
4-4350	4-4940	0.325	264.3	-22.4	0.66	0.764	67.6	0.382	1.593	117.4	366.5	0.984	2.203	1.51	1.184	91.8	149.5	23.2	0.177
4-4350	4-4950	0.331	264.0	-21.9	0.93	0.764	67.3	0.390	1.594	117.7	376.9	0.973	2.215	1.43	1.185	94.7	142.0	24.0	0.197
4-4350	4-4960	0.342	263.4	-21.4	1.19	0.764	66.3	0.403	1.593	118.4	387.8	0.951	2.235	1.41	1.186	97.9	137.3	23.9	0.231
4-4350	4-4970	0.358	262.5	-21.0	1.44	0.764	65.0	0.423	1.592	119.5	399.1	0.918	2.266	1.43	1.186	101.4	135.4	23.2	0.277
4-4350	4-4980	0.382	261.3	-20.2	1.71	0.763	63.2	0.453	1.590	121.1	410.9	0.870	2.310	1.50	1.185	105.3	135.6	22.2	0.337
4-4350	4-4980	0.242	167.8	9.3	1.71	0.523	101.0	0.572	1.066	188.5	838.3	0.456	1.675	1.50	1.047	124.6	95.3	25.5	0.613
4-4350	4-4980	0.546	132.4	19.5	1.71	0.616	138.5	0.789	1.202	203.2	853.0	0.254	2.150	1.50	1.096	141.3	88.2	24.6	0.916
4-4350	4-4990	0.476	259.5	-20.4	2.01	0.763	60.5	0.494	1.588	123.5	423.5	0.804	2.372	1.62	1.184	109.9	137.3	21.0	0.411
4-4350	4-4990	0.242	188.7	0.8	2.01	0.505	90.6	0.578	1.046	180.4	840.4	0.441	1.651	1.62	1.037	125.2	105.3	24.9	0.617
4-4350	4-5000	0.463	257.2	-20.2	2.39	0.762	58.8	0.549	1.586	126.8	436.9	0.715	2.457	1.84	1.183	115.5	139.6	19.8	0.505
4-4350	4-5000	0.281	204.3	-5.9	2.39	0.494	80.8	0.611	1.033	174.0	844.2	0.401	1.665	1.84	1.031	127.6	114.3	23.9	0.653
4-4350	4-5010	0.529	244.0	-19.9	2.89	0.762	57.4	0.624	1.584	131.6	451.8	0.595	2.573	2.20	1.181	122.5	142.0	18.6	0.624
4-4350	4-5010	0.350	214.5	-10.1	2.89	0.485	70.1	0.668	1.024	169.3	849.6	0.340	1.708	2.20	1.025	131.9	122.3	22.5	0.720
4-4350	4-5020	0.448	220.1	-12.5	3.67	0.479	57.5	0.750	1.018	166.3	857.2	0.254	1.782	2.85	1.020	138.6	129.0	21.0	0.826
4-4350	4-5030	0.577	221.7	-13.5	5.16	0.476	41.8	0.854	1.015	167.5	867.9	0.148	1.882	4.20	1.016	148.7	133.9	19.7	0.981
4-4350	4-5070	0.568	196.1	-8.0	-2.63	0.238	97.0	0.935	0.866	177.4	917.6	0.056	1.676	-4.08	0.917	21.0	55.4	18.4	1.700
4-4350	4-5070	0.491	162.7	5.9	-2.63	0.344	124.9	0.874	0.915	186.0	928.2	0.116	1.714	-4.08	0.950	29.3	50.3	16.5	1.000
4-4350	4-5080	0.530	117.3	20.3	-1.28	0.738	134.2	0.701	1.499	219.8	609.8	0.447	2.550	-2.82	1.150	49.0	37.7	11.6	0.782
4-4350	4-5090	0.434	113.6	21.2	-0.49	0.738	126.5	0.600	1.498	225.7	625.4	0.599	2.397	-2.20	1.148	57.9	40.0	12.0	0.627
4-4350	4-5100	0.365	111.0	22.5	-0.01	0.737	120.9	0.521	1.496	229.3	638.7	0.716	2.276	-1.85	1.145	64.5	43.0	12.5	0.510
4-4350	4-5110	0.314	109.4	23.5	0.36	0.736	116.9	0.462	1.493	231.5	650.4	0.804	2.182	-1.64	1.143	69.5	46.2	13.0	0.420
4-4350	4-5120	0.566	233.6	-19.2	0.65	0.598	44.1	0.773	1.171	357.6	986.2	0.266	2.076	-1.51	1.058	393.8	88.9	22.3	0.878
4-4350	4-5120	0.276	108.3	24.5	0.65	0.736	113.9	0.416	1.490	232.4	661.0	0.869	2.110	-1.51	1.141	73.6	49.2	13.3	0.349
4-4350	4-5130	0.513	235.8	-19.4	0.91	0.608	40.3	0.715	1.188	155.0	593.2	0.338	2.039	-1.44	1.062	44.9	95.8	22.0	0.795

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEEC	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4350	4-5130	0.247	107.8	25.5	0.91	0.734	111.6	0.382	1.486	232.8	671.0	0.919	2.054	-1.44	1.139	77.0	51.6	13.1	0.292
4-4350	4-5140	0.461	237.8	-19.3	1.15	0.619	54.3	0.655	1.207	152.8	600.5	0.416	1.998	-1.41	1.068	49.9	101.9	21.4	0.712
4-4350	4-5140	0.225	107.5	26.5	1.15	0.733	109.9	0.356	1.484	232.8	680.6	0.955	2.012	-1.41	1.138	79.9	53.0	12.5	0.246
4-4350	4-5150	0.410	239.6	-19.1	1.38	0.629	59.1	0.594	1.226	151.0	608.3	0.498	1.953	-1.42	1.073	54.7	108.0	20.4	0.631
4-4350	4-5150	0.209	107.4	27.6	1.38	0.733	108.6	0.337	1.481	232.6	689.9	0.982	1.981	-1.42	1.137	82.5	52.7	11.1	0.209
4-4360	4-4500	0.592	103.6	33.9	8.82	0.932	131.4	0.735	2.874	254.5	424.6	0.762	---	-7.62	1.282	116.8	12.5	-9.8	0.628
4-4360	4-4520	0.479	107.2	14.3	-6.23	0.830	127.2	0.613	1.895	242.7	432.6	0.733	---	7.65	1.214	116.3	14.6	22.0	0.579
4-4360	4-4530	0.425	110.9	19.0	-2.35	0.787	124.8	0.570	1.674	236.7	436.4	0.719	---	2.88	1.187	116.1	25.5	18.7	0.546
4-4360	4-4540	0.379	115.1	20.3	-0.99	0.748	122.2	0.537	1.523	230.6	440.2	0.705	---	2.65	1.165	115.9	34.1	19.2	0.527
4-4360	4-4550	0.338	119.9	20.6	-0.27	0.713	119.4	0.511	1.413	224.4	444.0	0.691	---	2.05	1.145	115.8	42.5	20.6	0.514
4-4360	4-4560	0.299	125.6	20.3	0.20	0.681	116.4	0.493	1.330	218.1	447.8	0.675	---	1.72	1.127	115.8	51.0	22.2	0.504
4-4360	4-4570	0.265	132.6	19.4	0.55	0.652	113.2	0.480	1.265	211.8	451.8	0.658	---	1.51	1.112	116.0	59.7	23.6	0.498
4-4360	4-4580	0.235	141.3	17.7	0.83	0.626	109.7	0.474	1.214	205.5	455.5	0.638	---	1.39	1.098	116.3	68.6	24.8	0.496
4-4360	4-4590	0.211	152.0	15.6	1.08	0.602	105.8	0.474	1.172	199.2	459.4	0.616	---	1.33	1.086	116.9	77.6	25.5	0.499
4-4360	4-4600	0.196	164.9	10.8	1.31	0.580	101.6	0.481	1.137	193.1	463.4	0.590	---	1.31	1.074	117.8	86.7	25.9	0.508
4-4360	4-4610	0.194	179.1	5.2	1.55	0.560	96.8	0.495	1.108	187.0	467.5	0.560	---	1.33	1.064	119.0	95.7	25.7	0.523
4-4360	4-4620	0.208	193.3	-0.7	1.80	0.542	91.4	0.518	1.084	181.3	472.0	0.523	---	1.40	1.054	120.8	104.6	25.1	0.548
4-4360	4-4630	0.240	205.7	-6.0	2.09	0.525	85.0	0.552	1.063	175.9	476.8	0.477	1.650	1.53	1.045	123.2	113.1	24.1	0.584
4-4360	4-4640	0.291	215.5	-10.0	2.45	0.510	77.4	0.598	1.046	171.3	482.3	0.419	1.673	1.4	1.036	126.7	121.1	22.7	0.634
4-4360	4-4650	0.364	222.4	-12.8	2.93	0.497	68.0	0.665	1.035	167.7	488.9	0.345	1.720	2.09	1.028	131.7	128.3	21.1	0.715
4-4360	4-4660	0.463	226.3	-14.5	3.69	0.488	56.0	0.755	1.023	166.1	497.3	0.252	1.793	2.72	1.021	138.9	134.4	19.5	0.829
4-4360	4-4670	0.595	227.0	-15.2	5.16	0.483	40.3	0.860	1.018	167.3	508.5	0.142	1.893	4.07	1.016	149.4	138.9	18.2	0.990
4-4360	4-4790	0.574	249.5	-21.3	1.49	0.700	46.3	0.706	1.377	145.2	243.0	---	2.349	-1.32	1.114	47.2	116.1	19.9	0.775
4-4360	4-4800	0.543	251.8	-21.2	1.72	0.709	49.2	0.667	1.403	142.1	249.5	---	2.338	-1.37	1.120	50.8	122.7	18.3	0.715
4-4360	4-4810	0.514	253.9	-21.0	1.97	0.718	51.8	0.629	1.427	139.2	256.1	---	2.325	-1.47	1.126	54.2	129.2	16.5	0.657
4-4360	4-4820	0.487	256.0	-20.6	2.27	0.725	54.3	0.594	1.456	136.3	262.8	---	2.310	-1.63	1.132	57.5	135.3	14.3	0.601
4-4360	4-4830	0.462	257.9	-20.0	2.67	0.732	56.5	0.560	1.471	133.6	269.6	---	2.295	-1.89	1.138	60.7	141.1	11.6	0.548
4-4360	4-4840	0.439	259.7	-19.0	3.22	0.738	58.6	0.529	1.491	131.0	276.7	---	2.279	-2.32	1.143	63.7	146.5	8.4	0.498
4-4360	4-4850	0.420	261.3	-17.3	4.16	0.744	60.4	0.500	1.508	128.7	284.0	---	2.263	-3.14	1.149	66.8	151.1	4.8	0.451
4-4360	4-4860	0.405	262.7	-13.6	6.20	0.748	62.0	0.474	1.524	126.5	291.5	---	2.247	-5.06	1.156	69.4	154.1	-3.7	0.411
4-4360	4-4870	0.425	261.9	1.1	15.41	0.752	63.4	0.452	1.538	124.5	299.1	---	2.233	-14.16	1.159	72.1	152.1	-29.4	0.440
4-4360	4-4880	0.407	259.6	-48.6	-14.50	0.755	64.7	0.430	1.550	122.7	307.5	---	2.217	15.86	1.163	74.9	196.7	43.7	0.450
4-4360	4-4890	0.356	266.0	-31.2	-3.75	0.758	65.8	0.413	1.560	121.1	315.7	---	2.206	5.22	[illegible]	[illegible]	179.1	23.2	0.291
4-4360	4-4900	0.343	267.3	-27.2	-2.68	0.760	66.4	[illegible]	[illegible]	[illegible]	[illegible]	---	2.194	3.47	1.171	80.0	177.3	17.5	0.246
4-4360	4-4910	0.334	268.1	-25.2	-0.61	0.762	67.3	0.389	1.574	118.8	333.2	---	2.186	2.32	1.175	82.6	175.7	15.8	0.213
4-4360	4-4920	0.329	268.6	-24.0	-0.03	0.763	67.7	0.381	1.579	118.1	342.5	---	2.181	1.87	1.178	85.2	172.0	16.3	0.188
4-4360	4-4930	0.326	268.9	-23.2	0.37	0.764	67.9	0.377	1.582	117.6	352.1	---	2.180	1.61	1.180	87.8	165.8	16.1	0.173
4-4360	4-4940	0.327	269.0	-22.5	0.69	0.765	67.9	0.378	1.584	117.5	362.1	0.986	2.183	1.45	1.182	90.6	157.5	20.2	0.172
4-4360	4-4950	0.331	268.8	-22.0	0.95	0.765	67.6	0.383	1.585	117.6	372.4	0.978	2.192	1.36	1.183	93.4	148.4	21.7	0.185
4-4360	4-4960	0.340	268.4	-21.5	1.19	0.765	66.9	0.393	1.585	118.1	383.1	0.962	2.209	1.31	1.184	96.5	143.4	22.2	0.212
4-4360	4-4970	0.353	267.7	-21.2	1.42	0.765	65.9	0.410	1.584	119.0	394.2	0.934	2.234	1.31	1.184	99.8	140.4	21.8	0.253
4-4360	4-4980	0.374	266.4	-20.9	1.67	0.764	64.3	0.435	1.583	120.4	405.7	0.893	2.272	1.36	1.184	103.4	139.8	21.0	0.306
4-4360	4-4980	0.270	160.5	11.8	1.67	0.536	107.9	0.589	1.077	193.6	838.9	0.493	1.711	1.36	1.051	125.8	95.0	25.2	0.634
4-4360	4-4980	0.479	138.6	18.0	1.67	0.599	132.6	0.745	1.167	203.4	848.8	0.303	2.032	1.36	1.085	127.1	90.2	24.6	0.840
4-4360	4-4990	0.402	265.1	-20.7	1.93	0.764	62.0	0.471	1.581	122.4	417.9	0.837	2.325	1.45	1.183	107.7	141.0	19.9	0.372
4-4360	4-4990	0.239	183.8	2.8	1.93	0.512	95.8	0.574	1.049	184.3	839.8	0.447	1.651	1.45	1.039	124.9	105.6	24.7	0.612
4-4360	4-4990	0.596	137.4	18.0	1.93	0.628	143.2	0.828	1.217	202.1	857.4	0.209	2.224	1.45	1.190	145.1	97.0	24.2	0.978
4-4360	4-5000	0.443	263.1	-20.5	2.25	0.763	58.8	0.519	1.578	125.2	430.8	0.759	2.398	1.61	1.182	112.7	143.0	18.7	0.456
4-4360	4-5000	0.262	202.0	-4.9	2.25	0.498	85.8	0.595	1.033	177.1	842.8	0.419	1.648	1.61	1.031	126.4	115.0	23.6	0.633
4-4360	4-5010	0.500	260.3	-20.4	2.65	0.763	54.3	0.585	1.577	129.2	445.0	0.654	2.499	1.88	1.180	119.8	145.4	17.5	0.563
4-4360	4-5010	0.318	214.7	-10.0	2.65	0.488	75.6	0.640	1.023	171.5	847.3	0.268	1.677	1.88	1.024	129.7	123.4	22.1	0.684
4-4360	4-5020	0.579	256.6	-20.2	3.24	0.762	47.8	0.672	1.575	135.0	460.9	0.516	2.635	2.34	1.178	127.1	147.6	16.4	0.703
4-4360	4-5020	0.403	222.5	-13.1	3.24	0.480	63.9	0.710	1.015	167.8	853.7	0.295	1.736	2.34	1.019	135.2	130.7	20.5	0.769
4-4360	4-5030	0.518	226.0	-14.6	4.24	0.476	49.7	0.805	1.010	166.8	862.8	0.197	1.824	3.21	1.014	143.6	136.4	18.9	0.900
4-4360	4-5070	0.551	163.9	5.4	-3.34	0.346	136.2	0.911	0.912	186.2	922.0	0.082	1.743	-4.83	0.949	24.5	52.5	17.2	1.068
4-4360	4-5080	0.577	124.5	18.9	-1.44	0.738	138.4	0.752	1.491	216.3	601.7	0.370	2.613	-3.04	1.149	44.2	41.2	13.0	0.863
4-4360	4-5080	0.493	196.3	-8.0	-1.44	0.273	75.1	0.885	0.876	178.1	923.6	0.101	1.652	-3.04	0.922	28.1	62.1	19.6	1.002
4-4360	4-5080	0.439	178.4	-0.4	-1.44	0.325	106.4	0.841	0.901	183.2	928.7	0.143	1.659	-3.04	0.938	33.0	59.0	18.7	0.938
4-4360	4-5090	0.467	120.2	20.4	-0.55	0.738	129.4	0.640	1.491	223.4	618.7	0.537	2.445	-2.27	1.147	54.4	43.1	13.3	0.687
4-4360	4-5100	0.386	117.3	21.6	-0.01	0.738	123.0	0.551	1.489	227.9	632.8	0.669	2.310	-1.85	1.144	61.8	45.8	13.8	0.555
4-4360	4-5110	0.328	115.4	22.6	0.37	0.737	118.3	0.483	1.487	230.5	645.1	0.768	2.205	-1.61	1.142	67.5	49.0	14.2	0.455
4-4360	4-5120	0.595	237.4	-20.1	0.67	0.594	41.8	0.797	3.158	158.8	583.0	0.235	2.081	-1.45	1.053	37.8	90.6	22.4	0.913
4-4360	4-5120	0.284	114.3	23.9	0.67	0.736	114.9	0.432	1.483	231.9	656.1	0.842	2.124	-1.45	1.140	71.9	52.1	14.6	0.376
4-4360	4-5130	0.542	239.6	-20.2	0.92	0.604	47.1	0.741	1.176	156.1	589.9	0.305	2.046	-1.36	1.058	42.7	97.3	22.1	0.829
4-4360	4-5130	0.252	113.6	24.7	0.92	0.735	112.3	0.393	1.480	232.5	666.3	0.898	2.062	-1.36	1.138	75.6	54.9	14.6	0.318
4-4360	4-5140	0.489	241.7	-20.2	1.15	0.615	52.3	0.681	1.194	153.8	597.1	0.380	2.007	-1.32	1.063	47.8	103.8	21.4	0.746
4-4360	4-5140	0.227	113.4	25.8	1.15	0.734	110.4	0.364	1.477	232.6	675.9	0.940	2.015	-1.32	1.136	78.7	56.8	14.2	0.263
4-4360	4-5150	0.437	243.6	-20.1	1.37	0.620	57.1	0.620	1.212	151.8	604.6	0.461	1.969	-1.31	1.089	52.7	110.0	20.5	0.664
4-4360	4-5150	0.209	113.4	26.8	1.37	0.734	108.9	0.342	1.475	232.5	685.3	0.971	1.979	-1.31	1.139	81.4	57.4	13.3	0.223
4-4360	4-5160	0.387	245.3	-19.7	1.59	0.635	61.7	0.559	1.231	150.3	612.6	0.548	1.919	-1.34	1.075	57.4	115.8	19.2	0.584
4-4360	4-5161	0.195	113.5	28.0	1.59	0.733	107.9	0.326	1.473	232.2	694.6	0.993	1.953	-1.34	1.135	83.8	56.0	11.6	0.190
4-4370	4-4520	0.545	110.1	8.6	-11.34	0.875	130.0	0.672	2.196	246.8	432.2	0.720	---	12.88	1.243	118.0	9.9	28.3	0.651
4-4370	4-4530	0.474	113.5	18.0	-3.01	0.825	127.7	0.618	1.851	240.8	436.1	0.708	---	4.58	1.211	117.6	25.3	19.5	0.587
4-4370	4-4540	0.422	117.5	19.8	-1.75	0.781	125.1	0.575	1.635	234.7	439.9	0.694	---	2.83	1.184	117.2	34.3	19.4	0.561
4-4370	4-4550	0.376	121.9	20.2	-0.30	0.741	122.4	0.542	1.487	228.5	443.7	0.681	---	2.09	1.160	117.0	42.8	20.6	0.542
4-4370	4-4560	0.334	127.1	19.9	0.21	0.705	119.4	0.517	1.381	222.3	447.5	0.666	---	1.69	1.140	116.8	51.3	22.1	0.527
4-4370	4-4570	0.295	133.3	19.2	-0.57	0.672	116.2	0.500	1.300	216.0	451.3	0.651	---	1.46	1.122	116.8	60.0	23.5	0.517
4-4370	4-4580	0.261	140.9	17.7	0.86	0.643	112.8	0.489	1.238	209.6	455.1	0.633	---	1.32	1.106	117.0	68.8	24.6	0.511
4-4370	4-4590	0.232	150.2	15.4	1.10	0.616	109.0	0.484	1.188	203.3	459.0	0.613	---	1.24	1.091	117.4	77.9	25.3	0.509
4-4370	4-4600	0.211	161.7	11.5	1.32	0.592	104.9	0.486	1.148	197.1	462.9	0.590	---	1.21	1.078	118.0	87.0	25.7	0.513

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4370	4-4610	0.200	175.2	6.8	1.53	0.569	100.3	0.495	1.115	190.8	466.8	0.563	---	1.21	1.066	169.0	96.1	25.5	0.523
4-4370	4-4620	0.205	189.5	0.9	1.75	0.549	95.1	0.512	1.087	184.9	471.1	0.530	---	1.25	1.055	120.4	105.0	24.9	0.541
4-4370	4-4630	0.226	203.0	-4.8	2.00	0.530	89.2	0.539	1.064	179.3	475.7	0.490	1.638	1.34	1.045	122.4	113.6	23.8	0.569
4-4370	4-4640	0.267	214.4	-9.5	2.30	0.514	82.1	0.579	1.045	174.2	480.7	0.440	1.650	1.50	1.035	125.2	121.8	22.3	0.612
4-4370	4-4650	0.329	223.0	-12.8	2.68	0.499	73.5	0.635	1.029	169.9	486.5	0.376	1.682	1.75	1.026	129.3	129.4	20.7	0.676
4-4370	4-4660	0.415	228.7	-15.0	3.24	0.487	62.6	0.731	1.017	167.1	493.8	0.294	1.740	2.19	1.018	135.3	136.0	18.9	0.770
4-4370	4-4670	0.532	231.1	-16.2	4.20	0.475	48.6	0.810	1.009	166.7	503.4	0.192	1.826	3.05	1.012	144.1	141.3	17.3	0.906
4-4370	4-4790	0.593	253.3	-21.9	1.48	0.696	45.0	0.722	1.357	146.7	240.0	---	2.336	-1.20	1.109	45.7	117.6	19.8	0.799
4-4370	4-4800	0.561	255.6	-21.7	1.68	0.705	48.1	0.682	1.382	143.6	246.4	---	2.325	-1.23	1.115	49.3	124.3	18.3	0.738
4-4370	4-4810	0.531	257.8	-21.5	1.90	0.714	50.9	0.644	1.407	140.5	252.9	---	2.313	-1.30	1.122	52.8	130.8	16.4	0.679
4-4370	4-4820	0.503	259.9	-21.2	2.16	0.722	53.4	0.607	1.431	137.6	259.6	---	2.300	-1.42	1.128	56.1	137.0	14.2	0.623
4-4370	4-4830	0.477	261.8	-20.6	2.47	0.730	55.8	0.573	1.453	134.8	266.4	---	2.285	-1.61	1.134	59.3	142.9	11.7	0.569
4-4370	4-4840	0.453	263.6	-19.9	2.80	0.736	57.9	0.540	1.473	132.2	273.4	---	2.269	-1.92	1.140	62.4	148.5	8.8	0.517
4-4370	4-4850	0.431	265.3	-19.6	3.56	0.742	59.8	0.510	1.492	129.8	280.6	---	2.253	-2.47	1.146	65.4	153.4	5.7	0.468
4-4370	4-4860	0.413	266.7	-19.3	4.81	0.747	61.5	0.483	1.509	127.9	288.0	---	2.237	-3.61	1.151	68.2	157.4	-0.4	0.424
4-4370	4-4870	0.405	267.5	-10.0	8.41	0.751	63.0	0.459	1.523	125.4	295.6	---	2.222	-4.11	1.156	71.0	158.7	-12.7	0.395
4-4370	4-4890	0.362	270.3	-34.1	-5.39	0.758	65.5	0.418	1.547	121.9	311.9	---	2.194	6.90	1.165	76.3	184.9	25.8	0.317
4-4370	4-4900	0.351	271.2	-27.8	-1.91	0.760	66.4	0.403	1.556	120.5	320.4	---	2.182	3.53	1.169	78.9	181.5	16.5	0.261
4-4370	4-4910	0.341	272.0	-25.4	-0.59	0.762	67.2	0.390	1.563	119.3	329.2	---	2.173	2.41	1.173	81.5	180.4	13.5	0.224
4-4370	4-4920	0.334	272.2	-24.0	-0.03	0.764	67.7	0.381	1.569	118.4	338.4	---	2.166	1.87	1.176	84.1	177.9	13.2	0.196
4-4370	4-4930	0.330	273.6	-23.1	0.40	0.765	68.1	0.376	1.573	117.9	347.9	---	2.163	1.57	1.179	86.7	172.9	14.5	0.176
4-4370	4-4940	0.329	273.7	-22.4	0.71	0.766	68.1	0.374	1.575	117.6	357.7	---	2.164	1.39	1.181	89.4	165.5	16.8	0.168
4-4370	4-4950	0.332	273.6	-21.9	0.97	0.766	68.0	0.377	1.576	117.6	367.8	0.982	2.171	1.28	1.182	92.1	157.1	18.9	0.175
4-4370	4-4960	0.338	273.3	-21.4	1.20	0.766	67.5	0.385	1.577	117.9	378.4	0.970	2.184	1.22	1.183	95.1	150.2	20.0	0.196
4-4370	4-4970	0.350	272.7	-21.1	1.42	0.766	66.6	0.399	1.576	118.6	389.2	0.948	2.204	1.20	1.183	98.2	145.9	20.1	0.231
4-4370	4-4980	0.367	271.8	-20.9	1.64	0.765	65.3	0.420	1.575	119.7	400.6	0.914	2.236	1.22	1.183	101.7	144.4	19.6	0.277
4-4370	4-4990	0.391	270.6	-20.7	1.87	0.765	63.4	0.450	1.573	121.4	412.4	0.865	2.289	1.29	1.182	105.6	144.8	18.6	0.[illegible]
4-4370	4-4980	0.247	177.8	5.2	1.87	0.522	101.5	0.578	1.055	188.7	839.7	0.445	1.664	1.29	1.041	125.1	105.7	24.5	0.[illegible]
4-4370	4-4990	0.543	142.7	16.6	1.87	0.616	138.6	0.791	1.188	202.9	853.9	0.248	2.128	1.29	1.091	141.6	98.8	24.2	0.516
4-4370	4-5000	0.426	268.8	-20.6	[illegible]	[illegible]	[illegible]	0.692	1.573	123.7	424.9	0.798	2.343	1.41	1.181	110.2	146.5	17.5	0.412
4-4370	4-5000	0.249	198.5	-3.4	2.13	0.504	90.9	0.585	1.035	180.6	841.8	0.451	1.638	1.41	1.031	125.6	115.5	23.3	0.619
4-4370	4-5010	0.475	266.5	-20.6	2.46	0.764	56.8	0.549	1.569	127.1	438.4	0.707	2.430	1.60	1.179	115.9	143.8	16.2	0.507
4-4370	4-5010	0.292	213.9	-9.6	2.46	0.492	80.8	0.616	1.022	174.2	845.8	0.392	1.652	1.60	1.024	126.0	124.3	21.7	0.654
4-4370	4-5020	0.543	263.3	-20.6	2.91	0.763	51.3	0.626	1.567	131.9	453.4	0.586	2.549	1.93	1.177	123.0	151.1	15.0	0.630
4-4370	4-5020	0.363	223.9	-13.3	2.91	0.483	65.9	0.674	1.013	169.4	850.9	0.330	1.695	1.93	1.018	132.4	132.0	19.9	0.722
4-4370	4-5030	0.464	229.4	-15.4	3.62	0.477	56.9	0.757	1.007	167.0	858.5	0.244	1.769	2.52	1.012	139.2	138.4	18.2	0.830
4-4370	4-5040	0.598	230.8	-16.3	5.00	0.474	40.7	0.863	1.004	167.8	869.3	0.138	1.870	3.79	1.008	149.6	143.1	16.7	0.990
4-4370	4-5080	0.560	204.5	-11.2	-1.73	0.243	61.4	0.926	0.861	177.5	918.5	0.063	1.658	-3.35	0.910	22.5	65.1	20.4	1.075
4-4370	4-5080	0.479	174.4	1.3	-1.73	0.338	120.9	0.866	0.904	185.5	926.5	0.121	1.686	-2.35	0.940	30.2	60.2	19.0	0.980
4-4370	4-5090	0.506	127.0	18.9	-0.62	0.740	132.9	0.685	1.484	220.7	611.5	0.468	2.500	-2.35	1.145	50.3	46.3	14.5	0.755
4-4370	4-5100	0.413	123.6	20.3	-0.01	0.739	125.3	0.585	1.483	226.2	626.7	0.616	2.350	-1.86	1.143	58.9	48.7	14.9	0.605
4-4370	4-5110	0.346	121.5	21.5	0.40	0.739	120.0	0.508	1.480	229.6	639.6	0.728	2.233	-1.57	1.141	65.2	51.8	15.4	0.493
4-4370	4-5120	0.296	120.2	22.6	0.70	0.738	116.1	0.450	1.477	231.4	651.1	0.812	2.143	-1.39	1.138	70.1	55.0	15.8	0.406
4-4370	4-5130	0.271	243.6	-21.0	0.95	0.601	64.8	0.766	1.163	157.3	586.6	0.272	2.053	-1.29	1.054	40.4	99.1	22.2	0.864
4-4370	4-5130	0.259	119.5	23.7	0.95	0.737	113.2	0.406	1.474	232.3	661.5	0.875	2.073	-1.29	1.137	74.1	58.0	15.9	0.338
4-4370	4-5140	0.518	245.7	-21.0	1.17	0.611	50.0	0.708	1.180	154.8	593.6	0.345	2.016	-1.23	1.059	45.5	105.7	21.5	0.781
4-4370	4-5140	0.231	119.2	24.8	1.17	0.736	111.0	0.373	1.471	232.5	671.3	0.922	2.020	-1.23	1.135	77.3	60.4	15.8	0.283
4-4370	4-5150	0.485	247.7	-20.9	1.37	0.622	55.0	0.647	1.199	152.6	600.9	0.423	1.974	-1.20	1.065	50.5	111.9	20.5	0.698
4-4370	4-5150	0.210	119.3	25.8	1.37	0.735	109.3	0.348	1.468	232.4	680.8	0.958	1.979	-1.20	1.134	80.2	61.7	15.1	0.238
4-4370	4-5160	0.414	249.5	-20.5	1.57	0.632	59.8	0.585	1.218	150.9	608.7	0.505	1.930	-1.21	1.071	55.3	117.9	19.2	0.617
4-4370	4-5160	0.194	119.5	26.9	1.57	0.734	108.1	0.330	1.466	232.2	690.0	0.983	1.949	-1.21	1.134	82.7	61.3	13.9	0.202
4-4370	4-5170	0.365	251.0	-20.0	1.78	0.642	64.2	0.524	1.237	149.7	617.1	0.589	1.884	-1.26	1.077	60.0	123.4	17.7	0.538
4-4370	4-5170	0.184	119.8	28.1	1.78	0.734	107.2	0.317	1.465	231.9	699.3	1.000	1.929	-1.26	1.134	85.1	58.5	11.9	0.175
4-4380	4-4530	0.530	116.2	16.4	-4.26	0.871	130.6	0.675	2.135	244.9	435.6	0.695	---	5.86	1.241	119.2	248.8	21.0	0.636
4-4380	4-4540	0.471	120.1	19.1	-1.39	0.819	128.1	0.621	1.801	238.8	439.5	0.683	---	3.09	1.207	118.7	34.5	19.6	0.601
4-4380	4-4550	0.419	124.2	19.7	-0.34	0.774	123.4	0.579	1.592	232.7	443.3	0.670	---	2.13	1.179	118.3	43.1	20.5	0.575
4-4380	4-4560	0.372	128.9	19.5	0.23	0.733	122.5	0.547	1.449	226.4	447.1	0.657	---	1.67	1.155	118.0	51.6	21.9	0.555
4-4380	4-4570	0.329	134.4	18.8	0.61	0.696	119.3	0.523	1.347	220.1	450.9	0.642	---	1.40	1.133	117.8	60.2	23.3	0.540
4-4380	4-4580	0.290	141.1	17.6	0.89	0.663	116.0	0.507	1.270	213.8	454.7	0.627	---	1.24	1.115	117.8	69.1	24.4	0.529
4-4380	4-4590	0.257	149.2	15.6	1.12	0.633	112.3	0.497	1.210	207.5	458.6	0.609	---	1.15	1.098	118.0	78.1	25.1	0.522
4-4380	4-4600	0.230	159.3	12.5	1.33	0.606	108.3	0.494	1.163	201.1	462.4	0.588	---	1.10	1.083	118.4	87.3	25.4	0.521
4-4380	4-4610	0.212	171.6	8.2	1.52	0.581	103.9	0.498	1.125	194.9	466.3	0.564	---	1.09	1.070	119.1	96.4	25.3	0.526
4-4380	4-4620	0.207	185.4	2.6	1.72	0.558	98.9	0.510	1.093	108.8	470.4	0.536	---	1.11	1.058	120.2	105.3	24.6	0.538
4-4380	4-4630	0.219	199.5	-3.3	1.93	0.538	93.2	0.531	1.067	182.9	474.7	0.501	---	1.17	1.046	121.8	114.1	23.5	0.559
4-4380	4-4640	0.249	212.3	-8.6	2.18	0.519	86.6	0.563	1.045	177.4	479.3	0.457	1.633	1.28	1.035	124.1	122.4	22.0	0.593
4-4380	4-4650	0.300	222.7	-12.5	2.48	0.503	78.7	0.609	1.027	172.5	484.6	0.401	1.652	1.47	1.025	127.5	130.3	20.2	0.644
4-4380	4-4660	0.373	230.1	-15.2	2.90	0.489	68.9	0.674	1.012	168.8	491.0	0.330	1.695	1.77	1.016	132.4	137.3	18.3	0.720
4-4380	4-4670	0.475	236.4	-16.8	3.56	0.478	56.3	0.762	1.002	166.9	499.1	0.239	1.765	2.33	1.009	139.6	143.3	16.5	0.833
4-4380	4-4800	0.579	259.5	-22.2	1.66	0.702	46.9	0.698	1.362	145.0	243.3	---	2.312	-1.10	1.111	47.7	125.9	18.1	0.762
4-4380	4-4810	0.548	261.7	-21.9	1.85	0.711	49.8	0.659	1.387	141.9	249.8	---	2.301	-1.14	1.117	51.3	132.4	16.3	0.702
4-4380	4-4820	0.519	263.8	-21.6	2.06	0.720	52.5	0.621	1.411	139.0	256.4	---	2.288	-1.23	1.124	54.7	138.7	14.1	0.645
4-4380	4-4830	0.492	265.8	-21.1	2.32	0.728	54.9	0.586	1.434	136.1	263.1	---	2.274	-1.36	1.130	58.0	144.7	11.7	0.590
4-4380	4-4840	0.467	267.6	-20.5	2.65	0.735	57.1	0.552	1.455	133.4	270.1	---	2.259	-1.58	1.136	61.1	150.4	9.0	0.537
4-4380	4-4850	0.444	269.3	-19.5	3.13	0.741	59.1	0.521	1.475	130.9	277.2	---	2.243	-1.96	1.142	64.1	155.6	5.7	0.487
4-4380	4-4860	0.424	270.8	-17.9	3.94	0.746	60.9	0.492	1.492	128.5	284.5	---	2.228	-2.68	1.148	67.0	160.2	1.4	0.440
4-4380	4-4870	0.409	271.9	-14.5	5.78	0.751	62.5	0.467	1.508	126.3	292.3	---	2.212	-4.42	1.153	69.8	163.2	-5.9	0.400
4-4380	4-4880	0.400	270.1	0.6	15.32	0.755	63.9	0.444	1.522	124.9	299.8	---	2.198	-13.86	1.158	72.5	159.8	-33.0	0.431
4-4380	4-4890	0.390	274.1	41.3	-9.75	0.758	65.2	0.423	1.534	122.6	308.2	---	2.183	11.30	1.163	75.2	195.5	33.5	0.370
4-4380	4-4900	0.359	276.3	-28.6	-2.45	0.761	66.2	0.406	1.543	121.1	316.5	---	2.170	4.10	1.167	77.8	185.7	16.1	0.278
4-4380	4-4910	0.348	277.1	-25.4	-0.80	0.763	67.1	0.393	1.551	119.8	325.2	---	2.160	2.64	1.171	80.4	184.8	11.5	0.238

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 ECCEN SMA THET1 THET2 PERIH APHEL I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SPA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4380	4-4920	0.340	277.8	-23.9	-0.03	0.765	67.7	0.382	1.558	118.8	334.2	---	2.152	1.88	1.174	83.0	183.2	10.3	0.206
4-4380	4-4930	0.335	278.2	-22.9	0.43	0.766	68.1	0.375	1.562	118.1	343.6	---	2.147	1.53	1.177	85.5	179.6	11.0	0.182
4-4380	4-4940	0.333	278.4	-22.1	0.75	0.767	68.3	0.371	1.565	117.7	353.3	---	2.146	1.32	1.179	88.2	173.3	13.0	0.168
4-4380	4-4950	0.333	278.4	-21.6	1.01	0.767	68.5	0.372	1.567	117.5	363.3	0.984	2.150	1.19	1.180	90.9	165.2	15.4	0.168
4-4380	4-4960	0.338	278.2	-21.2	1.22	0.767	67.9	0.377	1.568	117.7	373.6	0.976	2.160	1.12	1.181	93.7	157.5	17.2	0.182
4-4380	4-4970	0.347	277.7	-20.9	1.42	0.767	67.3	0.388	1.568	118.2	384.3	0.959	2.176	1.09	1.182	96.7	152.0	18.0	0.211
4-4380	4-4980	0.361	277.0	-20.7	1.62	0.767	66.2	0.406	1.567	119.1	395.4	0.931	2.202	1.09	1.181	100.0	149.3	17.9	0.252
4-4380	4-4990	0.382	275.9	-20.6	1.82	0.767	64.5	0.431	1.565	120.5	407.0	0.890	2.240	1.13	1.180	103.7	149.0	17.1	0.305
4-4380	4-4990	0.275	170.4	7.9	1.82	0.537	108.5	0.594	1.066	193.8	840.3	0.432	1.699	1.13	1.046	126.2	105.4	24.2	0.638
4-4380	4-4990	0.476	148.9	14.7	1.82	0.599	142.6	0.742	1.153	203.2	849.6	0.297	2.089	1.13	1.079	137.3	100.8	24.1	0.839
4-4380	4-5000	0.411	274.5	-20.6	2.04	0.766	62.2	0.467	1.563	122.4	419.1	0.833	2.294	1.22	1.179	107.9	150.2	16.1	0.372
4-4380	4-5000	0.245	193.7	-1.4	2.04	0.513	96.1	0.578	1.037	184.5	841.1	0.438	1.637	1.22	1.033	125.2	115.8	23.0	0.613
4-4380	4-5000	0.595	147.4	14.8	2.04	0.629	143.4	0.831	1.203	201.8	858.4	0.204	2.202	1.22	1.095	145.5	107.5	23.2	0.978
4-4380	4-5010	0.453	272.5	-20.6	2.31	0.765	59.0	0.517	1.561	125.3	432.1	0.754	2.368	1.36	1.177	113.0	152.2	24.9	0.456
4-4380	4-5010	0.271	211.7	-8.7	2.31	0.498	86.0	0.598	1.022	177.3	844.1	0.410	1.633	1.36	1.024	126.7	125.0	21.4	0.632
4-4380	4-5020	0.511	269.8	-20.8	2.66	0.765	54.3	0.584	1.559	129.3	446.2	0.648	2.470	1.59	1.175	119.3	154.6	13.6	0.564
4-4380	4-5020	0.329	224.3	-13.3	2.66	0.488	75.5	0.643	1.011	171.6	846.5	0.361	1.662	1.59	1.017	130.0	133.2	19.4	0.663
4-4380	4-5030	0.593	266.0	-20.9	3.17	0.765	47.7	0.674	1.558	135.2	462.2	0.508	2.609	1.99	1.173	127.5	156.6	12.6	0.706
4-4380	4-5030	0.416	232.0	-15.9	3.17	0.480	63.6	0.714	1.004	167.9	854.9	0.287	1.721	1.99	1.011	135.6	140.1	17.5	0.770
4-4380	4-5040	0.535	255.5	-17.3	4.05	0.475	45.0	0.811	0.999	167.0	863.9	0.109	1.810	2.78	1.006	144.2	145.6	15.7	0.904
4-4380	4-5080	0.537	174.4	1.4	-2.18	0.345	133.1	0.902	0.903	186.2	922.7	0.089	1.717	-3.83	0.940	25.8	62.3	19.5	1.044
4-4380	4-5090	0.555	183.9	17.1	-0.71	0.741	157.0	0.735	1.476	217.4	603.6	0.391	2.562	-2.46	1.144	45.8	49.8	15.8	0.834
4-4380	4-5090	0.475	202.7	-10.2	-0.71	0.287	83.1	0.867	0.874	178.9	925.2	0.116	1.632	-2.46	0.917	30.2	71.5	21.2	0.967
4-4380	4-5090	0.443	193.3	-6.4	-0.71	0.315	98.9	0.843	0.887	181.7	927.9	0.140	1.634	-2.46	0.926	32.9	69.8	20.8	0.932
4-4380	4-5100	0.446	130.0	18.8	-0.01	0.741	128.2	0.624	1.476	224.2	620.1	0.555	2.397	-1.86	1.142	55.5	51.8	16.1	0.665
4-4380	4-5110	0.367	127.6	20.2	0.43	0.740	122.0	0.537	1.474	228.4	633.9	0.683	2.266	-1.52	1.139	62.7	54.6	16.5	0.536
4-4380	4-5120	0.310	126.1	21.4	0.74	0.740	117.5	0.471	1.472	230.8	645.9	0.778	2.165	-1.33	1.137	68.1	57.8	16.9	0.439
4-4380	4-5130	0.268	125.3	22.5	0.98	0.739	114.2	0.421	1.468	232.0	656.7	0.850	2.087	-1.20	1.135	72.4	61.0	17.1	0.383
4-4380	4-5140	0.548	249.7	-21.7	1.19	0.608	47.7	0.734	1.167	155.9	590.1	0.310	2.024	-1.13	1.054	43.2	107.5	21.5	0.816
4-4380	4-5140	0.236	125.0	23.6	1.19	0.738	111.7	0.384	1.465	232.5	666.7	0.903	2.022	-1.13	1.134	76.0	63.8	17.1	0.303
4-4380	4-5150	0.495	251.8	-21.5	1.38	0.619	52.8	0.674	1.185	153.5	597.3	0.386	1.984	-1.09	1.060	48.3	113.9	20.4	0.733
4-4380	4-5150	0.212	125.1	23.6	1.38	0.737	109.6	0.355	1.462	232.5	676.3	0.943	1.982	-1.09	1.133	78.9	65.7	16.7	0.254
4-4380	4-5160	0.443	253.7	-21.2	1.56	0.629	57.7	0.612	1.204	151.6	604.9	0.467	1.941	-1.09	1.066	53.2	119.9	19.1	0.651
4-4380	4-5160	0.194	125.4	25.7	1.56	0.736	108.4	0.334	1.460	232.2	685.6	0.972	1.948	-1.09	1.132	81.6	66.1	15.9	0.215
4-4380	4-5170	0.392	255.3	-20.8	1.74	0.639	62.3	0.550	1.223	150.7	613.0	0.550	1.896	-1.12	1.073	57.9	125.6	17.6	0.571
4-4380	4-5170	0.182	125.8	26.8	1.74	0.735	107.4	0.319	1.458	231.9	694.8	0.993	1.923	-1.12	1.132	84.0	64.4	14.4	0.188
4-4380	4-5180	0.344	256.6	-20.8	1.94	0.649	66.6	0.490	1.242	149.3	621.7	0.633	1.850	-1.18	1.079	62.4	130.8	15.8	0.494
4-4380	4-5180	0.174	126.2	27.9	1.94	0.735	106.7	0.310	1.457	231.7	704.3	1.006	1.908	-1.18	1.133	86.3	60.0	12.2	0.162
4-4390	4-4530	0.598	118.8	12.8	-7.40	0.925	133.4	0.743	2.652	248.9	435.0	0.681	---	9.03	1.277	121.1	22.9	24.8	0.701
4-4390	4-4540	0.527	122.8	18.3	-1.77	0.865	131.0	0.676	2.065	242.9	438.9	0.670	---	3.49	1.236	120.4	34.7	20.0	0.647
4-4390	4-4550	0.469	126.7	19.1	-0.40	0.813	128.4	0.623	1.746	236.8	442.8	0.658	---	2.20	1.202	119.8	43.4	20.5	0.615
4-4390	4-4560	0.416	131.0	19.0	0.26	0.766	125.5	0.582	1.546	230.6	446.7	0.646	---	1.64	1.173	119.3	51.9	21.8	0.588
4-4390	4-4570	0.368	135.9	18.2	0.65	0.724	122.4	0.551	1.417	224.3	450.5	0.633	---	1.34	1.148	119.0	60.6	23.1	0.567
4-4390	4-4580	0.332	141.8	17.2	0.94	0.687	119.1	0.529	1.313	218.0	454.3	0.619	---	1.16	1.126	118.8	69.4	24.2	0.551
4-4390	4-4590	0.286	149.1	15.5	1.16	0.653	115.6	0.513	1.240	211.6	458.1	0.603	---	1.05	1.107	118.7	78.4	24.9	0.539
4-4390	4-4600	0.253	157.6	12.9	1.35	0.622	111.7	0.505	1.183	205.2	461.9	0.585	---	0.99	1.090	118.9	87.5	25.2	0.533
4-4390	4-4610	0.229	168.6	9.2	1.53	0.595	107.4	0.504	1.138	198.9	465.8	0.568	---	0.97	1.075	119.4	96.7	25.0	0.533
4-4390	4-4620	0.215	181.4	4.2	1.70	0.570	102.6	0.511	1.101	192.7	469.8	0.539	---	0.97	1.061	120.2	105.7	24.3	0.539
4-4390	4-4630	0.217	195.5	-1.7	1.88	0.547	97.2	0.526	1.071	186.6	473.9	0.508	---	1.01	1.048	121.4	114.5	23.2	0.553
4-4390	4-4640	0.236	209.3	-7.3	2.08	0.527	91.0	0.551	1.046	180.8	478.2	0.470	---	1.09	1.036	123.3	123.0	21.7	0.578
4-4390	4-4650	0.276	221.3	-11.9	2.32	0.508	83.7	0.588	1.026	175.5	483.0	0.422	1.629	1.22	1.025	126.0	131.0	19.8	0.619
4-4390	4-4660	0.337	230.5	-15.1	2.64	0.492	74.7	0.643	1.009	171.1	488.7	0.361	1.658	1.43	1.015	130.0	138.4	17.8	0.680
4-4390	4-4670	0.424	236.7	-17.2	3.10	0.479	63.4	0.718	0.996	168.0	495.7	0.281	1.712	1.80	1.006	135.9	144.9	15.7	0.772
4-4390	4-4680	0.533	239.6	-18.4	3.92	0.470	48.8	0.817	0.988	167.4	505.0	0.181	1.796	2.53	0.999	144.8	150.0	13.9	0.908
4-4390	4-4690	0.598	263.4	-22.5	1.64	0.698	45.7	0.715	1.341	146.5	240.2	---	2.299	-0.97	1.105	46.1	127.5	18.0	0.786
4-4390	4-4810	0.566	265.6	-22.2	1.81	0.708	48.7	0.675	1.366	143.3	246.6	---	2.289	-0.99	1.112	49.8	134.0	18.1	0.726
4-4390	4-4820	0.536	267.7	-21.9	1.99	0.717	51.5	0.636	1.391	140.3	253.2	---	2.277	-1.05	1.119	53.2	140.3	18.0	0.668
4-4390	4-4830	0.508	269.8	-21.5	2.19	0.725	54.0	0.600	1.415	137.4	259.8	---	2.263	-1.14	1.126	56.6	146.4	17.6	0.612
4-4390	4-4840	0.482	271.6	-20.9	2.45	0.733	56.3	0.565	1.437	134.6	266.7	---	2.249	-1.30	1.132	59.8	152.2	9.0	0.558
4-4390	4-4850	0.458	273.4	-20.1	2.80	0.739	58.4	0.533	1.457	132.0	273.7	---	2.233	-1.56	1.139	62.8	157.7	6.0	0.507
4-4390	4-4860	0.437	274.9	-18.9	3.35	0.745	60.3	0.503	1.476	129.6	281.0	---	2.218	-2.02	1.145	65.8	162.6	2.4	0.459
4-4390	4-4870	0.418	276.2	-16.9	4.41	0.750	62.0	0.476	1.492	127.3	288.5	---	2.202	-2.99	1.150	68.6	166.6	-2.7	0.414
4-4390	4-4880	0.408	276.6	-11.1	7.65	0.755	63.5	0.451	1.507	125.2	296.2	---	2.187	-6.15	1.155	71.3	167.9	-14.2	0.383
4-4390	4-4900	0.369	280.9	-30.2	-3.47	0.761	66.0	0.411	1.530	121.7	312.6	---	2.159	5.14	1.165	76.7	190.4	17.2	0.299
4-4390	4-4910	0.356	281.7	-25.5	-0.96	0.764	66.9	0.396	1.539	120.3	321.1	---	2.148	2.72	1.169	79.3	188.8	9.8	0.252
4-4390	4-4920	0.346	282.3	-23.6	-0.04	0.766	67.6	0.383	1.546	119.2	330.0	---	2.139	1.88	1.172	81.8	188.1	7.5	0.217
4-4390	4-4930	0.340	282.8	-22.5	0.46	0.767	68.2	0.375	1.551	118.3	339.2	---	2.132	1.47	1.175	84.4	185.6	7.5	0.190
4-4390	4-4940	0.336	283.0	-21.7	0.80	0.768	68.5	0.369	1.555	117.8	348.8	---	2.129	1.24	1.177	87.0	180.7	9.0	0.171
4-4390	4-4950	0.336	283.1	-21.2	1.05	0.769	68.5	0.368	1.558	117.5	358.6	---	2.131	1.10	1.179	89.6	173.3	11.5	0.165
4-4390	4-4960	0.338	283.0	-20.8	1.25	0.769	68.3	0.371	1.559	117.5	368.8	0.981	2.137	1.02	1.180	92.4	165.3	13.9	0.172
4-4390	4-4970	0.340	282.7	-20.5	1.43	0.769	67.8	0.379	1.559	117.8	379.4	0.968	2.150	0.98	1.180	95.3	158.7	15.3	0.193
4-4390	4-4980	0.356	282.1	-20.3	1.61	0.769	67.0	0.393	1.558	118.5	390.2	0.946	2.171	0.97	1.180	98.4	154.8	15.8	0.228
4-4390	4-4990	0.374	281.2	-20.2	1.78	0.769	65.6	0.415	1.557	119.6	401.5	0.911	2.203	0.99	1.179	101.9	153.5	15.4	0.275
4-4390	4-5000	0.399	280.0	-20.3	1.97	0.768	63.7	0.445	1.555	121.3	413.4	0.863	2.248	1.04	1.178	105.8	154.0	14.5	0.332
4-4390	4-5000	0.253	187.6	1.0	1.97	0.524	101.9	0.581	1.043	188.9	840.9	0.437	1.649	1.04	1.038	125.4	119.9	22.8	0.616
4-4390	4-5000	0.543	152.6	13.2	1.97	0.617	138.8	0.794	1.174	202.7	855.8	0.262	2.106	1.04	1.086	142.0	109.3	23.0	0.915
4-4390	4-5010	0.434	278.4	-20.4	2.19	0.766	66.9	0.488	1.573	123.7	425.9	0.795	2.311	1.14	1.176	110.4	155.7	13.4	0.409
4-4390	4-5010	0.257	208.3	-7.3	2.19	0.505	91.1	0.586	1.023	180.8	843.0	0.424	1.622	1.14	1.024	129.8	125.5	21.0	0.617
4-4390	4-5020	0.484	276.1	-20.6	2.46	0.767	67.0	0.546	1.551	127.0	439.3	0.704	2.398	1.31	1.174	116.0	158.0	12.2	0.505
4-4390	4-5020	0.301	223.6	-12.9	2.46	0.493	80.9	0.618	1.010	174.3	846.6	0.386	1.635	1.31	1.016	128.2	134.0	19.0	0.652

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SPA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4390	4-5030	0.554	272.9	-20.9	2.83	0.767	51.4	0.625	1.550	132.0	454.3	0.581	2.518	1.58	1.172	123.2	160.2	11.0	0.629
4-4390	4-5030	0.375	233.6	-16.2	2.83	0.484	69.8	0.676	1.001	169.5	851.9	0.324	1.679	1.58	1.010	132.5	141.5	16.8	0.720
4-4390	4-5040	0.478	239.1	-18.9	3.42	0.478	56.6	0.761	0.996	167.1	859.4	0.238	1.753	2.08	1.004	139.5	147.7	14.8	0.819
4-4390	4-5090	0.557	213.8	-14.3	-0.86	0.250	63.9	0.919	0.854	177.5	919.1	0.069	1.640	-2.62	0.903	23.6	75.2	21.8	1.033
4-4390	4-5090	0.471	185.6	-3.1	-0.86	0.338	117.9	0.858	0.894	185.1	926.8	0.127	1.661	-2.62	0.931	31.1	70.3	20.9	0.960
4-4390	4-5100	0.486	136.6	17.0	-0.01	0.743	131.6	0.668	1.469	221.7	613.0	0.481	2.452	-1.86	1.140	51.5	55.1	17.2	0.730
4-4390	4-5110	0.394	133.7	18.6	0.47	0.743	124.3	0.570	1.468	227.0	627.9	0.631	2.305	-1.47	1.138	59.8	57.6	17.6	0.584
4-4390	4-5120	0.329	131.9	19.9	0.78	0.742	119.1	0.495	1.466	230.1	640.6	0.740	2.192	-1.25	1.136	66.0	60.7	17.9	0.475
4-4390	4-5130	0.280	131.0	21.1	1.02	0.741	115.3	0.437	1.463	231.7	651.8	0.821	2.105	-1.11	1.134	70.7	64.0	18.2	0.392
4-4390	4-5140	0.579	253.8	-22.2	1.22	0.605	45.3	0.761	1.154	157.0	586.7	0.276	2.031	-1.03	1.049	40.8	109.4	21.4	0.852
4-4390	4-5140	0.244	130.7	22.2	1.22	0.740	112.5	0.396	1.460	232.5	662.1	0.881	2.038	-1.03	1.133	74.5	67.0	18.3	0.326
4-4390	4-5150	0.526	255.9	-22.1	1.39	0.616	90.5	0.702	1.172	154.5	593.7	0.349	1.994	-0.98	1.055	45.9	115.8	20.3	0.769
4-4390	4-5150	0.217	130.7	23.3	1.39	0.739	110.4	0.364	1.457	232.6	671.8	0.926	1.987	-0.98	1.132	77.7	69.3	18.1	0.272
4-4390	4-5160	0.473	257.9	-21.8	1.56	0.627	55.5	0.640	1.190	152.3	601.1	0.428	1.952	-0.97	1.062	50.9	121.9	19.0	0.687
4-4390	4-5160	0.196	131.1	24.3	1.56	0.738	108.8	0.340	1.454	232.4	681.2	0.960	1.948	-0.97	1.131	80.4	70.5	17.5	0.229
4-4390	4-5170	0.421	259.6	-21.4	1.72	0.637	60.2	0.578	1.209	150.6	608.9	0.510	1.908	-0.98	1.068	55.7	127.7	17.5	0.606
4-4390	4-5170	0.181	131.6	25.3	1.72	0.738	107.6	0.322	1.452	232.1	690.4	0.984	1.920	-0.98	1.131	82.9	69.8	16.5	0.195
4-4390	4-5180	0.371	261.1	-20.7	1.89	0.647	64.7	0.517	1.228	149.5	617.3	0.593	1.862	-1.01	1.075	60.4	133.1	15.7	0.527
4-4390	4-5180	0.172	132.2	26.4	1.89	0.737	106.8	0.310	1.451	231.8	699.7	1.009	1.901	-1.01	1.132	85.2	66.6	14.8	0.169
4-4390	4-5190	0.324	262.2	-19.9	2.08	0.656	68.8	0.458	1.246	149.0	626.4	0.676	1.817	-1.09	1.082	64.8	137.9	13.7	0.452
4-4390	4-5190	0.167	132.6	27.4	2.08	0.737	106.4	0.304	1.451	231.7	709.1	1.010	1.891	-1.09	1.133	87.5	60.5	12.4	0.153
4-4400	4-4540	0.592	125.6	17.0	-2.48	0.920	133.9	0.742	2.541	246.9	438.3	0.656	---	4.21	1.273	122.3	34.8	20.7	0.703
4-4400	4-4550	0.525	129.4	18.4	-0.48	0.859	131.3	0.676	1.990	240.8	442.2	0.645	---	2.28	1.231	121.5	43.8	20.5	0.661
4-4400	4-4560	0.465	133.4	18.3	0.29	0.805	128.6	0.624	1.688	234.7	446.1	0.634	---	1.60	1.196	120.9	52.3	21.6	0.627
4-4400	4-4570	0.411	137.8	17.7	0.71	0.757	125	0.585	1.500	228.4	450.0	0.623	---	1.26	1.166	120.3	60.9	22.9	0.599
4-4400	4-4580	0.363	143.1	16.7	0.99	0.715	122.5	0.555	1.371	222.1	453.8	0.610	---	1.06	1.141	119.9	69.8	24.0	0.577
4-4400	4-4590	0.319	149.3	15.2	1.21	0.677	118.8	0.534	1.278	215.8	457.6	0.586	---	0.95	1.118	119.7	78.7	24.7	0.560
4-4400	4-4600	0.282	157.0	13.0	1.38	0.643	115.0	0.520	1.209	209.4	461.5	0.580	---	0.88	1.098	119.6	87.8	25.0	0.549
4-4400	4-4610	0.251	166.4	9.8	1.54	0.612	110.9	0.514	1.155	203.0	465.3	0.562	---	0.84	1.081	119.8	97.0	24.7	0.543
4-4400	4-4620	0.229	178.0	5.4	1.69	0.584	106.3	0.515	1.112	196.7	469.2	0.540	---	0.84	1.065	120.3	106.0	24.1	0.543
4-4400	4-4630	0.221	191.3	-0.8	1.84	0.559	101.1	0.524	1.078	190.5	473.1	0.513	---	0.86	1.051	121.2	114.8	22.9	0.551
4-4400	4-4640	0.229	205.5	-5.8	2.00	0.536	95.3	0.542	1.050	184.5	477.3	0.480	---	0.91	1.037	122.7	123.4	21.3	0.569
4-4400	4-4650	0.258	218.8	-10.9	2.19	0.515	88.5	0.572	1.026	178.8	481.7	0.439	1.613	0.99	1.025	124.8	131.6	19.4	0.599
4-4400	4-4660	0.307	229.8	-14.8	2.43	0.497	80.2	0.616	1.007	173.8	486.8	0.386	1.628	1.14	1.014	128.0	139.2	17.3	0.647
4-4400	4-4670	0.380	238.0	-17.3	2.76	0.482	70.1	0.680	0.992	169.8	492.8	0.318	1.667	1.39	1.004	132.8	146.1	15.1	0.721
4-4400	4-4680	0.483	242.8	-18.9	3.29	0.470	57.0	0.767	0.981	167.7	500.7	0.229	1.734	1.84	0.996	140.1	152.0	13.0	0.833
4-4400	4-4810	0.585	269.6	-22.4	1.73	0.705	47.5	0.692	1.345	144.8	243.4	---	2.276	-0.84	1.107	48.2	135.6	15.9	0.750
4-4400	4-4820	0.554	271.7	-22.1	1.93	0.714	50.4	0.652	1.371	141.7	249.9	---	2.265	-0.88	1.114	51.7	142.0	13.8	0.692
4-4400	4-4830	0.525	273.8	-21.6	2.09	0.723	53.0	0.614	1.395	138.7	256.5	---	2.252	-0.94	1.121	55.1	148.1	11.4	0.635
4-4400	4-4840	0.498	275.7	-21.1	2.29	0.731	55.4	0.579	1.418	135.9	263.3	---	2.238	-1.05	1.128	58.4	154.1	8.9	0.580
4-4400	4-4850	0.473	277.4	-20.4	2.55	0.738	57.6	0.545	1.439	133.2	270.3	---	2.223	-1.23	1.135	61.5	159.7	6.1	0.528
4-4400	4-4860	0.450	279.0	-19.5	2.93	0.744	59.6	0.514	1.458	130.6	277.4	---	2.208	-1.52	1.141	64.5	164.9	2.9	0.479
4-4400	4-4870	0.429	280.4	-18.1	3.58	0.750	61.4	0.485	1.476	128.3	284.8	---	2.192	-2.10	1.147	67.3	169.5	-1.1	0.432
4-4400	4-4880	0.413	281.4	-15.2	5.09	0.755	63.0	0.460	1.491	126.1	292.4	---	2.177	-3.54	1.152	70.1	172.8	-7.6	0.390
4-4400	4-4890	0.430	278.9	-0.7	14.18	0.759	64.4	0.437	1.505	124.1	300.3	---	2.162	-12.55	1.158	72.8	168.6	-34.4	0.412
4-4400	4-4900	0.384	285.7	-34.2	-6.02	0.762	65.6	0.416	1.516	122.3	308.6	---	2.148	7.71	1.162	75.5	197.4	22.0	0.332
4-4400	4-4910	0.364	285.2	-25.5	-1.23	0.765	66.7	0.400	1.526	120.8	317.0	---	2.136	3.00	1.166	78.1	192.7	8.5	0.268
4-4400	4-4920	0.353	286.8	-23.2	-0.05	0.767	67.5	0.386	1.534	119.6	325.8	---	2.126	1.89	1.170	80.7	192.4	5.0	0.231
4-4400	4-4930	0.346	287.3	-21.9	0.51	0.769	68.1	0.375	1.540	118.6	334.9	---	2.118	1.41	1.173	83.2	191.1	4.2	0.200
4-4400	4-4940	0.341	287.6	-21.2	0.86	0.770	68.5	0.368	1.545	117.9	344.3	---	2.113	1.15	1.175	85.8	187.6	5.1	0.177
4-4400	4-4950	0.338	287.8	-20.6	1.10	0.771	68.7	0.365	1.548	117.4	354.0	---	2.112	1.00	1.177	88.4	181.3	7.3	0.164
4-4400	4-4960	0.339	287.8	-20.2	1.29	0.771	68.7	0.366	1.550	117.3	364.0	0.983	2.116	0.91	1.178	91.1	173.5	9.9	0.164
4-4400	4-4970	0.344	287.5	-19.9	1.44	0.771	68.3	0.371	1.550	117.5	374.4	0.975	2.126	0.86	1.179	93.9	166.0	12.1	0.179
4-4400	4-4980	0.353	287.2	-19.8	1.61	0.771	67.7	0.382	1.550	118.0	385.1	0.958	2.142	0.84	1.178	96.9	160.9	13.2	0.207
4-4400	4-4990	0.367	287.5	-19.7	1.76	0.771	66.6	0.400	1.549	118.9	396.2	0.930	2.168	0.84	1.178	100.1	158.4	13.3	0.248
4-4400	4-5000	0.388	285.4	-19.7	1.91	0.771	64.9	0.425	1.547	120.2	407.7	0.889	2.206	0.87	1.176	103.7	158.2	12.7	0.301
4-4400	4-5000	0.280	180.1	3.8	1.91	0.540	109.0	0.598	1.054	194.0	841.5	0.424	1.684	0.87	1.040	126.5	115.6	22.5	0.637
4-4400	4-5000	0.476	158.9	11.6	1.91	0.602	132.7	0.744	1.139	203.1	850.5	0.292	1.986	0.87	1.074	137.6	111.3	22.8	0.877
4-4400	4-5010	0.418	284.1	-19.9	2.09	0.770	62.6	0.462	1.545	122.2	419.8	0.832	2.259	0.94	1.175	107.9	159.4	11.8	0.367
4-4400	4-5010	0.281	203.4	-5.5	2.09	0.515	96.4	0.580	1.026	184.7	842.3	0.431	1.620	0.94	1.026	125.4	125.8	20.7	0.610
4-4400	4-5010	0.597	157.1	11.2	2.09	0.632	143.3	0.833	1.189	201.6	859.2	0.199	2.179	0.94	1.089	145.8	117.9	21.6	0.977
4-4400	4-5020	0.460	282.2	-20.2	2.30	0.769	59.3	0.512	1.543	125.0	432.7	0.753	2.333	1.05	1.173	113.0	161.4	10.6	0.451
4-4400	4-5020	0.279	221.5	-12.1	2.30	0.500	86.2	0.599	1.010	177.4	845.1	0.405	1.615	1.05	1.016	126.8	134.7	18.6	0.628
4-4400	4-5030	0.520	279.6	-20.6	2.57	0.769	54.6	0.580	1.542	129.1	446.8	0.647	2.436	1.24	1.170	119.3	163.7	9.4	0.559
4-4400	4-5030	0.339	234.1	-16.1	2.57	0.490	75.7	0.644	1.000	171.7	849.5	0.356	1.643	1.24	1.009	130.1	142.6	15.2	0.678
4-4400	4-5040	0.428	241.8	-18.4	2.97	0.482	63.6	0.715	0.992	168.0	855.7	0.283	1.702	1.56	1.003	135.6	149.4	14.0	0.765
4-4400	4-5050	0.549	245.2	-19.5	3.69	0.477	48.7	0.813	0.988	167.0	864.7	0.185	1.792	2.20	0.998	144.4	154.6	12.0	0.901
4-4400	4-5090	0.528	184.3	-2.5	-1.08	0.349	131.0	0.893	0.894	186.2	923.2	0.095	1.893	-2.85	0.931	26.9	72.3	21.3	1.020
4-4400	4-5100	0.535	143.4	14.8	-0.01	0.746	135.7	0.719	1.462	218.4	615.5	0.410	2.514	-1.86	1.139	46.9	58.7	18.4	0.807
4-4400	4-5110	0.428	139.9	16.7	0.32	0.746	127.1	0.608	1.462	225.1	621.5	0.572	2.352	-1.41	1.137	56.5	60.7	18.6	0.640
4-4400	4-5120	0.351	137.3	18.2	0.84	0.745	121.0	0.523	1.460	229.1	635.0	0.696	2.224	-1.16	1.135	63.5	63.6	18.9	0.517
4-4400	4-5130	0.295	136.7	19.3	1.08	0.744	116.7	0.459	1.457	231.3	646.8	0.788	2.126	-1.01	1.133	68.8	66.9	19.2	0.423
4-4400	4-5140	0.254	136.3	20.6	1.26	0.743	113.5	0.411	1.454	232.4	657.5	0.857	2.052	-0.92	1.132	73.0	70.1	19.3	0.350
4-4400	4-5150	0.557	260.1	-22.5	1.42	0.613	48.1	0.730	1.158	155.6	590.2	0.313	2.002	-0.87	1.050	43.6	117.7	20.2	0.806
4-4400	4-5150	0.223	136.3	21.7	1.42	0.742	111.1	0.376	1.451	232.8	667.4	0.908	1.995	-0.87	1.131	76.4	72.8	19.2	0.292
4-4400	4-5160	0.504	262.1	-22.2	1.57	0.624	53.2	0.669	1.176	153.2	597.3	0.389	1.963	-0.84	1.067	48.6	123.9	18.9	0.723
4-4400	4-5160	0.200	136.7	22.7	1.57	0.741	109.3	0.347	1.448	232.7	676.9	0.946	1.951	-0.84	1.130	79.3	74.5	18.9	0.285
4-4400	4-5170	0.451	264.0	-21.8	1.70	0.635	58.0	0.647	1.195	151.2	604.9	0.470	1.920	-0.84	1.064	53.5	129.8	17.3	0.642
4-4400	4-5170	0.183	137.3	23.7	1.70	0.741	107.9	0.327	1.446	232.4	686.1	0.974	1.918	-0.84	1.130	81.8	74.7	18.1	0.207
4-4400	4-5180	0.400	265.6	-21.3	1.85	0.645	62.6	0.545	1.214	149.8	613.0	0.553	1.875	-0.86	1.070	58.2	135.4	15.5	0.562

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	ECCEN	SMA	THET1	THET2	PERIH	APHEL	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 800	4- 880	0.375	268.0	4.2	3.29	1.387	103.4	1.290	0.077	4- 854	315.5	454.2	4.40	1.087	115.0	18.7	17.7	0.482
4- 800	4- 890	0.309	269.0	5.0	2.24	1.340	101.5	1.283	0.049	4- 853	314.7	463.6	3.19	1.027	110.8	24.3	18.6	0.387
4- 800	4- 900	0.261	269.6	6.0	1.49	1.308	99.9	1.271	0.032	4- 853	314.4	473.4	2.62	0.987	106.9	29.0	20.4	0.312
4- 800	4- 910	0.225	269.7	7.2	0.97	1.287	98.6	1.259	0.021	4- 853	314.5	483.6	2.30	0.961	103.5	32.9	22.3	0.251
4- 800	4- 920	0.199	269.5	8.5	0.56	1.272	97.6	1.249	0.012	4- 854	314.9	494.2	2.11	0.943	100.4	35.2	24.3	0.203
4- 800	4- 930	0.181	269.3	9.7	0.20	1.263	96.9	1.241	0.004	4- 854	315.3	504.8	2.02	0.932	97.7	35.4	26.2	0.164
4- 800	4- 940	0.170	269.2	10.5	-0.15	1.257	96.5	1.236	-0.003	4- 854	315.6	515.3	2.03	0.925	95.2	32.4	27.9	0.136
4- 800	4- 950	0.164	269.4	10.7	-0.56	1.253	96.3	1.235	-0.012	4- 854	315.5	525.2	2.18	0.920	93.1	25.6	29.4	0.116
4- 810	4- 900	0.261	279.0	5.6	1.62	1.330	99.2	1.227	0.034	4- 867	321.3	464.3	3.31	1.018	108.8	33.1	23.0	0.350
4- 810	4- 910	0.219	279.1	6.8	0.81	1.301	97.8	1.221	0.017	4- 866	321.5	474.7	2.67	0.983	105.2	37.7	24.4	0.280
4- 810	4- 920	0.189	278.7	8.1	0.26	1.282	96.7	1.213	0.005	4- 866	322.2	485.6	2.32	0.959	101.9	41.1	26.1	0.225
4- 810	4- 930	0.167	278.1	9.4	-0.17	1.270	95.9	1.207	-0.004	4- 866	323.0	496.6	2.12	0.944	99.1	42.7	27.9	0.181
4- 810	4- 940	0.153	277.5	10.4	-0.55	1.262	95.4	1.202	-0.011	4- 866	323.7	507.5	2.03	0.934	96.6	41.8	29.7	0.146
4- 810	4- 950	0.145	277.3	10.9	-0.91	1.257	95.0	1.199	-0.019	4- 866	324.1	518.1	2.05	0.928	94.3	37.2	31.4	0.122
4- 810	4- 960	0.141	277.5	10.5	-1.32	1.254	94.9	1.200	-0.027	4- 866	323.8	527.9	2.21	0.924	92.4	28.9	32.6	0.107
4- 810	4- 970	0.141	278.4	8.8	-1.88	1.253	95.0	1.203	-0.039	4- 866	322.8	537.2	2.59	0.922	90.5	18.5	33.3	0.104
4- 820	4- 910	0.214	286.8	6.4	0.80	1.318	96.8	1.173	0.016	4- 880	329.1	466.3	3.10	1.007	106.7	41.9	26.3	0.310
4- 820	4- 920	0.178	285.9	7.7	0.00	1.294	95.6	1.172	0.000	4- 879	330.0	477.4	2.45	0.976	103.3	46.2	27.2	0.247
4- 820	4- 930	0.154	284.7	9.0	-0.52	1.278	94.8	1.168	-0.010	4- 879	331.3	489.0	2.11	0.956	100.3	48.8	28.6	0.197
4- 820	4- 940	0.137	283.4	10.3	-0.92	1.267	94.1	1.165	-0.019	4- 879	332.5	500.4	1.91	0.943	97.7	49.3	30.1	0.157
4- 820	4- 950	0.127	282.4	11.1	-1.21	1.261	93.8	1.163	-0.025	4- 879	333.4	511.5	1.83	0.935	95.4	46.8	31.5	0.128
4- 820	4- 960	0.121	282.2	11.1	-1.60	1.257	93.6	1.163	-0.032	4- 879	333.6	522.0	1.86	0.930	93.4	40.4	32.7	0.108
4- 820	4- 970	0.119	282.8	9.8	-1.97	1.255	93.6	1.165	-0.040	4- 879	333.1	531.6	2.03	0.926	91.6	31.0	33.3	0.099
4- 820	4- 980	0.121	284.4	7.4	-2.47	1.254	93.8	1.170	-0.050	4- 878	331.7	540.4	2.37	0.925	89.9	21.2	33.3	0.100
4- 830	4- 930	0.141	288.0	8.8	-0.96	1.286	93.4	1.125	-0.018	4- 893	340.4	482.2	1.91	0.968	101.4	53.9	28.2	0.212
4- 830	4- 940	0.123	285.4	10.2	-1.38	1.273	92.7	1.125	-0.027	4- 892	342.3	494.3	1.62	0.952	98.6	55.4	29.0	0.168
4- 830	4- 950	0.111	283.2	11.3	-1.69	1.264	92.3	1.124	-0.033	4- 892	343.8	506.0	1.47	0.941	96.2	54.2	30.0	0.134
4- 830	4- 960	0.105	282.1	11.6	-1.95	1.259	92.1	1.125	-0.038	4- 892	344.5	517.1	1.41	0.934	94.1	49.4	30.7	0.110
4- 830	4- 970	0.102	282.3	10.7	-2.21	1.257	92.1	1.127	-0.043	4- 891	344.4	527.1	1.47	0.930	92.3	41.3	31.0	0.096
4- 830	4- 980	0.101	283.9	8.5	-2.51	1.256	92.2	1.131	-0.049	4- 891	343.4	536.2	1.65	0.928	90.7	31.8	30.9	0.092
4- 830	4- 990	0.104	286.9	9.3	-2.91	1.256	92.5	1.137	-0.057	4- 891	341.3	544.3	1.95	0.926	89.2	23.8	30.5	0.096
4- 830	4-1000	0.109	290.8	2.0	-3.44	1.257	92.9	1.146	-0.068	4- 890	338.5	551.7	2.36	0.925	87.8	19.3	30.9	0.107
4- 840	4- 940	0.113	281.7	10.0	-2.13	1.277	91.0	1.080	-0.039	4- 906	353.4	489.5	0.96	0.959	99.4	60.2	25.9	0.176
4- 840	4- 950	0.102	277.8	11.3	-2.34	1.267	90.6	1.082	-0.044	4- 905	355.6	501.9	0.82	0.946	96.9	59.7	26.1	0.139
4- 840	4- 960	0.096	275.3	11.9	-2.49	1.261	90.4	1.084	-0.047	4- 905	356.9	513.5	0.75	0.937	94.7	56.1	26.2	0.112
4- 840	4- 970	0.092	274.9	11.3	-2.61	1.258	90.4	1.087	-0.049	4- 905	357.2	524.0	0.78	0.932	92.8	49.0	26.0	0.095
4- 840	4- 980	0.091	276.5	9.3	-2.74	1.257	90.5	1.091	-0.052	4- 904	356.3	533.3	0.90	0.930	91.2	40.0	25.6	0.088
4- 840	4- 990	0.091	279.9	6.2	-2.93	1.257	90.7	1.096	-0.055	4- 904	354.4	541.5	1.10	0.928	89.7	31.0	25.2	0.089
4- 840	4-1000	0.093	285.0	2.7	-3.20	1.258	91.1	1.104	-0.061	4- 903	351.6	548.9	1.35	0.927	88.4	26.9	25.2	0.096
4- 840	4-1010	0.098	291.1	-0.5	-3.56	1.259	91.6	1.114	-0.068	4- 903	348.0	555.4	1.66	0.927	87.2	25.2	26.1	0.107
4- 850	4- 960	0.102	263.9	11.7	-3.51	1.262	88.4	1.041	-0.063	4- 918	11.3	151.8	-0.44	0.938	95.0	60.5	17.1	0.115
4- 850	4- 970	0.099	263.1	11.4	-3.36	1.258	88.4	1.045	-0.061	4- 918	11.8	162.7	-0.27	0.933	93.1	54.1	16.7	0.097
4- 850	4- 980	0.096	264.6	9.7	-3.25	1.257	88.6	1.050	-0.059	4- 917	10.9	172.1	-0.07	0.929	91.4	45.7	16.5	0.088
4- 850	4- 990	0.093	268.0	6.9	-3.20	1.257	88.8	1.055	-0.058	4- 917	8.9	180.3	0.17	0.928	89.9	37.8	16.6	0.087
4- 850	4-1000	0.092	273.1	3.5	-3.24	1.258	89.2	1.062	-0.059	4- 917	6.0	187.5	0.41	0.927	88.7	32.6	17.6	0.092
4- 850	4-1010	0.092	279.9	0.1	-3.36	1.260	89.7	1.071	-0.062	4- 916	2.3	193.8	0.64	0.927	87.5	30.7	18.8	0.100
4- 850	4-1020	0.094	288.0	-2.9	-3.56	1.262	90.3	1.081	-0.066	4- 915	357.9	559.5	0.86	0.927	86.4	31.4	20.4	0.111
4- 850	4-1030	0.098	296.9	-5.3	-3.83	1.264	91.0	1.094	-0.072	4- 914	353.0	564.7	1.11	0.927	85.4	34.2	22.6	0.123
4- 860	4- 970	0.124	254.5	10.8	-4.94	1.256	86.1	1.001	-0.085	4- 932	28.6	163.1	-2.14	0.930	93.1	57.2	0.4	0.106
4- 860	4- 980	0.120	255.8	9.4	-4.29	1.255	86.3	1.007	-0.075	4- 931	27.4	172.6	-1.52	0.926	91.4	49.0	2.4	0.094
4- 860	4- 990	0.115	258.7	7.0	-3.85	1.255	86.7	1.013	-0.067	4- 931	25.1	180.6	-1.04	0.925	89.9	41.2	4.9	0.091
4- 860	4-1000	0.110	263.0	4.0	-3.58	1.257	87.1	1.019	-0.063	4- 930	21.7	187.4	-0.65	0.925	88.6	36.4	7.7	0.094
4- 860	4-1010	0.106	268.6	0.9	-3.45	1.259	87.6	1.027	-0.061	4- 929	17.7	193.5	-0.36	0.925	87.5	34.4	10.3	0.101
4- 860	4-1020	0.102	275.8	-2.1	-3.41	1.262	88.3	1.037	-0.061	4- 929	13.1	198.9	-0.13	0.926	86.5	35.1	12.9	0.110
4- 860	4-1030	0.100	284.4	-4.7	-3.45	1.265	88.9	1.048	-0.062	4- 928	8.0	203.8	0.05	0.927	85.5	37.9	15.4	0.119
4- 860	4-1040	0.100	294.2	-6.9	-3.53	1.267	89.6	1.061	-0.064	4- 927	2.5	208.2	0.21	0.928	84.7	42.1	17.8	0.129
4- 870	4- 990	0.154	256.0	6.7	-5.20	1.251	84.1	0.969	-0.087	4- 944	42.7	182.2	-2.84	0.919	89.6	43.6	-9.6	0.108
4- 870	4-1000	0.146	259.4	4.3	-4.39	1.254	84.6	0.976	-0.074	4- 944	38.8	188.6	-2.05	0.919	88.3	38.7	-3.7	0.107
4- 870	4-1010	0.138	263.7	1.6	-3.87	1.257	85.2	0.983	-0.066	4- 943	34.3	194.2	-1.50	0.921	87.2	36.9	1.3	0.111
4- 870	4-1020	0.130	269.0	-1.0	-3.56	1.260	85.9	0.992	-0.061	4- 943	29.2	199.2	-1.13	0.922	86.2	37.6	5.4	0.117
4- 870	4-1030	0.122	275.5	-2.2	-3.36	1.264	86.6	1.003	-0.058	4- 942	23.7	203.7	-1.01	0.926	85.4	40.6	7.9	0.124
4- 870	4-1040	0.115	283.3	-5.9	-3.25	1.267	87.4	1.014	-0.057	4- 941	18.0	207.9	-0.70	0.926	84.6	44.5	11.8	0.132
4- 870	4-1050	0.110	292.6	-7.8	-3.17	1.271	88.2	1.028	-0.056	4- 940	12.0	211.7	-0.60	0.927	83.8	49.9	14.2	0.140
4- 870	4-1060	0.108	303.2	-9.2	-3.10	1.274	89.1	1.043	-0.056	4- 939	5.8	215.3	-0.55	0.929	83.0	56.1	16.6	0.149
4- 880	4-1000	0.197	261.5	4.4	-6.04	1.247	81.8	0.932	-0.098	4- 958	56.6	190.4	-4.18	0.910	87.6	40.7	-15.6	0.134
4- 880	4-1010	0.184	264.9	2.2	-4.83	1.252	82.5	0.939	-0.079	4- 957	51.5	195.5	-3.05	0.912	86.5	38.2	-7.8	0.131
4- 880	4-1020	0.172	269.0	-0.0	-4.06	1.256	83.2	0.948	-0.067	4- 957	45.9	200.0	-2.33	0.915	85.6	39.3	-1.7	0.133
4- 880	4-1030	0.161	273.7	-2.3	-3.55	1.261	84.0	0.957	-0.059	4- 956	40.1	204.2	-1.86	0.918	84.8	41.9	3.1	0.137
4- 880	4-1040	0.149	279.4	-4.4	-3.21	1.265	84.9	0.968	-0.054	4- 955	34.0	208.0	-1.55	0.921	84.1	46.1	6.9	0.142
4- 880	4-1050	0.139	286.0	-6.4	-2.95	1.270	85.8	0.980	-0.050	4- 954	27.8	211.6	-1.36	0.924	83.5	51.3	9.9	0.148
4- 880	4-1060	0.129	293.9	-8.1	-2.75	1.274	86.7	0.994	-0.047	4- 953	21.4	215.0	-1.27	0.926	82.8	57.9	12.3	0.154
4- 880	4-1070	0.122	303.3	-9.3	-2.55	1.278	87.7	1.009	-0.044	4- 952	14.9	218.2	-1.26	0.929	82.2	64.9	14.0	0.160
4- 890	4-1020	0.228	273.4	0.9	-5.17	1.249	80.2	0.903	-0.081	4- 971	62.7	201.0	-4.03	0.904	84.7	41.1	-8.5	0.160
4- 890	4-1030	0.212	277.2	-1.1	-4.12	1.256	81.1	0.912	-0.065	4- 970	56.6	204.8	-3.09	0.909	83.9	43.6	-2.0	0.159
4- 890	4-1040	0.197	281.4	-3.0	-3.42	1.262	82.1	0.922	-0.055	4- 969	50.3	208.3	-2.49	0.913	83.3	47.3	2.9	0.160
4- 890	4-1050	0.182	286.3	-4.9	-2.93	1.267	83.1	0.933	-0.047	4- 968	43.8	211.7	-2.11	0.917	82.8	52.4	6.7	0.163
4- 890	4-1060	0.168	292.0	-6.5	-2.67	1.272	84.1	0.946	-0.042	4- 967	37.2	214.9	-1.89	0.921	82.2	58.4	9.6	0.166
4- 890	4-1070	0.156	298.6	-7.9	-2.26	1.277	85.1	0.960	-0.037	4- 966	30.5	218.0	-1.79	0.925	81.7	65.4	11.7	0.170
4- 890	4-1080	0.142	306.4	-9.0	-1.96	1.281	86.1	0.975	-0.033	4- 965	23.8	220.9	-1.78	0.988	81.2	72.3	12.9	0.174
4- 890	4-1090	0.132	315.8	-9.7	-1.64	1.285	87.2	0.992	-0.028	4- 963	17.0	223.8	-1.87	0.991	80.7	79.9	13.5	0.179

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 900	4-1040	0.256	287.2	-1.7	-4.03	1.254	78.9	0.877	-0.061	4- 984	66.2	208.4	-3.74	0.901	82.1	48.8	-0.6	0.188
4- 900	4-1050	0.237	291.1	-3.4	-3.15	1.262	80.0	0.887	-0.048	4- 983	59.5	211.5	-2.99	0.907	81.0	53.6	4.2	0.186
4- 900	4-1060	0.219	295.4	-5.0	-2.53	1.268	81.1	0.898	-0.039	4- 982	52.9	214.6	-2.53	0.913	81.2	59.4	7.8	0.186
4- 900	4-1070	0.201	300.3	-6.4	-2.07	1.274	82.2	0.911	-0.033	4- 981	46.1	217.6	-2.25	0.918	80.9	65.9	10.4	0.186
4- 900	4-1080	0.184	305.9	-7.6	-1.70	1.279	83.3	0.925	-0.027	4- 980	39.3	220.4	-2.12	0.923	80.5	73.0	12.1	0.188
4- 900	4-1090	0.169	312.4	-8.4	-1.34	1.284	84.5	0.940	-0.022	4- 978	32.4	223.2	-2.10	0.927	80.1	80.5	13.0	0.190
4- 900	4-1100	0.154	320.1	-8.9	-0.97	1.289	85.6	0.957	-0.016	4- 977	25.5	225.9	-2.18	0.931	79.8	88.3	13.0	0.192
4- 900	4-1110	0.142	329.4	-9.1	-0.55	1.293	86.7	0.976	-0.009	4- 975	18.6	228.6	-2.36	0.935	79.3	96.2	12.2	0.196
4- 910	4-1060	0.280	302.0	-3.6	-2.72	1.261	77.8	0.852	-0.040	4- 997	68.1	213.8	-3.30	0.900	79.8	60.7	6.6	0.214
4- 910	4-1070	0.259	305.9	-4.9	-2.00	1.268	79.0	0.864	-0.030	4- 996	61.3	216.8	-2.75	0.908	79.6	67.0	9.9	0.210
4- 910	4-1080	0.238	310.2	-6.1	-1.48	1.275	80.2	0.876	-0.022	4- 995	54.5	219.6	-2.42	0.914	79.4	73.9	12.1	0.208
4- 910	4-1090	0.218	315.1	-7.1	-1.06	1.281	81.3	0.890	-0.016	4- 994	47.7	222.4	-2.29	0.920	79.2	81.3	13.3	0.207
4- 910	4-1100	0.199	320.6	-7.7	-0.68	1.287	82.1	0.905	-0.011	4- 992	40.8	225.1	-2.21	0.926	78.9	89.0	13.7	0.207
4- 910	4-1110	0.181	327.0	-8.1	-0.30	1.292	83.9	0.922	-0.005	4- 991	33.8	227.8	-2.27	0.931	78.7	96.9	13.2	0.207
4- 910	4-1120	0.165	334.6	-8.1	0.13	1.296	85.1	0.940	0.002	4- 989	26.9	230.4	-2.44	0.936	78.4	104.9	11.9	0.209
4- 910	4-1130	0.151	343.7	-7.7	0.65	1.300	86.3	0.960	0.011	4- 987	19.9	232.9	-2.70	0.941	78.1	112.8	9.8	0.211
4- 920	4-1070	0.327	313.8	-3.7	-2.09	1.259	78.4	0.819	-0.030	4-1011	76.0	215.3	-3.37	0.893	77.8	68.5	9.6	0.243
4- 920	4-1080	0.302	317.4	-4.8	-1.31	1.268	76.8	0.829	-0.019	4-1010	69.2	218.2	-2.71	0.902	77.8	75.2	12.4	0.236
4- 920	4-1090	0.278	321.3	-5.8	-0.76	1.276	78.2	0.842	-0.011	4-1009	62.4	221.1	-2.36	0.910	77.7	82.5	14.1	0.232
4- 920	4-1100	0.255	325.6	-6.5	-0.34	1.283	79.5	0.855	-0.005	4-1008	55.6	223.8	-2.17	0.918	77.7	90.1	14.9	0.228
4- 920	4-1110	0.233	330.4	-7.0	0.03	1.289	80.8	0.870	0.000	4-1006	48.8	226.6	-2.11	0.925	77.6	98.0	14.7	0.225
4- 920	4-1120	0.212	335.8	-7.2	0.39	1.294	82.1	0.886	0.006	4-1005	41.9	229.2	-2.15	0.931	77.5	105.9	13.8	0.223
4- 920	4-1130	0.192	342.2	-7.1	0.79	1.299	83.4	0.904	0.012	4-1003	35.0	231.9	-2.28	0.937	77.3	113.8	12.1	0.223
4- 920	4-1140	0.174	349.6	-6.5	1.25	1.304	84.7	0.924	0.020	4-1001	28.0	234.4	-2.51	0.943	77.1	121.7	9.6	0.223
4- 930	4-1090	0.368	329.6	-4.7	-0.44	1.267	74.4	0.796	-0.006	4-1024	76.6	219.1	-2.44	0.896	75.8	84.2	15.3	0.264
4- 930	4-1100	0.321	333.2	-5.4	0.09	1.275	75.9	0.808	0.001	4-1023	69.9	221.9	-2.05	0.906	75.9	91.7	16.4	0.256
4- 930	4-1110	0.295	337.0	-6.0	0.47	1.283	77.4	0.821	0.007	4-1022	63.1	224.8	-1.85	0.915	76.0	99.5	16.6	0.250
4- 930	4-1120	0.270	341.3	-6.3	0.78	1.290	78.8	0.836	0.011	4-1020	56.4	227.6	-1.78	0.923	76.1	107.4	15.9	0.245
4- 930	4-1130	0.246	346.0	-6.3	1.09	1.296	80.2	0.851	0.016	4-1019	49.6	230.3	-1.82	0.931	76.1	115.4	14.5	0.241
4- 930	4-1140	0.224	351.4	-6.1	1.42	1.301	81.5	0.869	0.021	4-1017	42.8	233.0	-1.93	0.938	76.1	123.2	12.3	0.238
4- 930	4-1150	0.202	357.7	-5.5	1.81	1.306	82.9	0.888	0.027	4-1015	35.8	235.6	-2.12	0.945	76.1	131.0	9.6	0.236
4- 930	4-1160	0.183	5.1	-4.5	2.28	1.310	84.3	0.908	0.035	4-1013	28.9	238.2	-2.39	0.952	76.0	138.6	6.2	0.236
4- 940	4-1110	0.366	345.6	-5.1	1.08	1.274	73.6	0.776	0.015	4-1037	76.9	222.4	-1.46	0.901	74.0	101.6	18.5	0.283
4- 940	4-1120	0.337	349.2	-5.5	1.37	1.282	75.2	0.788	0.019	4-1036	70.3	225.3	-1.29	0.911	74.3	109.5	18.1	0.275
4- 940	4-1130	0.309	353.0	-5.7	1.59	1.290	76.7	0.802	0.022	4-1035	63.6	228.2	-1.25	0.921	74.5	117.4	16.8	0.267
4- 940	4-1140	0.283	357.2	-5.6	1.80	1.297	78.2	0.817	0.025	4-1033	57.0	231.0	-1.29	0.930	74.7	125.3	14.9	0.261
4- 940	4-1150	0.257	1.9	-5.2	2.03	1.302	79.6	0.834	0.029	4-1031	50.2	233.8	-1.41	0.939	74.8	133.0	12.4	0.256
4- 940	4-1160	0.233	7.3	-4.5	2.31	1.308	81.1	0.853	0.034	4-1029	43.4	236.5	-1.58	0.947	74.9	140.6	9.4	0.252
4- 940	4-1170	0.211	13.6	-3.5	2.67	1.312	82.5	0.873	0.040	4-1027	36.5	239.2	-1.80	0.955	75.0	148.1	5.8	0.249
4- 940	4-1180	0.190	21.0	-2.3	3.10	1.317	83.9	0.894	0.047	4-1029	29.5	241.8	-2.08	0.962	75.0	155.6	1.8	0.248
4- 950	4-1130	0.382	1.8	-5.1	2.37	1.281	72.9	0.757	0.031	4-1051	77.1	225.4	-0.48	0.908	72.4	119.9	19.2	0.301
4- 950	4-1140	0.351	5.3	-5.1	2.44	1.289	74.5	0.770	0.033	4-1049	70.5	228.4	-0.50	0.919	72.8	127.7	17.4	0.291
4- 950	4-1150	0.322	9.2	-4.9	2.51	1.296	76.1	0.784	0.034	4-1048	63.9	231.3	-0.59	0.930	73.1	135.5	15.0	0.283
4- 950	4-1160	0.294	13.4	-4.4	2.61	1.303	77.7	0.801	0.036	4-1046	57.3	234.2	-0.73	0.939	73.4	143.1	12.1	0.276
4- 950	4-1170	0.267	18.1	-3.6	2.77	1.308	79.2	0.818	0.039	4-1044	50.6	237.1	-0.90	0.949	73.7	150.6	8.8	0.270
4- 950	4-1180	0.242	23.5	-2.6	2.99	1.313	80.7	0.838	0.043	4-1042	43.8	239.8	-1.10	0.957	73.8	158.0	5.1	0.265
4- 950	4-1190	0.218	29.8	-1.3	3.28	1.318	82.2	0.859	0.048	4-1039	36.9	242.6	-1.33	0.966	74.0	165.4	1.1	0.262
4- 950	4-1200	0.196	37.3	0.1	3.64	1.322	83.6	0.882	0.054	4-1037	29.9	245.2	-1.59	0.973	74.1	172.8	-3.1	0.260
4- 960	4-1140	0.428	14.8	-4.7	3.48	1.278	70.4	0.727	0.044	4-1065	83.5	225.2	0.58	0.905	70.4	130.8	17.7	0.331
4- 960	4-1150	0.395	18.1	-4.6	3.34	1.287	72.2	0.739	0.043	4-1064	77.1	228.3	0.44	0.918	70.9	138.4	17.3	0.318
4- 960	4-1160	0.363	21.7	-4.2	3.23	1.295	73.9	0.753	0.042	4-1063	70.6	231.3	0.27	0.929	71.4	145.9	14.5	0.308
4- 960	4-1170	0.332	25.5	-3.6	3.16	1.302	75.6	0.768	0.042	4-1061	64.1	234.3	0.07	0.940	71.9	153.3	11.2	0.298
4- 960	4-1180	0.303	29.7	-2.8	3.16	1.308	77.2	0.786	0.043	4-1059	57.5	237.3	-0.14	0.950	72.3	160.7	7.7	0.290
4- 960	4-1190	0.275	34.5	-1.8	3.23	1.314	78.8	0.804	0.045	4-1057	50.8	240.2	-0.34	0.960	72.7	168.0	3.9	0.283
4- 960	4-1200	0.248	39.9	-0.5	3.37	1.319	80.3	0.825	0.047	4-1054	44.0	243.1	-0.54	0.969	72.9	175.4	0.0	0.278
4- 960	4-1210	0.224	46.4	0.8	3.57	1.323	81.9	0.847	0.051	4-1051	37.0	245.8	-0.74	0.978	73.2	182.8	-4.0	0.274
4- 970	4-1160	0.440	31.2	-4.1	4.28	1.284	69.9	0.710	0.053	4-1079	83.3	227.9	1.56	0.916	69.0	149.2	16.6	0.348
4- 970	4-1170	0.405	34.6	-3.7	3.93	1.293	71.7	0.723	0.049	4-1077	76.9	231.0	1.24	0.929	69.7	156.5	13.3	0.335
4- 970	4-1180	0.372	38.1	-3.0	3.66	1.300	73.5	0.734	0.047	4-1076	70.5	234.1	0.95	0.941	70.3	163.7	9.8	0.323
4- 970	4-1190	0.340	42.0	-2.2	3.49	1.307	75.2	0.754	0.045	4-1074	64.0	237.2	0.68	0.952	70.9	170.8	6.1	0.313
4- 970	4-1200	0.310	46.3	-1.1	3.40	1.313	76.9	0.772	0.045	4-1071	57.4	240.3	0.44	0.962	71.4	178.1	2.3	0.304
4- 970	4-1210	0.281	51.1	0.1	3.38	1.318	78.5	0.792	0.046	4-1069	50.7	243.3	0.24	0.972	71.8	185.4	-1.5	0.296
4- 970	4-1220	0.254	56.7	1.4	3.43	1.323	80.1	0.814	0.047	4-1066	43.8	246.2	0.07	0.981	72.2	193.0	-5.3	0.290
4- 970	4-1230	0.228	63.3	2.8	3.51	1.327	81.8	0.837	0.050	4-1063	36.8	248.9	-0.07	0.990	72.5	200.8	-9.0	0.286
4- 980	4-1170	0.487	44.5	-3.7	5.23	1.281	67.4	0.683	0.062	4-1093	89.1	227.2	2.80	0.914	67.0	160.0	15.1	0.380
4- 980	4-1180	0.449	47.7	-3.2	4.60	1.290	69.4	0.696	0.056	4-1092	82.9	230.4	2.30	0.928	67.8	167.0	11.5	0.364
4- 980	4-1190	0.414	51.1	-2.5	4.10	1.298	71.3	0.710	0.051	4-1090	76.5	233.7	1.87	0.941	68.6	173.9	7.7	0.350
4- 980	4-1200	0.379	54.7	-1.6	3.75	1.305	73.1	0.725	0.047	4-1088	70.1	236.9	1.51	0.954	69.3	181.0	3.9	0.338
4- 980	4-1210	0.347	58.6	-0.5	3.47	1.312	74.9	0.742	0.044	4-1086	63.6	240.1	1.21	0.965	70.0	188.2	0.1	0.327
4- 980	4-1220	0.315	63.0	0.7	3.30	1.317	76.6	0.761	0.043	4-1084	57.0	243.2	0.98	0.975	70.6	195.5	-3.5	0.317
4- 980	4-1230	0.285	67.9	1.9	3.20	1.323	78.3	0.782	0.043	4-1081	50.2	246.2	0.81	0.985	71.2	203.2	-7.1	0.309
4- 980	4-1240	0.257	73.7	3.2	3.13	1.329	80.0	0.805	0.043	4-1078	43.2	249.1	0.70	0.994	71.6	211.2	-10.3	0.303
4- 990	4-1190	0.495	61.1	-2.7	5.20	1.286	67.1	0.670	0.061	4-1106	88.5	229.7	3.38	0.928	65.9	177.3	-5.1	0.396
4- 990	4-1200	0.456	64.3	-1.9	4.44	1.295	69.1	0.683	0.053	4-1105	82.5	233.0	2.78	0.942	66.9	184.1	-9.1	0.380
4- 990	4-1210	0.420	67.8	-1.0	3.86	1.303	71.0	0.698	0.047	4-1103	75.9	236.3	2.29	0.955	67.8	191.0	1.3	0.365
4- 990	4-1220	0.384	71.4	0.0	3.43	1.310	72.9	0.714	0.042	4-1101	69.5	239.6	1.92	0.967	68.6	198.2	-2.4	0.352
4- 990	4-1230	0.351	75.4	1.2	3.11	1.316	74.8	0.732	0.039	4-1099	62.9	242.8	1.63	0.978	69.3	205.6	-5.9	0.340
4- 990	4-1240	0.319	79.9	2.3	2.88	1.321	76.5	0.752	0.037	4-1096	56.2	246.0	1.44	0.989	70.0	213.4	-9.1	0.330
4- 990	4-1250	0.288	85.0	3.3	2.68	1.326	78.3	0.774	0.035	4-1093	49.4	249.0	1.34	0.998	70.7	221.6	-11.9	0.322
4- 990	4-1260	0.259	91.1	4.5	2.48	1.331	80.1	0.799	0.034	4-1089	42.3	251.9	1.33	1.006	71.2	230.1	-14.3	0.315

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPART PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1000	4-1200	0.541	74.6	-2.2	5.71	1.282	64.7	0.667	0.065	4-1121	93.9	228.7	4.43	0.927	63.9	187.5	6.1	0.430
4-1000	4-1210	0.500	77.8	-1.4	4.66	1.291	66.8	0.659	0.054	4-1120	87.7	232.1	3.61	0.942	65.0	194.1	2.1	0.411
4-1000	4-1220	0.461	81.0	-0.8	3.87	1.300	68.9	0.672	0.045	4-1118	81.4	235.5	2.98	0.956	66.1	201.0	-1.7	0.394
4-1000	4-1230	0.423	84.5	0.5	3.27	1.307	70.9	0.688	0.039	4-1116	75.0	238.9	2.51	0.969	67.1	208.2	-5.3	0.379
4-1000	4-1240	0.387	88.3	1.6	2.81	1.314	72.9	0.705	0.034	4-1113	68.6	242.2	2.16	0.981	68.0	215.8	-8.5	0.365
4-1000	4-1250	0.353	92.4	2.6	2.46	1.320	74.7	0.725	0.031	4-1111	61.9	245.5	1.94	0.992	68.8	223.7	-11.4	0.353
4-1000	4-1260	0.320	97.0	3.6	2.16	1.325	76.6	0.746	0.028	4-1108	55.1	248.7	1.82	1.003	69.6	232.0	-13.7	0.343
4-1000	4-1270	0.288	102.4	4.5	1.87	1.330	78.4	0.769	0.024	4-1104	48.1	251.7	1.81	1.010	70.3	240.7	-15.5	0.334
4-1400	4-1490	0.258	141.2	-4.3	2.23	1.350	98.9	1.112	0.045	4-1458	324.1	466.2	-0.84	1.004	128.0	262.4	-25.6	0.343
4-1400	4-1500	0.216	140.7	-4.7	2.28	1.322	97.6	1.107	0.047	4-1457	324.9	476.5	-0.92	0.965	106.5	267.3	-26.5	0.277
4-1400	4-1510	0.185	136.8	-4.9	2.39	1.303	96.5	1.200	0.049	4-1457	326.0	487.3	-0.97	0.939	102.9	271.3	-27.4	0.224
4-1400	4-1520	0.163	138.7	-4.9	2.53	1.290	95.7	1.194	0.052	4-1457	327.3	498.1	-1.04	0.922	99.9	274.0	-28.6	0.181
4-1400	4-1530	0.148	137.6	-4.4	2.70	1.282	95.1	1.189	0.055	4-1457	328.4	508.8	-1.15	0.911	97.1	274.7	-30.5	0.147
4-1400	4-1540	0.138	136.9	-3.2	2.92	1.278	94.8	1.186	0.060	4-1457	329.2	519.2	-1.31	0.904	94.7	272.4	-33.3	0.121
4-1400	4-1550	0.132	136.6	-1.3	3.22	1.273	94.6	1.185	0.066	4-1457	329.9	529.0	-1.56	0.902	92.4	266.4	-37.1	0.104
4-1400	4-1560	0.131	137.2	1.2	3.64	1.271	94.6	1.187	0.074	4-1457	329.6	538.2	-1.92	0.902	90.4	256.7	-41.3	0.096
4-1410	4-1500	0.207	147.4	-4.4	3.67	1.339	96.1	1.148	0.071	4-1472	333.5	468.6	0.56	0.990	107.8	271.9	-21.7	0.305
4-1410	4-1510	0.172	145.7	-4.7	3.30	1.315	95.0	1.148	0.064	4-1471	335.1	479.9	0.12	0.956	104.3	276.0	-22.9	0.245
4-1410	4-1520	0.147	143.6	-4.8	3.16	1.299	94.1	1.146	0.062	4-1471	337.0	491.4	-0.10	0.934	101.1	279.2	-23.7	0.196
4-1410	4-1530	0.130	141.4	-4.5	3.12	1.288	93.5	1.143	0.061	4-1470	338.7	502.8	-0.26	0.919	98.2	280.7	-24.6	0.158
4-1410	4-1540	0.119	139.6	-3.5	3.14	1.281	93.1	1.140	0.062	4-1470	340.1	513.8	-0.42	0.911	95.6	279.9	-26.1	0.127
4-1410	4-1550	0.112	138.6	-1.8	3.22	1.276	92.9	1.140	0.063	4-1470	340.9	524.2	-0.60	0.907	93.3	276.0	-28.5	0.105
4-1410	4-1560	0.109	138.6	0.8	3.37	1.274	92.8	1.141	0.066	4-1470	340.9	533.8	-0.83	0.906	91.3	268.7	-31.6	0.092
4-1410	4-1570	0.110	139.9	3.7	3.62	1.273	92.9	1.144	0.071	4-1470	340.1	542.7	-1.11	0.907	89.4	259.0	-34.7	0.088
4-1420	4-1520	0.134	144.0	-4.8	4.50	1.305	92.3	1.092	0.084	4-1485	347.7	489.3	1.52	0.945	102.1	282.6	-16.3	0.213
4-1420	4-1530	0.117	139.9	-4.6	3.99	1.292	91.6	1.093	0.074	4-1484	350.2	497.7	1.00	0.927	99.1	284.3	-17.3	0.169
4-1420	4-1540	0.105	136.4	-3.9	3.70	1.283	91.2	1.093	0.069	4-1484	352.2	509.5	0.69	0.916	96.4	284.2	-18.1	0.135
4-1420	4-1550	0.099	134.1	-2.3	3.53	1.278	91.0	1.093	0.066	4-1484	353.6	520.5	0.44	0.911	94.0	281.3	-19.4	0.110
4-1420	4-1560	0.095	133.5	0.2	3.44	1.275	90.9	1.095	0.065	4-1484	354.0	530.7	0.20	0.909	93.9	275.3	-21.4	0.093
4-1420	4-1570	0.094	134.5	3.3	3.43	1.274	90.9	1.098	0.065	4-1483	353.5	539.8	-0.03	0.910	90.0	267.1	-23.0	0.085
4-1420	4-1580	0.096	137.2	6.4	3.50	1.274	91.1	1.103	0.066	4-1483	352.0	548.2	-0.27	0.912	88.4	258.6	-25.9	0.085
4-1420	4-1590	0.099	141.3	8.9	3.64	1.274	91.5	1.110	0.069	4-1482	349.7	555.7	-0.49	0.916	86.9	252.7	-27.5	0.091
4-1430	4-1540	0.104	126.7	-4.3	4.91	1.284	89.6	1.042	0.088	4-1498	6.0	146.5	2.37	0.920	96.9	285.7	-7.6	0.146
4-1430	4-1550	0.098	123.3	-2.9	4.27	1.278	88.8	1.045	0.077	4-1498	7.9	158.3	1.79	0.913	94.4	283.2	-8.8	0.117
4-1430	4-1560	0.095	122.1	-0.6	3.85	1.274	88.8	1.047	0.069	4-1497	8.6	168.9	1.36	0.910	92.2	277.9	-10.5	0.098
4-1430	4-1570	0.093	122.9	2.4	3.56	1.273	88.8	1.051	0.064	4-1497	8.1	178.3	1.02	0.910	90.3	270.5	-12.7	0.087
4-1430	4-1580	0.092	125.6	2.5	3.39	1.272	89.0	1.056	0.062	4-1497	6.8	186.7	0.97	0.910	88.7	263.0	-12.8	0.085
4-1430	4-1590	0.093	130.2	8.4	3.30	1.273	89.4	1.062	0.060	4-1496	4.4	194.2	0.54	0.916	87.2	257.2	-17.3	0.088
4-1430	4-1600	0.094	136.3	10.5	3.26	1.274	89.8	1.070	0.060	4-1496	1.3	201.0	0.39	0.921	85.9	254.6	-18.9	0.096
4-1430	4-1610	0.097	143.7	11.9	3.25	1.276	90.4	1.081	0.060	4-1495	357.5	567.1	0.29	0.926	84.7	255.0	-20.2	0.107
4-1440	4-1550	0.118	112.7	-3.5	5.95	1.274	86.4	0.995	0.102	4-1512	24.2	157.8	2.22	0.912	94.6	281.9	5.4	0.133
4-1440	4-1560	0.115	111.7	-1.5	4.82	1.271	86.4	0.999	0.083	4-1512	24.9	168.8	2.95	0.908	92.3	277.0	2.1	0.109
4-1440	4-1570	0.112	112.5	1.2	4.08	1.269	86.5	1.004	0.071	4-1511	24.4	178.3	2.26	0.908	90.4	270.2	-1.4	0.095
4-1440	4-1580	0.109	114.9	4.2	3.58	1.269	86.7	1.009	0.062	4-1511	22.7	186.5	1.77	0.910	88.7	263.4	-5.2	0.091
4-1440	4-1590	0.106	118.7	7.0	3.24	1.270	87.1	1.015	0.057	4-1510	20.2	193.8	1.44	0.914	87.2	258.5	-8.6	0.093
4-1440	4-1600	0.104	124.0	9.4	3.01	1.272	87.6	1.023	0.053	4-1510	16.9	200.4	1.23	0.920	86.0	256.3	-11.3	0.099
4-1440	4-1610	0.101	131.0	11.2	2.82	1.274	88.1	1.032	0.050	4-1509	12.9	206.3	1.12	0.925	84.8	256.8	-13.2	0.108
4-1440	4-1620	0.100	139.4	12.3	2.65	1.276	88.8	1.044	0.048	4-1508	8.3	211.7	1.09	0.931	83.9	259.5	-14.5	0.118
4-1440	4-1630	0.101	149.3	12.7	2.46	1.278	89.5	1.057	0.045	4-1507	3.2	216.7	1.13	0.937	82.9	263.9	-15.2	0.130
4-1450	4-1560	0.155	107.8	-2.4	7.04	1.263	83.6	0.951	0.116	4-1526	43.0	170.1	5.70	0.903	92.1	273.4	17.5	0.137
4-1450	4-1570	0.150	108.7	-0.1	5.26	1.262	83.8	0.957	0.087	4-1525	42.0	179.6	4.05	0.902	90.1	267.2	10.6	0.114
4-1450	4-1580	0.144	110.7	2.5	4.17	1.263	84.1	0.963	0.069	4-1525	39.9	187.5	3.04	0.905	88.4	261.4	4.2	0.105
4-1450	4-1590	0.138	113.7	5.1	3.46	1.264	84.6	0.969	0.058	4-1524	36.9	194.4	2.40	0.910	86.9	257.5	-1.3	0.104
4-1450	4-1600	0.132	117.8	7.4	2.98	1.267	85.1	0.977	0.050	4-1524	33.2	200.6	2.02	0.916	85.7	256.1	-5.5	0.108
4-1450	4-1610	0.126	123.0	9.4	2.62	1.269	85.7	0.985	0.045	4-1523	28.9	206.3	1.77	0.922	84.6	257.1	-8.5	0.115
4-1450	4-1620	0.119	129.5	10.9	2.33	1.272	86.4	0.996	0.040	4-1522	24.1	211.4	1.67	0.929	83.7	260.1	-10.5	0.123
4-1450	4-1630	0.113	137.5	11.8	2.04	1.275	87.1	1.008	0.035	4-1521	18.8	216.1	1.67	0.936	82.9	264.5	-11.6	0.133
4-1450	4-1640	0.109	147.2	12.2	1.73	1.278	88.0	1.022	0.030	4-1520	13.1	220.5	1.76	0.942	82.2	270.1	-11.9	0.143
4-1460	4-1590	0.185	115.1	3.2	4.10	1.256	81.8	0.924	0.066	4-1539	54.1	195.6	3.69	0.901	86.2	255.4	5.2	0.124
4-1460	4-1600	0.175	118.3	5.4	3.19	1.259	82.4	0.932	0.051	4-1538	49.9	201.3	2.90	0.908	85.0	254.8	-1.0	0.124
4-1460	4-1610	0.166	122.1	7.3	2.58	1.263	83.1	0.940	0.042	4-1537	45.2	206.6	2.41	0.916	84.0	256.4	-5.4	0.128
4-1460	4-1620	0.155	126.8	8.9	2.13	1.266	83.8	0.950	0.035	4-1537	40.1	211.4	2.14	0.924	83.2	259.8	-8.3	0.135
4-1460	4-1630	0.144	132.6	10.1	1.76	1.270	84.7	0.961	0.029	4-1536	34.6	215.9	2.02	0.932	82.5	264.6	-10.1	0.142
4-1460	4-1640	0.134	139.6	10.9	1.40	1.274	85.5	0.974	0.023	4-1535	28.7	220.1	2.02	0.939	81.9	270.3	-10.8	0.150
4-1460	4-1650	0.125	148.2	11.2	1.02	1.277	86.5	0.988	0.017	4-1533	22.5	223.9	2.13	0.946	81.3	276.8	-10.7	0.159
4-1460	4-1660	0.117	158.6	11.4	0.58	1.281	87.5	1.005	0.010	4-1532	15.9	227.5	2.30	0.952	80.8	283.7	-9.8	0.168
4-1470	4-1600	0.231	123.0	3.5	3.84	1.248	79.3	0.889	0.059	4-1552	66.0	201.9	4.14	0.897	84.0	253.6	3.0	0.150
4-1470	4-1610	0.217	126.2	5.3	2.75	1.253	80.1	0.897	0.043	4-1552	61.3	206.7	3.20	0.906	83.1	255.6	-3.1	0.150
4-1470	4-1620	0.203	129.8	6.9	2.03	1.258	81.0	0.905	0.032	4-1551	56.0	211.3	2.65	0.916	82.3	259.3	-7.2	0.153
4-1470	4-1630	0.188	134.1	8.2	1.51	1.263	81.9	0.916	0.024	4-1550	50.2	215.6	2.31	0.925	81.7	264.4	-9.7	0.157
4-1470	4-1640	0.174	139.2	9.2	1.10	1.268	82.9	0.928	0.018	4-1549	44.1	219.6	2.17	0.934	81.2	270.3	-11.0	0.163
4-1470	4-1650	0.160	145.3	9.8	0.72	1.272	83.9	0.941	0.012	4-1548	37.8	223.3	2.16	0.942	80.7	277.0	-11.3	0.169
4-1470	4-1660	0.147	152.6	10.8	0.33	1.277	84.9	0.956	0.005	4-1547	31.2	226.9	2.17	0.949	80.4	284.1	-11.1	0.178
4-1470	4-1670	0.134	161.6	9.7	-0.16	1.280	86.0	0.973	-0.003	4-1545	24.3	230.1	2.47	0.956	80.0	291.4	-9.0	0.183
4-1480	4-1620	0.262	136.1	5.1	2.10	1.247	77.8	0.864	0.032	4-1565	71.3	210.8	3.25	0.903	81.0	259.1	-6.6	0.178
4-1480	4-1630	0.243	139.6	6.4	1.32	1.254	78.9	0.873	0.020	4-1565	63.4	214.9	2.62	0.913	80.5	264.3	-10.0	0.179
4-1480	4-1640	0.225	143.6	7.5	0.78	1.260	80.0	0.884	0.012	4-1564	59.2	218.7	2.27	0.925	80.1	270.5	-12.0	0.182
4-1480	4-1650	0.207	148.2	8.3	0.37	1.269	81.1	0.896	0.006	4-1563	52.8	222.4	2.11	0.935	79.8	277.3	-12.7	0.185
4-1480	4-1660	0.187	153.6	0.8	-0.00	1.271	82.2	0.910	-0.000	4-1561	46.1	225.8	3.38	0.944	79.6	284.2	-6.8	0.193
4-1480	4-1670	0.172	159.8	8.7	-0.40	1.275	83.4	0.925	-0.006	4-1560	39.2	229.2	2.18	0.951	79.4	292.1	-11.2	0.193

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1480	4-1680	0.156	167.5	8.3	-0.85	1.280	84.6	0.942	-0.014	4-1558	32.1	232.2	2.37	0.958	79.1	299.7	-9.1	0.198
4-1480	4-1690	0.141	176.9	7.4	-1.39	1.284	85.8	0.981	-0.023	4-1557	24.7	234.9	2.67	0.964	78.9	307.3	-6.2	0.205
4-1490	4-1640	0.286	150.7	6.0	0.44	1.249	76.8	0.892	0.007	4-1578	73.6	217.3	2.34	0.913	78.6	271.1	-12.4	0.208
4-1490	4-1650	0.264	154.4	6.9	-0.07	1.256	78.0	0.953	-0.001	4-1577	67.2	221.0	1.99	0.925	78.5	278.1	-14.6	0.208
4-1490	4-1660	0.242	158.6	3.8	-0.40	1.263	79.3	0.866	-0.006	4-1576	60.6	224.5	1.96	0.935	78.4	285.4	-14.0	0.209
4-1490	4-1670	0.221	163.4	7.7	-0.76	1.269	80.5	0.880	-0.012	4-1575	53.7	227.8	1.81	0.945	78.3	293.1	-13.6	0.210
4-1490	4-1680	0.201	168.9	7.5	-1.10	1.274	81.8	0.895	-0.017	4-1573	46.6	230.9	1.90	0.953	78.3	300.8	-12.8	0.212
4-1490	4-1690	0.181	175.5	7.0	-1.48	1.280	83.1	0.913	-0.023	4-1572	39.3	233.7	2.08	0.959	78.2	308.5	-9.3	0.215
4-1490	4-1700	0.163	183.5	6.0	-1.95	1.284	84.4	0.932	-0.031	4-1570	31.8	236.4	2.34	0.965	78.2	316.2	-6.1	0.218
4-1490	4-1710	0.147	193.3	4.7	-2.53	1.288	85.7	0.953	-0.041	4-1568	24.0	238.7	2.70	0.970	78.0	323.7	-2.2	0.223
4-1500	4-1650	0.331	162.6	5.6	-0.62	1.244	74.6	0.814	-0.009	4-1592	80.9	218.9	1.75	0.910	76.7	279.3	-16.7	0.240
4-1500	4-1660	0.305	166.1	6.0	-1.00	1.253	76.0	0.824	-0.014	4-1591	74.3	222.4	1.52	0.923	76.7	286.8	-16.7	0.237
4-1500	4-1670	0.280	170.0	6.6	-1.31	1.260	77.4	0.837	-0.019	4-1590	67.6	225.8	1.33	0.935	76.9	294.5	-16.3	0.234
4-1500	4-1680	0.255	174.4	6.7	-1.54	1.267	78.8	0.851	-0.023	4-1588	60.6	229.0	1.35	0.946	77.0	302.3	-14.7	0.233
4-1500	4-1690	0.232	179.4	6.4	-1.78	1.274	80.2	0.866	-0.027	4-1587	53.4	232.0	1.45	0.953	77.1	310.1	-12.3	0.232
4-1500	4-1700	0.209	185.1	5.7	-2.07	1.279	81.6	0.884	-0.032	4-1585	46.1	234.8	1.62	0.960	77.2	317.9	-9.4	0.232
4-1500	4-1710	0.187	192.0	4.7	-2.44	1.284	83.0	0.903	-0.038	4-1583	38.5	237.4	1.85	0.966	77.3	325.5	-5.9	0.233
4-1500	4-1720	0.166	200.3	3.3	-2.89	1.289	84.4	0.924	-0.046	4-1581	30.7	239.7	2.14	0.970	77.3	333.1	-1.9	0.236
4-1510	4-1670	0.348	178.4	5.7	-2.12	1.249	73.9	0.797	-0.029	4-1604	80.7	223.2	0.65	0.920	75.0	296.5	-19.0	0.267
4-1510	4-1680	0.319	182.2	5.9	-2.23	1.258	75.5	0.809	-0.031	4-1603	73.9	226.5	0.62	0.933	75.3	304.4	-17.5	0.262
4-1510	4-1690	0.291	186.2	5.8	-2.32	1.266	77.1	0.823	-0.033	4-1602	66.9	229.7	0.70	0.944	75.6	312.2	-15.2	0.258
4-1510	4-1700	0.265	190.7	5.3	-2.43	1.273	78.6	0.839	-0.039	4-1600	59.7	232.7	0.83	0.957	75.9	320.0	-12.5	0.254
4-1510	4-1710	0.239	195.9	4.6	-2.60	1.279	80.1	0.856	-0.038	4-1599	52.3	235.4	1.01	0.960	76.2	327.6	-9.1	0.251
4-1510	4-1720	0.215	201.9	3.5	-2.84	1.285	81.6	0.875	-0.043	4-1597	44.7	238.0	1.23	0.966	76.4	335.2	-5.4	0.250
4-1510	4-1730	0.192	209.1	2.1	-3.16	1.290	83.0	0.896	-0.048	4-1595	36.9	240.3	1.47	0.970	76.5	342.7	-1.3	0.249
4-1510	4-1740	0.172	217.7	0.5	-3.56	1.295	84.5	0.919	-0.056	4-1592	29.0	242.4	1.75	0.974	76.6	350.2	3.0	0.250
4-1520	4-1680	0.392	191.2	5.2	-3.31	1.246	71.8	0.771	-0.045	4-1618	86.5	223.4	-0.40	0.917	73.1	307.1	-20.3	0.299
4-1520	4-1690	0.360	194.7	5.3	-3.20	1.256	73.6	0.783	-0.044	4-1617	79.7	226.8	-0.28	0.930	73.6	314.8	-18.0	0.291
4-1520	4-1700	0.329	198.6	5.0	-3.10	1.265	75.3	0.796	-0.043	4-1616	72.7	229.9	-0.11	0.942	74.1	322.5	-15.2	0.284
4-1520	4-1710	0.299	202.8	4.4	-3.04	1.273	76.9	0.812	-0.043	4-1614	65.5	232.9	0.09	0.951	74.6	330.1	-11.9	0.278
4-1520	4-1720	0.271	207.4	3.5	-3.06	1.280	78.5	0.828	-0.044	4-1612	58.2	235.7	0.30	0.958	75.0	337.6	-8.3	0.272
4-1520	4-1730	0.244	212.8	2.4	-3.15	1.286	80.1	0.847	-0.046	4-1610	50.6	238.2	0.52	0.965	75.4	345.1	-4.4	0.268
4-1520	4-1740	0.219	219.0	1.1	-3.32	1.291	81.6	0.868	-0.049	4-1608	42.9	240.6	0.74	0.970	75.6	352.6	-0.4	0.264
4-1520	4-1750	0.196	226.4	-0.5	-3.56	1.296	83.2	0.890	-0.054	4-1606	35.0	242.7	0.95	0.974	75.8	0.1	3.8	0.262
4-1530	4-1700	0.403	207.7	4.6	-4.19	1.254	71.5	0.757	-0.055	4-1630	85.0	226.6	-1.37	0.927	71.9	325.6	-17.7	0.322
4-1530	4-1710	0.369	211.3	4.2	-3.85	1.264	73.4	0.770	-0.052	4-1629	78.1	229.7	-1.05	0.939	72.6	333.9	-14.4	0.312
4-1530	4-1720	0.336	215.3	3.6	-3.59	1.272	75.1	0.785	-0.049	4-1628	71.0	232.7	-0.75	0.948	73.2	340.4	-10.7	0.303
4-1530	4-1730	0.305	219.6	2.6	-3.43	1.280	76.8	0.802	-0.048	4-1626	63.7	235.5	-0.48	0.956	73.8	347.7	-6.9	0.295
4-1530	4-1740	0.276	224.3	1.5	-3.37	1.287	78.5	0.820	-0.048	4-1624	56.2	238.1	-0.23	0.963	74.2	355.1	-2.9	0.287
4-1530	4-1750	0.248	229.8	0.2	-3.39	1.293	80.1	0.840	-0.049	4-1622	48.6	240.5	-0.02	0.968	74.6	2.5	1.0	0.281
4-1530	4-1760	0.222	236.3	-1.3	-3.47	1.298	81.7	0.862	-0.051	4-1619	40.9	242.7	0.16	0.973	74.9	10.1	4.9	0.277
4-1530	4-1770	0.199	244.0	-2.7	-3.58	1.303	83.4	0.885	-0.054	4-1617	32.9	244.7	0.30	0.976	75.1	17.9	8.7	0.271
4-1540	4-1710	0.447	220.9	4.1	-5.20	1.253	69.4	0.733	-0.067	4-1644	90.1	226.1	-2.60	0.923	70.1	336.4	-16.7	0.356
4-1540	4-1720	0.410	224.4	3.6	-4.55	1.263	71.4	0.745	-0.059	4-1643	83.2	229.2	-2.08	0.935	71.0	343.5	-12.8	0.342
4-1540	4-1730	0.375	228.1	2.8	-4.06	1.273	73.3	0.759	-0.054	4-1641	76.1	232.2	-1.65	0.945	71.7	350.6	-8.9	0.330
4-1540	4-1740	0.341	232.1	1.9	-3.71	1.281	75.1	0.775	-0.050	4-1640	68.9	235.0	-1.28	0.954	72.4	357.8	-4.9	0.319
4-1540	4-1750	0.309	236.5	0.7	-3.49	1.288	76.9	0.793	-0.048	4-1638	61.6	237.7	-0.99	0.961	73.0	5.1	-1.0	0.309
4-1540	4-1760	0.279	241.4	-0.6	-3.35	1.295	78.6	0.812	-0.047	4-1635	54.1	240.2	-0.76	0.966	73.6	12.5	2.8	0.300
4-1540	4-1770	0.251	247.0	-1.9	-3.28	1.300	80.3	0.833	-0.047	4-1633	46.5	242.4	-0.60	0.971	74.0	20.1	6.4	0.293
4-1540	4-1780	0.225	253.7	-3.2	-3.24	1.305	81.9	0.856	-0.047	4-1630	38.7	244.5	-0.49	0.975	74.3	28.0	9.8	0.287
4-1540	4-1790	0.202	261.6	-4.5	-3.21	1.310	83.6	0.881	-0.048	4-1627	30.9	246.4	-0.44	0.978	74.5	36.1	12.8	0.283
4-1550	4-1720	0.493	234.3	3.6	-6.19	1.251	67.2	0.709	-0.077	4-1657	94.8	225.2	-3.93	0.918	68.2	347.2	-14.8	0.391
4-1550	4-1730	0.453	237.7	3.0	-5.20	1.263	69.3	0.720	-0.065	4-1656	88.0	228.4	-3.17	0.931	69.2	354.0	-10.7	0.374
4-1550	4-1740	0.415	241.2	2.2	-4.45	1.273	71.4	0.734	-0.057	4-1655	81.1	231.4	-2.56	0.941	70.2	0.8	-6.5	0.358
4-1550	4-1750	0.379	245.0	1.2	-3.89	1.282	73.3	0.749	-0.051	4-1654	74.0	234.3	-2.08	0.950	71.0	7.8	-2.5	0.344
4-1550	4-1760	0.345	249.0	0.1	-3.49	1.289	75.2	0.766	-0.046	4-1652	66.8	237.0	-1.71	0.958	71.7	15.0	1.3	0.332
4-1550	4-1770	0.313	253.5	-1.2	-3.21	1.296	77.0	0.785	-0.043	4-1649	59.5	239.5	-1.42	0.964	72.4	22.4	5.0	0.321
4-1550	4-1780	0.282	258.5	-2.4	-3.00	1.302	78.7	0.805	-0.041	4-1647	52.0	241.9	-1.27	0.969	72.9	30.1	8.2	0.311
4-1550	4-1790	0.254	264.3	-3.6	-2.83	1.308	80.4	0.827	-0.040	4-1644	44.4	244.2	-1.17	0.974	73.3	38.0	11.1	0.303
4-1550	4-1800	0.228	271.1	-4.7	-2.67	1.313	82.1	0.851	-0.039	4-1641	36.8	246.2	-1.16	0.977	73.6	46.3	13.6	0.296
4-1560	4-1750	0.457	254.6	1.6	-4.71	1.273	69.3	0.709	-0.058	4-1669	85.9	230.3	-3.43	0.937	68.5	10.9	-3.7	0.388
4-1560	4-1760	0.419	258.2	0.5	-3.94	1.282	71.4	0.723	-0.050	4-1668	78.9	233.3	-2.81	0.946	69.4	17.8	0.3	0.371
4-1560	4-1770	0.383	261.9	-0.5	-3.37	1.291	73.4	0.739	-0.043	4-1666	71.4	236.1	-2.35	0.954	70.3	24.9	4.0	0.356
4-1560	4-1780	0.348	266.0	-1.6	-2.95	1.298	75.2	0.757	-0.039	4-1664	64.7	238.7	-2.03	0.961	71.1	32.3	7.3	0.342
4-1560	4-1790	0.316	270.5	-2.7	-2.62	1.305	77.1	0.777	-0.035	4-1661	57.4	241.2	-1.82	0.967	71.7	40.1	10.3	0.330
4-1560	4-1800	0.285	275.6	-3.8	-2.33	1.311	78.8	0.798	-0.032	4-1658	50.0	243.6	-1.72	0.972	72.3	48.1	12.7	0.320
4-1560	4-1810	0.256	281.5	-4.7	-2.09	1.316	80.5	0.821	-0.029	4-1656	42.5	245.8	-1.71	0.976	72.7	56.5	14.6	0.311
4-1560	4-1820	0.230	288.5	-5.5	-1.78	1.320	82.3	0.846	-0.026	4-1652	34.9	247.8	-1.80	0.980	73.0	65.1	15.8	0.304
4-1570	4-1760	0.501	269.1	1.1	-4.85	1.273	67.2	0.685	-0.058	4-1683	90.5	229.0	-4.21	0.931	66.6	20.9	-0.5	0.419
4-1570	4-1770	0.461	271.5	0.1	-3.86	1.283	69.4	0.698	-0.047	4-1682	83.7	232.0	-3.43	0.941	67.8	27.7	3.4	0.399
4-1570	4-1780	0.422	275.1	-0.9	-3.13	1.292	71.4	0.713	-0.039	4-1680	76.8	234.9	-2.87	0.950	68.8	34.8	6.9	0.381
4-1570	4-1790	0.386	278.9	-2.0	-2.58	1.300	73.4	0.730	-0.033	4-1678	69.8	237.2	-2.47	0.958	69.6	42.3	9.9	0.365
4-1570	4-1800	0.351	283.0	-3.0	-2.16	1.307	75.3	0.749	-0.028	4-1675	62.7	240.3	-2.22	0.964	70.4	50.1	12.4	0.351
4-1570	4-1810	0.318	287.6	-3.9	-1.81	1.313	77.1	0.769	-0.024	4-1673	55.5	242.8	-2.09	0.970	71.1	58.3	14.4	0.338
4-1570	4-1820	0.287	292.8	-4.7	-1.47	1.319	78.9	0.791	-0.020	4-1670	48.2	245.1	-2.07	0.975	71.6	66.7	15.8	0.328
4-1570	4-1830	0.259	298.8	-5.3	-1.11	1.323	80.7	0.815	-0.015	4-1667	40.8	247.3	-2.15	0.980	72.1	75.3	16.4	0.319
4-1580	4-1780	0.504	285.1	-0.3	-3.61	1.283	67.2	0.674	-0.042	4-1696	88.5	230.6	-3.89	0.936	66.0	37.6	6.6	0.428
4-1580	4-1790	0.464	288.5	-1.3	-2.73	1.293	69.4	0.688	-0.033	4-1694	81.7	233.5	-3.21	0.946	67.1	44.9	9.8	0.407
4-1580	4-1800	0.425	292.0	-2.3	-2.09	1.301	71.5	0.704	-0.026	4-1692	74.9	236.4	-2.74	0.954	68.1	52.4	12.6	0.389
4-1580	4-1810	0.388	295.8	-3.2	-1.60	1.309	73.5	0.721	-0.020	4-1690	67.9	239.2	-2.44	0.962	69.0	60.4	14.6	0.372

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1580	4-1820	0.354	300.0	-3.9	-1.20	1.315	75.4	0.740	-0.015	4-1687	60.9	241.8	-2.28	0.968	69.8	68.4	10.1	0.398
4-1580	4-1830	0.321	304.6	-4.6	-0.84	1.321	77.2	0.761	-0.011	4-1685	53.9	244.3	-2.23	0.974	70.4	77.0	16.9	0.345
4-1580	4-1840	0.290	309.9	-5.0	-0.44	1.326	79.0	0.784	-0.006	4-1682	46.7	246.7	-2.30	0.980	71.0	85.6	19.0	0.334
4-1580	4-1850	0.260	316.0	-5.2	0.01	1.331	80.8	0.809	0.000	4-1678	39.4	249.0	-2.46	0.985	71.4	94.3	16.3	0.325
4-1590	4-1800	0.507	302.0	-1.6	-2.18	1.294	67.3	0.663	-0.025	4-1709	86.5	232.0	-3.33	0.941	69.3	55.0	12.8	0.435
4-1590	4-1810	0.466	305.4	-2.5	-1.47	1.302	69.4	0.678	-0.017	4-1707	79.9	235.0	-2.79	0.950	66.4	62.7	15.1	0.414
4-1590	4-1820	0.428	309.0	-3.3	-0.93	1.310	71.5	0.694	-0.011	4-1705	73.1	237.9	-2.45	0.959	67.5	70.8	16.7	0.395
4-1590	4-1830	0.391	312.8	-3.9	-0.51	1.317	73.5	0.712	-0.006	4-1702	66.3	240.7	-2.26	0.966	68.4	79.1	17.7	0.378
4-1590	4-1840	0.356	317.0	-4.4	-0.14	1.323	75.4	0.732	-0.002	4-1700	59.4	243.3	-2.19	0.973	69.2	87.5	17.9	0.364
4-1590	4-1850	0.323	321.7	-4.7	0.24	1.329	77.3	0.753	0.003	4-1696	52.4	245.9	-2.23	0.980	69.8	96.1	17.5	0.351
4-1590	4-1860	0.291	327.0	-4.7	0.66	1.334	79.1	0.777	0.009	4-1693	45.3	248.3	-2.36	0.985	70.4	104.6	16.3	0.340
4-1590	4-1870	0.262	333.2	-4.5	1.15	1.338	80.9	0.802	0.016	4-1690	38.1	250.7	-2.60	0.991	70.9	113.0	14.3	0.331
4-1600	4-1810	0.552	315.7	-1.9	-1.43	1.293	65.0	0.639	-0.016	4-1723	91.4	230.3	-3.19	0.936	65.4	65.3	15.7	0.463
4-1600	4-1820	0.509	318.9	-2.7	-0.69	1.303	67.3	0.652	-0.008	4-1722	84.8	233.4	-2.60	0.946	64.7	73.3	17.5	0.440
4-1600	4-1830	0.469	322.3	-3.3	-0.16	1.311	69.4	0.668	-0.002	4-1720	78.2	236.4	-2.23	0.956	65.8	81.3	18.6	0.419
4-1600	4-1840	0.430	325.9	-3.9	0.24	1.318	71.5	0.684	0.003	4-1717	71.6	239.4	-2.02	0.964	66.9	89.8	19.0	0.400
4-1600	4-1850	0.393	329.7	-4.2	0.59	1.325	73.5	0.703	0.007	4-1715	64.9	242.2	-1.93	0.972	67.8	98.2	18.7	0.383
4-1600	4-1860	0.358	334.0	-4.4	0.92	1.331	75.4	0.723	0.011	4-1712	58.1	244.9	-1.95	0.979	68.6	106.7	17.7	0.369
4-1600	4-1870	0.324	338.7	-4.3	1.28	1.336	77.3	0.746	0.016	4-1708	51.2	247.6	-2.07	0.986	69.3	115.0	16.0	0.356
4-1600	4-1880	0.292	344.2	-3.9	1.71	1.340	79.1	0.770	0.022	4-1705	44.2	250.1	-2.26	0.993	69.9	123.3	13.7	0.345
4-1950	4-2020	0.575	316.5	2.8	-0.84	1.480	111.0	1.447	-0.020	4-1998	306.1	447.7	1.73	1.213	122.7	69.6	24.8	0.865
4-1950	4-2030	0.471	318.4	3.0	-1.10	1.399	108.3	1.431	-0.026	4-1997	303.8	455.6	1.67	1.115	118.2	76.1	25.9	0.734
4-1950	4-2040	0.394	319.8	3.2	-1.37	1.345	106.0	1.407	-0.033	4-1997	302.0	464.0	1.66	1.046	113.8	82.5	27.0	0.631
4-1950	4-2050	0.336	320.7	3.3	-1.64	1.309	104.0	1.373	-0.039	4-1997	300.6	472.8	1.70	0.999	109.8	88.5	28.0	0.549
4-1950	4-2060	0.293	321.4	3.3	-1.94	1.284	102.5	1.362	-0.046	4-1998	299.6	482.0	1.80	0.966	106.2	93.6	29.3	0.483
4-1950	4-2070	0.261	321.8	3.0	-2.29	1.267	101.2	1.344	-0.053	4-1999	299.0	491.6	1.97	0.943	102.9	97.5	31.2	0.429
4-1950	4-2080	0.238	322.0	2.4	-2.74	1.256	100.4	1.331	-0.063	4-1999	298.6	501.4	2.26	0.926	100.0	99.4	34.3	0.387
4-1950	4-2090	0.223	322.2	1.2	-3.34	1.248	99.8	1.329	-0.077	4-1999	298.2	511.2	2.72	0.914	97.3	98.2	39.4	0.356
4-1960	4-2030	0.517	328.9	2.6	-2.50	1.464	108.6	1.373	-0.055	4-2012	310.5	446.3	0.37	1.196	120.8	81.4	28.8	0.619
4-1960	4-2040	0.422	330.7	2.7	-2.17	1.390	106.1	1.368	-0.049	4-2010	308.5	454.6	0.87	1.104	116.4	87.9	25.2	0.496
4-1960	4-2050	0.352	332.0	2.9	-2.20	1.340	104.0	1.352	-0.050	4-2010	306.9	463.3	1.04	1.041	112.3	94.1	25.9	0.399
4-1960	4-2060	0.299	332.8	2.9	-2.32	1.306	102.3	1.335	-0.053	4-2010	305.9	472.4	1.16	0.997	108.5	99.9	26.5	0.322
4-1960	4-2070	0.260	333.2	2.7	-2.51	1.284	100.9	1.318	-0.057	4-2010	305.3	482.0	1.29	0.966	105.1	104.8	27.4	0.260
4-1960	4-2080	0.232	333.4	2.1	-2.76	1.268	99.8	1.305	-0.062	4-2011	304.9	491.9	1.48	0.944	102.0	108.3	28.9	0.210
4-1960	4-2090	0.212	333.5	1.1	-3.09	1.258	99.0	1.294	-0.069	4-2011	304.8	501.9	1.74	0.928	99.2	109.8	31.7	0.170
4-1960	4-2100	0.199	333.6	-0.4	-3.55	1.252	98.5	1.288	-0.079	4-2011	304.6	511.8	2.12	0.917	96.7	108.5	36.3	0.141
4-1970	4-2050	0.371	342.3	2.4	-3.45	1.380	103.8	1.306	-0.075	4-2023	313.6	454.0	-0.35	1.092	114.6	89.2	22.4	0.455
4-1970	4-2060	0.308	343.4	2.5	-3.08	1.334	102.0	1.298	-0.068	4-2023	312.5	463.2	0.16	1.033	110.7	105.1	23.1	0.365
4-1970	4-2070	0.261	344.0	2.3	-2.99	1.304	100.4	1.286	-0.066	4-2022	311.9	472.7	0.42	0.993	107.1	110.4	23.5	0.294
4-1970	4-2080	0.227	344.0	1.9	-3.01	1.283	99.2	1.274	-0.066	4-2023	311.6	482.7	0.63	0.964	103.3	114.8	24.0	0.236
4-1970	4-2090	0.202	344.0	1.9	-3.12	1.270	98.3	1.264	-0.068	4-2023	311.7	493.0	1.84	0.944	100.9	117.8	25.2	0.190
4-1970	4-2100	0.185	343.8	-0.4	-3.31	1.261	97.6	1.257	-0.072	4-2023	311.8	503.2	1.09	0.929	98.3	118.6	27.5	0.153
4-1970	4-2110	0.175	343.6	-2.3	-3.61	1.255	97.2	1.252	-0.078	4-2023	311.8	513.3	1.42	0.919	96.0	116.6	31.7	0.127
4-1970	4-2120	0.170	344.0	-4.7	-4.07	1.252	97.1	1.251	-0.088	4-2023	311.5	522.9	1.87	0.912	93.8	111.6	37.8	0.110
4-1980	4-2070	0.263	353.5	2.0	-4.04	1.328	99.8	1.244	-0.085	4-2036	318.9	463.7	-0.99	1.024	109.0	114.9	18.5	0.331
4-1980	4-2080	0.222	353.6	1.6	-3.63	1.301	98.5	1.237	-0.077	4-2035	318.8	473.9	-0.49	0.987	105.5	119.7	19.3	0.269
4-1980	4-2090	0.192	353.3	0.8	-3.44	1.282	97.4	1.229	-0.073	4-2035	319.1	484.4	-0.17	0.961	102.5	123.1	19.1	0.211
4-1980	4-2100	0.172	352.8	-0.4	-3.38	1.270	96.7	1.223	-0.071	4-2035	319.5	495.0	0.09	0.942	99.8	125.2	19.9	0.169
4-1980	4-2110	0.158	352.4	-2.3	-3.42	1.263	96.2	1.218	-0.072	4-2035	319.9	505.5	0.35	0.929	97.4	125.4	21.9	0.136
4-1980	4-2120	0.151	352.2	-4.6	-3.56	1.258	95.9	1.216	-0.075	4-2036	320.0	515.7	0.65	0.920	95.1	122.2	25.6	0.112
4-1980	4-2130	0.148	352.3	-7.2	-3.81	1.255	95.8	1.216	-0.080	4-2035	319.7	525.2	1.00	0.913	93.1	115.8	30.8	0.099
4-1980	4-2140	0.150	353.5	-9.5	-4.20	1.254	95.9	1.220	-0.088	4-2035	318.7	534.2	1.40	0.908	91.2	106.9	36.2	0.095
4-1990	4-2080	0.217	1.6	1.4	-5.10	1.320	97.5	1.190	-0.103	4-2049	326.5	465.1	-2.43	1.013	107.2	123.2	11.8	0.298
4-1990	4-2090	0.182	0.8	0.7	-4.26	1.297	96.4	1.188	-0.086	4-2048	327.0	476.1	-1.57	0.979	104.0	127.3	12.5	0.236
4-1990	4-2100	0.158	359.8	-0.4	-3.81	1.281	95.5	1.184	-0.077	4-2048	327.3	487.3	-1.08	0.956	101.1	130.1	12.8	0.187
4-1990	4-2110	0.142	358.7	-2.2	-3.55	1.271	94.9	1.181	-0.072	4-2048	328.7	498.3	-0.73	0.939	98.6	131.1	13.4	0.149
4-1990	4-2120	0.132	357.9	-4.5	-3.42	1.265	94.6	1.179	-0.069	4-2048	329.3	508.9	-0.33	0.928	96.3	129.6	15.1	0.120
4-1990	4-2130	0.128	357.8	-7.4	-3.39	1.261	94.4	1.178	-0.069	4-2046	329.4	519.1	-0.11	0.919	94.2	125.0	18.3	0.100
4-1990	4-2140	0.127	358.4	-10.1	-3.46	1.259	94.4	1.180	-0.071	4-2048	328.9	528.4	0.11	0.914	92.3	117.8	22.5	0.090
4-1990	4-2150	0.130	359.9	-12.1	-3.61	1.259	94.6	1.185	-0.074	4-2047	327.7	537.1	0.41	0.910	90.6	109.6	26.4	0.088
4-2000	4-2100	0.146	3.7	-0.3	-4.88	1.292	94.1	1.139	-0.095	4-2062	337.1	480.0	-2.78	0.970	102.3	132.7	4.5	0.209
4-2000	4-2110	0.127	1.4	-2.0	-4.11	1.279	93.5	1.138	-0.080	4-2061	338.6	491.9	-2.04	0.949	99.6	134.3	5.0	0.164
4-2000	4-2120	0.126	359.6	-4.3	-3.63	1.271	93.1	1.138	-0.071	4-2061	339.7	503.2	-1.56	0.935	97.2	133.8	5.8	0.131
4-2000	4-2130	0.110	358.6	-7.3	-3.32	1.267	92.9	1.138	-0.065	4-2061	340.3	513.9	-1.19	0.925	95.1	130.6	7.9	0.107
4-2000	4-2140	0.108	358.8	-10.4	-3.13	1.264	92.8	1.140	-0.061	4-2061	340.1	523.7	-0.89	0.918	93.2	124.6	10.5	0.091
4-2000	4-2150	0.109	0.1	-12.9	-3.03	1.263	92.9	1.143	-0.060	4-2060	339.2	532.4	-0.65	0.914	91.4	117.1	13.9	0.085
4-2000	4-2160	0.113	2.8	-14.4	-2.98	1.263	93.2	1.149	-0.059	4-2060	337.6	540.9	-0.50	0.911	89.8	110.3	16.8	0.086
4-2000	4-2170	0.118	6.0	-14.8	-2.94	1.264	93.5	1.157	-0.059	4-2059	335.2	548.2	-0.43	0.909	88.3	106.1	18.4	0.093
4-2010	4-2110	0.117	358.8	-1.7	-5.51	1.287	91.7	1.090	-0.103	4-2075	349.7	486.1	-4.08	0.959	100.4	135.1	-5.1	0.185
4-2010	4-2120	0.106	355.2	-3.9	-4.34	1.277	91.3	1.092	-0.081	4-2074	351.5	498.3	-3.01	0.941	97.9	135.3	-3.7	0.145
4-2010	4-2130	0.099	352.9	-6.9	-3.60	1.271	91.1	1.094	-0.068	4-2074	352.6	510.0	-2.34	0.929	95.7	133.0	-2.1	0.116
4-2010	4-2140	0.097	352.4	-10.2	-3.11	1.268	91.0	1.097	-0.059	4-2074	352.8	520.4	-1.87	0.921	93.7	127.9	0.3	0.097
4-2010	4-2150	0.096	353.6	-13.2	-2.77	1.266	91.1	1.100	-0.053	4-2073	352.1	529.6	-1.55	0.916	92.0	121.2	3.5	0.087
4-2010	4-2160	0.098	356.4	-15.2	-2.53	1.266	91.3	1.105	-0.048	4-2073	350.6	537.9	-1.35	0.913	90.4	114.7	6.7	0.085
4-2010	4-2170	0.101	0.7	-16.0	-2.33	1.262	91.6	1.112	-0.045	4-2073	348.3	545.4	-1.26	0.911	88.9	110.2	9.0	0.090
4-2010	4-2180	0.105	5.9	-15.8	-2.12	1.268	92.1	1.121	-0.041	4-2072	345.4	552.1	-1.28	0.910	87.4	108.4	10.3	0.098
4-2020	4-2130	0.103	341.8	-6.0	-4.43	1.274	89.0	1.047	-0.080	4-2088	6.9	147.8	-3.84	0.931	96.1	132.3	-11.8	0.130
4-2020	4-2140	0.100	340.8	-9.7	-3.43	1.270	88.9	1.050	-0.062	4-2087	7.4	158.7	-3.94	0.922	94.1	128.1	-8.4	0.106
4-2020	4-2150	0.099	341.8	-12.3	-2.78	1.268	89.0	1.054	-0.050	4-2087	6.8	168.2	-2.37	0.916	93.3	122.1	-4.4	0.098
4-2020	4-2160	0.098	344.6	-14.6	-2.33	1.268	89.3	1.059	-0.042	4-2087	5.6	176.5	-2.03	0.913	90.7	116.2	-0.4	0.089

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2020	4-2170	0.098	348.9	-15.9	-1.98	1.269	89.6	1.066	-0.036	4-2086	2.9	183.9	-1.86	0.911	89.2	112.0	2.7	0.091
4-2020	4-2180	0.099	354.8	-16.2	-1.68	1.270	90.0	1.073	-0.031	4-2086	359.8	550.6	-1.82	0.910	87.9	110.3	4.7	0.097
4-2020	4-2190	0.100	1.9	-15.7	-1.36	1.272	90.6	1.083	-0.025	4-2085	356.2	556.6	-1.88	0.911	86.7	111.0	5.6	0.196
4-2020	4-2200	0.103	9.8	-15.7	-1.00	1.274	91.2	1.095	-0.019	4-2084	352.2	562.2	-2.02	0.912	85.5	113.4	5.5	0.116
4-2030	4-2150	0.122	332.2	-10.3	-3.03	1.268	86.6	1.007	-0.053	4-2101	23.5	168.7	-3.24	0.913	92.3	120.0	-10.3	0.103
4-2030	4-2160	0.119	336.6	-12.6	-2.27	1.268	86.9	1.012	-0.040	4-2100	21.6	176.9	-2.61	0.910	90.6	115.1	-4.6	0.096
4-2030	4-2170	0.116	338.3	-14.2	-1.76	1.269	87.3	1.019	-0.031	4-2100	18.9	184.0	-2.27	0.908	89.2	111.7	-0.4	0.096
4-2030	4-2180	0.112	343.2	-15.0	-1.32	1.271	87.7	1.026	-0.024	4-2099	15.6	190.3	-2.12	0.908	87.9	110.6	2.3	0.100
4-2030	4-2190	0.109	349.5	-15.1	-1.01	1.273	88.3	1.034	-0.018	4-2099	11.7	196.1	-2.10	0.909	86.7	111.6	3.7	0.107
4-2030	4-2200	0.106	357.0	-14.6	-0.64	1.276	88.9	1.045	-0.012	4-2098	7.4	201.4	-2.17	0.911	85.6	114.3	4.1	0.116
4-2030	4-2210	0.105	5.7	-13.6	-0.23	1.278	89.6	1.057	-0.004	4-2097	2.8	206.3	-2.33	0.913	84.6	118.1	3.5	0.126
4-2030	4-2220	0.105	15.3	-12.1	0.25	1.281	90.3	1.070	0.005	4-2096	357.8	570.9	-2.57	0.916	83.6	122.8	2.1	0.136
4-2040	4-2160	0.158	331.4	-9.9	-2.39	1.265	84.2	0.964	-0.040	4-2115	39.6	178.7	-3.28	0.903	90.3	111.8	-7.2	0.107
4-2040	4-2170	0.152	334.3	-11.5	-1.59	1.267	84.6	0.970	-0.027	4-2114	36.3	185.3	-2.62	0.902	88.8	109.8	-1.1	0.105
4-2040	4-2180	0.145	338.1	-12.6	-1.07	1.269	85.2	0.977	-0.018	4-2114	32.5	191.2	-2.28	0.903	87.6	109.7	2.7	0.108
4-2040	4-2190	0.139	342.8	-13.1	-0.67	1.272	85.8	0.986	-0.011	4-2113	28.2	196.5	-2.13	0.905	86.4	111.4	4.6	0.113
4-2040	4-2200	0.130	348.4	-13.2	-0.31	1.275	86.4	0.995	-0.005	4-2112	23.5	201.4	-2.11	0.908	85.4	114.5	5.2	0.120
4-2040	4-2210	0.123	355.2	-12.7	0.06	1.279	87.1	1.006	0.001	4-2111	18.6	206.1	-2.18	0.911	84.4	118.7	4.9	0.128
4-2040	4-2220	0.117	3.3	-11.8	0.46	1.282	87.9	1.018	0.008	4-2110	13.4	210.5	-2.33	0.914	83.5	123.7	3.7	0.136
4-2040	4-2230	0.112	12.6	-10.5	0.94	1.285	88.7	1.032	0.017	4-2109	8.1	214.6	-2.57	0.918	82.7	129.1	1.7	0.145
4-2050	4-2180	0.193	339.3	-9.9	-0.73	1.264	82.2	0.929	-0.012	4-2128	50.2	192.7	-2.38	0.894	86.9	108.0	4.5	0.122
4-2050	4-2190	0.182	342.9	-10.7	-0.29	1.268	82.9	0.937	-0.004	4-2127	45.4	197.5	-2.04	0.897	85.8	110.7	7.2	0.125
4-2050	4-2200	0.171	347.1	-11.1	0.13	1.272	83.6	0.945	0.002	4-2127	40.3	202.1	-1.90	0.901	84.8	114.5	8.2	0.130
4-2050	4-2210	0.160	352.0	-11.1	0.45	1.277	84.4	0.955	0.007	4-2126	35.0	206.4	-1.87	0.906	83.9	119.2	8.0	0.136
4-2050	4-2220	0.148	357.8	-10.7	0.77	1.280	85.2	0.967	0.013	4-2125	29.6	210.4	-1.94	0.910	83.1	124.5	6.9	0.142
4-2050	4-2230	0.138	4.6	-9.9	1.12	1.284	86.1	0.979	0.019	4-2124	24.0	214.4	-2.09	0.915	82.4	130.2	5.0	0.148
4-2050	4-2240	0.129	12.7	-8.7	1.54	1.288	87.0	0.993	0.026	4-2123	18.2	218.1	-2.30	0.920	81.7	136.2	2.5	0.155
4-2050	4-2250	0.121	22.2	-7.1	2.03	1.291	87.9	1.009	0.035	4-2122	12.3	221.7	-2.58	0.925	80.9	142.4	-0.6	0.163
4-2060	4-2200	0.225	350.9	-9.1	0.76	1.266	80.5	0.897	0.012	4-2141	57.2	202.8	-1.53	0.890	83.8	114.6	12.2	0.147
4-2060	4-2210	0.210	354.7	-9.4	1.06	1.271	81.4	0.906	0.016	4-2141	51.6	206.7	-1.42	0.897	83.0	119.8	12.1	0.151
4-2060	4-2220	0.195	359.0	-9.3	1.26	1.277	82.3	0.916	0.020	4-2140	45.9	210.5	-1.42	0.903	82.3	125.5	11.0	0.154
4-2060	4-2230	0.180	3.9	-8.9	1.49	1.281	83.3	0.928	0.024	4-2139	40.0	214.2	-1.49	0.909	81.7	131.5	9.2	0.159
4-2060	4-2240	0.166	9.7	-8.1	1.76	1.286	84.2	0.941	0.028	4-2138	34.1	217.8	-1.63	0.916	81.1	137.7	6.7	0.163
4-2060	4-2250	0.153	16.3	-6.9	2.08	1.290	85.2	0.955	0.034	4-2137	28.0	221.3	-1.82	0.922	80.5	144.1	3.8	0.168
4-2060	4-2260	0.141	24.3	-5.4	2.47	1.294	86.2	0.971	0.041	4-2135	21.9	224.7	-2.06	0.928	80.0	150.6	0.4	0.174
4-2060	4-2270	0.131	33.7	-3.7	2.95	1.297	87.3	0.988	0.050	4-2134	15.6	228.0	-2.37	0.935	79.4	157.1	-3.5	0.180
4-2070	4-2220	0.253	4.4	-7.9	2.05	1.269	79.0	0.868	0.031	4-2155	61.9	210.4	-0.67	0.892	81.1	127.0	15.6	0.175
4-2070	4-2230	0.234	8.2	-7.5	2.14	1.275	80.1	0.878	0.032	4-2154	55.9	213.9	-0.73	0.900	80.6	133.2	13.7	0.177
4-2070	4-2240	0.216	12.5	-7.3	2.23	1.281	81.2	0.890	0.034	4-2153	49.8	217.3	-0.65	0.908	80.1	139.6	11.2	0.178
4-2070	4-2250	0.199	17.4	-6.5	2.37	1.286	82.2	0.903	0.037	4-2152	43.6	220.7	-1.01	0.916	79.7	146.1	8.2	0.181
4-2070	4-2260	0.182	23.1	-5.3	2.57	1.291	83.3	0.917	0.060	4-2151	37.4	224.0	-1.20	0.924	79.3	152.7	4.9	0.183
4-2070	4-2270	0.166	29.7	-3.9	2.84	1.295	84.4	0.933	0.045	4-2149	31.1	227.3	-1.41	0.931	78.9	159.4	1.2	0.187
4-2070	4-2280	0.152	37.5	-2.2	3.18	1.299	85.5	0.950	0.052	4-2148	24.6	230.4	-1.66	0.939	78.5	166.1	-2.8	0.191
4-2070	4-2290	0.140	46.9	-0.4	3.61	1.303	86.7	0.970	0.060	4-2146	18.1	233.5	-1.99	0.946	78.1	172.9	-7.0	0.196
4-2080	4-2230	0.299	15.4	-6.8	3.20	1.266	76.5	0.832	0.046	4-2169	71.2	213.1	0.35	0.887	79.1	135.6	18.4	0.204
4-2080	4-2240	0.277	18.9	-6.5	3.07	1.273	77.8	0.842	0.065	4-2168	65.0	216.4	0.17	0.897	78.7	142.1	15.7	0.202
4-2080	4-2250	0.256	22.8	-6.0	2.98	1.280	79.0	0.853	0.044	4-2167	58.9	219.7	-0.03	0.901	78.4	148.6	12.6	0.202
4-2080	4-2260	0.235	27.1	-5.1	2.96	1.286	80.2	0.866	0.044	4-2166	52.6	223.0	-0.25	0.916	78.1	155.2	9.1	0.201
4-2080	4-2270	0.215	31.9	-3.9	3.01	1.291	81.3	0.880	0.046	4-2165	46.3	226.2	-0.48	0.925	77.9	161.8	5.4	0.202
4-2080	4-2280	0.196	37.5	-2.6	3.14	1.296	82.5	0.896	0.048	4-2163	39.8	229.4	-0.67	0.934	77.7	168.6	1.6	0.203
4-2080	4-2290	0.179	44.0	-1.0	3.33	1.300	83.7	0.913	0.052	4-2162	33.3	232.5	-0.89	0.942	77.4	175.5	-2.4	0.204
4-2080	4-2300	0.162	51.9	0.7	3.59	1.304	85.0	0.932	0.057	4-2160	26.6	235.5	-1.11	0.950	77.2	182.5	-6.5	0.207
4-2090	4-2250	0.323	30.6	-5.5	4.06	1.270	75.3	0.808	0.057	4-2183	73.4	218.2	1.27	0.894	76.7	151.7	16.7	0.232
4-2090	4-2260	0.298	34.1	-4.9	3.74	1.277	76.7	0.819	0.053	4-2182	67.2	221.4	0.93	0.905	76.6	158.1	13.0	0.228
4-2090	4-2270	0.274	36.0	-4.0	3.52	1.284	78.0	0.831	0.051	4-2181	60.9	224.7	0.63	0.916	76.5	164.6	9.2	0.225
4-2090	4-2280	0.251	42.3	-2.9	3.39	1.290	79.3	0.845	0.049	4-2179	54.5	227.9	0.36	0.927	76.4	171.3	5.3	0.223
4-2090	4-2290	0.229	47.1	-1.6	3.36	1.296	80.6	0.861	0.050	4-2178	48.1	231.1	0.12	0.936	76.4	178.1	1.3	0.222
4-2090	4-2300	0.208	52.7	-0.0	3.39	1.300	81.9	0.878	0.051	4-2176	41.5	234.2	-0.09	0.946	76.3	185.1	-2.6	0.221
4-2090	4-2310	0.189	58.3	1.6	3.49	1.305	83.2	0.896	0.053	4-2174	34.8	237.2	-0.28	0.955	76.2	192.3	-6.5	0.222
4-2090	4-2320	0.171	67.2	3.2	3.63	1.309	84.5	0.917	0.057	4-2172	27.9	240.1	-0.44	0.963	76.1	199.8	-10.4	0.223
4-2100	4-2270	0.342	46.2	-4.0	4.48	1.274	74.3	0.786	0.061	4-2196	74.9	222.6	2.01	0.904	74.7	167.9	12.6	0.258
4-2100	4-2280	0.315	49.8	-3.1	4.02	1.281	75.8	0.798	0.056	4-2195	68.6	225.8	1.56	0.916	74.8	174.3	8.4	0.253
4-2100	4-2290	0.289	53.7	-2.0	3.70	1.288	77.2	0.812	0.052	4-2194	62.2	229.0	1.20	0.928	74.9	180.9	4.4	0.248
4-2100	4-2300	0.264	58.0	-0.7	3.49	1.294	78.7	0.827	0.050	4-2192	55.7	232.2	0.91	0.939	75.0	187.7	0.4	0.244
4-2100	4-2310	0.241	62.8	0.7	3.37	1.300	80.0	0.844	0.049	4-2190	49.1	235.4	0.67	0.949	75.1	194.7	-3.5	0.241
4-2100	4-2320	0.218	68.5	2.2	3.32	1.305	81.4	0.862	0.049	4-2188	41.4	238.4	0.50	0.959	75.2	202.1	-7.2	0.240
4-2100	4-2330	0.197	75.2	3.8	3.30	1.309	82.8	0.882	0.050	4-2186	35.5	241.4	0.38	0.968	75.2	209.9	-10.6	0.239
4-2100	4-2340	0.178	83.3	5.2	3.29	1.313	84.3	0.905	0.051	4-2184	28.4	244.2	0.31	0.976	75.3	218.0	-13.7	0.240
4-2110	4-2280	0.389	58.8	-3.3	5.19	1.269	71.9	0.755	0.068	4-2210	81.9	223.2	3.15	0.902	72.7	177.7	11.2	0.291
4-2110	4-2290	0.359	62.1	-2.4	4.45	1.278	73.5	0.767	0.059	4-2209	75.7	226.4	2.52	0.916	72.9	184.0	6.8	0.283
4-2110	4-2300	0.330	65.8	-1.3	3.91	1.285	75.1	0.780	0.053	4-2208	69.3	229.7	2.03	0.929	73.2	190.5	2.1	0.275
4-2110	4-2310	0.302	69.7	-0.0	3.52	1.292	76.6	0.795	0.048	4-2206	62.8	233.0	1.66	0.941	73.5	197.3	-1.1	0.269
4-2110	4-2320	0.275	74.0	1.3	3.24	1.298	78.1	0.811	0.045	4-2205	56.3	236.1	1.38	0.952	73.8	204.4	-5.1	0.264
4-2110	4-2330	0.250	79.0	2.7	3.05	1.304	79.6	0.829	0.043	4-2203	49.6	239.3	1.19	0.962	74.0	212.0	-8.1	0.260
4-2110	4-2340	0.226	84.8	4.1	2.90	1.308	81.1	0.849	0.042	4-2200	42.7	242.3	1.08	0.972	74.3	219.9	-11.4	0.257
4-2110	4-2350	0.203	91.7	5.4	2.75	1.313	82.6	0.871	0.041	4-2198	35.6	245.1	1.05	0.980	74.4	228.3	-13.9	0.256
4-2120	4-2300	0.403	74.9	-1.7	4.78	1.273	71.2	0.730	0.062	4-2224	82.2	226.6	3.44	0.915	71.0	193.6	4.5	0.315
4-2120	4-2310	0.371	78.3	-0.6	4.00	1.282	72.9	0.751	0.052	4-2222	75.9	229.9	2.80	0.930	71.5	200.0	0.3	0.305
4-2120	4-2320	0.341	82.0	0.6	3.43	1.289	74.6	0.765	0.045	4-2221	69.4	233.2	2.32	0.942	72.2	206.9	-3.6	0.296
4-2120	4-2330	0.312	86.0	1.8	3.01	1.296	76.2	0.781	0.041	4-2219	62.9	236.5	1.97	0.954	72.4	214.1	-7.1	0.288

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2120	4-2340	0.284	90.5	3.1	2.69	1.302	77.8	0.799	0.037	4-2217	56.2	239.7	1.75	0.965	72.8	221.8	-10.1	0.232
4-2120	4-2350	0.257	95.6	4.3	2.42	1.307	79.4	0.818	0.034	4-2215	49.4	242.8	1.63	0.975	73.2	229.9	-12.7	0.277
4-2120	4-2360	0.231	101.6	5.4	2.16	1.312	81.0	0.840	0.031	4-2212	42.3	245.7	1.61	0.984	73.6	238.5	-14.6	0.274
4-2120	4-2370	0.207	108.9	6.2	1.86	1.316	82.6	0.863	0.027	4-2209	35.0	248.5	1.71	0.992	73.8	247.4	-15.8	0.272
4-2130	4-2320	0.415	91.3	-0.1	3.94	1.278	70.7	0.724	0.050	4-2237	81.9	229.8	3.44	0.930	69.7	209.6	-2.5	0.336
4-2130	4-2330	0.381	94.7	1.0	3.20	1.286	72.5	0.737	0.041	4-2235	75.6	233.2	2.84	0.944	70.5	216.5	-6.2	0.325
4-2130	4-2340	0.349	98.5	2.2	2.65	1.293	74.3	0.753	0.035	4-2233	69.0	236.5	2.42	0.957	71.0	223.9	-9.5	0.315
4-2130	4-2350	0.318	102.6	3.4	2.22	1.300	76.0	0.770	0.030	4-2231	62.4	239.8	2.15	0.968	71.6	231.8	-12.1	0.306
4-2130	4-2360	0.289	107.2	4.4	1.87	1.305	77.7	0.789	0.025	4-2229	55.6	243.0	2.01	0.978	72.1	240.1	-14.2	0.299
4-2130	4-2370	0.261	112.6	5.3	1.53	1.311	79.3	0.810	0.021	4-2226	48.5	245.0	1.99	0.988	72.6	248.7	-15.5	0.294
4-2130	4-2380	0.234	118.9	6.0	1.16	1.315	81.0	0.833	0.016	4-2224	41.3	248.9	2.09	0.996	73.0	257.7	-16.1	0.290
4-2130	4-2390	0.209	126.6	6.3	0.71	1.319	82.7	0.858	0.010	4-2220	33.8	251.5	2.31	1.003	73.4	266.9	-15.7	0.288
4-2140	4-2330	0.459	104.5	0.4	3.71	1.273	68.5	0.699	0.045	4-2251	87.6	229.3	3.90	0.930	67.8	219.2	-5.7	0.369
4-2140	4-2340	0.423	107.8	1.5	2.81	1.282	70.5	0.712	0.035	4-2249	81.2	232.7	3.18	0.945	68.6	226.3	-9.2	0.354
4-2140	4-2360	0.388	111.3	2.5	2.15	1.290	72.3	0.726	0.027	4-2248	74.8	236.2	2.69	0.958	69.4	233.9	-12.0	0.342
4-2140	4-2360	0.355	115.2	3.5	1.65	1.297	74.2	0.743	0.021	4-2246	68.1	239.6	2.37	0.970	70.2	241.9	-14.3	0.331
4-2140	4-2370	0.323	119.4	4.4	1.24	1.304	75.9	0.761	0.016	4-2243	61.3	242.8	2.21	0.981	70.9	250.4	-15.8	0.322
4-2140	4-2380	0.292	124.3	5.1	0.86	1.309	77.7	0.782	0.012	4-2241	54.4	245.9	2.17	0.990	71.6	259.2	-16.5	0.314
4-2140	4-2390	0.262	129.9	5.6	0.46	1.314	79.4	0.804	0.006	4-2238	47.2	248.9	2.26	0.998	72.1	268.1	-16.5	0.308
4-2140	4-2400	0.235	136.7	5.8	-0.02	1.319	81.2	0.829	-0.000	4-2235	39.7	251.6	2.47	1.005	72.6	277.2	-16.1	0.304
4-2150	4-2350	0.465	121.1	1.8	2.24	1.278	68.3	0.688	0.027	4-2264	86.5	232.0	3.30	0.945	66.9	236.3	-12.2	0.385
4-2150	4-2360	0.428	124.5	2.8	1.51	1.287	70.4	0.702	0.018	4-2262	80.1	235.6	2.74	0.959	67.9	246.1	-14.6	0.371
4-2150	4-2370	0.392	128.1	3.7	0.97	1.295	72.3	0.718	0.012	4-2260	73.5	239.0	2.39	0.972	68.8	252.4	-16.3	0.357
4-2150	4-2380	0.357	132.1	4.4	0.54	1.302	74.2	0.736	0.007	4-2258	66.7	242.4	2.20	0.983	69.7	260.9	-17.3	0.346
4-2150	4-2390	0.324	136.5	4.9	0.16	1.308	76.1	0.755	0.002	4-2255	59.8	245.5	2.15	0.992	70.5	269.8	-17.4	0.336
4-2150	4-2400	0.292	141.6	5.2	-0.25	1.313	77.9	0.777	-0.003	4-2252	52.7	248.6	2.23	1.000	71.2	278.7	-16.[illegible]	
4-2150	4-2410	0.262	147.6	5.2	-0.71	1.318	79.7	0.801	-0.010	4-2249	45.3	251.3	2.42	1.007	71.8	287.7	[illegible]	
4-2150	4-2420	0.233	154.8	4.8	-1.28	1.322	81.5	0.827	-0.018	4-2245	37.6	253.[illegible]	2.79	1.013	72.3	296.9	[illegible]	
4-2160	4-2360	0.509	134.5	2.1	1.47	1.275	66.2	0.665	0.017	4-2278	91.4	231.1	3.15	0.945	65.0	24[illegible]		
4-2160	4-2370	0.469	137.8	3.0	0.72	1.284	68.4	0.679	0.009	4-2276	85.0	234.7	2.54	0.960	66.2	24[illegible]		
4-2160	4-2380	0.430	141.3	3.7	0.19	1.292	70.5	0.694	0.002	4-2274	78.5	238.2	2.18	0.972	67.3	[illegible]		
4-2160	4-2390	0.393	145.1	4.3	-0.22	1.300	72.5	0.711	-0.003	4-2272	71.8	241.6	1.99	0.984	68.4	[illegible]		
4-2160	4-2400	0.357	149.2	4.3	-0.58	1.306	74.4	0.730	-0.007	4-2269	64.9	244.9	2.04	0.993	69.3	[illegible]		
4-2160	4-2410	0.323	153.9	4.8	-0.94	1.312	76.3	0.751	-0.012	4-2266	57.8	248.0	2.00	1.002	70.2	[illegible]		
4-2160	4-2420	0.290	159.3	4.6	-1.35	1.317	78.2	0.775	-0.018	4-2263	50.5	250.9	2.17	1.008	70.9	[illegible]		
4-2160	4-2430	0.259	165.6	4.1	-1.86	1.322	80.1	0.800	-0.025	4-2260	42.9	253.5	2.44	1.014	71.5	[illegible]		
4-2170	4-2370	0.553	148.1	2.4	0.49	1.271	64.1	0.645	0.005	4-2291	96.1	229.9	2.69	0.944	63.1	[illegible]		
4-2170	4-2380	0.510	151.3	3.2	-0.23	1.281	66.4	0.657	-0.003	4-2290	89.7	233.6	2.09	0.959	64.5	[illegible]		
4-2170	4-2390	0.469	154.7	3.8	-0.70	1.290	68.6	0.672	-0.008	4-2288	83.2	237.2	1.73	0.973	65.8	[illegible]		
4-2170	4-2400	0.430	158.3	4.2	-1.04	1.298	70.7	0.688	-0.012	4-2286	76.5	240.7	1.56	0.984	67.0	[illegible]		
4-2170	4-2410	0.392	162.2	4.4	-1.32	1.305	72.8	0.707	-0.016	4-2284	69.6	244.0	1.52	0.994	68.1	291.7	-18.2	0.382
4-2170	4-2420	0.355	166.5	4.3	-1.61	1.311	74.8	0.727	-0.020	4-2281	62.6	247.2	1.59	1.002	69.1	300.4	-16.4	0.369
4-2170	4-2430	0.320	171.4	4.0	-1.94	1.317	76.7	0.750	-0.025	4-2277	55.4	250.1	1.75	1.009	69.9	308.9	-13.9	0.358
4-2170	4-2440	0.287	177.1	3.4	-2.35	1.322	78.6	0.774	-0.031	4-2274	47.9	252.8	1.98	1.014	70.7	317.3	-10.7	0.349
4-2180	4-2390	0.553	165.0	3.3	-1.33	1.279	64.3	0.637	-0.015	4-2304	94.1	232.3	1.36	0.959	62.8	277.0	-20.8	0.462
4-2180	4-2400	0.509	168.3	3.8	-1.68	1.288	66.7	0.651	-0.019	4-2302	87.6	236.0	1.06	0.972	64.2	285.6	-20.6	0.441
4-2180	4-2410	0.467	171.7	4.0	-1.90	1.296	68.9	0.667	-0.022	4-2300	80.9	239.5	0.94	0.984	65.6	294.3	-19.6	0.423
4-2180	4-2420	0.427	175.4	4.1	-2.07	1.304	71.1	0.684	-0.025	4-2298	74.2	242.9	0.94	0.994	66.8	302.9	-17.8	0.406
4-2180	4-2430	0.388	179.5	3.9	-2.25	1.311	73.2	0.704	-0.027	4-2295	67.2	246.1	1.03	1.002	67.9	311.4	-15.5	0.391
4-2180	4-2440	0.351	184.0	3.4	-2.47	1.316	75.2	0.725	-0.031	4-2292	60.1	249.1	1.19	1.008	68.9	319.6	-12.6	0.377
4-2180	4-2450	0.315	189.2	2.7	-2.76	1.322	77.2	0.749	-0.035	4-2288	52.7	251.9	1.39	1.014	69.8	327.7	-9.2	0.366
4-2180	4-2460	0.282	195.2	1.7	-3.14	1.326	79.2	0.775	-0.041	4-2284	45.1	254.4	1.65	1.018	70.5	335.7	-5.4	0.356
4-2190	4-2400	0.597	178.7	3.4	-2.59	1.276	62.3	0.618	-0.028	4-2318	98.2	230.9	0.36	0.957	61.0	288.7	-21.7	0.494
4-2190	4-2410	0.551	181.9	3.7	-2.75	1.286	64.7	0.631	-0.033	4-2316	91.8	234.6	0.17	0.971	62.6	297.2	-20.8	0.478
4-2190	4-2420	0.506	185.3	3.8	-2.79	1.295	67.1	0.646	-0.031	4-2314	85.2	238.2	0.13	0.983	64.1	305.7	-19.1	0.450
4-2190	4-2430	0.463	188.8	3.7	-2.80	1.303	69.4	0.663	-0.032	4-2312	78.5	241.6	0.20	0.993	65.5	314.1	-16.9	0.431
4-2190	4-2440	0.423	192.7	3.4	-2.83	1.310	71.5	0.681	-0.033	4-2309	71.6	244.9	0.34	1.001	66.7	322.3	-14.1	0.414
4-2190	4-2450	0.383	196.9	2.8	-2.92	1.317	73.7	0.702	-0.035	4-2306	64.5	248.0	0.51	1.008	67.8	330.3	-10.8	0.398
4-2190	4-2460	0.346	201.6	2.0	-3.08	1.322	75.7	0.725	-0.038	4-2302	57.3	250.8	0.71	1.013	68.8	338.2	-7.3	0.384
4-2190	4-2470	0.310	207.0	1.0	-3.31	1.327	77.7	0.750	-0.042	4-2299	49.8	253.4	0.93	1.017	69.6	346.0	-3.4	0.372
4-2200	4-2410	0.642	192.6	3.4	-3.99	1.274	60.1	0.600	-0.042	4-2331	102.2	229.3	-0.90	0.955	59.1	300.4	-21.9	0.527
4-2200	4-2420	0.593	195.7	3.6	-3.88	1.285	62.7	0.612	-0.041	4-2330	95.8	233.1	-0.93	0.969	60.9	308.9	-20.2	0.502
4-2200	4-2430	0.546	199.0	3.6	-3.69	1.295	65.2	0.626	-0.040	4-2328	89.3	236.7	-0.83	0.981	62.6	317.4	-18.0	0.479
4-2200	4-2440	0.501	202.4	3.4	-3.50	1.303	67.6	0.642	-0.039	4-2326	82.6	240.2	-0.66	0.991	64.1	325.3	-15.2	0.457
4-2200	4-2450	0.458	206.1	2.9	-3.36	1.310	69.9	0.660	-0.038	4-2323	75.8	243.5	-0.45	0.999	65.4	333.2	-12.1	0.438
4-2200	4-2460	0.417	210.0	2.3	-3.29	1.317	72.1	0.680	-0.039	4-2320	68.8	246.6	-0.23	1.006	66.7	340.9	-8.6	0.420
4-2200	4-2470	0.378	214.4	1.4	-3.30	1.323	74.2	0.701	-0.040	4-2317	61.7	249.5	-0.02	1.011	67.7	348.6	-4.9	0.404
4-2200	4-2480	0.340	219.3	0.4	-3.38	1.328	76.3	0.725	-0.042	4-2313	54.4	252.2	0.18	1.016	68.7	356.2	-1.2	0.389
4-2550	4-2630	0.401	192.7	0.1	5.32	1.409	104.5	1.310	0.115	4-2603	314.5	455.4	2.61	1.087	116.9	311.3	-12.8	0.502
4-2550	4-2640	0.331	193.7	0.4	4.26	1.359	[illegible]	1.301	0.093	4-2602	313.9	464.6	1.49	1.022	112.5	317.0	-12.8	0.485
4-2550	4-2650	0.278	194.1	0.9	3.79	1.32[illegible]		1.287	0.083	4-2602	313.7	474.2	0.95	0.978	108.5	322.[illegible]	-12.1	0.329
4-2550	4-2660	0.239	194.2	1.8	3.55	1.30[illegible]		1.273	0.077	4-2603	314.1	484.3	0.60	0.948	104.7	326.4	-11.3	0.266
4-2550	4-2670	0.210	194.0	2.9	3.43	1.27[illegible]		1.260	0.074	4-2603	314.6	494.6	0.35	0.929	101.4	329.7	-10.8	0.216
4-2550	4-2680	0.189	193.7	4.8	3.41	1.276	97.[illegible]	1.251	0.074	4-2603	315.3	505.1	0.06	0.917	98.4	331.7	-11.3	0.174
4-2550	4-2690	0.176	193.8	6.9	3.45	1.269	96.9	1.244	0.075	4-2603	315.9	515.5	-0.22	0.910	95.7	331.8	-13.1	0.142
4-2550	4-2700	0.168	193.4	9.3	3.69	1.264	96.5	1.240	0.079	4-2604	316.1	525.6	-0.55	0.908	93.3	329.2	-17.0	0.118
4-2560	4-2650	0.280	203.9	1.1	5.03	1.349	99.8	1.236	0.104	4-2616	320.9	464.9	2.87	1.013	110.4	324.8	-6.3	0.372
4-2560	4-2660	0.234	203.9	1.8	4.15	1.318	98.3	1.228	0.087	4-2616	321.4	475.2	2.00	0.973	106.6	329.5	-5.8	0.299
4-2560	4-2670	0.200	203.5	3.0	3.66	1.297	97.2	1.219	0.076	4-2616	322.3	486.0	1.50	0.947	103.0	333.3	-4.9	0.241
4-2560	4-2680	0.175	202.8	4.6	3.35	1.284	96.2	1.211	0.070	4-2616	323.4	496.9	1.15	0.930	99.9	336.9	-4.2	0.194

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

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DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2560	4-2690	0.159	202.0	6.7	3.13	1.274	95.6	1.205	0.066	4-2616	324.5	507.8	0.86	0.921	97.1	336.0	-4.3	0.157
4-2560	4-2700	0.148	201.5	9.2	3.07	1.268	95.2	1.201	0.064	4-2616	325.2	518.6	0.60	0.915	94.6	335.4	-5.6	0.127
4-2560	4-2710	0.143	201.5	11.7	3.07	1.265	95.0	1.199	0.064	4-2616	325.5	528.7	0.35	0.914	92.4	331.4	-8.6	0.107
4-2560	4-2720	0.143	202.0	13.6	3.14	1.263	94.9	1.201	0.065	4-2616	325.0	538.2	0.13	0.914	90.4	324.6	-12.6	0.096
4-2570	4-2660	0.229	211.9	1.8	5.98	1.336	97.2	1.174	0.116	4-2630	329.2	466.0	4.41	1.002	108.2	331.1	1.5	0.338
4-2570	4-2670	0.189	211.1	2.9	4.48	1.309	95.9	1.172	0.089	4-2629	330.4	477.5	3.09	0.967	104.5	330.5	1.4	0.270
4-2570	4-2680	0.161	209.7	4.4	3.70	1.291	95.0	1.168	0.074	4-2629	332.0	489.1	2.38	0.945	101.2	330.7	2.1	0.218
4-2570	4-2690	0.142	208.2	6.5	3.19	1.280	94.2	1.163	0.064	4-2629	333.7	500.7	1.92	0.931	98.3	330.2	2.7	0.173
4-2570	4-2700	0.130	206.9	9.0	2.83	1.272	93.7	1.160	0.057	4-2629	335.0	512.1	1.57	0.923	95.7	329.8	2.7	0.139
4-2570	4-2710	0.123	206.2	11.8	2.59	1.267	93.5	1.158	0.052	4-2629	335.8	522.9	1.30	0.920	93.4	329.9	1.6	0.114
4-2570	4-2720	0.121	206.3	14.3	2.43	1.265	93.4	1.159	0.049	4-2629	335.8	532.8	1.09	0.919	91.4	331.1	-0.9	0.098
4-2570	4-2730	0.122	207.4	15.7	2.30	1.263	93.4	1.163	0.046	4-2629	334.9	542.0	0.98	0.920	89.6	323.6	-4.1	0.092
4-2580	4-2680	0.148	213.5	4.2	4.75	1.299	93.4	1.119	0.091	4-2643	341.4	481.6	4.15	0.959	102.4	339.8	9.2	0.240
4-2580	4-2690	0.127	210.6	6.2	3.64	1.284	92.7	1.118	0.070	4-2643	343.7	494.3	3.17	0.941	99.3	342.1	9.3	0.291
4-2580	4-2700	0.114	207.9	8.7	2.92	1.275	92.2	1.117	0.056	4-2642	345.7	506.5	2.57	0.930	96.6	342.3	9.6	0.152
4-2580	4-2710	0.106	206.0	11.7	2.42	1.269	91.8	1.117	0.046	4-2642	347.1	518.0	2.15	0.925	94.2	340.1	9.2	0.123
4-2580	4-2720	0.103	205.4	14.6	2.04	1.265	91.7	1.118	0.039	4-2642	347.6	528.6	1.85	0.923	92.1	335.2	7.6	0.104
4-2580	4-2730	0.102	206.2	16.7	1.75	1.264	91.7	1.120	0.034	4-2642	347.2	538.1	1.67	0.923	90.3	328.4	4.9	0.094
4-2580	4-2740	0.105	208.6	17.3	1.48	1.263	91.9	1.125	0.029	4-2641	345.7	546.8	1.63	0.925	88.7	321.3	2.2	0.093
4-2580	4-2750	0.109	212.3	16.4	1.16	1.264	92.3	1.133	0.023	4-2641	343.2	554.5	1.74	0.927	87.3	316.3	0.6	0.109
4-2590	4-2700	0.104	202.6	8.3	3.44	1.276	90.3	1.072	0.063	4-2656	357.8	502.1	3.78	0.936	97.2	342.9	16.1	0.166
4-2590	4-2710	0.097	199.1	11.4	2.52	1.269	90.0	1.073	0.047	4-2656	359.8	514.5	3.00	0.928	94.8	341.4	15.2	0.133
4-2590	4-2720	0.094	197.5	14.5	1.89	1.265	89.9	1.075	0.035	4-2655	0.8	165.1	2.48	0.925	92.6	337.2	13.5	0.110
4-2590	4-2730	0.093	198.0	17.0	1.43	1.263	89.9	1.078	0.027	4-2655	0.6	175.6	2.16	0.925	90.8	330.9	10.7	0.097
4-2590	4-2740	0.093	200.9	18.1	1.06	1.262	90.1	1.083	0.020	4-2655	359.3	544.3	2.02	0.926	89.2	324.3	7.6	0.093
4-2590	4-2750	0.094	205.0	17.7	0.70	1.263	90.4	1.089	0.013	4-2654	356.9	552.2	2.04	0.929	87.8	319.2	5.2	0.097
4-2590	4-2760	0.097	210.8	16.1	0.28	1.264	90.9	1.098	0.005	4-2653	353.6	559.1	2.20	0.932	86.5	316.8	4.1	0.106
4-2590	4-2770	0.102	217.8	13.8	-0.23	1.265	91.5	1.109	-0.004	4-2653	349.5	565.2	2.49	0.935	85.4	317.0	4.4	0.119
4-2600	4-2710	0.104	187.6	20.5	2.95	1.267	87.9	1.028	0.052	4-2669	14.4	152.9	3.98	0.929	95.1	340.4	20.6	0.143
4-2600	4-2720	0.101	185.6	19.5	1.89	1.262	87.8	1.032	0.034	4-2669	15.7	164.5	3.03	0.925	92.9	337.1	17.3	0.116
4-2600	4-2730	0.099	185.9	16.1	1.20	1.260	87.9	1.036	0.021	4-2669	15.6	174.7	2.47	0.924	91.0	331.5	13.3	0.100
4-2600	4-2740	0.098	188.3	17.5	0.73	1.260	88.1	1.041	0.013	4-2668	14.2	183.4	2.19	0.926	89.4	325.4	9.4	0.095
4-2600	4-2750	0.096	192.6	17.5	0.34	1.260	88.4	1.047	0.006	4-2668	11.7	191.1	2.11	0.928	88.0	320.7	6.5	0.097
4-2600	4-2760	0.095	198.8	16.5	-0.05	1.262	88.9	1.055	-0.001	4-2667	8.3	197.8	2.18	0.932	86.8	318.5	4.8	0.104
4-2600	4-2770	0.095	206.6	14.7	-0.49	1.264	89.4	1.064	-0.009	4-2666	4.1	203.8	2.35	0.935	85.7	318.8	4.6	0.115
4-2600	4-2780	0.096	215.7	12.3	-1.02	1.266	90.1	1.076	-0.019	4-2665	359.3	569.2	2.64	0.938	84.7	321.0	5.9	0.127
4-2610	4-2730	0.125	177.8	14.0	0.93	1.255	85.6	0.992	0.016	4-2682	32.2	175.5	2.59	0.920	90.9	329.9	12.9	0.104
4-2610	4-2740	0.122	179.9	15.4	0.33	1.255	85.9	0.998	0.006	4-2682	30.5	183.9	2.12	0.922	89.2	324.8	7.6	0.098
4-2610	4-2750	0.117	183.4	15.9	-0.08	1.256	86.3	1.004	-0.001	4-2681	27.7	191.2	1.94	0.925	87.9	321.0	4.1	0.099
4-2610	4-2760	0.112	188.3	15.4	-0.42	1.258	86.7	1.012	-0.007	4-2681	24.0	197.7	1.93	0.929	86.7	319.4	2.4	0.105
4-2610	4-2770	0.107	194.9	14.2	-0.77	1.261	87.3	1.021	-0.014	4-2680	19.5	203.4	2.03	0.933	85.7	320.1	2.1	0.114
4-2610	4-2780	0.102	203.0	12.4	-1.18	1.263	88.0	1.032	-0.021	4-2679	14.4	208.5	2.22	0.937	84.8	322.5	3.0	0.125
4-2610	4-2790	0.100	212.9	10.2	-1.67	1.266	88.7	1.044	-0.030	4-2678	8.8	213.1	2.48	0.941	84.0	326.3	4.8	0.137
4-2610	4-2800	0.100	224.0	7.7	-2.27	1.269	89.6	1.060	-0.041	4-2677	2.8	217.2	2.84	0.944	83.2	330.8	7.4	0.150
4-2620	4-2740	0.162	178.2	12.7	-0.28	1.248	83.3	0.955	-0.005	4-2696	48.0	185.5	1.83	0.914	88.8	322.7	2.6	0.104
4-2620	4-2750	0.155	181.0	13.4	-0.69	1.250	83.8	0.962	-0.012	4-2695	44.6	192.3	1.54	0.919	87.4	320.1	-1.3	0.105
4-2620	4-2760	0.146	184.8	13.3	-0.97	1.253	84.4	0.969	-0.016	4-2695	40.4	198.3	1.47	0.924	86.3	319.6	-2.8	0.111
4-2620	4-2770	0.137	189.7	12.7	-1.21	1.256	85.0	0.978	-0.020	4-2694	35.6	203.6	1.52	0.929	85.4	321.0	-2.7	0.118
4-2620	4-2780	0.128	195.7	11.5	-1.48	1.260	85.7	0.988	-0.025	4-2693	30.1	208.4	1.65	0.934	84.5	323.9	-1.5	0.127
4-2620	4-2790	0.119	203.2	9.9	-1.80	1.263	86.5	1.000	-0.031	4-2692	24.3	212.7	1.84	0.938	83.8	328.0	0.5	0.137
4-2620	4-2800	0.112	212.2	7.9	-2.21	1.267	87.4	1.013	-0.038	4-2691	18.1	216.7	2.09	0.942	83.1	332.8	3.1	0.147
4-2620	4-2810	0.107	223.0	5.6	-2.71	1.270	88.3	1.029	-0.048	4-2690	11.5	220.2	2.40	0.945	82.5	338.2	6.4	0.158
4-2630	4-2760	0.194	187.8	11.0	-1.83	1.245	81.6	0.928	-0.029	4-2708	57.1	199.2	0.75	0.914	85.6	319.6	-9.9	0.123
4-2630	4-2770	0.181	190.8	10.8	-1.92	1.250	82.4	0.936	-0.031	4-2708	51.8	204.1	0.80	0.921	84.7	321.7	-9.1	0.130
4-2630	4-2780	0.168	195.3	10.2	-2.02	1.254	83.2	0.945	-0.033	4-2707	46.2	208.6	0.93	0.928	83.9	325.2	-7.3	0.137
4-2630	4-2790	0.155	200.7	9.1	-2.16	1.259	84.1	0.956	-0.036	4-2706	40.0	212.7	1.10	0.933	83.3	329.6	-4.8	0.144
4-2630	4-2800	0.142	207.2	7.6	-2.37	1.263	85.0	0.968	-0.040	4-2705	33.6	216.4	1.30	0.938	82.7	334.8	-1.9	0.152
4-2630	4-2810	0.131	215.1	5.7	-2.66	1.267	85.9	0.982	-0.045	4-2704	26.8	219.8	1.53	0.943	82.2	340.4	1.4	0.160
4-2630	4-2820	0.121	224.5	3.6	-3.03	1.271	86.9	0.998	-0.052	4-2703	19.9	222.9	1.79	0.946	81.8	346.4	5.0	0.168
4-2630	4-2830	0.114	235.9	1.4	-3.49	1.275	88.0	1.016	-0.061	4-2701	12.6	225.8	2.10	0.949	81.3	352.7	8.1	0.177
4-2640	4-2770	0.237	195.9	9.1	-3.09	1.240	79.4	0.895	-0.048	4-2722	67.9	204.4	-0.30	0.909	83.6	323.0	-16.5	0.150
4-2640	4-2780	0.220	199.5	8.8	-2.94	1.246	80.4	0.903	-0.046	4-2721	61.9	208.6	-0.07	0.918	83.0	326.9	-13.8	0.154
4-2640	4-2790	0.203	203.7	8.1	-2.84	1.252	81.3	0.913	-0.045	4-2720	55.6	212.5	0.16	0.925	82.4	331.6	-10.7	0.159
4-2640	4-2800	0.187	208.5	7.0	-2.82	1.258	82.4	0.925	-0.045	4-2719	49.0	216.1	0.39	0.932	82.0	336.9	-7.3	0.165
4-2640	4-2810	0.170	214.2	5.5	-2.88	1.263	83.3	0.937	-0.047	4-2718	42.2	219.4	0.62	0.937	81.6	342.6	-3.7	0.170
4-2640	4-2820	0.155	220.9	3.8	-3.03	1.268	84.5	0.952	-0.050	4-2717	35.1	222.4	0.85	0.942	81.2	348.8	0.1	0.175
4-2640	4-2830	0.141	229.0	1.9	-3.25	1.273	85.6	0.968	-0.054	4-2716	27.8	225.2	1.08	0.946	80.9	355.2	4.0	0.181
4-2640	4-2840	0.130	238.7	-0.2	-3.5	1.277	86.7	0.986	-0.060	4-2714	20.4	227.3	1.31	0.949	80.5	1.8	8.0	0.187
4-2640	4-2850	0.132	250.4	-2.2	-3.91	1.281	87.9	1.006	-0.067	4-2713	12.8	230.3	1.58	0.952	80.1	8.8	12.1	0.193
4-2650	4-2780	0.283	206.4	7.5	-4.50	1.235	77.1	0.863	-0.068	4-2735	77.2	208.2	-1.63	0.903	81.6	329.5	-20.9	0.183
4-2650	4-2790	0.262	209.9	7.1	-4.00	1.243	78.2	0.872	-0.061	4-2734	70.8	211.9	-1.16	0.913	81.2	334.1	-16.8	0.184
4-2650	4-2800	0.242	213.8	6.4	-3.65	1.250	79.4	0.882	-0.056	4-2734	64.1	215.4	-0.77	0.922	80.8	339.4	-12.9	0.186
4-2650	4-2810	0.221	218.2	5.3	-3.42	1.257	80.6	0.894	-0.053	4-2733	57.2	218.6	-0.43	0.929	80.6	345.1	-8.6	0.188
4-2650	4-2820	0.202	223.2	3.9	-3.31	1.263	81.7	0.907	-0.052	4-2732	50.1	221.6	-0.15	0.936	80.4	351.2	-4.6	0.190
4-2650	4-2830	0.183	229.0	2.3	-3.30	1.269	82.9	0.921	-0.055	4-2730	42.9	224.5	0.10	0.941	80.2	357.6	-0.5	0.193
4-2650	4-2840	0.166	235.9	0.4	-3.37	1.274	84.1	0.938	-0.054	4-2729	35.4	227.1	0.32	0.945	80.0	4.3	3.5	0.196
4-2650	4-2850	0.151	244.1	-1.5	-3.51	1.279	85.3	0.956	-0.057	4-2727	27.9	229.5	0.51	0.949	79.7	11.2	7.4	0.199
4-2650	4-2860	0.138	254.0	-3.3	-3.69	1.283	86.6	0.975	-0.062	4-2725	20.2	231.8	0.68	0.952	79.4	18.5	11.2	0.203
4-2660	4-2810	0.283	225.1	5.0	-4.44	1.249	77.4	0.882	-0.066	4-2747	71.7	217.4	-1.82	0.917	79.2	348.1	-13.4	0.216
4-2660	4-2820	0.259	229.1	3.9	-3.97	1.257	78.7	0.864	-0.059	4-2746	64.6	220.4	-1.34	0.926	79.1	354.0	-8.8	0.214

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2660	4-2830	0.236	233.6	2.6	-3.46	1.264	80.0	0.877	-0.056	4-2745	57.5	223.3	-0.96	0.933	79.0	0.2	-4.4	0.213
4-2660	4-2840	0.215	238.7	1.0	-3.48	1.270	81.3	0.891	-0.054	4-2744	50.1	226.0	-0.67	0.939	79.0	6.7	-0.3	0.213
4-2660	4-2850	0.194	244.6	-0.7	-3.40	1.276	82.6	0.907	-0.053	4-2742	42.7	228.5	-0.44	0.944	78.9	13.5	3.7	0.213
4-2660	4-2860	0.176	251.6	-2.4	-3.38	1.281	83.9	0.925	-0.054	4-2740	35.1	230.9	-0.27	0.948	78.8	20.7	7.5	0.214
4-2660	4-2870	0.159	259.9	-4.1	-3.39	1.286	85.2	0.945	-0.055	4-2739	27.4	233.1	-0.15	0.951	78.6	28.2	10.9	0.215
4-2660	4-2880	0.145	269.9	-5.6	-3.43	1.290	86.5	0.966	-0.057	4-2737	19.7	235.1	-0.07	0.954	78.4	36.1	14.0	0.217
4-2670	4-2820	0.326	237.1	3.9	-5.19	1.247	75.3	0.822	-0.074	4-2760	70.5	218.6	-2.96	0.912	77.4	357.3	-12.8	0.248
4-2670	4-2830	0.299	240.9	2.8	-4.43	1.256	76.7	0.834	-0.064	4-2760	71.2	221.5	-2.29	0.921	77.5	3.1	-7.9	0.243
4-2670	4-2840	0.273	245.0	1.5	-3.81	1.264	78.2	0.847	-0.057	4-2758	64.3	224.5	-1.79	0.929	77.6	9.3	-3.4	0.239
4-2670	4-2850	0.249	249.5	0.1	-3.55	1.271	79.6	0.861	-0.053	4-2757	57.0	227.0	-1.43	0.936	77.7	15.9	0.8	0.235
4-2670	4-2860	0.226	254.7	-1.5	-3.31	1.278	81.0	0.877	-0.050	4-2756	49.5	229.5	-1.16	0.941	77.8	22.9	4.6	0.232
4-2670	4-2870	0.204	260.7	-3.1	-3.15	1.283	82.3	0.895	-0.048	4-2754	42.0	231.8	-0.98	0.946	77.8	30.2	8.1	0.231
4-2670	4-2880	0.184	267.7	-4.6	-3.03	1.289	83.7	0.914	-0.047	4-2752	34.4	234.0	-0.88	0.950	77.7	37.9	11.1	0.230
4-2670	4-2890	0.167	276.1	-5.9	-2.91	1.293	85.1	0.935	-0.046	4-2750	26.7	236.1	-0.86	0.953	77.6	45.9	13.7	0.230
4-2680	4-2840	0.342	253.7	1.9	-4.80	1.255	74.7	0.804	-0.067	4-2773	77.8	222.1	-3.24	0.916	75.8	12.3	-6.2	0.274
4-2680	4-2850	0.313	257.0	0.7	-4.05	1.265	76.2	0.817	-0.057	4-2772	70.7	224.9	-2.59	0.925	76.0	18.5	-1.6	0.286
4-2680	4-2860	0.286	261.2	-0.7	-3.51	1.272	77.8	0.831	-0.050	4-2771	63.4	227.5	-2.12	0.932	76.3	25.2	2.5	0.259
4-2680	4-2870	0.260	265.8	-2.1	-3.12	1.280	79.3	0.847	-0.046	4-2769	56.1	230.0	-1.80	0.938	76.5	32.2	6.1	0.254
4-2680	4-2880	0.236	271.0	-3.5	-2.83	1.286	80.7	0.864	-0.042	4-2768	48.7	232.4	-1.60	0.944	76.6	39.7	9.3	0.249
4-2680	4-2890	0.213	277.0	-4.8	-2.59	1.291	82.2	0.883	-0.039	4-2766	41.1	234.7	-1.49	0.949	76.7	47.5	11.9	0.246
4-2680	4-2900	0.192	284.0	-6.0	-2.36	1.296	83.6	0.903	-0.036	4-2764	33.6	236.8	-1.48	0.953	76.7	55.7	13.9	0.244
4-2680	4-2910	0.173	292.5	-6.9	-2.10	1.301	85.0	0.925	-0.033	4-2761	25.9	238.8	-1.56	0.956	76.7	64.2	15.2	0.243
4-2690	4-2850	0.387	265.9	1.2	-5.06	1.255	72.5	0.776	-0.069	4-2787	83.7	222.1	-4.13	0.909	73.9	21.6	-3.7	0.306
4-2690	4-2860	0.355	269.6	0.0	-4.05	1.265	74.2	0.788	-0.056	4-2786	76.7	224.9	-3.30	0.919	74.3	27.8	0.8	0.295
4-2690	4-2870	0.325	273.4	-1.3	-3.33	1.273	75.8	0.801	-0.046	4-2785	69.6	227.6	-2.72	0.928	74.7	34.5	4.7	0.285
4-2690	4-2880	0.297	277.6	-2.5	-2.81	1.281	77.4	0.816	-0.040	4-2783	62.4	230.2	-2.32	0.935	75.1	41.6	8.1	0.277
4-2690	4-2890	0.270	282.2	-3.8	-2.42	1.288	79.0	0.833	-0.035	4-2781	55.1	232.6	-2.07	0.941	75.4	49.2	10.9	0.270
4-2690	4-2900	0.244	287.4	-4.9	-2.08	1.294	80.5	0.851	-0.030	4-2780	47.7	235.0	-1.95	0.947	75.6	57.1	13.1	0.264
4-2690	4-2910	0.221	293.4	-5.9	-1.77	1.300	82.0	0.871	-0.026	4-2777	40.3	237.2	-1.93	0.952	75.7	65.4	14.5	0.259
4-2690	4-2920	0.199	300.5	-6.6	-1.43	1.304	83.5	0.893	-0.022	4-2775	32.8	239.4	-2.01	0.956	75.8	73.9	15.3	0.256
4-2700	4-2870	0.399	282.5	-0.5	-3.90	1.264	72.0	0.759	-0.052	4-2800	82.5	224.6	-3.80	0.913	72.5	37.1	3.7	0.325
4-2700	4-2880	0.367	286.1	-1.7	-3.02	1.274	73.8	0.772	-0.041	4-2799	75.5	227.3	-3.15	0.923	73.1	43.9	7.4	0.312
4-2700	4-2890	0.336	289.9	-2.8	-2.38	1.282	75.5	0.786	-0.032	4-2797	68.4	230.0	-2.68	0.931	73.5	51.1	10.4	0.301
4-2700	4-2900	0.306	294.1	-3.9	-1.90	1.290	77.2	0.802	-0.026	4-2796	61.3	232.6	-2.38	0.938	74.0	58.8	12.8	0.291
4-2700	4-2910	0.278	298.7	-4.9	-1.50	1.296	78.7	0.820	-0.021	4-2794	54.1	235.0	-2.22	0.945	74.3	66.8	14.5	0.283
4-2700	4-2920	0.252	303.9	-5.7	-1.14	1.302	80.3	0.839	-0.016	4-2792	46.8	237.4	-2.18	0.951	74.6	75.1	15.5	0.276
4-2700	4-2930	0.227	310.0	-6.2	-0.76	1.308	81.8	0.860	-0.011	4-2789	39.5	239.7	-2.24	0.956	74.7	83.6	15.6	0.271
4-2700	4-2940	0.205	317.1	-6.5	-0.33	1.312	83.4	0.882	-0.005	4-2787	32.1	241.8	-2.41	0.961	74.8	92.2	15.0	0.267
4-2710	4-2890	0.410	299.1	-2.0	-2.54	1.274	71.6	0.743	-0.033	4-2813	81.2	226.7	-3.39	0.917	71.2	53.5	10.3	0.340
4-2710	4-2900	0.377	302.6	-3.0	-1.81	1.283	73.4	0.757	-0.024	4-2811	74.3	229.5	-2.83	0.927	71.9	60.9	12.9	0.326
4-2710	4-2910	0.345	306.5	-4.0	-1.28	1.291	75.2	0.772	-0.017	4-2810	67.3	232.2	-2.48	0.935	72.4	68.7	14.9	0.314
4-2710	4-2920	0.315	310.6	-4.8	-0.85	1.298	76.9	0.789	-0.012	4-2808	60.3	234.8	-2.29	0.943	72.9	76.8	16.0	0.303
4-2710	4-2930	0.286	315.2	-5.4	-0.47	1.305	78.5	0.807	-0.006	4-2806	53.2	237.3	-2.22	0.949	73.3	85.1	16.5	0.294
4-2710	4-2940	0.259	320.5	-5.8	-0.08	1.310	80.1	0.827	-0.001	4-2804	46.1	239.7	-2.26	0.956	73.6	93.6	16.1	0.287
4-2710	4-2950	0.233	326.6	-5.9	0.34	1.315	81.7	0.849	0.005	4-2801	38.9	242.0	-2.41	0.962	73.8	102.0	15.0	0.281
4-2710	4-2960	0.210	333.8	-5.7	0.84	1.320	83.2	0.872	0.012	4-2798	31.6	244.3	-2.65	0.967	74.0	110.5	13.1	0.277
4-2720	4-2900	0.457	312.3	-2.3	-1.88	1.273	69.3	0.715	-0.023	4-2827	86.7	225.8	-3.37	0.911	69.3	63.3	13.2	0.369
4-2720	4-2910	0.420	315.7	-3.2	-1.09	1.283	71.3	0.728	-0.014	4-2826	80.0	228.7	-2.75	0.922	70.1	70.9	15.5	0.352
4-2720	4-2920	0.386	319.2	-4.0	-0.54	1.292	73.2	0.742	-0.007	4-2824	73.2	231.5	-2.36	0.932	70.8	78.8	16.9	0.338
4-2720	4-2930	0.353	323.1	-4.6	-0.11	1.300	74.9	0.758	-0.001	4-2822	66.4	234.3	-2.14	0.940	71.4	87.0	17.5	0.325
4-2720	4-2940	0.322	327.2	-5.1	0.25	1.308	76.6	0.776	0.003	4-2820	59.5	236.9	-2.05	0.948	71.9	95.3	17.4	0.314
4-2720	4-2950	0.293	331.9	-5.3	0.60	1.312	78.3	0.795	0.008	4-2818	52.5	239.5	-2.08	0.955	72.4	103.7	16.6	0.304
4-2720	4-2960	0.265	337.2	-5.2	0.98	1.318	79.9	0.816	0.014	4-2816	45.5	242.0	-2.19	0.962	72.7	112.0	15.0	0.296
4-2720	4-2970	0.238	343.3	-4.9	1.43	1.322	81.5	0.838	0.020	4-2813	38.3	244.4	-2.40	0.969	73.0	120.3	12.7	0.290
4-2730	4-2920	0.466	329.0	-3.3	-0.20	1.283	69.0	0.700	-0.002	4-2840	85.6	227.7	-2.38	0.917	68.1	81.3	17.9	0.380
4-2730	4-2930	0.429	332.4	-3.9	0.33	1.292	70.9	0.714	0.004	4-2839	78.9	230.7	-1.98	0.928	69.0	89.3	18.7	0.363
4-2730	4-2940	0.394	335.9	-4.4	0.71	1.300	72.8	0.729	0.01	4-2837	72.3	233.6	-1.76	0.938	69.8	97.5	18.8	0.348
4-2730	4-2950	0.361	339.7	-4.7	1.01	1.307	74.6	0.745	0.013	4-2835	65.5	236.4	-1.67	0.947	70.4	105.8	18.2	0.335
4-2730	4-2960	0.329	343.9	-4.8	1.30	1.314	76.4	0.763	0.017	4-2833	58.7	239.1	-1.69	0.955	71.0	114.1	16.8	0.323
4-2730	4-2970	0.298	348.6	-4.6	1.60	1.319	78.1	0.783	0.021	4-2830	51.9	241.8	-1.79	0.963	71.5	122.3	14.8	0.313
4-2730	4-2980	0.269	353.9	-4.2	1.97	1.325	79.7	0.805	0.027	4-2828	44.9	244.3	-1.96	0.970	71.9	130.3	12.1	0.305
4-2730	4-2990	0.242	0.1	-3.5	2.41	1.329	81.4	0.828	0.034	4-2825	37.9	246.8	-2.21	0.977	72.2	138.2	8.9	0.298
4-2740	4-2940	0.474	345.7	-3.9	1.34	1.291	68.6	0.686	0.016	4-2853	84.5	229.6	-1.33	0.924	67.1	100.2	20.2	0.390
4-2740	4-2950	0.436	349.0	-4.3	1.61	1.300	70.6	0.700	0.020	4-2852	78.0	232.6	-1.14	0.935	68.0	108.4	19.7	0.373
4-2740	4-2960	0.401	352.6	-4.4	1.81	1.308	72.5	0.716	0.022	4-2850	71.4	235.6	-1.08	0.945	68.9	116.6	18.5	0.357
4-2740	4-2970	0.367	356.4	-4.4	2.00	1.314	74.4	0.733	0.025	4-2848	64.8	238.5	-1.11	0.955	69.6	124.7	16.6	0.344
4-2740	4-2980	0.334	0.6	-4.1	2.20	1.320	76.2	0.751	0.028	4-2845	58.1	241.3	-1.22	0.964	70.2	132.7	14.2	0.332
4-2740	4-2990	0.303	5.3	-3.5	2.45	1.326	77.9	0.772	0.032	4-2843	51.3	244.1	-1.37	0.972	70.7	140.5	11.3	0.322
4-2740	4-3000	0.273	10.7	-2.7	2.77	1.331	79.6	0.794	0.037	4-2840	44.4	246.7	-1.58	0.980	71.2	148.2	7.9	0.313
4-2740	4-3010	0.246	17.1	-1.7	3.17	1.335	81.3	0.819	0.044	4-2836	37.4	249.3	-1.84	0.988	71.6	155.8	4.0	0.306
4-2750	4-2950	0.521	359.2	-3.8	2.50	1.289	66.2	0.660	0.029	4-2868	89.9	228.4	-0.39	0.920	65.1	111.4	21.2	0.419
4-2750	4-2960	0.481	2.4	-4.1	2.61	1.299	68.4	0.673	0.031	4-2867	83.6	231.5	-0.28	0.933	66.2	119.5	20.1	0.399
4-2750	4-2970	0.443	5.8	-4.1	2.66	1.307	70.4	0.687	0.032	4-2865	77.1	234.6	-0.29	0.944	67.2	127.5	18.3	0.382
4-2750	4-2980	0.406	9.3	-3.9	2.70	1.314	72.3	0.704	0.033	4-2863	70.6	237.7	-0.37	0.955	68.0	135.5	16.0	0.366
4-2750	4-2990	0.371	13.2	-3.5	2.76	1.321	74.2	0.721	0.034	4-2860	64.1	240.7	-0.51	0.965	68.8	143.2	13.2	0.352
4-2750	4-3000	0.338	17.4	-2.9	2.89	1.326	76.0	0.741	0.037	4-2858	57.4	243.6	-0.67	0.974	69.5	150.6	10.0	0.340
4-2750	4-3010	0.306	22.2	-2.1	3.06	1.331	77.7	0.762	0.040	4-2855	50.7	246.4	-0.86	0.983	70.1	158.4	6.4	0.330
4-2750	4-3020	0.276	27.7	-1.0	3.32	1.336	79.5	0.785	0.044	4-2852	43.8	249.2	-1.08	0.991	70.6	166.0	2.6	0.321
4-2760	4-2970	0.526	16.0	-3.9	3.70	1.297	66.0	0.648	0.040	4-2881	89.0	230.3	0.79	0.931	64.2	130.8	19.8	0.424
4-2760	4-2980	0.486	19.2	-3.8	3.54	1.305	68.1	0.661	0.041	4-2880	82.7	233.5	0.67	0.963	65.4	138.6	17.5	0.409

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2760	4-2990	0.447	22.5	-3.5	3.30	1.313	70.2	0.676	0.040	4-2878	76.3	236.7	0.51	0.955	66.4	146.3	14.7	0.391
4-2760	4-3000	0.410	26.1	-3.0	3.29	1.320	72.1	0.693	0.039	4-2876	69.9	239.8	0.31	0.966	67.3	153.8	11.6	0.375
4-2760	4-3010	0.375	30.0	-2.4	3.25	1.326	74.0	0.711	0.040	4-2873	63.4	242.9	0.11	0.976	68.1	161.3	8.2	0.361
4-2760	4-3020	0.341	34.3	-1.5	3.28	1.332	75.9	0.731	0.041	4-2870	56.7	245.9	-0.09	0.985	68.9	168.7	4.6	0.349
4-2760	4-3030	0.308	39.2	-0.4	3.38	1.336	77.7	0.753	0.043	4-2867	50.0	248.8	-0.29	0.994	69.5	176.2	0.8	0.338
4-2760	4-3040	0.278	44.9	0.8	3.54	1.341	79.5	0.777	0.046	4-2863	43.1	251.6	-0.47	1.002	70.1	183.7	-3.1	0.329
4-2770	4-2980	0.573	29.6	-3.7	4.87	1.293	63.6	0.624	0.053	4-2896	94.2	229.0	2.07	0.929	62.2	142.1	18.8	0.459
4-2770	4-2990	0.531	32.7	-3.5	4.44	1.303	65.8	0.636	0.049	4-2895	88.0	232.3	1.78	0.942	63.5	149.6	16.0	0.428
4-2770	4-3000	0.490	35.9	-3.2	4.06	1.311	68.0	0.650	0.046	4-2893	81.8	235.6	1.48	0.955	64.7	157.0	12.9	0.418
4-2770	4-3010	0.450	39.3	-2.6	3.75	1.318	70.0	0.666	0.043	4-2891	75.5	238.8	1.19	0.967	65.7	164.3	9.5	0.400
4-2770	4-3020	0.413	43.0	-1.8	3.54	1.325	72.0	0.683	0.042	4-2888	69.1	242.0	0.92	0.977	66.7	171.6	6.0	0.384
4-2770	4-3030	0.377	46.9	-0.9	3.41	1.331	73.9	0.702	0.041	4-2885	62.5	245.2	0.59	0.988	67.6	179.0	2.3	0.370
4-2770	4-3040	0.342	51.3	0.1	3.36	1.336	75.8	0.723	0.041	4-2882	55.9	248.3	0.48	0.997	68.4	186.4	-1.4	0.358
4-2770	4-3050	0.309	56.4	1.3	3.38	1.341	77.7	0.746	0.043	4-2879	49.1	251.2	0.32	1.006	69.1	194.0	-5.1	0.347
4-2780	4-3000	0.576	46.4	-3.2	5.33	1.300	63.4	0.613	0.057	4-2909	93.2	230.9	3.00	0.941	61.6	160.5	13.9	0.469
4-2780	4-3010	0.533	49.5	-2.8	4.68	1.308	65.7	0.626	0.051	4-2908	87.0	234.3	2.52	0.955	62.9	167.6	10.5	0.447
4-2780	4-3020	0.492	52.8	-2.2	4.14	1.316	67.9	0.641	0.046	4-2906	80.8	237.7	2.09	0.968	64.1	174.7	6.9	0.428
4-2780	4-3030	0.452	56.2	-1.4	3.74	1.323	70.0	0.657	0.043	4-2903	74.5	241.0	1.73	0.979	65.2	181.9	3.3	0.410
4-2780	4-3040	0.414	59.9	-0.4	3.44	1.329	72.0	0.675	0.040	4-2901	68.1	244.3	1.43	0.990	66.3	189.2	-0.4	0.394
4-2780	4-3050	0.377	64.0	0.6	3.24	1.335	74.0	0.695	0.039	4-2897	61.5	247.5	1.19	1.000	67.2	196.4	-3.9	0.379
4-2780	4-3060	0.343	68.5	1.7	3.10	1.340	75.9	0.717	0.038	4-2894	54.8	250.7	1.02	1.010	68.1	204.4	-7.3	0.366
4-2780	4-3070	0.309	73.8	2.8	3.00	1.344	77.8	0.741	0.038	4-2890	48.0	253.7	0.92	1.018	68.8	212.4	-10.5	0.356
4-2780	4-3080	0.277	79.9	3.8	2.89	1.348	79.7	0.768	0.037	4-2886	40.9	256.5	0.90	1.026	69.5	220.8	-13.2	0.347
4-2790	4-3010	0.623	60.2	-2.9	6.19	1.296	61.0	0.592	0.064	4-2924	98.1	229.5	4.26	0.941	59.5	171.2	11.3	0.502
4-2790	4-3020	0.578	63.2	-2.4	5.22	1.305	63.4	0.604	0.055	4-2923	92.1	232.9	3.55	0.955	61.0	178.1	7.6	0.479
4-2790	4-3030	0.534	66.4	-1.7	4.44	1.313	65.7	0.617	0.048	4-2921	85.9	236.4	2.96	0.969	62.4	185.0	3.9	0.457
4-2790	4-3040	0.492	69.6	-0.9	3.82	1.321	67.9	0.633	0.042	4-2919	79.7	239.8	2.48	0.981	63.7	192.1	0.2	0.437
4-2790	4-3050	0.452	73.1	-0.0	3.36	1.327	70.0	0.650	0.038	4-2916	73.4	243.2	2.10	0.993	64.9	199.4	-3.3	0.419
4-2790	4-3060	0.413	76.9	1.0	3.01	1.333	72.1	0.669	0.035	4-2913	66.9	246.6	1.81	1.003	65.9	206.9	-6.7	0.402
4-2790	4-3070	0.376	81.1	2.0	2.75	1.338	74.1	0.690	0.032	4-2909	60.3	249.9	1.62	1.013	66.9	214.8	-9.8	0.348
4-2790	4-3080	0.340	85.9	3.0	2.52	1.343	76.0	0.713	0.031	4-2905	53.5	253.0	1.51	1.022	67.9	223.0	-12.5	0.375
4-2790	4-3090	0.307	91.4	4.0	2.30	1.347	78.0	0.738	0.029	4-2901	46.5	256.0	1.51	1.030	68.7	231.6	-14.7	0.369
4-2800	4-3020	0.671	74.1	-2.6	6.97	1.291	58.6	0.575	0.069	4-2938	102.9	227.9	5.50	0.940	57.5	181.7	8.1	0.537
4-2800	4-3030	0.623	77.0	-2.0	5.65	1.301	61.1	0.584	0.058	4-2937	96.9	231.4	4.53	0.955	59.1	188.4	4.3	0.511
4-2800	4-3040	0.577	80.1	-1.3	4.59	1.310	63.5	0.596	0.048	4-2936	90.8	235.0	3.74	0.970	60.6	195.2	0.5	0.488
4-2800	4-3050	0.533	83.2	-0.5	3.77	1.318	65.8	0.610	0.040	4-2934	84.6	238.5	3.12	0.983	62.0	202.3	-3.1	0.466
4-2800	4-3060	0.490	86.6	0.4	3.15	1.325	68.0	0.626	0.034	4-2931	78.4	242.0	2.64	0.995	63.4	209.6	-6.5	0.445
4-2800	4-3070	0.450	90.2	1.4	2.67	1.331	70.2	0.644	0.030	4-2928	72.0	245.5	2.29	1.006	64.6	217.3	-9.6	0.427
4-2800	4-3080	0.411	94.1	2.3	2.30	1.337	72.3	0.664	0.026	4-2925	65.4	248.9	2.06	1.016	65.8	225.3	-12.3	0.411
4-2800	4-3090	0.373	98.4	3.2	1.98	1.342	74.3	0.686	0.023	4-2921	58.7	252.2	1.94	1.025	66.8	233.6	-14.5	0.397
4-2800	4-3100	0.337	103.4	4.0	1.67	1.346	76.3	0.711	0.020	4-2917	51.8	255.3	1.94	1.033	67.8	242.4	-16.1	0.384
4-3150	4-3240	0.270	67.3	-4.8	-3.68	1.343	100.1	1.246	-0.077	4-3205	319.4	464.4	-3.70	1.018	110.1	183.7	-12.9	0.342
4-3150	4-3250	0.229	67.3	-6.0	-2.73	1.315	98.7	1.239	-0.058	4-3205	319.6	474.6	-2.87	0.977	106.6	188.1	-14.2	0.275
4-3150	4-3260	0.199	66.8	-7.5	-2.12	1.296	97.7	1.231	-0.045	4-3205	320.1	485.0	-2.39	0.949	103.5	191.4	-15.8	0.221
4-3150	4-3270	0.178	66.2	-9.2	-1.68	1.284	96.9	1.224	-0.035	4-3205	320.8	495.5	-2.08	0.928	100.6	193.2	-17.3	0.178
4-3150	4-3280	0.164	65.5	-11.1	-1.34	1.276	96.3	1.218	-0.028	4-3205	321.4	505.8	-1.86	0.915	97.9	193.0	-18.3	0.144
4-3150	4-3290	0.155	65.2	-12.7	-1.05	1.270	96.0	1.215	-0.022	4-3205	321.8	515.8	-1.73	0.905	95.5	190.1	-18.7	0.119
4-3150	4-3300	0.151	65.2	-13.7	-0.79	1.267	95.8	1.214	-0.017	4-3205	321.7	525.3	-1.69	0.899	93.4	184.4	-18.3	0.102
4-3150	4-3310	0.150	65.8	-13.7	-0.48	1.266	95.8	1.217	-0.010	4-3205	321.1	534.2	-1.81	0.896	91.3	176.3	-17.4	0.095
4-3160	4-3250	0.223	75.1	-5.7	-3.54	1.336	97.5	1.185	-0.071	4-3219	327.7	466.2	-4.39	1.004	108.2	190.6	-19.4	0.310
4-3160	4-3260	0.188	74.1	-7.2	-2.32	1.312	96.4	1.183	-0.047	4-3219	328.6	477.2	-3.32	0.967	104.9	194.8	-20.0	0.247
4-3160	4-3270	0.163	72.8	-8.9	-1.60	1.295	95.5	1.179	-0.032	4-3218	329.8	488.0	-2.73	0.943	101.9	197.5	-21.3	0.198
4-3160	4-3280	0.146	71.4	-10.8	-1.05	1.285	94.9	1.175	-0.021	4-3218	330.9	499.1	-2.36	0.925	99.1	198.5	-22.6	0.159
4-3160	4-3290	0.135	70.2	-12.7	-0.64	1.278	94.5	1.172	-0.013	4-3218	331.8	509.7	-2.12	0.913	96.7	197.1	-23.5	0.130
4-3160	4-3300	0.129	69.7	-14.2	-0.30	1.274	94.2	1.171	-0.006	4-3218	332.2	519.7	-1.98	0.905	94.4	192.8	-23.7	0.108
4-3160	4-3310	0.127	69.9	-14.8	0.02	1.271	94.2	1.172	0.000	4-3218	332.1	529.1	-1.97	0.901	92.4	185.8	-23.1	0.096
4-3160	4-3320	0.127	70.9	-14.1	0.40	1.270	94.3	1.176	0.008	4-3218	331.2	537.8	-2.11	0.899	90.5	177.5	-22.1	0.092
4-3170	4-3270	0.149	76.0	-8.5	-1.79	1.307	93.9	1.127	-0.094	4-3232	339.7	481.7	-3.52	0.956	103.0	200.7	-25.1	0.218
4-3170	4-3280	0.130	73.2	-10.5	-0.94	1.293	93.2	1.126	-0.018	4-3232	341.4	493.4	-2.83	0.934	100.1	202.5	-25.8	0.174
4-3170	4-3290	0.119	70.7	-12.6	-0.36	1.284	92.7	1.125	-0.007	4-3232	342.9	504.6	-2.40	0.920	97.6	202.3	-26.5	0.140
4-3170	4-3300	0.112	69.1	-14.4	0.08	1.279	92.5	1.125	0.002	4-3232	343.9	515.2	-2.13	0.911	95.2	199.2	-26.7	0.114
4-3170	4-3310	0.108	68.6	-15.5	0.44	1.276	92.4	1.126	0.008	4-3231	344.1	525.1	-1.99	0.905	93.1	193.3	-26.1	0.098
4-3170	4-3320	0.107	69.4	-15.4	0.77	1.274	92.4	1.129	0.015	4-3231	343.6	534.1	-2.00	0.902	91.2	185.5	-24.8	0.090
4-3170	4-3330	0.108	71.4	-13.8	1.15	1.274	92.6	1.134	0.022	4-3231	342.4	542.4	-2.15	0.901	89.5	177.8	-23.3	0.090
4-3170	4-3340	0.111	74.7	-11.2	1.63	1.274	92.9	1.141	0.032	4-3230	340.4	550.0	-2.45	0.902	87.9	172.4	-22.5	0.096
4-3180	4-3290	0.109	64.7	-12.3	-0.13	1.289	90.7	1.075	-0.002	4-3246	355.6	501.0	-2.56	0.925	98.2	205.8	-27.9	0.148
4-3180	4-3300	0.103	61.6	-14.4	0.45	1.282	90.5	1.076	0.008	4-3245	357.1	512.2	-2.10	0.914	95.8	203.7	-27.4	0.119
4-3180	4-3310	0.100	60.3	-15.8	0.85	1.279	90.3	1.078	0.016	4-3245	357.7	522.4	-1.83	0.907	93.6	198.8	-26.2	0.099
4-3180	4-3320	0.098	60.8	-16.1	1.17	1.277	90.4	1.081	0.022	4-3245	357.4	531.7	-1.72	0.904	91.7	191.5	-24.4	0.089
4-3180	4-3330	0.097	63.0	-14.9	1.46	1.276	90.5	1.086	0.027	4-3244	356.3	540.1	-1.76	0.903	90.0	184.1	-22.5	0.086
4-3180	4-3340	0.097	66.7	-12.5	1.79	1.277	90.8	1.091	0.034	4-3244	354.4	547.8	-1.93	0.904	88.4	178.3	-21.0	0.089
4-3180	4-3350	0.099	71.8	-9.5	2.21	1.278	91.2	1.099	0.042	4-3243	351.8	554.8	-2.19	0.906	86.9	175.2	-20.5	0.098
4-3180	4-3360	0.102	77.8	-6.3	2.73	1.279	91.7	1.109	0.052	4-3243	348.6	561.2	-2.54	0.909	85.6	174.6	-21.3	0.109
4-3190	4-3300	0.112	49.9	-13.7	1.06	1.283	88.1	1.024	0.019	4-3260	12.3	151.1	-1.67	0.914	96.1	206.7	-24.6	0.121
4-3190	4-3310	0.109	48.2	-15.1	1.49	1.279	88.0	1.028	0.026	4-3259	13.1	161.6	-1.29	0.906	93.9	202.4	-22.0	0.100
4-3190	4-3320	0.107	48.6	-15.6	1.75	1.277	88.1	1.032	0.031	4-3259	12.9	171.0	-1.13	0.903	91.9	195.7	-19.4	0.088
4-3190	4-3330	0.104	50.6	-14.8	1.93	1.276	88.3	1.036	0.034	4-3258	11.7	179.4	-1.14	0.902	90.1	188.6	-17.2	0.084
4-3190	4-3340	0.102	54.2	-12.9	2.11	1.277	88.6	1.042	0.038	4-3258	9.8	186.9	-1.26	0.903	88.6	182.8	-15.8	0.086
4-3190	4-3350	0.099	59.3	-10.2	2.35	1.278	89.0	1.049	0.042	4-3257	7.0	193.7	-1.45	0.905	87.1	179.7	-15.5	0.093
4-3190	4-3360	0.098	65.8	-7.2	2.66	1.280	89.4	1.058	0.048	4-3257	3.7	200.0	-1.68	0.909	85.8	179.1	-16.2	0.102

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3190	4-3370	0.099	73.5	-4.1	3.05	1.282	90.0	1.068	0.056	4-3256	359.8	565.8	-1.97	0.913	84.6	180.5	-17.8	0.113
4-3200	4-3320	0.136	40.9	-14.1	2.84	1.274	85.4	0.981	0.048	4-3273	30.2	171.9	0.03	0.898	91.8	198.6	-7.6	0.089
4-3200	4-3330	0.172	42.7	-13.6	2.77	1.274	85.7	0.987	0.047	4-3273	28.7	180.1	-0.11	0.898	90.0	191.6	-6.2	0.086
4-3200	4-3340	0.127	45.7	-12.1	2.72	1.275	86.1	0.993	0.047	4-3272	26.3	187.3	-0.31	0.899	88.4	186.1	-6.2	0.086
4-3200	4-3350	0.121	48.7	-9.9	2.74	1.276	86.5	0.999	0.047	4-3272	23.3	193.8	-0.55	0.903	87.0	183.2	-7.1	0.093
4-3200	4-3360	0.115	54.9	-6.5	2.83	1.278	87.0	1.007	0.049	4-3271	19.7	199.8	-0.86	0.907	85.8	182.4	-9.5	0.101
4-3200	4-3370	0.110	61.4	-4.7	3.01	1.281	87.6	1.017	0.053	4-3270	15.6	205.3	-1.01	0.912	84.6	184.2	-10.9	0.110
4-3200	4-3380	0.106	69.3	-1.9	3.26	1.283	88.3	1.028	0.057	4-3269	11.1	210.4	-1.25	0.917	83.6	187.2	-13.4	0.120
4-3200	4-3390	0.104	78.4	0.7	3.58	1.286	89.0	1.041	0.064	4-3268	6.2	215.2	-1.50	0.923	82.7	191.3	-16.4	0.131
4-3210	4-3340	0.169	44.1	-10.7	3.89	1.269	83.2	0.943	0.063	4-3287	44.0	188.6	1.10	0.892	87.9	188.7	7.2	0.098
4-3210	4-3350	0.160	47.3	-9.1	3.55	1.271	83.7	0.950	0.058	4-3283	40.4	194.7	0.67	0.896	86.5	185.9	3.8	0.102
4-3210	4-3360	0.151	51.2	-7.2	3.35	1.274	84.3	0.958	0.055	4-3285	36.4	200.3	0.31	0.902	85.3	185.5	0.4	0.109
4-3210	4-3370	0.142	56.0	-4.9	3.27	1.278	85.0	0.967	0.054	4-3285	32.0	205.4	0.01	0.908	84.3	187.2	-3.0	0.116
4-3210	4-3380	0.133	61.8	-2.6	3.28	1.281	85.7	0.977	0.055	4-3284	27.2	210.3	-0.24	0.914	83.3	190.2	-6.3	0.124
4-3210	4-3390	0.125	68.7	-0.2	3.38	1.784	86.5	0.989	0.057	4-3283	22.1	214.9	-0.46	0.921	82.5	194.4	-9.6	0.132
4-3210	4-3400	0.118	77.0	2.2	3.54	1.287	87.3	1.002	0.061	4-3282	16.7	219.2	-0.66	0.928	81.7	199.6	-12.9	0.141
4-3210	4-3410	0.113	86.8	4.4	3.75	1.290	88.2	1.018	0.065	4-3281	11.0	223.3	-0.86	0.935	81.0	205.4	-16.2	0.150
4-3220	4-3350	0.214	50.4	-8.1	5.08	1.263	80.6	0.902	0.079	4-3301	57.9	195.9	2.47	0.886	85.7	188.7	15.8	0.124
4-3220	4-3360	0.201	53.5	-6.7	4.37	1.267	81.3	0.910	0.069	4-3300	53.4	201.0	1.77	0.893	84.5	188.3	10.1	0.127
4-3220	4-3370	0.188	57.2	-5.0	3.91	1.271	82.1	0.918	0.062	4-3299	48.6	205.8	1.25	0.900	83.6	189.8	5.1	0.131
4-3220	4-3380	0.175	61.4	-3.0	3.63	1.275	82.9	0.928	0.058	4-3299	43.5	210.4	0.86	0.908	82.7	192.8	0.7	0.137
4-3220	4-3390	0.163	66.4	-1.0	3.47	1.279	83.7	0.939	0.056	4-3298	38.1	214.7	0.56	0.916	81.9	197.0	-3.4	0.143
4-3220	4-3400	0.151	72.3	1.2	3.41	1.283	84.6	0.951	0.056	4-3297	32.6	218.8	0.32	0.924	81.2	202.1	-7.1	0.149
4-3220	4-3410	0.139	79.4	3.3	3.41	1.287	85.5	0.965	0.056	4-3296	26.8	222.8	0.15	0.932	80.6	207.9	-10.6	0.156
4-3220	4-3420	0.130	87.9	5.2	3.45	1.291	86.5	0.980	0.058	4-3294	20.7	226.5	0.01	0.940	80.1	214.4	-13.7	0.163
4-3230	4-3370	0.246	62.5	-4.9	5.19	1.261	78.8	0.872	0.079	4-3314	64.9	206.1	2.98	0.889	82.4	192.7	12.9	0.158
4-3230	4-3380	0.229	65.9	-3.4	4.43	1.267	79.7	0.881	0.068	4-3314	59.5	210.3	2.25	0.899	81.6	195.4	7.2	0.159
4-3230	4-3390	0.213	69.8	-1.6	3.91	1.272	80.7	0.890	0.060	4-3313	54.0	214.4	1.72	0.908	81.0	199.4	2.2	0.162
4-3230	4-3400	0.197	74.1	0.2	3.57	1.277	81.7	0.902	0.055	4-3312	48.2	218.3	1.34	0.918	80.4	204.3	-2.2	0.165
4-3230	4-3410	0.181	79.2	2.1	3.34	1.282	82.7	0.914	0.053	4-3311	42.3	222.2	1.07	0.927	79.9	210.0	-6.1	0.169
4-3230	4-3420	0.167	85.2	4.0	3.20	1.286	83.7	0.928	0.051	4-3309	36.2	225.8	0.88	0.936	79.5	216.3	-9.5	0.174
4-3230	4-3430	0.153	92.4	5.7	3.09	1.290	84.8	0.944	0.050	4-3308	29.8	229.4	0.77	0.945	79.1	223.3	-12.4	0.179
4-3230	4-3440	0.141	101.1	7.2	3.00	1.294	85.9	0.962	0.049	4-3306	23.3	232.7	0.73	0.953	78.8	230.9	-14.8	0.184
4-3240	4-3390	0.274	76.3	-2.2	4.86	1.261	77.3	0.845	0.071	4-3328	69.3	213.7	3.25	0.897	79.6	202.0	7.1	0.191
4-3240	4-3400	0.254	79.9	-0.6	4.08	1.268	78.5	0.855	0.061	4-3327	69.4	217.5	2.55	0.908	79.0	206.5	1.9	0.190
4-3240	4-3410	0.235	83.8	1.0	3.55	1.274	79.6	0.867	0.053	4-3326	57.4	221.2	2.05	0.919	78.8	211.9	-2.5	0.191
4-3240	4-3420	0.216	88.3	2.7	3.17	1.280	80.8	0.880	0.048	4-3325	51.2	224.8	1.72	0.930	78.5	218.1	-6.3	0.193
4-3240	4-3430	0.197	93.5	4.4	.99	1.285	81.9	0.894	0.044	4-3323	44.9	228.3	1.51	0.939	78.3	224.8	-9.6	0.195
4-3240	4-3440	0.180	99.6	5.9	.66	1.289	83.1	0.910	0.042	4-3322	38.3	231.7	1.39	0.949	78.1	232.2	-12.2	0.197
4-3240	4-3450	0.164	107.0	7.2	2.44	1.294	84.3	0.928	0.039	4-3320	31.6	234.9	1.37	0.957	77.9	240.1	-14.1	0.201
4-3240	4-3460	0.149	116.0	8.2	2.19	1.297	85.5	0.948	0.035	4-3318	24.6	237.9	1.45	0.965	77.7	248.5	-15.2	0.206
4-3250	4-3400	0.321	87.8	-1.3	5.17	1.255	74.9	0.813	0.073	4-3342	77.9	216.1	4.19	0.894	77.5	209.1	5.6	0.226
4-3250	4-3410	0.297	91.2	0.1	4.13	1.263	76.2	0.823	0.059	4-3341	71.9	219.6	3.29	0.907	77.3	214.1	0.4	0.222
4-3250	4-3420	0.274	94.8	1.6	3.40	1.270	77.5	0.834	0.049	4-3340	65.7	223.2	2.67	0.920	77.1	219.9	-4.0	0.219
4-3250	4-3430	0.252	98.9	3.2	2.87	1.277	78.8	0.847	0.042	4-3339	59.4	226.7	2.25	0.931	77.0	226.4	-7.6	0.218
4-3250	4-3440	0.231	103.5	4.6	2.48	1.282	80.1	0.861	0.037	4-3337	52.9	229.1	1.99	0.942	77.0	233.5	-10.6	0.218
4-3250	4-3450	0.210	108.8	5.9	2.15	1.288	81.3	0.877	0.032	4-3336	46.2	233.4	1.86	0.952	76.9	241.2	-12.8	0.218
4-3250	4-3460	0.191	115.1	7.0	1.84	1.292	82.6	0.895	0.028	4-3334	39.3	236.6	1.84	0.961	76.9	249.4	-14.2	0.220
4-3250	4-3470	0.172	122.7	7.8	1.49	1.297	84.0	0.915	0.023	4-3332	32.2	239.5	1.93	0.969	76.9	257.9	-14.7	0.222
4-3260	4-3420	0.343	103.2	0.7	4.00	1.258	73.9	0.792	0.055	4-3355	79.4	221.0	3.87	0.906	75.2	222.1	-2.2	0.255
4-3260	4-3430	0.316	106.6	2.1	3.09	1.266	75.4	0.804	0.043	4-3354	73.1	224.5	3.11	0.920	75.3	228.2	-6.3	0.249
4-3260	4-3440	0.291	110.4	3.4	2.44	1.273	76.8	0.816	0.035	4-3353	66.7	228.0	2.61	0.933	75.4	235.1	-9.7	0.245
4-3260	4-3450	0.266	114.6	4.7	1.95	1.280	78.2	0.831	0.028	4-3351	60.1	231.4	2.30	0.944	75.6	242.5	-12.2	0.242
4-3260	4-3460	0.243	119.3	5.8	1.56	1.286	79.6	0.847	0.023	4-3350	53.4	234.6	2.14	0.955	75.7	250.5	-13.9	0.241
4-3260	4-3470	0.220	124.9	6.7	1.19	1.291	81.0	0.864	0.018	4-3348	46.4	237.8	2.11	0.964	75.9	258.8	-14.8	0.240
4-3260	4-3480	0.198	131.4	7.2	0.80	1.296	82.4	0.884	0.012	4-3346	39.2	240.7	2.20	0.972	76.0	267.4	-14.8	0.240
4-3260	4-3490	0.178	139.4	7.4	0.33	1.300	83.9	0.906	0.008	4-3343	31.8	243.4	2.41	0.979	76.1	276.2	-13.8	0.242
4-3270	4-3430	0.390	115.7	1.2	3.67	1.252	71.5	0.764	0.009	4-3369	86.2	221.7	4.24	0.904	73.1	230.4	-5.3	0.290
4-3270	4-3440	0.360	119.0	2.4	2.61	1.261	73.2	0.775	0.035	4-3368	79.8	225.2	3.34	0.919	73.4	236.9	-9.2	0.281
4-3270	4-3450	0.331	122.6	3.6	1.86	1.270	74.8	0.788	0.025	4-3367	73.4	228.7	2.76	0.933	73.8	244.1	-12.1	0.274
4-3270	4-3460	0.303	126.5	4.7	1.32	1.277	76.3	0.802	0.018	4-3365	66.8	232.1	2.41	0.946	74.1	251.8	-14.2	0.268
4-3270	4-3470	0.277	130.8	5.6	0.89	1.284	77.9	0.818	0.013	4-3363	60.0	235.4	2.22	0.957	74.5	260.0	-15.3	0.264
4-3270	4-3480	0.251	135.8	6.3	0.50	1.289	79.4	0.835	0.007	4-3362	53.0	238.5	2.17	0.966	74.8	268.5	-15.6	0.261
4-3270	4-3490	0.226	141.5	6.6	0.09	1.295	80.9	0.855	0.001	4-3359	45.8	241.4	2.25	0.975	75.0	277.2	-15.1	0.259
4-3270	4-3500	0.203	148.5	6.7	-0.38	1.300	82.4	0.876	-0.006	4-3357	38.4	244.2	2.45	0.982	75.3	285.9	-13.6	0.259
4-3280	4-3450	0.405	131.8	2.7	1.92	1.257	71.0	0.749	0.025	4-3381	86.0	225.4	3.31	0.918	71.5	246.1	-12.3	0.313
4-3280	4-3460	0.372	135.2	3.7	1.12	1.266	72.7	0.761	0.015	4-3380	79.5	228.9	2.67	0.933	72.0	253.6	-14.7	0.304
4-3280	4-3470	0.342	138.9	4.7	0.57	1.274	74.4	0.775	0.008	4-3379	72.8	232.3	2.29	0.946	72.6	261.6	-16.2	0.295
4-3280	4-3480	0.312	142.9	5.4	0.14	1.281	76.1	0.790	0.002	4-3377	66.0	235.6	2.09	0.958	73.1	270.0	-16.8	0.289
4-3280	4-3490	0.283	147.4	5.8	-0.23	1.288	77.7	0.807	-0.003	4-3375	59.1	238.8	2.04	0.968	73.6	278.6	-16.5	0.283
4-3280	4-3500	0.256	152.6	6.0	-0.61	1.294	79.3	0.827	-0.009	4-3373	51.9	241.8	2.11	0.976	74.0	287.2	-15.3	0.279
4-3280	4-3510	0.229	158.7	5.8	-1.04	1.299	80.9	0.848	-0.015	4-3371	44.4	244.5	2.28	0.984	74.4	295.9	-13.3	0.276
4-3280	4-3520	0.205	166.0	5.3	-1.57	1.304	82.5	0.871	-0.023	4-3368	36.8	247.0	2.56	0.990	74.7	304.3	-10.5	0.275
4-3290	4-3470	0.415	148.2	3.8	0.22	1.262	70.6	0.736	0.003	4-3394	85.0	228.7	2.32	0.932	70.3	263.7	-17.2	0.335
4-3290	4-3480	0.381	151.7	4.6	-0.30	1.271	72.5	0.749	-0.004	4-3393	78.4	232.2	1.94	0.946	71.0	271.9	-18.1	0.324
4-3290	4-3490	0.349	155.5	5.1	-0.67	1.279	74.3	0.764	-0.009	4-3391	71.6	235.5	1.75	0.958	71.7	280.4	-18.0	0.314
4-3290	4-3500	0.317	159.7	5.4	-0.99	1.286	76.0	0.781	-0.013	4-3389	64.7	238.7	1.71	0.969	72.4	289.0	-17.1	0.306
4-3290	4-3510	0.287	164.4	5.4	-1.30	1.293	77.7	0.800	-0.018	4-3387	57.5	241.7	1.77	0.977	72.9	297.6	-15.4	0.299
4-3290	4-3520	0.258	169.8	5.0	-1.67	1.298	79.4	0.820	-0.023	4-3385	50.1	244.5	1.93	0.985	73.5	306.0	-12.9	0.294
4-3290	4-3530	0.231	176.3	4.4	-2.11	1.303	81.1	0.843	-0.030	4-3382	42.5	247.1	2.17	0.991	73.9	314.3	-9.8	0.290

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3290	4-3540	0.205	184.0	3.4	-2.65	1.308	82.8	0.868	-0.039	4-3379	34.6	249.4	2.50	0.995	74.2	322.4	-6.0	0.288
4-3300	4-3480	0.459	161.4	3.9	-0.86	1.259	68.5	0.712	-0.011	4-3408	90.2	228.1	1.68	0.931	68.4	274.3	-19.4	0.366
4-3300	4-3490	0.422	144.3	4.4	-1.28	1.269	70.5	0.725	-0.016	4-3407	83.6	231.5	1.34	0.945	69.4	282.7	-19.6	0.353
4-3300	4-3500	0.387	168.5	4.8	-1.54	1.277	72.5	0.740	-0.020	4-3405	76.8	235.0	1.20	0.958	70.3	291.2	-18.8	0.341
4-3300	4-3510	0.352	172.4	4.9	-1.76	1.285	74.3	0.756	-0.023	4-3403	69.9	238.3	1.18	0.968	71.1	299.7	-17.3	0.330
4-3300	4-3520	0.320	176.7	4.7	-1.97	1.292	76.1	0.774	-0.026	4-3401	62.8	241.4	1.27	0.977	71.8	308.1	-15.0	0.321
4-3300	4-3530	0.288	181.6	4.2	-2.23	1.298	77.9	0.794	-0.030	4-3399	55.5	244.2	1.42	0.985	72.4	316.4	-12.2	0.313
4-3300	4-3540	0.258	187.4	3.5	-2.57	1.304	79.7	0.816	-0.036	4-3396	47.9	246.8	1.64	0.991	73.0	324.5	-8.8	0.307
4-3300	4-3550	0.230	194.1	2.4	-2.98	1.308	81.4	0.841	-0.043	4-3393	40.1	249.2	1.91	0.995	73.4	332.4	-5.5	0.302
4-3310	4-3500	0.464	178.2	4.3	-2.55	1.266	68.5	0.702	-0.029	4-3420	88.4	230.9	0.50	0.944	67.7	293.9	-20.5	0.383
4-3310	4-3510	0.426	181.6	4.5	-2.46	1.276	70.6	0.716	-0.031	4-3419	81.7	234.3	0.44	0.957	68.7	302.5	-18.0	0.369
4-3310	4-3520	0.389	185.4	4.4	-2.52	1.284	72.6	0.732	-0.032	4-3417	74.8	237.6	0.49	0.968	69.7	310.7	-16.9	0.355
4-3310	4-3530	0.354	189.4	4.1	-2.61	1.291	74.5	0.750	-0.034	4-3415	67.7	240.7	0.62	0.977	70.6	318.8	-14.2	0.344
4-3310	4-3540	0.320	194.0	3.5	-2.74	1.298	76.4	0.769	-0.036	4-3412	60.5	243.6	0.79	0.984	71.4	326.9	-11.0	0.333
4-3310	4-3550	0.288	199.1	2.6	-2.94	1.304	78.2	0.791	-0.040	4-3410	53.0	246.3	0.99	0.990	72.0	334.7	-7.4	0.324
4-3310	4-3560	0.257	205.1	1.6	-3.22	1.309	80.0	0.814	-0.045	4-3407	45.4	248.7	1.22	0.995	72.6	342.5	-3.5	0.317
4-3310	4-3570	0.229	212.2	0.3	-3.57	1.314	81.8	0.840	-0.051	4-3403	37.5	250.9	1.48	0.999	73.0	350.2	0.7	0.311
4-3320	4-3510	0.508	191.6	4.1	-3.52	1.264	66.5	0.680	-0.042	4-3434	92.9	229.8	-0.57	0.941	65.9	305.4	-20.7	0.415
4-3320	4-3520	0.466	195.0	4.1	-3.40	1.274	68.7	0.693	-0.041	4-3433	86.2	233.3	-0.49	0.955	67.1	313.6	-18.6	0.398
4-3320	4-3530	0.427	198.6	4.0	-3.27	1.283	70.8	0.709	-0.060	4-3431	79.4	236.6	-0.34	0.966	68.3	321.7	-15.9	0.382
4-3320	4-3540	0.389	202.4	3.5	-3.18	1.291	72.8	0.726	-0.040	4-3429	72.4	239.8	-0.15	0.975	69.3	329.6	-12.8	0.368
4-3320	4-3550	0.353	206.6	2.8	-3.16	1.298	74.8	0.744	-0.041	4-3426	65.3	242.7	0.06	0.983	70.2	337.4	-9.3	0.355
4-3320	4-3560	0.319	211.3	1.9	-3.22	1.305	76.7	0.765	-0.042	4-3424	57.9	245.5	0.27	0.989	71.0	345.0	-5.6	0.343
4-3320	4-3570	0.286	216.7	0.8	-3.35	1.310	78.6	0.788	-0.045	4-3421	50.4	248.0	0.48	0.994	71.7	352.7	-1.7	0.334
4-3320	4-3580	0.256	222.9	-0.5	-3.54	1.315	80.4	0.813	-0.049	4-3417	42.7	250.3	0.68	0.998	72.2	0.4	2.3	0.325
4-3330	4-3530	0.508	208.6	3.8	-4.36	1.273	66.7	0.672	-0.051	4-3446	90.6	232.1	-1.58	0.952	65.5	324.9	-17.4	0.428
4-3330	4-3540	0.466	212.0	3.5	-3.99	1.283	69.0	0.686	-0.048	4-3445	83.8	235.5	-1.28	0.963	66.8	332.6	-14.2	0.410
4-3330	4-3550	0.426	215.7	2.9	-3.70	1.291	71.1	0.702	-0.045	4-3443	76.9	238.7	-0.99	0.973	67.9	340.2	-10.8	0.393
4-3330	4-3560	0.388	219.6	2.2	-3.50	1.299	73.2	0.720	-0.044	4-3440	69.9	241.7	-0.72	0.981	68.9	347.8	-7.1	0.378
4-3330	4-3570	0.351	223.9	1.2	-3.49	1.306	75.1	0.740	-0.043	4-3438	62.7	244.5	-0.48	0.987	69.9	355.3	-3.4	0.364
4-3330	4-3580	0.317	228.8	0.1	-3.38	1.312	77.1	0.762	-0.044	4-3435	55.3	247.1	-0.27	0.992	70.6	2.9	0.4	0.352
4-3330	4-3590	0.285	234.3	-1.1	-3.41	1.317	79.0	0.786	-0.046	4-3431	47.7	249.5	-0.10	0.996	71.3	10.5	4.2	0.341
4-3330	4-3600	0.254	240.9	-2.3	-3.49	1.322	80.8	0.812	-0.048	4-3428	40.0	251.6	0.03	1.000	71.8	18.4	7.9	0.332
4-3340	4-3540	0.551	222.3	3.5	-5.30	1.273	64.7	0.651	-0.060	4-3460	94.8	230.8	-2.78	0.949	63.7	336.0	-15.5	0.460
4-3340	4-3550	0.507	225.6	3.0	-4.65	1.283	67.0	0.664	-0.054	4-3459	88.1	234.1	-2.30	0.960	65.2	343.4	-12.0	0.439
4-3340	4-3560	0.465	229.1	2.4	-4.13	1.292	69.3	0.680	-0.049	4-3457	81.3	237.3	-1.88	0.970	66.4	350.8	-8.3	0.420
4-3340	4-3570	0.424	232.8	1.6	-3.74	1.300	71.4	0.697	-0.045	4-3455	74.4	240.4	-1.52	0.978	67.6	358.1	-4.5	0.402
4-3340	4-3580	0.386	236.8	0.6	-3.47	1.307	73.5	0.716	-0.043	4-3452	67.3	243.3	-1.23	0.986	68.6	5.5	-0.8	0.385
4-3340	4-3590	0.349	241.3	-0.4	-3.30	1.313	75.5	0.737	-0.042	4-3449	60.0	246.0	-1.00	0.990	69.5	13.0	2.9	0.371
4-3340	4-3600	0.315	246.3	-1.6	-3.19	1.319	77.4	0.759	-0.041	4-3446	52.7	248.5	-0.83	0.995	70.3	20.7	6.4	0.358
4-3340	4-3610	0.283	252.0	-2.7	-3.12	1.324	79.3	0.784	-0.042	4-3442	45.1	250.7	-0.73	0.998	70.9	28.6	9.6	0.347
4-3350	4-3550	0.596	236.1	3.1	-6.20	1.272	62.5	0.631	-0.068	4-3474	98.9	229.2	-4.05	0.944	61.9	347.0	-13.0	0.494
4-3350	4-3560	0.549	239.3	2.6	-5.23	1.283	65.0	0.643	-0.059	4-3473	92.3	232.6	-3.34	0.956	63.5	354.1	-9.2	0.470
4-3350	4-3570	0.505	242.7	1.9	-4.46	1.292	67.4	0.657	-0.051	4-3471	85.6	235.8	-2.76	0.966	64.9	1.2	-5.4	0.447
4-3350	4-3580	0.462	246.2	1.1	-3.87	1.301	69.6	0.674	-0.045	4-3469	78.8	238.9	-2.28	0.975	66.2	8.3	-1.6	0.427
4-3350	4-3590	0.422	250.0	0.1	-3.44	1.309	71.8	0.691	-0.041	4-3466	71.8	241.9	-1.92	0.982	67.3	15.6	2.1	0.408
4-3350	4-3600	0.384	254.1	-0.9	-3.12	1.315	73.9	0.711	-0.038	4-3463	64.7	244.7	-1.65	0.988	68.3	23.1	5.5	0.392
4-3350	4-3610	0.348	258.6	-2.0	-2.88	1.321	75.9	0.733	-0.036	4-3460	57.5	247.3	-1.47	0.993	69.2	30.9	8.7	0.376
4-3350	4-3620	0.313	263.7	-3.0	-2.69	1.326	77.8	0.757	-0.035	4-3457	50.2	249.7	-1.37	0.997	69.9	38.8	11.5	0.363
4-3700	4-3780	0.481	242.2	3.1	3.89	1.415	108.2	1.424	0.092	4-3747	305.3	456.3	2.91	1.110	119.1	359.6	5.3	0.959
4-3700	4-3790	0.401	243.6	3.7	3.10	1.358	105.8	1.400	0.074	4-3747	303.8	464.7	2.19	1.039	114.5	5.0	1.2	0.452
4-3700	4-3800	0.340	244.5	4.5	2.64	1.320	103.8	1.375	0.062	4-3748	302.7	473.6	1.80	0.991	110.2	10.0	9.3	0.367
4-3700	4-3810	0.295	245.1	5.6	2.31	1.294	102.1	1.353	0.054	4-3748	302.1	482.9	1.55	0.959	106.3	14.3	11.3	0.299
4-3700	4-3820	0.261	245.5	6.8	2.06	1.276	100.8	1.334	0.048	4-3749	301.8	492.6	1.38	0.937	102.8	17.5	13.1	0.242
4-3700	4-3830	0.237	245.7	8.1	1.87	1.264	99.9	1.320	0.043	4-3749	301.6	502.6	1.26	0.923	99.6	19.2	14.4	0.196
4-3700	4-3840	0.221	245.9	9.4	1.70	1.256	99.2	1.310	0.039	4-3750	301.6	512.6	1.19	0.914	96.8	18.5	15.1	0.160
4-3700	4-3850	0.211	246.1	10.3	1.52	1.251	98.8	1.305	0.034	4-3750	301.4	522.5	1.20	0.909	94.2	14.7	15.2	0.133
4-3710	4-3790	0.428	254.5	3.6	3.90	1.402	105.8	1.354	0.087	4-3761	310.3	455.0	3.79	1.099	117.0	8.1	11.3	0.521
4-3710	4-3800	0.355	255.7	4.3	2.81	1.350	103.6	1.339	0.064	4-3760	309.1	463.9	2.82	1.034	112.7	13.6	12.8	0.420
4-3710	4-3810	0.300	256.5	5.2	2.18	1.315	101.8	1.321	0.049	4-3760	308.4	473.2	2.32	0.990	108.6	18.5	14.8	0.340
4-3710	4-3820	0.259	256.9	6.4	1.73	1.291	100.3	1.304	0.039	4-3761	308.1	482.9	2.03	0.960	104.9	22.6	16.8	0.276
4-3710	4-3830	0.230	257.1	7.0	1.38	1.274	99.2	1.290	0.031	4-3761	308.1	493.0	1.85	0.941	101.6	25.4	18.7	0.223
4-3710	4-3840	0.209	257.1	9.0	1.09	1.264	98.4	1.279	0.024	4-3762	308.3	503.3	1.74	0.928	98.7	26.4	20.4	0.180
4-3710	4-3850	0.195	257.2	10.1	0.80	1.257	97.8	1.272	0.018	4-3762	308.4	513.6	1.72	0.920	96.0	24.7	21.8	0.147
4-3710	4-3860	0.187	257.3	10.7	0.48	1.252	97.5	1.268	0.011	4-3762	308.3	523.6	1.82	0.915	93.7	19.5	22.7	0.125
4-3720	4-3800	0.373	266.0	4.2	3.79	1.387	103.3	1.387	0.081	4-3774	315.8	454.2	4.50	1.087	114.9	16.7	17.1	0.481
4-3720	4-3810	0.308	267.0	4.9	2.39	1.340	101.4	1.280	0.052	4-3774	315.0	463.7	3.24	1.027	110.7	22.2	18.0	0.386
4-3720	4-3820	0.259	267.5	6.0	1.62	1.308	99.8	1.269	0.035	4-3773	314.7	473.5	2.64	0.987	106.9	27.0	19.8	0.311
4-3720	4-3830	0.223	267.6	7.2	1.09	1.287	98.5	1.257	0.024	4-3774	314.9	483.8	2.31	0.960	103.6	30.8	21.7	0.251
4-3720	4-3840	0.198	267.5	8.5	0.68	1.272	97.5	1.247	0.013	4-3774	315.3	494.3	2.11	0.943	100.3	33.1	23.6	0.202
4-3720	4-3850	0.180	267.2	9.8	0.32	1.263	96.8	1.239	0.007	4-3774	315.8	505.0	2.00	0.932	97.6	33.3	25.5	0.164
4-3720	4-3860	0.169	267.1	10.7	-0.03	1.257	96.4	1.234	-0.001	4-3774	316.0	515.4	2.00	0.924	95.2	30.3	27.1	0.135
4-3720	4-3870	0.163	267.3	11.0	-0.42	1.253	96.2	1.233	-0.009	4-3774	316.0	525.4	2.13	0.920	93.0	23.6	28.4	0.116
4-3730	4-3820	0.259	276.9	5.6	1.81	1.330	99.1	1.224	0.037	4-3787	321.7	464.3	3.41	1.018	108.7	30.9	22.6	0.349
4-3730	4-3830	0.217	276.9	6.8	0.96	1.301	97.7	1.218	0.020	4-3786	322.0	474.8	2.73	0.982	105.1	35.5	24.0	0.280
4-3730	4-3840	0.187	276.5	8.1	0.39	1.283	96.6	1.211	0.008	4-3786	322.7	485.8	2.36	0.959	101.9	38.8	25.7	0.224
4-3730	4-3850	0.166	275.9	9.5	-0.05	1.270	95.8	1.204	-0.001	4-3786	323.5	496.8	2.15	0.944	99.0	40.4	27.4	0.180
4-3730	4-3860	0.152	275.3	10.7	-0.43	1.262	95.3	1.200	-0.009	4-3787	324.3	507.7	2.04	0.934	96.5	39.4	29.2	0.146
4-3730	4-3870	0.143	275.1	11.3	-0.79	1.257	95.0	1.197	-0.016	4-3787	324.6	518.3	2.03	0.928	94.3	34.9	30.7	0.121
4-3730	4-3880	0.140	275.3	10.9	-1.20	1.254	94.9	1.198	-0.025	4-3786	324.4	528.2	2.20	0.924	92.3	26.7	31.8	0.107

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3730	4-3890	0.140	276.2	9.3	-1.75	1.253	95.0	1.201	-0.036	4-3786	323.4	537.4	2.55	0.922	90.5	16.4	32.3	0.104
4-3740	4-3830	0.212	284.5	6.4	1.02	1.318	96.6	1.170	0.020	4-3800	329.5	466.4	3.24	1.006	106.6	39.6	26.1	0.309
4-3740	4-3840	0.176	283.6	7.8	0.16	1.294	95.5	1.169	0.003	4-3800	330.6	477.6	2.95	0.976	103.2	43.8	27.0	0.246
4-3740	4-3850	0.152	282.3	9.2	-0.39	1.278	94.7	1.166	-0.008	4-3799	331.9	489.3	2.17	0.956	100.2	46.3	28.3	0.196
4-3740	4-3860	0.136	281.0	10.5	-0.80	1.267	94.0	1.163	-0.016	4-3799	333.1	500.7	1.96	0.943	97.6	46.8	29.8	0.157
4-3740	4-3870	0.125	280.0	11.5	-1.16	1.261	93.7	1.161	-0.023	4-3799	334.0	511.8	1.86	0.935	95.3	44.2	31.1	0.128
4-3740	4-3880	0.120	279.8	11.5	-1.49	1.257	93.5	1.161	-0.030	4-3799	334.3	522.3	1.88	0.930	93.3	37.8	32.2	0.108
4-3740	4-3890	0.118	280.4	10.3	-1.87	1.255	93.5	1.163	-0.038	4-3799	333.8	531.9	2.04	0.927	91.5	28.5	32.6	0.099
4-3740	4-3900	0.120	282.1	7.9	-2.36	1.255	93.7	1.168	-0.048	4-3798	332.3	540.7	2.37	0.925	89.9	18.9	32.5	0.099
4-3750	4-3850	0.139	285.4	8.9	-0.78	1.286	93.3	1.122	-0.015	4-3813	341.1	482.6	2.04	0.968	101.3	51.3	28.2	0.211
4-3750	4-3860	0.121	282.7	10.4	-1.24	1.272	92.6	1.122	-0.024	4-3812	343.0	494.7	1.72	0.951	98.5	52.7	29.0	0.167
4-3750	4-3870	0.110	280.4	11.6	-1.58	1.264	92.2	1.122	-0.030	4-3812	344.5	506.4	1.54	0.941	96.1	51.5	29.9	0.134
4-3750	4-3880	0.104	279.3	12.0	-1.85	1.259	92.0	1.123	-0.036	4-3812	345.3	517.5	1.46	0.934	94.1	46.7	30.5	0.110
4-3750	4-3890	0.101	279.5	11.3	-2.12	1.257	92.0	1.125	-0.041	4-3812	345.1	527.5	1.51	0.930	92.2	38.5	30.7	0.096
4-3750	4-3900	0.101	281.2	9.1	-2.42	1.256	92.1	1.129	-0.047	4-3811	344.1	536.5	1.68	0.928	90.6	29.1	30.3	0.092
4-3750	4-3910	0.103	284.2	5.9	-2.82	1.256	92.4	1.135	-0.055	4-3811	342.0	544.7	1.97	0.927	89.1	21.4	29.8	0.094
4-3750	4-3920	0.108	288.3	2.6	-3.36	1.257	92.8	1.144	-0.066	4-3810	339.1	552.0	2.38	0.926	87.8	17.0	30.1	0.107
4-3760	4-3860	0.113	278.6	10.2	-1.96	1.277	90.9	1.077	-0.036	4-3826	354.2	490.0	1.11	0.958	99.3	57.4	26.2	0.175
4-3760	4-3870	0.102	274.6	11.6	-2.21	1.267	90.5	1.080	-0.041	4-3825	356.5	502.5	0.92	0.945	96.8	56.9	26.4	0.139
4-3760	4-3880	0.096	272.1	12.3	-2.39	1.261	90.3	1.082	-0.045	4-3825	357.8	514.0	0.83	0.937	94.6	53.2	26.3	0.112
4-3760	4-3890	0.092	271.8	11.9	-2.53	1.258	90.5	1.085	-0.047	4-3825	358.0	524.5	0.84	0.932	92.7	46.1	25.9	0.095
4-3760	4-3900	0.091	273.5	10.0	-2.67	1.257	90.4	1.089	-0.050	4-3824	357.1	533.8	0.95	0.930	91.1	37.1	25.3	0.088
4-3760	4-3910	0.091	277.0	6.9	-2.87	1.257	90.6	1.094	-0.054	4-3824	355.2	542.0	1.14	0.928	89.6	29.3	24.8	0.089
4-3760	4-3920	0.093	282.1	3.4	-3.14	1.258	91.0	1.102	-0.060	4-3823	352.3	549.3	1.40	0.928	88.3	24.3	24.7	0.096
4-3760	4-3930	0.097	288.3	0.1	-3.51	1.259	91.5	1.112	-0.067	4-3823	348.7	555.8	1.70	0.927	87.1	22.7	25.5	0.107
4-3770	4-3880	0.103	260.6	12.1	-3.41	1.261	88.3	1.039	-0.061	4-3839	12.3	152.5	-0.34	0.938	94.9	57.6	17.3	0.115
4-3770	4-3890	0.099	260.0	11.8	-3.29	1.258	88.3	1.043	-0.059	4-3838	12.7	163.3	-0.20	0.932	93.0	51.1	16.7	0.096
4-3770	4-3900	0.096	261.4	10.3	-3.19	1.257	88.4	1.047	-0.058	4-3838	11.8	172.7	-0.00	0.929	91.3	42.7	16.3	0.088
4-3770	4-3910	0.094	264.9	7.5	-3.16	1.257	88.7	1.053	-0.057	4-3837	9.7	180.8	0.23	0.928	89.9	35.0	16.5	0.087
4-3770	4-3920	0.092	270.1	4.1	-3.20	1.258	89.1	1.060	-0.059	4-3837	6.8	187.9	0.46	0.928	88.6	29.9	17.2	0.092
4-3770	4-3930	0.092	277.0	0.8	-3.33	1.260	89.6	1.068	-0.061	4-3836	3.0	194.3	0.69	0.927	87.4	28.1	18.4	0.101
4-3770	4-3940	0.094	285.2	-2.3	-3.54	1.262	90.2	1.079	-0.066	4-3835	358.6	559.9	0.92	0.928	86.3	28.9	20.1	0.111
4-3770	4-3950	0.098	294.2	-4.8	-3.82	1.264	90.9	1.092	-0.072	4-3834	353.7	565.0	1.17	0.928	85.3	31.8	22.3	0.123
4-3780	4-3890	0.126	251.6	11.2	-4.88	1.255	86.0	0.999	-0.084	4-3852	29.6	163.9	-2.06	0.929	93.0	54.4	0.4	0.105
4-3780	4-3900	0.122	253.0	9.8	-4.25	1.254	86.2	1.004	-0.074	4-3851	28.4	173.2	-1.46	0.926	91.3	46.1	2.2	0.094
4-3780	4-3910	0.117	255.9	7.5	-3.82	1.255	86.5	1.010	-0.067	4-3851	26.0	181.1	-0.98	0.925	89.8	38.6	4.6	0.092
4-3780	4-3920	0.111	260.2	4.6	-3.57	1.257	87.0	1.017	-0.063	4-3850	22.6	188.0	-0.60	0.925	88.5	33.7	7.3	0.095
4-3780	4-3930	0.107	265.9	1.5	-3.44	1.259	87.5	1.025	-0.061	4-3850	18.5	193.9	-0.30	0.926	87.4	31.9	10.0	0.102
4-3780	4-3940	0.103	273.0	-1.5	-3.41	1.262	88.1	1.035	-0.062	4-3849	13.8	199.3	-0.07	0.926	86.4	32.7	12.6	0.110
4-3780	4-3950	0.100	281.6	-4.2	-3.45	1.264	88.8	1.046	-0.062	4-3848	8.6	204.1	0.12	0.927	85.5	35.5	15.1	0.120
4-3780	4-3960	0.100	291.5	-6.4	-3.55	1.267	89.6	1.059	-0.065	4-3847	3.1	208.5	0.28	0.928	84.6	39.7	17.6	0.130
4-3790	4-3910	0.156	253.6	7.1	-5.20	1.251	84.0	0.967	-0.087	4-3865	43.6	182.8	-2.79	0.919	89.4	40.9	-9.9	0.108
4-3790	4-3920	0.148	256.9	4.8	-4.39	1.253	84.5	0.974	-0.074	4-3864	39.7	189.1	-2.00	0.919	88.2	36.1	-4.1	0.107
4-3790	4-3930	0.139	261.3	2.1	-3.89	1.256	85.1	0.982	-0.066	4-3863	35.0	194.7	-1.46	0.921	87.1	34.4	0.9	0.111
4-3790	4-3940	0.131	266.5	-0.5	-3.57	1.260	85.8	0.990	-0.061	4-3863	29.9	199.6	-1.08	0.923	86.1	35.2	5.1	0.118
4-3790	4-3950	0.123	273.0	-3.0	-3.39	1.263	86.5	1.001	-0.058	4-3862	24.4	204.1	-0.82	0.924	85.3	37.9	8.5	0.125
4-3790	4-3960	0.116	280.8	-5.4	-3.28	1.267	87.3	1.013	-0.057	4-3861	18.6	208.2	-0.64	0.926	84.5	42.2	11.6	0.133
4-3790	4-3970	0.111	290.0	-7.3	-3.21	1.270	88.1	1.026	-0.057	4-3860	12.6	212.0	-0.53	0.928	83.8	47.5	14.1	0.141
4-3790	4-3980	0.108	300.6	-8.9	-3.16	1.274	89.0	1.041	-0.057	4-3859	6.3	215.6	-0.47	0.929	83.0	53.8	16.3	0.149
4-3800	4-3920	0.199	259.2	4.8	-6.09	1.247	81.6	0.930	-0.098	4-3878	57.4	190.9	-4.16	0.910	87.5	38.3	-16.0	0.134
4-3800	4-3930	0.186	262.7	2.7	-4.87	1.251	82.4	0.937	-0.079	4-3877	52.2	196.0	-3.03	0.912	86.4	36.3	-8.2	0.132
4-3800	4-3940	0.174	266.7	0.4	-4.10	1.256	83.1	0.946	-0.067	4-3877	46.6	200.4	-2.30	0.915	85.5	37.0	-2.1	0.134
4-3800	4-3950	0.162	271.5	-1.8	-3.60	1.261	83.9	0.955	-0.059	4-3876	40.8	204.6	-1.82	0.919	84.8	39.7	2.7	0.138
4-3800	4-3960	0.151	277.1	-4.0	-3.26	1.265	84.8	0.966	-0.054	4-3875	34.6	208.4	-1.51	0.922	84.1	43.8	6.6	0.143
4-3800	4-3970	0.140	283.7	-6.0	-3.01	1.270	85.7	0.979	-0.051	4-3874	28.3	211.9	-1.31	0.924	83.4	49.1	9.7	0.149
4-3800	4-3980	0.130	291.6	-7.7	-2.81	1.274	86.6	0.992	-0.048	4-3873	21.9	215.3	-1.22	0.927	82.8	55.2	12.2	0.155
4-3800	4-3990	0.122	300.9	-9.0	-2.63	1.277	87.6	1.008	-0.045	4-3872	15.3	218.5	-1.20	0.929	82.2	62.0	14.0	0.161
4-3810	4-3940	0.230	271.3	1.2	-5.25	1.249	80.1	0.902	-0.082	4-3891	63.4	201.3	-4.03	0.904	84.6	39.0	-9.0	0.162
4-3810	4-3950	0.214	275.1	-0.7	-4.20	1.255	81.0	0.911	-0.066	4-3890	57.2	205.1	-3.09	0.909	83.8	41.9	-2.5	0.161
4-3810	4-3960	0.198	279.3	-2.7	-3.49	1.261	82.0	0.920	-0.056	4-3889	50.8	208.6	-2.48	0.914	83.2	45.2	2.5	0.162
4-3810	4-3970	0.183	284.2	-4.5	-3.01	1.267	83.0	0.932	-0.048	4-3889	44.3	212.0	-2.09	0.918	82.7	50.3	6.4	0.164
4-3810	4-3980	0.169	290.8	-6.2	-2.64	1.272	84.0	0.944	-0.043	4-3888	37.6	215.1	-1.86	0.922	82.2	56.3	9.4	0.167
4-3810	4-3990	0.155	296.4	-7.7	-2.34	1.277	85.0	0.958	-0.039	4-3886	30.9	218.2	-1.75	0.925	81.7	63.0	11.6	0.171
4-3810	4-4000	0.143	304.2	-8.8	-2.06	1.281	86.0	0.974	-0.034	4-3885	24.2	221.1	-1.73	0.929	81.2	70.2	13.0	0.175
4-3810	4-4010	0.133	313.5	-9.5	-1.75	1.285	87.1	0.991	-0.030	4-3884	17.3	223.9	-1.81	0.932	80.7	77.8	13.6	0.180
4-3820	4-3960	0.258	285.2	-1.4	-4.15	1.254	78.8	0.876	-0.063	4-3904	66.7	208.6	-3.77	0.901	82.0	46.8	-1.2	0.190
4-3820	4-3970	0.239	289.1	-3.1	-3.25	1.261	79.9	0.886	-0.050	4-3903	60.0	211.8	-3.01	0.908	81.6	51.6	3.7	0.188
4-3820	4-3980	0.220	293.4	-4.7	-2.63	1.268	81.0	0.897	-0.041	4-3902	53.3	214.8	-2.53	0.913	81.2	57.3	7.5	0.187
4-3820	4-3990	0.202	298.2	-6.2	-2.17	1.274	82.1	0.909	-0.034	4-3901	46.5	217.8	-2.24	0.918	80.8	63.8	10.2	0.188
4-3820	4-4000	0.185	303.8	-7.4	-1.80	1.279	83.3	0.923	-0.029	4-3900	39.7	220.6	-2.10	0.923	80.5	70.9	12.0	0.189
4-3820	4-4010	0.170	310.3	-8.3	-1.45	1.284	84.4	0.939	-0.023	4-3899	32.8	223.4	-2.07	0.928	80.1	78.4	13.0	0.191
4-3820	4-4020	0.155	318.0	-8.9	-1.08	1.288	85.5	0.956	-0.018	4-3897	25.9	226.1	-2.15	0.932	79.7	86.2	13.1	0.193
4-3820	4-4030	0.143	327.2	-9.0	-0.67	1.293	86.7	0.975	-0.011	4-3895	18.9	228.7	-2.32	0.936	79.3	94.2	12.5	0.197
4-3830	4-3980	0.282	300.0	-3.4	-2.86	1.260	77.7	0.851	-0.042	4-3917	68.5	214.0	-3.35	0.901	79.7	58.7	6.1	0.215
4-3830	4-3990	0.260	304.0	-4.7	-2.12	1.268	78.9	0.862	-0.032	4-3916	61.7	216.9	-2.78	0.908	79.5	65.0	9.5	0.212
4-3830	4-4000	0.239	308.2	-5.9	-1.59	1.275	80.2	0.875	-0.024	4-3915	54.9	219.8	-2.44	0.915	79.3	71.9	11.8	0.210
4-3830	4-4010	0.219	313.1	-6.9	-1.17	1.281	81.4	0.889	-0.018	4-3914	48.0	222.5	-2.26	0.921	79.1	79.2	13.2	0.208
4-3830	4-4020	0.200	318.6	-7.7	-0.79	1.287	82.6	0.904	-0.012	4-3912	41.1	225.2	-2.21	0.926	78.9	87.0	13.7	0.208
4-3830	4-4030	0.182	325.0	-8.1	-0.41	1.292	83.8	0.921	-0.006	4-3911	34.1	227.9	-2.26	0.932	78.6	94.9	13.4	0.208
4-3830	4-4040	0.166	332.5	-8.1	0.02	1.296	85.0	0.939	0.000	4-3909	27.2	230.5	-2.42	0.937	78.4	102.8	12.2	0.209

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3830	4-4050	0.151	341.6	-7.8	0.52	1.300	86.3	0.959	0.009	4-3907	20.2	233.0	-2.67	0.942	78.0	110.8	-10.3	0.212
4-3840	4-3990	0.329	311.9	-3.5	-2.27	1.259	75.3	0.818	-0.032	4-3931	76.3	215.5	-3.46	0.893	77.7	66.5	9.1	0.244
4-3840	4-4000	0.304	315.5	-4.6	-1.46	1.268	76.7	0.828	-0.021	4-3930	69.5	218.4	-2.80	0.902	77.7	73.2	12.0	0.238
4-3840	4-4010	0.279	319.4	-5.6	-0.89	1.275	78.1	0.841	-0.013	4-3929	62.7	221.2	-2.41	0.910	77.7	80.4	13.9	0.233
4-3840	4-4020	0.256	323.6	-6.4	-0.46	1.282	79.4	0.854	-0.007	4-3928	55.9	223.9	-2.20	0.918	77.6	88.0	14.8	0.229
4-3840	4-4030	0.234	328.4	-7.0	-0.09	1.289	80.7	0.869	-0.001	4-3926	49.0	226.7	-2.13	0.925	77.5	95.9	14.8	0.226
4-3840	4-4040	0.213	333.8	-7.2	0.28	1.294	82.0	0.885	0.004	4-3925	42.1	229.3	-2.17	0.931	77.4	103.9	14.0	0.224
4-3840	4-4050	0.193	340.2	-7.1	0.68	1.297	83.3	0.903	0.010	4-3923	35.2	231.9	-2.29	0.937	77.3	111.8	12.4	0.223
4-3840	4-4060	0.175	347.6	-6.7	1.14	1.309	84.6	0.923	0.018	4-3921	28.2	234.5	-2.51	0.943	77.1	119.7	10.1	0.224
4-3850	4-4010	0.349	327.7	-4.5	-0.61	1.266	74.4	0.796	-0.008	4-3944	76.9	219.2	-2.54	0.896	75.7	82.1	14.9	0.266
4-3850	4-4020	0.322	331.3	-5.3	-0.06	1.275	75.9	0.807	-0.001	4-3943	70.1	222.0	-2.13	0.906	75.9	89.6	16.2	0.250
4-3850	4-4030	0.296	335.1	-5.9	0.34	1.283	77.3	0.820	0.005	4-3942	63.4	224.9	-1.91	0.915	76.0	97.4	16.5	0.252
4-3850	4-4040	0.271	339.3	-6.3	0.67	1.290	78.7	0.835	0.010	4-3941	56.6	227.6	-1.83	0.923	76.0	105.3	16.0	0.246
4-3850	4-4050	0.247	344.1	-6.4	0.98	1.296	80.1	0.851	0.014	4-3939	49.8	230.3	-1.86	0.931	76.1	113.3	14.7	0.242
4-3850	4-4060	0.225	349.5	-6.2	1.32	1.301	81.5	0.868	0.020	4-3937	42.9	233.0	-1.97	0.938	76.1	121.2	12.7	0.239
4-3860	4-4070	0.203	355.7	-5.6	1.71	1.306	82.9	0.887	0.026	4-3935	36.0	235.6	-2.15	0.945	76.0	129.0	10.0	0.237
4-3860	4-4080	0.184	3.1	-4.7	2.18	1.310	84.2	0.908	0.034	4-3933	29.1	238.2	-2.41	0.952	76.0	136.6	6.7	0.237
4-3860	4-4030	0.367	343.7	-5.0	0.93	1.274	73.5	0.775	0.013	4-3957	77.1	222.4	-1.57	0.901	73.9	99.5	18.4	0.235
4-3860	4-4040	0.338	347.3	-5.5	1.24	1.282	75.1	0.787	0.017	4-3956	70.5	225.3	-1.38	0.912	74.2	107.3	18.1	0.276
4-3860	4-4050	0.311	351.1	-5.7	1.48	1.290	76.7	0.801	0.020	4-3955	63.8	228.2	-1.32	0.921	74.4	115.3	17.0	0.268
4-3860	4-4060	0.284	355.3	-5.6	1.70	1.296	78.1	0.817	0.024	4-3953	57.1	231.0	-1.35	0.930	74.6	123.2	15.2	0.262
4-3860	4-4070	0.258	0.0	-5.3	1.94	1.302	79.6	0.833	0.028	4-3952	50.4	233.8	-1.46	0.939	74.8	131.0	12.8	0.257
4-3860	4-4080	0.234	5.4	-4.6	2.23	1.308	81.0	0.852	0.032	4-3950	43.5	236.5	-1.62	0.947	74.9	138.7	9.8	0.253
4-3860	4-4090	0.212	11.6	-3.7	2.59	1.312	82.5	0.872	0.038	4-3947	36.6	239.1	-1.84	0.954	74.9	146.2	6.3	0.250
4-3860	4-4100	0.191	19.0	-2.5	3.03	1.317	83.9	0.894	0.046	4-3945	29.7	241.7	-2.12	0.962	74.9	153.6	2.4	0.249
4-3870	4-4050	0.383	359.9	-5.0	2.25	1.281	72.8	0.756	0.030	4-3971	77.2	225.4	-0.59	0.908	72.3	117.8	19.3	0.303
4-3870	4-4060	0.352	3.5	-5.1	2.34	1.289	74.5	0.769	0.031	4-3970	70.7	228.4	-0.59	0.919	72.7	125.6	17.6	0.293
4-3870	4-4070	0.323	7.3	-4.9	2.42	1.296	76.1	0.784	0.033	4-3968	64.1	231.3	-0.65	0.930	73.1	133.4	15.3	0.284
4-3870	4-4080	0.295	11.5	-4.5	2.64	1.303	77.6	0.800	0.035	4-3966	57.4	234.2	-0.79	0.939	73.4	141.1	12.5	0.277
4-3870	4-4090	0.268	16.2	-3.8	2.70	1.308	79.1	0.818	0.038	4-3964	50.7	237.0	-0.96	0.948	73.6	148.6	9.3	0.270
4-3870	4-4100	0.243	21.6	-2.8	2.93	1.314	80.6	0.837	0.042	4-3962	43.9	239.8	-1.16	0.957	73.8	156.1	5.7	0.266
4-3870	4-4110	0.219	27.9	-1.6	3.23	1.318	82.1	0.858	0.047	4-3959	37.0	242.5	-1.39	0.965	74.0	163.5	1.7	0.262
4-3870	4-4120	0.197	35.4	-0.2	3.60	1.322	83.6	0.881	0.054	4-3957	30.0	245.1	-1.66	0.973	74.1	170.9	-2.5	0.260
4-3880	4-4060	0.430	12.9	-4.7	3.36	1.278	70.4	0.726	0.043	4-3985	83.6	225.1	-0.46	0.905	70.3	128.7	19.9	0.332
4-3880	4-4070	0.396	16.2	-4.6	3.25	1.287	72.2	0.738	0.042	4-3984	77.2	228.2	-0.34	0.917	70.9	136.3	17.6	0.320
4-3880	4-4080	0.364	19.8	-4.3	3.15	1.295	73.9	0.752	0.041	4-3983	70.7	231.3	0.18	0.929	71.4	143.9	14.9	0.309
4-3880	4-4090	0.333	23.6	-3.8	3.10	1.302	75.6	0.768	0.041	4-3981	64.2	234.3	-0.00	0.940	71.9	151.4	11.7	0.299
4-3880	4-4100	0.304	27.8	-3.0	3.12	1.308	77.2	0.785	0.042	4-3979	57.6	237.2	-0.20	0.950	72.3	158.7	8.3	0.291
4-3880	4-4110	0.276	32.6	-2.0	3.20	1.314	78.7	0.803	0.044	4-3977	50.9	240.1	-0.41	0.960	72.6	166.1	4.5	0.284
4-3880	4-4120	0.249	38.0	-0.8	3.35	1.319	80.3	0.824	0.047	4-3974	44.1	243.0	-0.61	0.969	72.9	173.4	0.6	0.278
4-3880	4-4130	0.225	44.4	0.6	3.56	1.323	81.9	0.846	0.051	4-3971	37.1	245.7	-0.81	0.977	73.2	180.9	-3.4	0.274
4-3890	4-4080	0.441	29.3	-4.1	4.21	1.284	69.8	0.710	0.052	4-3999	83.4	227.8	1.45	0.915	69.0	147.2	17.0	0.349
4-3890	4-4090	0.407	32.7	-3.8	3.88	1.293	71.7	0.723	0.049	4-3997	77.0	230.9	1.16	0.928	69.6	154.5	13.8	0.336
4-3890	4-4100	0.373	36.3	-3.1	3.63	1.301	73.4	0.737	0.046	4-3996	70.6	234.1	0.88	0.940	70.3	161.7	10.3	0.324
4-3890	4-4110	0.341	40.1	-2.3	3.47	1.307	75.2	0.754	0.045	4-3994	64.1	237.2	0.62	0.952	70.8	168.9	6.7	0.313
4-3890	4-4120	0.311	44.4	-1.3	3.39	1.313	76.8	0.772	0.045	4-3991	57.5	240.2	0.38	0.962	71.3	176.2	2.9	0.304
4-3890	4-4130	0.282	49.2	-0.1	3.38	1.319	78.5	0.791	0.046	4-3989	50.8	243.2	0.17	0.972	71.8	183.5	-0.9	0.297
4-3890	4-4140	0.255	54.7	1.2	3.44	1.323	80.1	0.813	0.048	4-3986	43.9	246.1	-0.00	0.981	72.2	191.0	-4.8	0.291
4-3890	4-4150	0.229	61.3	2.6	3.54	1.328	81.7	0.836	0.050	4-3983	36.9	248.8	-0.15	0.990	72.5	198.8	-8.5	0.286
4-3900	4-4100	0.451	45.9	-3.3	4.57	1.290	69.4	0.695	0.055	4-4012	83.0	230.4	2.22	0.928	67.8	165.0	12.1	0.365
4-3900	4-4110	0.415	49.2	-2.6	4.09	1.298	71.3	0.709	0.050	4-4010	76.6	233.6	1.81	0.941	68.6	172.0	8.4	0.351
4-3900	4-4120	0.381	52.8	-1.7	3.73	1.305	73.1	0.724	0.047	4-4009	70.2	236.8	1.45	0.953	69.3	179.1	4.6	0.338
4-3900	4-4130	0.348	56.8	-0.7	3.49	1.312	74.9	0.742	0.045	4-4006	63.7	240.0	1.16	0.964	70.0	186.2	0.8	0.327
4-3900	4-4140	0.316	61.1	0.5	3.33	1.318	76.6	0.760	0.043	4-4004	57.1	243.1	0.92	0.975	70.6	193.6	-2.9	0.318
4-3900	4-4150	0.286	66.0	1.7	3.23	1.323	78.3	0.781	0.043	4-4001	50.3	246.1	0.75	0.985	71.1	201.2	-6.5	0.310
4-3900	4-4160	0.258	71.8	3.0	3.18	1.327	80.0	0.804	0.043	4-3998	43.4	249.0	0.63	0.994	71.6	209.2	-9.8	0.303
4-3900	4-4170	0.232	78.6	4.2	3.13	1.331	81.7	0.829	0.044	4-3995	36.2	251.8	0.58	1.002	72.0	217.5	-12.8	0.298
4-3910	4-4110	0.496	59.2	-2.8	5.22	1.286	67.0	0.669	0.061	4-4027	88.6	229.6	3.32	0.927	65.9	175.4	9.7	0.397
4-3910	4-4130	0.458	62.5	-2.1	4.47	1.295	69.0	0.682	0.053	4-4025	82.4	232.9	2.73	0.941	66.8	182.2	5.8	0.381
4-3910	4-4130	0.421	65.9	-1.2	3.90	1.303	71.0	0.697	0.047	4-4023	76.0	236.2	2.25	0.955	67.7	189.1	2.0	0.366
4-3910	4-4140	0.386	69.5	-0.1	3.47	1.310	72.9	0.713	0.043	4-4021	69.6	239.5	1.88	0.967	68.5	196.3	-1.8	0.352
4-3910	4-4150	0.352	73.5	1.0	3.17	1.316	74.7	0.732	0.040	4-4019	63.1	242.7	1.59	0.978	69.3	203.7	-5.3	0.341
4-3910	4-4160	0.320	78.0	2.2	2.94	1.322	76.5	0.751	0.038	4-4016	56.4	245.9	1.39	0.988	70.0	211.4	-8.6	0.331
4-3910	4-4170	0.289	83.1	3.3	2.75	1.326	78.3	0.773	0.036	4-4013	49.5	248.9	1.28	0.997	70.6	219.5	-11.5	0.322
4-3910	4-4180	0.260	89.1	4.4	2.67	1.331	80.0	0.798	0.035	4-4010	42.4	251.8	1.26	1.006	71.2	228.0	-13.9	0.315
4-3920	4-4130	0.502	75.9	-1.6	4.73	1.291	66.8	0.658	0.054	4-4040	87.8	232.0	3.59	0.942	65.0	192.3	2.8	0.412
4-3920	4-4140	0.462	79.2	-0.7	3.94	1.300	68.9	0.672	0.046	4-4038	81.5	235.4	2.97	0.956	66.0	199.2	-1.0	0.395
4-3920	4-4150	0.425	82.6	0.3	3.34	1.307	70.9	0.687	0.040	4-4036	75.2	238.8	2.49	0.969	67.0	206.3	-4.6	0.379
4-3920	4-4160	0.389	86.4	1.4	2.89	1.314	72.8	0.705	0.035	4-4034	68.7	242.1	2.14	0.980	67.9	213.8	-7.9	0.365
4-3920	4-4170	0.354	90.5	2.5	2.54	1.320	74.7	0.724	0.032	4-4031	62.1	245.4	1.91	0.991	68.8	221.7	-10.9	0.353
4-3920	4-4180	0.321	95.1	3.5	2.25	1.325	76.5	0.745	0.029	4-4028	55.3	248.6	1.78	1.001	69.6	230.0	-13.3	0.343
4-3920	4-4190	0.289	100.5	4.4	1.97	1.330	78.4	0.768	0.026	4-4024	48.3	251.6	1.77	1.009	70.3	238.6	-15.2	0.334
4-3920	4-4200	0.259	106.8	5.2	1.64	1.334	80.2	0.794	0.022	4-4021	41.0	254.4	1.86	1.017	70.9	247.6	-16.3	0.327
4-3930	4-4140	0.547	89.5	-1.1	4.84	1.287	64.5	0.635	0.054	4-4054	92.9	230.9	4.34	0.942	63.0	202.3	-0.5	0.445
4-3930	4-4150	0.505	92.7	-0.2	3.82	1.296	66.7	0.648	0.043	4-4050	86.7	234.4	3.54	0.957	64.3	209.2	-4.3	0.425
4-3930	4-4160	0.465	96.0	0.8	3.06	1.304	68.8	0.663	0.035	4-4051	80.4	237.9	2.95	0.970	65.4	216.4	-7.7	0.408
4-3930	4-4170	0.427	99.5	1.8	2.49	1.311	70.9	0.679	0.029	4-4048	74.0	241.3	2.53	0.983	66.5	224.1	-10.7	0.392
4-3930	4-4180	0.390	103.3	2.8	2.05	1.318	72.9	0.698	0.025	4-4046	67.4	244.7	2.25	0.994	67.5	232.1	-13.2	0.377
4-3930	4-4190	0.354	107.6	3.7	1.68	1.323	74.8	0.718	0.021	4-4043	60.7	248.0	2.11	1.004	68.5	240.5	-15.2	0.365
4-3930	4-4200	0.320	112.5	4.4	1.32	1.328	76.7	0.741	0.017	4-4039	53.8	251.1	2.08	1.012	69.3	249.3	-16.8	0.354

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEE
4-3930	4-4210	0.288	118.1	5.0	0.94	1.333	78.6	0.765	0.012	4-4036	46.6	254.1	2.17	1.020	70.0	258.4	-17.0	0.34
4-3940	4-4160	0.548	106.3	0.2	3.52	1.292	64.5	0.627	0.039	4-4067	91.6	233.1	3.93	0.957	62.5	219.3	-7.7	0.49
4-3940	4-4170	0.506	109.5	1.2	2.62	1.301	66.8	0.640	0.029	4-4065	85.4	238.7	3.22	0.972	63.8	226.7	-10.8	0.43
4-3940	4-4180	0.465	112.9	2.1	1.95	1.309	69.0	0.656	0.022	4-4063	79.0	240.3	2.73	0.984	65.0	234.5	-13.5	0.41
4-3940	4-4190	0.426	116.5	3.0	1.45	1.315	71.0	0.674	0.017	4-4060	72.5	243.8	2.41	0.996	66.2	242.7	-15.5	0.40
4-3940	4-4200	0.388	120.5	3.7	1.03	1.321	73.1	0.693	0.012	4-4057	65.8	247.2	2.24	1.006	67.3	251.3	-16.9	0.38
4-3940	4-4210	0.352	124.9	4.3	0.64	1.327	75.1	0.715	0.008	4-4054	58.9	250.4	2.20	1.015	68.3	260.2	-17.6	0.37
4-3940	4-4220	0.317	130.1	4.7	0.23	1.332	77.0	0.739	0.002	4-4050	51.8	253.5	2.28	1.022	69.1	269.2	-17.5	0.36
4-3940	4-4230	0.284	136.1	4.8	-0.25	1.336	79.0	0.765	-0.003	4-4046	44.5	256.3	2.49	1.029	69.9	278.4	-16.4	0.35
4-3950	4-4170	0.592	120.0	0.6	3.00	1.289	62.3	0.607	0.032	4-4081	96.2	231.7	4.06	0.958	60.6	229.5	-11.1	0.49
4-3950	4-4180	0.548	123.1	1.5	2.00	1.298	64.7	0.620	0.022	4-4080	90.0	235.4	3.26	0.972	62.1	237.1	-13.9	0.46
4-3950	4-4190	0.505	126.4	2.4	1.27	1.306	67.0	0.635	0.014	4-4077	83.7	239.1	2.71	0.986	63.5	245.2	-16.1	0.44
4-3950	4-4200	0.463	129.9	3.1	0.74	1.313	69.2	0.651	0.008	4-4075	77.2	242.6	2.36	0.997	64.8	253.6	-17.6	0.42
4-3950	4-4210	0.423	133.6	3.8	0.32	1.320	71.4	0.670	0.004	4-4072	70.6	246.1	2.17	1.007	66.1	262.3	-18.4	0.41
4-3950	4-4220	0.385	137.8	4.2	-0.07	1.325	73.4	0.691	-0.001	4-4069	63.8	249.5	2.12	1.016	67.2	271.2	-18.4	0.39
4-3950	4-4230	0.348	142.5	4.4	-0.46	1.330	75.5	0.713	-0.006	4-4065	56.8	252.6	2.18	1.024	68.2	280.2	-17.7	0.38
4-3950	4-4240	0.312	147.9	4.4	-0.92	1.335	77.5	0.739	-0.012	4-4061	49.5	255.6	2.37	1.030	69.1	289.2	-16.1	0.37
4-4300	4-4380	0.429	118.1	-3.9	-0.51	1.415	106.2	1.360	-0.011	4-4350	310.5	456.1	-2.64	1.095	118.1	233.2	-24.3	0.50
4-4300	4-4390	0.357	119.1	-4.3	0.06	1.365	104.1	1.345	0.001	4-4350	309.6	464.9	-2.26	1.027	113.8	239.1	-25.7	0.41
4-4300	4-4400	0.303	119.6	-4.8	0.47	1.330	102.3	1.328	0.011	4-4350	309.1	474.0	-2.39	0.979	109.9	244.5	-27.2	0.33
4-4300	4-4410	0.262	119.8	-5.3	0.83	1.306	100.9	1.311	0.019	4-4350	309.1	483.6	-2.02	0.946	106.2	249.2	-28.9	0.3
4-4300	4-4420	0.232	119.8	-5.6	1.16	1.290	99.7	1.297	0.026	4-4351	309.3	493.4	-2.03	0.923	102.8	252.7	-30.8	0.2
4-4300	4-4430	0.210	119.6	-5.8	1.52	1.279	98.9	1.285	0.034	4-4351	309.7	503.3	-2.12	0.907	99.7	254.7	-33.2	0.1
4-4300	4-4440	0.195	119.4	-5.5	1.93	1.272	98.3	1.277	0.043	4-4352	310.1	513.2	-2.31	0.897	96.9	253.9	-36.5	0.1
4-4300	4-4450	0.185	119.3	-4.7	2.45	1.267	97.9	1.272	0.054	4-4352	310.2	522.8	-2.65	0.892	94.3	249.5	-41.0	0.1
4-4310	4-4390	0.372	129.3	-3.9	0.54	1.405	103.4	1.284	0.011	4-4365	316.8	455.9	-2.08	1.079	116.1	244.1	-25.7	0.46
4-4310	4-4400	0.308	130.0	-4.4	0.96	1.359	101.6	1.278	0.021	4-4364	316.4	465.1	-1.82	1.017	112.0	249.8	-26.7	0.37
4-4310	4-4410	0.260	130.2	-4.9	1.27	1.327	100.0	1.267	0.027	4-4363	316.5	474.8	-1.70	0.973	108.2	255.0	-27.9	0.30
4-4310	4-4420	0.224	129.9	-5.2	1.55	1.306	98.7	1.255	0.033	4-4364	317.0	484.8	-1.66	0.943	104.6	259.5	-29.2	0.24
4-4310	4-4430	0.197	129.5	-5.4	1.82	1.291	97.8	1.245	0.039	4-4364	317.7	495.1	-1.68	0.923	101.4	262.8	-30.8	0.20
4-4310	4-4440	0.178	128.9	-5.3	2.11	1.281	97.0	1.237	0.045	4-4364	318.5	505.4	-1.76	0.909	98.5	264.3	-33.0	0.16
4-4310	4-4450	0.166	128.5	-4.7	2.44	1.275	96.6	1.231	0.052	4-4364	319.1	515.6	-1.92	0.901	95.8	263.0	-36.1	0.13
4-4310	4-4460	0.158	128.3	-3.4	2.87	1.271	96.3	1.228	0.061	4-4364	319.4	525.4	-2.21	0.897	93.4	257.9	-40.3	0.11
4-4320	4-4410	0.257	139.1	-4.5	2.07	1.350	98.9	1.211	0.042	4-4378	326.3	466.3	-0.97	1.004	110.0	260.2	-25.8	0.36
4-4320	4-4420	0.215	138.7	-4.9	2.16	1.322	97.5	1.206	0.044	4-4377	325.1	476.6	-1.01	0.965	106.3	265.0	-26.8	0.27
4-4320	4-4430	0.184	137.8	-5.2	2.30	1.303	96.5	1.199	0.047	4-4377	326.3	487.3	-1.05	0.939	102.9	269.0	-27.8	0.27
4-4320	4-4440	0.162	136.6	-5.2	2.45	1.290	95.7	1.193	0.050	4-4377	327.5	498.2	-1.11	0.921	99.9	271.6	-29.0	0.18
4-4320	4-4450	0.147	135.5	-4.8	2.63	1.282	95.1	1.188	0.054	4-4377	328.7	508.8	-1.20	0.911	97.1	272.2	-30.9	0.16
4-4320	4-4460	0.137	134.8	-3.7	2.86	1.276	94.7	1.185	0.058	4-4377	329.4	519.2	-1.36	0.904	94.6	269.8	-33.7	0.12
4-4320	4-4470	0.132	134.5	-1.8	3.16	1.273	94.5	1.184	0.064	4-4377	329.7	529.0	-1.60	0.902	92.4	263.7	-37.4	0.10
4-4330	4-4420	0.206	145.2	-4.6	3.51	1.339	96.1	1.147	0.068	4-4392	333.7	468.7	0.39	0.989	107.8	269.7	-22.2	0.30
4-4330	4-4430	0.171	143.5	-5.0	3.18	1.315	94.9	1.147	0.062	4-4391	335.4	480.0	0.00	0.956	104.2	273.8	-23.4	0.24
4-4330	4-4440	0.146	141.4	-5.1	3.08	1.298	94.1	1.144	0.060	4-4391	337.2	491.5	-0.20	0.933	101.0	276.9	-24.2	0.19
4-4330	4-4450	0.129	139.2	-4.9	3.06	1.288	93.5	1.141	0.060	4-4390	339.0	502.9	-0.34	0.919	98.2	278.4	-25.2	0.15
4-4330	4-4460	0.118	137.3	-4.0	3.09	1.281	93.0	1.139	0.061	4-4390	340.4	513.9	-0.48	0.911	95.6	277.5	-26.7	0.17
4-4330	4-4470	0.112	136.3	-2.3	3.18	1.277	92.8	1.139	0.062	4-4390	341.1	524.3	-0.65	0.907	93.3	273.5	-29.1	0.10
4-4330	4-4480	0.110	137.6	3.1	3.59	1.273	92.9	1.144	0.071	4-4390	340.3	542.8	-1.16	0.902	90.4	256.2	-35.0	0.0
4-4340	4-4400	0.134	141.5	-5.1	4.39	1.305	92.2	1.090	0.082	4-4405	348.0	485.5	1.38	0.945	102.0	280.5	-17.0	0.2
4-4340	4-4450	0.116	137.4	-5.0	3.92	1.292	91.6	1.091	0.073	4-4404	350.5	497.9	0.90	0.927	99.0	282.2	-18.0	0.1
4-4340	4-4460	0.105	133.9	-4.3	3.65	1.284	91.2	1.091	0.068	4-4404	352.6	509.7	0.61	0.916	96.3	282.0	-18.9	0.13
4-4340	4-4470	0.098	131.6	-2.8	3.50	1.278	90.9	1.092	0.066	4-4404	353.9	520.7	0.37	0.910	94.0	279.0	-20.1	0.10
4-4340	4-4490	0.094	132.0	2.7	3.42	1.274	90.9	1.097	0.065	4-4403	353.7	539.7	0.09	0.900	90.0	264.5	-26.3	0.0
4-4340	4-4500	0.095	134.8	5.8	3.50	1.274	91.1	1.102	0.066	4-4403	352.3	548.2	-0.33	0.912	88.4	256.0	-26.4	0.0
4-4340	4-4510	0.099	139.0	8.3	3.66	1.274	91.5	1.109	0.070	4-4402	350.0	555.7	-0.56	0.915	86.9	250.1	-27.8	0.09
4-4350	4-4460	0.104	124.0	-4.7	4.87	1.284	89.0	1.041	0.087	4-4418	6.5	146.8	2.28	0.919	96.8	283.6	-8.3	0.1
4-4350	4-4470	0.099	120.7	-3.4	4.26	1.278	88.8	1.043	0.076	4-4418	8.3	158.5	1.71	0.912	94.4	281.0	-9.5	0.1
4-4350	4-4490	0.094	120.4	1.8	3.57	1.273	88.8	1.050	0.065	4-4417	8.5	178.5	0.97	0.909	90.3	268.0	-13.3	0.0
4-4350	4-4500	0.093	123.1	4.8	3.41	1.273	89.0	1.054	0.062	4-4417	7.1	186.8	0.70	0.912	88.7	260.4	-15.5	0.0
4-4350	4-4510	0.093	127.7	7.9	3.33	1.273	89.3	1.061	0.061	4-4416	4.7	194.3	0.48	0.916	87.2	254.7	-17.7	0.0
4-4350	4-4520	0.094	133.8	10.1	3.30	1.275	89.8	1.069	0.061	4-4416	1.6	201.0	0.33	0.921	85.9	252.2	-19.3	0.0
4-4350	4-4530	0.097	141.3	11.5	3.30	1.276	90.3	1.080	0.061	4-4415	357.8	567.1	0.22	0.926	84.7	252.6	-20.8	0.1
4-4360	4-4470	0.119	110.2	-4.0	5.96	1.274	86.3	0.993	0.102	4-4432	24.6	194.0	3.93	0.911	94.5	279.8	5.0	0.1
4-4360	4-4490	0.113	110.1	0.6	4.11	1.269	86.4	1.003	0.071	4-4431	24.7	178.4	2.22	0.907	90.3	267.9	-1.7	0.0
4-4360	4-4500	0.110	112.5	3.6	3.62	1.269	86.7	1.008	0.063	4-4431	23.1	186.7	1.73	0.910	88.6	261.1	-5.5	0.0
4-4360	4-4510	0.107	116.3	6.5	3.29	1.270	87.0	1.014	0.057	4-4430	20.5	193.9	1.40	0.914	87.2	256.2	-8.8	0.0
4-4360	4-4520	0.104	121.6	8.9	3.06	1.272	87.5	1.022	0.054	4-4430	17.2	200.5	1.18	0.919	85.9	254.0	-11.5	0.0
4-4360	4-4530	0.102	128.5	10.7	2.89	1.274	88.1	1.031	0.051	4-4429	13.2	206.4	1.07	0.925	84.8	254.6	-13.5	0.1
4-4360	4-4540	0.100	137.0	12.0	2.73	1.276	88.7	1.042	0.049	4-4428	8.7	211.8	1.03	0.931	83.8	257.3	-14.8	0.1
4-4360	4-4550	0.101	146.8	12.5	2.56	1.279	89.5	1.056	0.046	4-4427	3.6	216.7	1.05	0.937	82.9	261.7	-15.7	0.1
4-4370	4-4490	0.151	106.6	-0.6	5.35	1.262	83.7	0.955	0.088	4-4446	42.4	179.8	4.05	0.902	90.0	265.1	10.7	0.1
4-4370	4-4500	0.146	108.5	2.0	4.29	1.263	84.1	0.961	0.071	4-4445	40.3	187.7	3.04	0.904	88.3	259.2	4.3	0.1
4-4370	4-4510	0.140	111.5	4.6	3.54	1.265	84.5	0.968	0.059	4-4444	37.2	194.5	2.39	0.909	86.9	255.3	-1.3	0.1
4-4370	4-4520	0.133	115.5	7.0	3.05	1.267	85.0	0.975	0.051	4-4444	33.6	200.7	1.98	0.915	85.6	253.9	-5.5	0.1
4-4370	4-4530	0.126	120.7	9.0	2.70	1.270	85.6	0.984	0.046	4-4443	29.2	205.3	1.74	0.922	84.6	254.9	-8.6	0.1
4-4370	4-4540	0.120	127.2	10.5	2.41	1.272	86.3	0.994	0.041	4-4442	24.4	211.5	1.63	0.929	83.7	257.9	-10.7	0.1
4-4370	4-4550	0.114	135.1	11.6	2.14	1.275	87.1	1.006	0.037	4-4441	19.1	216.2	1.62	0.935	82.9	262.4	-11.9	0.1
4-4370	4-4560	0.109	144.7	12.1	1.83	1.278	87.9	1.020	0.032	4-4440	13.4	220.5	1.70	0.942	82.1	268.0	-12.3	0.1
4-4380	4-4510	0.187	113.0	2.8	4.23	1.256	81.7	0.923	0.068	4-4459	54.4	195.7	3.73	0.900	86.2	253.4	5.6	0.1
4-4380	4-4520	0.177	116.2	4.9	3.30	1.259	82.3	0.930	0.053	4-4458	50.2	201.4	2.92	0.908	85.0	252.7	-0.7	0.1
4-4380	4-4530	0.167	120.0	6.9	2.68	1.263	83.0	0.939	0.043	4-4458	45.6	206.6	2.42	0.916	84.0	254.3	-5.2	0.1

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SP

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4380	4-4540	0.156	124.7	8.6	2.23	1.267	83.8	0.948	0.036	4-4457	40.4	211.5	2.13	0.924	83.1	257.7	-8.3	0.135
4-4380	4-4550	0.145	130.4	9.9	1.86	1.270	84.6	0.959	0.031	4-4456	34.9	215.9	2.00	0.932	82.4	262.4	-10.1	0.142
4-4380	4-4560	0.135	137.4	10.8	1.51	1.274	85.5	0.972	0.025	4-4455	29.0	220.1	1.99	0.939	81.6	268.2	-[illegible].0	0.150
4-4380	4-4570	0.125	145.8	11.1	1.13	1.278	86.4	0.987	0.019	4-4453	22.8	224.0	2.09	0.946	81.3	274.[illegible]	-[illegible].0	0.159
4-4380	4-4580	0.118	156.2	11.0	0.69	1.281	87.4	1.003	0.012	4-4452	16.3	227.6	2.29	0.952	80.7	[illegible]	-[illegible].0	0.168
4-4390	4-4520	0.233	121.0	3.1	4.01	1.248	79.2	0.887	0.062	4-4472	66.7	202.0	4.23	0.[illegible]	[illegible]	[illegible]	[illegible]	0.151
4-4390	4-4530	0.218	124.2	4.9	2.89	1.253	80.1	0.895	0.045	4-4472	61.6	206.8	3.25	0.[illegible]	[illegible]	[illegible]	[illegible]	0.[illegible]
4-4390	4-4540	0.204	127.8	6.6	2.16	1.258	80.9	0.904	0.034	4-4471	56.3	211.4	2.67	[illegible]	[illegible]	[illegible]	[illegible]	
4-4390	4-4550	0.190	132.1	8.0	1.63	1.263	81.8	0.914	0.026	4-4470	50.5	215.6	2.33	0.[illegible]	[illegible]	[illegible]	[illegible]	
4-4390	4-4560	0.175	137.1	9.0	1.21	1.268	82.8	0.926	0.019	4-4469	44.5	219.6	2.17	0.936	81.1	[illegible]	[illegible]	0.162
4-4390	4-4570	0.161	143.1	9.7	0.83	1.273	83.8	0.939	0.013	4-4468	38.2	223.4	2.15	[illegible]	[illegible]	[illegible]	[illegible]	0.169
4-4390	4-4580	0.147	150.4	10.0	0.43	1.277	84.9	0.954	0.007	4-4467	31.5	226.9	2.24	0.[illegible]	[illegible]	282.0	-10.9	0.176
4-4390	4-4590	0.135	159.3	9.8	-0.04	1.281	85.9	0.971	-0.001	4-4465	24.7	230.2	2.34	0.950	[illegible]	289.4	-9.5	0.183
4-4400	4-4540	0.264	134.1	4.8	2.28	1.247	77.7	0.862	0.034	4-4485	71.6	210.8	2.34	0.703	81.0	257.1	-6.0	0.180
4-4400	4-4550	0.245	137.7	6.2	1.47	1.254	78.8	0.871	0.022	4-4485	65.7	214.9	2.69	0.914	80.4	262.3	-9.7	0.180
4-4400	4-4560	0.227	141.6	7.3	0.92	1.260	79.9	0.882	0.014	4-4484	59.6	218.8	2.31	0.925	80.0	268.4	-11.8	0.183
4-4400	4-4570	0.209	146.1	8.2	0.49	1.266	81.0	0.894	0.008	4-4483	53.2	222.5	2.14	0.935	79.2	275.2	-12.7	0.186
4-4400	4-4580	0.191	151.4	8.7	0.11	1.271	82.1	0.908	0.002	4-4482	46.5	226.0	2.10	0.944	78.[illegible]	282.5	-12.5	0.189
4-4400	4-4590	0.173	157.7	8.8	-0.28	1.276	83.3	0.923	-0.004	4-4480	39.6	229.2	2.18	0.951	[illegible]	290.0	-11.5	0.194
4-4400	4-4600	0.157	165.3	8.4	-0.72	1.280	84.5	0.940	-0.012	4-4479	32.5	232.3	2.37	0.958	[illegible]	297.[illegible]	-9.5	0.199
4-4400	4-4610	0.142	174.5	7.6	-1.26	1.284	85.7	0.960	-0.021	4-4477	25.1	235.0	2.66	0.964	78.9	305.3	-6.[illegible]	0.205
4-4410	4-4560	0.288	148.7	5.8	0.61	1.249	76.7	0.841	0.009	4-4498	74.0	217.3	2.44	0.912	76.[illegible]	269.0	-13.0	0.209
4-4410	4-4570	0.266	152.5	6.7	0.08	1.256	77.9	0.852	0.001	4-4497	67.5	221.0	2.06	0.924	78.4	275.9	-14.4	0.209
4-4410	4-4580	0.244	156.6	7.4	-0.31	1.263	79.2	0.864	-0.005	4-4496	60.9	224.9	1.88	0.935	78.3	283.3	-14.6	0.210
4-4410	4-4590	0.223	161.3	7.6	-0.65	1.269	80.4	0.878	-0.010	4-4495	54.1	227.8	1.85	0.944	73.2	291.0	-13.8	0.211
4-4410	4-4600	0.201	166.8	7.6	-0.99	1.275	81.7	0.893	-0.015	4-4494	47.0	230.9	1.93	0.953	78.2	298.7	-12.2	0.213
4-4410	4-4610	0.182	173.4	7.1	-1.37	1.280	83.0	0.911	-0.022	4-4492	39.7	233.8	2.10	0.960	78.2	306.5	-9.8	0.215
4-4410	4-4620	0.164	181.3	6.2	-1.84	1.284	84.3	0.930	-0.029	4-4490	32.2	236.5	2.35	0.965	78.1	314.2	-6.6	0.219
4-4410	4-4630	0.148	191.0	4.9	-2.42	1.289	85.7	0.951	-0.039	4-4488	24.4	238.9	2.71	0.970	78.0	321.8	-2.9	0.224
4-4420	4-4570	0.333	160.6	5.5	-0.44	1.244	74.4	0.812	-0.006	4-4512	81.2	218.9	1.89	0.909	76.6	277.2	-16.3	0.241
4-4420	4-4580	0.307	164.2	6.2	-0.89	1.253	75.9	0.823	-0.013	4-4511	74.7	222.4	1.55	0.921	76.6	284.6	-16.9	0.238
4-4420	4-4590	0.282	168.1	6.6	-1.18	1.260	77.3	0.835	-0.017	4-4510	67.9	225.8	1.41	0.934	76.8	292.4	-16.3	0.235
4-4420	4-4600	0.257	172.4	6.7	-1.43	1.267	78.7	0.849	-0.021	4-4509	61.0	229.1	1.40	0.944	76.9	300.2	-14.9	0.234
4-4420	4-4610	0.233	177.3	6.5	-1.68	1.274	80.1	0.865	-0.025	4-4507	53.8	232.1	1.49	0.953	77.1	308.1	-12.7	0.233
4-4420	4-4620	0.210	183.1	5.8	-1.98	1.279	81.5	0.882	-0.030	4-4505	46.5	234.9	1.65	0.960	77.2	315.9	-9.9	0.233
4-4420	4-4630	0.189	189.9	4.9	-2.35	1.285	82.9	0.901	-0.036	4-4503	38.9	237.5	1.88	0.966	77.2	323.5	-6.4	0.234
4-4420	4-4640	0.169	198.1	3.6	-2.81	1.289	84.3	0.922	-0.044	4-4501	31.1	239.8	2.17	0.971	77.3	331.1	-2.5	0.236
4-4440	4-4600	0.394	189.3	5.2	-3.18	1.246	71.7	0.769	-0.043	4-4538	86.8	223.4	-0.27	0.917	73.0	304.8	-20.4	0.301
4-4440	4-4610	0.362	192.8	5.3	-3.10	1.256	73.4	0.781	-0.042	4-4537	80.0	226.8	-0.19	0.933	73.5	312.6	-18.3	0.292
4-4440	4-4620	0.331	196.6	5.1	-3.02	1.265	75.1	0.795	-0.042	4-4536	73.0	229.9	-0.03	0.948	74.0	320.4	-15.6	0.285
4-4440	4-4630	0.301	200.8	4.5	-2.98	1.273	76.8	0.810	-0.042	4-4534	65.9	232.9	0.16	0.951	74.5	328.1	-12.4	0.279
4-4440	4-4640	0.273	205.4	3.7	-3.01	1.279	78.4	0.827	-0.043	4-4532	58.5	235.7	0.36	0.[illegible]	74.9	335.6	-8.8	0.273
4-4440	4-4650	0.246	210.7	2.6	-3.11	1.286	80.0	0.845	-0.045	4-4530	51.0	238.3	0.58	0.965	75.3	343.1	-5.0	0.269
4-4440	4-4660	0.220	216.9	1.3	-3.29	1.291	81.5	0.866	-0.049	4-4528	43.3	240.7	0.80	0.970	75.6	350.6	-1.0	0.265
4-4440	4-4670	0.197	224.3	-0.2	-3.54	1.296	83.1	0.888	-0.054	4-4526	35.4	242.8	1.02	0.974	75.7	358.2	3.2	0.263
4-4450	4-4620	0.405	205.8	4.7	-4.12	1.254	71.4	0.756	-0.054	4-4550	85.4	226.6	-1.27	0.927	71.8	323.4	-18.1	0.324
4-4450	4-4630	0.371	209.4	4.3	-3.79	1.264	73.3	0.769	-0.051	4-4549	78.[illegible]	229.7	-0.97	0.939	72.5	330.9	-14.9	0.313
4-4450	4-4640	0.338	213.3	3.7	-3.55	1.272	75.0	0.784	-0.048	4-4548	71.3	232.7	-0.68	0.949	73.1	338.4	-11.3	0.304
4-4450	4-4650	0.307	217.6	2.8	-3.41	1.280	76.7	0.800	-0.047	4-4546	64.0	235.6	-0.41	0.957	73.7	345.7	-7.5	0.296
4-4450	4-4660	0.277	222.4	1.7	-3.35	1.287	78.4	0.818	-0.047	4-4544	56.6	238.2	-0.17	0.963	74.2	353.1	-3.6	0.288
4-4450	4-4670	0.250	227.8	0.4	-3.38	1.293	80.0	0.838	-0.049	4-4542	49.0	240.6	0.04	0.969	74.6	0.6	-0.4	0.282
4-4450	4-4680	0.224	234.2	-1.0	-3.47	1.298	81.7	0.860	-0.051	4-4539	41.2	242.8	0.22	0.973	74.9	8.1	4.3	0.278
4-4450	4-4690	0.200	241.8	-2.5	-3.60	1.303	83.3	0.884	-0.054	4-4537	33.3	244.8	0.30	0.977	75.1	15.9	8.2	0.274
4-4460	4-4630	0.449	219.0	4.2	-5.15	1.252	69.3	0.731	-0.066	4-4564	90.4	226.0	-2.50	0.923	70.0	334.3	-17.2	0.357
4-4460	4-4640	0.412	222.5	3.7	-4.53	1.263	71.3	0.744	-0.059	4-4563	83.5	229.2	-2.01	0.935	70.9	341.5	-13.4	0.343
4-4460	4-4650	0.377	226.2	3.0	-4.05	1.272	73.2	0.758	-0.053	4-4562	76.5	232.2	-1.58	0.946	71.7	348.7	-9.5	0.331
4-4460	4-4660	0.343	230.2	2.0	-3.71	1.281	75.0	0.774	-0.050	4-4560	69.3	235.1	-1.23	0.954	72.4	355.9	-5.6	0.320
4-4460	4-4670	0.311	234.5	0.9	-3.49	1.288	76.8	0.791	-0.048	4-4558	62.0	237.8	-0.94	0.961	73.0	3.1	-1.7	0.310
4-4460	4-4680	0.281	239.4	-0.3	-3.37	1.294	78.5	0.811	-0.047	4-4556	54.5	240.2	-0.71	0.967	73.5	10.5	2.2	0.301
4-4460	4-4690	0.253	245.0	-1.7	-3.31	1.300	80.2	0.832	-0.047	4-4553	46.9	242.5	-0.53	0.972	73.9	18.1	5.9	0.294
4-4460	4-4700	0.226	251.6	-3.0	-3.28	1.305	81.[illegible]	0.855	-0.048	4-4551	39.1	244.6	-0.42	0.976	74.2	26.0	9.3	0.288
4-4460	4-4710	0.203	259.5	-4.3	-3.27	1.310	83.5	0.880	-0.049	4-4548	31.2	246.5	-0.36	0.979	74.5	34.1	12.4	0.284
4-4470	4-4640	0.495	232.4	3.7	-6.18	1.251	67.1	0.708	-0.078	4-4577	95.1	225.2	-3.86	0.918	68.1	345.2	-15.4	0.392
4-4470	4-4650	0.455	235.8	3.1	-5.21	1.262	69.2	0.719	-0.065	4-4577	88.3	228.4	-3.11	0.931	69.1	350.0	-11.[illegible]	0.375
4-4470	4-4660	0.417	239.3	2.3	-4.47	1.272	71.3	0.733	-0.057	4-4575	81.4	231.4	-2.51	0.942	70.1	353.9	-7.2	0.359
4-4470	4-4670	0.381	243.1	1.4	-3.92	1.281	73.2	0.748	-0.051	4-4574	74.3	234.3	-2.03	0.951	70.9	5.9	-3.2	0.345
4-4470	4-4680	0.347	247.1	0.3	-3.52	1.289	75.1	0.765	-0.047	4-4572	67.1	237.1	-1.67	0.958	71.7	13.1	0.7	0.333
4-4470	4-4690	0.314	251.5	-0.9	-3.25	1.298	76.9	0.783	-0.044	4-4570	59.8	239.6	-1.40	0.965	72.3	20.5	4.3	0.322
4-4470	4-4700	0.284	256.5	-2.2	-3.05	1.302	78.6	0.804	-0.042	4-4567	52.4	242.0	-1.22	0.970	72.8	28.1	7.7	0.312
4-4470	4-4710	0.255	262.3	-3.4	-2.89	1.308	80.3	0.826	-0.041	4-4564	44.8	244.2	-1.11	0.974	73.3	36.0	10.7	0.304
4-4470	4-4720	0.229	269.0	-4.5	-2.74	1.313	82.0	0.850	-0.040	4-4562	37.1	246.3	-1.09	0.978	73.6	44.3	13.3	0.297
4-4480	4-4670	0.459	252.7	1.[illegible]	-4.77	1.272	69.2	0.708	-0.059	4-4589	86.1	230.4	-3.40	0.937	68.4	9.0	-4.4	0.389
4-4480	4-4680	0.421	256.3	0.8	-4.00	1.282	71.3	0.722	-0.050	4-4588	79.2	233.3	-2.79	0.947	69.4	15.9	-0.4	0.372
4-4480	4-4690	0.384	260.0	-0.3	-3.[illegible]	1.291	73.3	0.738	-0.044	4-4586	72.1	236.1	-2.33	0.955	70.2	23.0	3.3	0.367
4-4480	4-4700	0.350	264.1	-1.4	-3.[illegible]	1.298	75.2	0.756	-0.039	4-4584	65.0	238.8	-2.00	0.962	71.0	30.4	6.7	0.343
4-4480	4-4710	0.317	268.6	-2.6	-2.70	1.305	77.0	0.776	-0.036	4-4581	57.7	241.3	-1.78	0.968	71.7	38.1	9.8	0.331
4-4480	4-4720	0.286	273.7	-3.7	-2.43	1.310	78.8	0.797	-0.033	4-4579	50.3	243.6	-1.67	0.973	72.2	46.1	12.3	0.321
4-4480	4-4730	0.258	279.6	-4.6	-2.18	1.316	80.5	0.820	-0.030	4-4576	42.8	245.8	-1.66	0.977	72.7	54.4	14.3	0.312
4-4480	4-4740	0.231	286.5	-5.4	-1.89	1.320	82.2	0.845	-0.027	4-4573	35.2	247.9	-1.74	0.981	73.0	63.1	15.7	0.305
4-4490	4-4680	0.503	266.2	1.2	-4.95	1.272	67.1	0.684	-0.059	4-4603	90.8	229.1	-4.22	0.931	66.6	19.0	-1.2	0.420

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4490	4-4690	0.462	269.6	0.3	-3.95	1.283	69.3	0.697	-0.048	4-4602	86.0	232.1	-2.44	0.942	67.7	25.8	2.7	0.400
4-4490	4-4700	0.424	273.2	-0.8	-3.22	1.292	71.4	0.712	-0.040	4-4600	77.1	234.5	-2.87	0.951	68.7	33.0	6.2	0.383
4-4490	4-4710	0.387	277.0	-1.8	-2.67	1.300	73.3	0.729	-0.034	4-4598	70.1	237.7	-2.47	0.958	69.6	40.4	9.3	0.366
4-4490	4-4720	0.352	281.1	-2.8	-2.25	1.307	75.2	0.748	-0.029	4-4596	63.0	240.3	-2.21	0.965	70.4	48.2	12.0	0.352
4-4490	4-4730	0.320	285.7	-3.8	-1.90	1.313	77.1	0.768	-0.025	4-4593	55.8	242.8	-2.07	0.971	71.0	56.3	14.1	0.339
4-4490	4-4740	0.289	290.8	-4.6	-1.57	1.318	78.9	0.790	-0.021	4-4590	48.5	245.2	-2.04	0.976	71.6	64.6	15.6	0.329
4-4490	4-4750	0.260	296.8	-5.2	-1.22	1.323	80.6	0.814	-0.017	4-4587	41.1	247.4	-2.11	0.980	72.0	73.3	16.3	0.320
4-4500	4-4700	0.506	283.2	-0.2	-3.74	1.283	67.1	0.673	-0.044	4-4616	88.7	230.6	-3.93	0.937	65.9	35.8	5.9	0.430
4-4500	4-4710	0.465	286.6	-1.2	-2.86	1.293	69.3	0.687	-0.034	4-4614	81.9	233.6	-3.24	0.946	67.0	43.0	9.2	0.409
4-4500	4-4720	0.427	290.1	-2.1	-2.21	1.301	71.4	0.703	-0.027	4-4612	75.1	236.4	-2.76	0.955	68.0	50.5	12.0	0.390
4-4500	4-4730	0.390	293.9	-3.0	-1.71	1.309	73.4	0.720	-0.021	4-4610	68.2	239.2	-2.45	0.962	69.0	58.4	14.2	0.374
4-4500	4-4740	0.355	298.1	-3.8	-1.30	1.315	75.3	0.739	-0.017	4-4608	61.2	241.8	-2.28	0.969	69.7	66.5	15.8	0.359
4-4500	4-4750	0.322	302.7	-4.5	-0.93	1.321	77.2	0.760	-0.012	4-4605	54.1	244.3	-2.23	0.975	70.4	75.0	16.8	0.346
4-4500	4-4760	0.291	308.0	-5.0	-0.55	1.326	79.0	0.783	-0.007	4-4602	46.9	246.7	-2.28	0.980	71.0	83.6	17.0	0.335
4-4500	4-4770	0.261	314.1	-5.2	-0.11	1.331	80.7	0.808	-0.002	4-4598	39.6	249.0	-2.44	0.985	71.4	92.3	16.4	0.326
4-4850	4-4920	0.681	288.7	3.0	1.30	1.506	115.4	1.598	0.034	4-4891	298.3	451.1	2.60	1.239	126.3	44.2	20.5	0.749
4-4850	4-4930	0.561	290.5	3.3	0.71	1.415	112.3	1.556	0.019	4-4891	295.7	458.6	2.26	1.128	121.4	50.7	22.3	0.603
4-4850	4-4940	0.472	292.0	3.6	0.29	1.354	109.5	1.514	0.008	4-4892	293.5	466.5	2.12	1.052	116.3	56.9	24.2	0.489
4-4850	4-4950	0.404	293.1	4.0	-0.09	1.312	107.2	1.477	-0.002	4-4893	291.6	474.8	2.10	0.999	112.3	62.7	26.1	0.397
4-4850	4-4960	0.353	294.0	4.3	-0.48	1.283	105.3	1.445	-0.012	4-4894	290.2	483.6	2.17	0.962	108.2	67.8	26.1	0.324
4-4850	4-4970	0.315	294.6	4.5	-0.92	1.264	103.9	1.420	-0.023	4-4895	289.1	493.6	2.35	0.936	104.6	71.7	30.6	0.264
4-4850	4-4980	0.288	295.1	4.4	-1.47	1.251	102.7	1.401	-0.036	4-4895	288.3	503.0	2.69	0.918	101.2	73.4	33.9	0.216
4-4850	4-4990	0.268	295.4	4.0	-2.24	1.242	102.0	1.388	-0.054	4-4896	287.6	514.5	3.26	0.906	98.2	71.9	39.0	0.180
4-4860	4-4900	0.628	301.8	3.0	0.48	1.494	113.2	1.520	0.012	4-4905	302.2	449.2	2.47	1.227	124.5	58.5	23.3	0.708
4-4860	4-4940	0.516	303.7	3.2	-0.06	1.408	110.3	1.492	-0.002	4-4904	299.8	456.9	2.16	1.122	119.8	62.1	24.7	0.569
4-4860	4-4950	0.433	305.1	3.5	-0.46	1.350	107.7	1.459	-0.012	4-4905	297.7	465.0	2.04	1.050	115.3	68.5	26.2	0.461
4-4860	4-4960	0.370	306.2	3.8	-0.82	1.310	105.6	1.428	-0.020	4-4905	296.1	473.6	2.03	1.000	111.1	74.4	27.8	0.374
4-4860	4-4970	0.323	307.0	4.0	-1.19	1.284	103.9	1.402	-0.029	4-4906	294.9	482.5	2.11	0.965	107.2	79.6	29.5	0.304
4-4860	4-4980	0.288	307.5	4.0	-1.61	1.266	102.5	1.381	-0.039	4-4907	294.0	491.9	2.28	0.940	103.7	83.5	31.8	0.247
4-4860	4-4990	0.263	307.8	3.7	-2.13	1.253	101.5	1.365	-0.050	4-4907	293.4	501.4	2.59	0.923	100.6	89.3	35.1	0.202
4-4860	4-5000	0.245	308.1	2.9	-2.83	1.245	100.8	1.354	-0.067	4-4908	292.9	511.1	3.10	0.911	97.7	84.1	40.2	0.169
4-4870	4-4940	0.572	314.6	2.9	-0.64	1.479	110.9	1.443	-0.015	4-4918	306.4	447.6	1.87	1.212	122.6	67.3	24.7	0.664
4-4870	4-4950	0.489	316.5	3.1	-0.96	1.399	108.2	1.428	-0.023	4-4917	304.1	455.5	1.75	1.114	118.1	73.9	25.9	0.533
4-4870	4-4960	0.393	317.8	3.3	-1.25	1.345	105.9	1.404	-0.030	4-4917	302.3	463.9	1.71	1.046	113.8	80.2	27.0	0.430
4-4870	4-4970	0.334	318.8	3.5	-1.54	1.309	103.9	1.380	-0.036	4-4918	300.9	472.8	1.73	0.999	109.8	86.1	28.1	0.349
4-4870	4-4980	0.291	319.4	3.5	-1.84	1.284	102.4	1.359	-0.043	4-4918	300.0	482.0	1.82	0.966	106.1	91.3	29.4	0.282
4-4870	4-4990	0.260	319.8	3.2	-2.20	1.267	101.2	1.342	-0.051	4-4919	299.3	491.6	1.99	0.943	102.9	95.1	31.4	0.229
4-4870	4-5000	0.237	320.0	2.7	-2.64	1.256	100.3	1.329	-0.061	4-4919	298.9	501.4	2.27	0.927	99.9	96.9	34.5	0.187
4-4870	4-5010	0.222	320.2	1.6	-3.23	1.248	99.7	1.320	-0.074	4-4919	298.6	511.2	2.71	0.915	97.2	95.6	38.4	0.155
4-4880	4-4950	0.514	326.9	2.7	-2.29	1.463	108.4	1.368	-0.050	4-4932	310.8	446.3	0.55	1.195	120.7	79.3	24.6	0.617
4-4880	4-4960	0.420	328.8	2.9	-2.03	1.389	106.0	1.384	-0.046	4-4930	308.8	454.5	0.97	1.104	116.3	85.6	25.3	0.494
4-4880	4-4970	0.350	330.0	3.0	-2.09	1.340	103.9	1.349	-0.048	4-4930	307.2	463.2	1.11	1.040	112.2	91.8	26.1	0.398
4-4880	4-4980	0.297	330.8	3.1	-2.23	1.306	102.2	1.332	-0.051	4-4930	306.2	472.4	1.21	0.997	108.4	97.5	26.8	0.321
4-4880	4-4990	0.258	331.2	2.9	-2.43	1.283	100.8	1.315	-0.055	4-4930	305.6	482.0	1.34	0.966	105.0	102.4	27.8	0.259
4-4880	4-5000	0.230	331.4	2.4	-2.68	1.268	99.7	1.302	-0.060	4-4931	305.3	491.9	1.51	0.944	101.9	105.9	29.4	0.209
4-4880	4-5010	0.211	331.5	1.5	-3.01	1.258	98.9	1.292	-0.067	4-4931	305.2	502.0	1.76	0.929	99.1	107.4	32.1	0.170
4-4880	4-5020	0.198	331.5	0.0	-3.47	1.252	98.4	1.286	-0.067	4-4931	305.0	511.9	2.14	0.918	96.6	109.9	36.7	0.141
4-4890	4-4970	0.368	340.3	2.6	-3.33	1.379	103.7	1.302	-0.072	4-4943	313.9	454.0	-0.23	1.091	114.5	97.0	22.8	0.454
4-4890	4-4980	0.306	341.4	2.7	-2.99	1.334	101.8	1.295	-0.065	4-4943	312.8	463.2	0.24	1.033	110.6	102.8	23.6	0.364
4-4890	4-4990	0.259	341.9	2.5	-2.91	1.303	100.3	1.283	-0.064	4-4943	312.2	472.8	0.49	0.992	107.0	108.2	24.0	0.293
4-4890	4-5000	0.225	342.0	2.1	-2.95	1.283	99.1	1.271	-0.065	4-4943	312.0	482.8	0.68	0.964	103.8	112.6	24.6	0.235
4-4890	4-5010	0.200	341.9	1.3	-3.07	1.269	98.2	1.262	-0.067	4-4943	312.1	493.1	0.88	0.944	100.8	115.5	25.8	0.189
4-4890	4-5020	0.184	341.7	-0.0	-3.27	1.260	97.5	1.254	-0.071	4-4943	312.3	503.3	1.13	0.930	98.2	116.3	28.2	0.153
4-4890	4-5030	0.173	341.7	-1.9	-3.57	1.255	97.2	1.250	-0.077	4-4943	312.3	513.4	1.45	0.920	95.9	114.1	32.4	0.126
4-4890	4-5040	0.169	341.9	-4.2	-4.03	1.251	97.0	1.249	-0.087	4-4943	312.0	523.1	1.90	0.912	93.7	108.1	38.4	0.110
4-4900	4-4990	0.260	351.4	2.2	-3.97	1.327	99.6	1.241	-0.083	4-4956	319.2	463.7	-0.90	1.023	108.9	112.8	19.1	0.329
4-4900	4-5000	0.219	351.5	1.9	-3.58	1.300	98.3	1.234	-0.075	4-4955	319.2	474.0	-0.42	0.986	105.5	117.6	19.5	0.263
4-4900	4-5010	0.190	351.1	1.2	-3.41	1.282	97.3	1.227	-0.072	4-4955	319.5	484.5	-0.11	0.961	102.4	121.2	19.8	0.210
4-4900	4-5020	0.170	350.6	-0.0	-3.36	1.270	96.6	1.220	-0.071	4-4956	320.0	495.2	0.14	0.942	99.7	123.3	20.7	0.168
4-4900	4-5030	0.157	350.2	-1.8	-3.40	1.263	96.1	1.216	-0.071	4-4956	320.4	505.7	0.40	0.930	97.3	123.1	22.8	0.135
4-4900	4-5040	0.149	350.1	-4.2	-3.55	1.258	95.8	1.214	-0.074	4-4956	320.5	515.8	0.70	0.920	95.1	119.8	26.5	0.112
4-4900	4-5050	0.147	350.4	-6.8	-3.81	1.255	95.7	1.214	-0.080	4-4956	320.2	525.4	1.05	0.914	93.1	113.1	31.7	0.098
4-4900	4-5060	0.148	351.3	-9.1	-4.20	1.254	95.8	1.218	-0.088	4-4955	319.2	534.4	1.45	0.909	91.2	104.0	36.9	0.095
4-4910	4-5000	0.214	359.5	1.6	-5.07	1.280	97.3	1.187	-0.102	4-4969	326.9	465.3	-2.34	1.012	107.0	121.1	12.5	0.296
4-4910	4-5010	0.180	358.6	1.1	-4.24	1.296	96.2	1.185	-0.086	4-4969	327.5	476.3	-1.50	0.979	103.9	125.2	13.3	0.234
4-4910	4-5020	0.157	357.5	-0.0	-3.80	1.281	95.4	1.182	-0.077	4-4968	328.4	487.5	-1.02	0.956	101.0	127.9	13.6	0.186
4-4910	4-5030	0.140	356.3	-1.7	-3.56	1.271	94.8	1.178	-0.072	4-4968	329.3	498.6	-0.67	0.940	98.5	128.8	14.3	0.148
4-4910	4-5040	0.131	355.6	-4.1	-3.43	1.265	94.5	1.176	-0.070	4-4968	329.9	509.2	-0.37	0.918	96.2	127.3	16.1	0.119
4-4910	4-5050	0.126	355.5	-6.9	-3.41	1.261	94.3	1.176	-0.069	4-4968	329.9	519.3	-0.08	0.920	94.1	122.5	19.3	0.100
4-4910	4-5060	0.126	356.1	-9.7	-3.49	1.259	94.3	1.178	-0.071	4-4968	329.4	528.6	0.20	0.914	92.3	115.1	23.5	0.089
4-4910	4-5070	0.129	357.6	-11.7	-3.65	1.258	94.5	1.183	-0.074	4-4968	328.1	537.3	0.46	0.910	90.6	106.8	27.4	0.088
4-4920	4-5020	0.144	1.1	0.0	-4.90	1.292	94.0	1.136	-0.095	4-4982	337.7	480.3	-2.71	0.970	102.1	130.6	5.2	0.207
4-4920	4-5030	0.126	358.8	-1.6	-4.14	1.279	93.4	1.136	-0.081	4-4981	339.1	492.2	-1.99	0.949	99.5	132.2	5.9	0.163
4-4920	4-5040	0.115	356.9	-3.9	-3.66	1.271	93.0	1.138	-0.071	4-4981	340.3	503.5	-1.51	0.935	97.1	131.5	6.7	0.130
4-4920	4-5050	0.109	355.9	-6.8	-3.35	1.266	92.8	1.136	-0.066	4-4981	340.8	514.2	-1.14	0.925	95.0	128.1	8.5	0.106
4-4920	4-5060	0.107	356.2	-9.9	-3.17	1.264	92.7	1.138	-0.062	4-4981	340.7	524.0	-0.84	0.919	93.1	122.0	11.5	0.091
4-4920	4-5070	0.108	357.6	-12.6	-3.08	1.263	92.8	1.141	-0.061	4-4980	339.7	532.9	-0.61	0.914	91.4	114.9	14.8	0.085
4-4920	4-5080	0.112	0.2	-14.1	-3.04	1.263	93.1	1.147	-0.060	4-4980	338.0	541.0	-0.45	0.911	89.8	107.7	17.7	0.086
4-4920	4-5090	0.117	3.7	-14.6	-3.02	1.263	93.5	1.156	-0.060	4-4979	335.6	548.4	-0.37	0.909	88.3	103.6	19.3	0.094
4-4930	4-5030	0.116	355.7	-1.3	-5.57	1.286	91.6	1.088	-0.104	4-4995	350.4	486.5	-4.04	0.959	100.3	133.0	-4.5	0.184

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4930	4-5040	0.105	352.1	-3.5	-4.40	1.276	91.2	1.090	-0.082	4-4995	352.2	499.0	-2.97	0.941	97.8	133.1	-2.9	0.144
4-4930	4-5050	0.099	349.9	-6.4	-3.67	1.270	91.0	1.092	-0.069	4-4994	353.3	510.4	-2.31	0.929	95.6	130.6	-1.3	0.115
4-4930	4-5060	0.096	349.4	-9.7	-3.18	1.267	90.9	1.095	-0.060	4-4994	353.4	520.8	-1.84	0.921	93.7	129.4	1.2	0.096
4-4930	4-5070	0.096	350.8	-12.7	-2.84	1.266	91.0	1.098	-0.054	4-4994	352.7	530.0	-1.51	0.916	91.9	118.6	4.4	0.087
4-4930	4-5080	0.097	353.7	-14.8	-2.61	1.266	91.2	1.103	-0.050	4-4993	351.2	538.2	-1.31	0.913	90.4	112.1	7.5	0.085
4-4930	4-5090	0.100	358.0	-15.7	-2.41	1.267	91.6	1.110	-0.046	4-4993	348.8	545.6	-1.22	0.911	88.9	107.6	9.9	0.090
4-4930	4-5100	0.105	3.4	-15.6	-2.22	1.268	92.0	1.119	-0.043	4-4992	345.8	552.4	-1.23	0.910	87.5	106.1	11.1	0.098
4-4940	4-5050	0.103	338.6	-5.5	-4.52	1.273	88.9	1.045	-0.081	4-5008	7.7	148.3	-3.84	0.931	96.0	129.8	11.3	0.129
4-4940	4-5060	0.100	337.7	-8.7	-3.52	1.269	88.8	1.049	-0.064	4-5008	8.2	159.2	-2.93	0.922	94.0	125.5	-7.8	0.106
4-4940	4-5070	0.099	338.8	-11.8	-2.87	1.268	89.0	1.053	-0.052	4-5007	7.5	168.7	-2.35	0.916	92.2	119.4	-3.7	0.093
4-4940	4-5080	0.098	341.7	-14.2	-2.42	1.268	89.2	1.058	-0.044	4-5007	5.8	176.9	-2.01	0.913	90.6	113.6	0.3	0.089
4-4940	4-5090	0.098	346.2	-15.5	-2.08	1.269	89.5	1.064	-0.038	4-5006	3.4	184.2	-1.84	0.911	89.2	109.5	3.4	0.091
4-4940	4-5100	0.099	352.2	-16.0	-1.77	1.270	90.0	1.072	-0.033	4-5006	0.3	190.8	-1.79	0.911	87.9	107.9	5.4	0.098
4-4940	4-5110	0.100	359.3	-15.6	-1.46	1.272	90.5	1.082	-0.027	4-5005	356.6	536.8	-1.84	0.911	86.6	108.7	6.3	0.106
4-4940	4-5120	0.103	7.3	-14.7	-1.12	1.274	91.1	1.093	-0.021	4-5004	352.5	562.3	-1.97	0.912	85.5	111.3	6.3	0.117
4-4950	4-5070	0.123	329.6	-9.8	-3.15	1.267	86.5	1.005	-0.055	4-5021	24.2	169.3	-3.28	0.913	92.2	117.2	-9.9	0.103
4-4950	4-5080	0.120	332.0	-12.1	-2.39	1.267	86.8	1.011	-0.042	4-5021	22.2	177.3	-2.63	0.910	90.5	112.4	-4.2	0.096
4-4950	4-5090	0.116	335.8	-13.8	-1.87	1.269	87.2	1.017	-0.033	4-5020	19.4	184.3	-2.28	0.909	89.1	109.2	0.1	0.096
4-4950	4-5100	0.113	340.7	-14.7	-1.48	1.271	87.7	1.024	-0.026	4-5020	16.1	190.6	-2.12	0.909	87.9	108.2	2.8	0.101
4-4950	4-5110	0.109	347.0	-14.9	-1.12	1.273	88.2	1.033	-0.020	4-5019	12.1	196.3	-2.08	0.910	86.7	109.3	4.3	0.108
4-4950	4-5120	0.106	354.5	-14.5	-0.75	1.276	88.8	1.043	-0.014	4-5018	7.8	201.6	-2.15	0.911	85.6	112.1	4.7	0.117
4-4950	4-5130	0.105	3.3	-13.6	-0.35	1.278	89.5	1.055	-0.006	4-5017	3.1	206.5	-2.30	0.913	84.6	116.1	4.2	0.126
4-4950	4-5140	0.105	13.0	-12.2	0.13	1.281	90.3	1.069	0.002	4-5016	358.1	571.0	-2.54	0.916	83.6	120.9	2.9	0.137
4-4960	4-5080	0.160	329.1	-9.4	-2.56	1.264	84.1	0.962	-0.043	4-5035	40.3	179.2	-3.37	0.903	90.2	109.1	-7.2	0.109
4-4960	4-5090	0.153	332.0	-11.1	-1.74	1.266	84.6	0.969	-0.029	4-5034	36.9	185.7	-2.68	0.902	88.7	103.2	-1.0	0.106
4-4960	4-5100	0.146	335.8	-12.3	-1.19	1.269	85.1	0.976	-0.020	4-5034	33.0	191.5	-2.32	0.903	87.5	107.2	2.8	0.109
4-4960	4-5110	0.139	340.5	-12.9	-0.78	1.272	85.7	0.984	-0.013	4-5033	28.7	196.8	-2.15	0.905	86.4	109.0	4.9	0.114
4-4960	4-5120	0.131	346.2	-13.0	-0.42	1.275	86.4	0.994	-0.007	4-5032	23.9	201.7	-2.12	0.908	85.4	112.3	5.6	0.121
4-4960	4-5130	0.124	352.9	-12.7	-0.06	1.278	87.1	1.005	-0.001	4-5031	19.0	206.2	-2.18	0.911	84.4	116.6	5.4	0.129
4-4960	4-5140	0.117	1.0	-11.9	0.35	1.282	87.8	1.017	0.006	4-5031	13.7	210.6	-2.33	0.914	83.5	121.6	4.2	0.137
4-4960	4-5150	0.113	10.3	-10.7	0.82	1.285	88.7	1.031	0.014	4-5029	8.3	214.7	-2.56	0.918	82.7	127.1	2.4	0.146
4-4970	4-5100	0.194	337.2	-9.6	-0.90	1.264	82.1	0.928	-0.015	4-5048	50.7	193.0	-2.48	0.894	86.8	105.6	4.3	0.123
4-4970	4-5110	0.183	0.8	-10.5	-0.38	1.268	82.8	0.936	-0.006	4-5048	45.8	197.8	-2.11	0.897	85.7	108.3	7.2	0.127
4-4970	4-5120	0.172	2.5.0	-11.0	0.01	1.272	83.6	0.944	0.000	4-5047	40.7	202.3	-1.95	0.902	84.8	112.2	8.3	0.131
4-4970	4-5130	0.161	349.9	-11.1	0.33	1.276	84.4	0.954	0.005	4-5046	35.4	206.5	-1.91	0.906	83.9	117.0	8.2	0.137
4-4970	4-5140	0.149	355.7	-9.7	0.65	1.280	85.2	0.966	0.011	4-5045	29.8	210.6	-1.97	0.910	83.1	122.4	7.2	0.143
4-4970	4-5150	0.139	2.4	-10.0	1.01	1.284	86.1	0.978	0.017	4-5044	24.2	214.5	-2.11	0.915	82.4	128.2	5.5	0.149
4-4970	4-5160	0.129	10.5	-8.9	1.43	1.288	87.0	0.992	0.024	4-5043	18.4	218.2	-2.31	0.920	81.6	134.2	3.1	0.156
4-4970	4-5170	0.122	20.0	-7.4	1.93	1.291	87.9	1.008	0.033	4-5042	12.5	221.8	-2.59	0.925	80.9	140.4	0.1	0.164
4-4980	4-5120	0.226	348.9	-8.9	0.60	1.266	80.4	0.896	0.009	4-5062	57.5	202.9	-1.64	0.891	83.7	112.3	12.0	0.149
4-4980	4-5130	0.211	352.7	-9.3	0.90	1.271	81.3	0.905	0.014	4-5061	51.9	206.9	-1.49	0.897	82.7	117.5	12.1	0.192
4-4980	4-5140	0.196	357.0	-9.3	1.15	1.276	82.3	0.915	0.018	4-5060	46.1	210.7	-1.48	0.903	82.3	123.3	11.2	0.156
4-4980	4-5150	0.181	1.9	-8.9	1.39	1.281	83.2	0.927	0.022	4-5059	40.2	214.3	-1.54	0.909	81.6	129.4	9.5	0.160
4-4980	4-5160	0.167	7.6	-8.2	1.66	1.286	84.2	0.940	0.027	4-5058	34.3	217.9	-1.68	0.916	81.1	135.7	7.2	0.164
4-4980	4-5170	0.153	14.3	-7.1	1.98	1.290	85.2	0.954	0.032	4-5057	28.2	221.3	-1.86	0.922	80.5	142.1	4.3	0.169
4-4980	4-5180	0.141	22.2	-5.7	2.38	1.294	86.2	0.970	0.040	4-5055	22.0	224.7	-2.10	0.928	79.9	148.6	0.9	0.174
4-4980	4-5190	0.131	31.6	-4.0	2.87	1.297	87.2	0.987	0.048	4-5054	15.7	228.0	-2.40	0.935	79.4	155.1	-2.9	0.181
4-4990	4-5140	0.254	2.4	-7.9	1.92	1.269	79.0	0.867	0.029	4-5075	62.1	210.5	-0.77	0.892	81.1	124.7	15.7	0.176
4-4990	4-5150	0.236	6.3	-7.8	2.02	1.275	80.0	0.878	0.031	4-5074	56.1	214.0	-0.81	0.900	80.5	131.0	13.9	0.178
4-4990	4-5160	0.217	10.6	-7.4	2.14	1.281	81.1	0.889	0.033	4-5073	50.0	217.4	-0.92	0.908	80.1	137.5	11.5	0.180
4-4990	4-5170	0.200	15.4	-6.6	2.29	1.286	82.2	0.902	0.036	4-5072	43.8	220.7	-1.07	0.916	79.6	144.1	8.7	0.182
4-4990	4-5180	0.183	21.1	-5.5	2.49	1.291	83.3	0.916	0.039	4-5071	37.6	224.0	-1.25	0.924	79.2	150.7	5.4	0.184
4-4990	4-5190	0.167	27.6	-4.2	2.77	1.295	84.4	0.932	0.044	4-5069	31.2	227.3	-1.46	0.931	78.9	157.4	1.8	0.187
4-4990	4-5200	0.153	35.4	-2.5	3.12	1.299	85.5	0.949	0.051	4-5068	24.8	230.4	-1.71	0.938	78.5	164.1	-2.2	0.191
4-4990	4-5210	0.141	44.8	-0.7	2.55	1.303	86.7	0.969	0.059	4-5066	18.2	233.4	-2.01	0.946	78.1	170.9	-6.4	0.196
4-5000	4-5150	0.301	13.4	-6.8	3.07	1.266	76.5	0.831	0.044	4-5089	71.4	213.1	0.23	0.887	79.0	133.3	18.5	0.205
4-5000	4-5160	0.279	17.0	-6.6	2.97	1.273	77.7	0.841	0.043	4-5088	65.2	216.4	0.07	0.897	78.7	139.9	15.9	0.204
4-5000	4-5170	0.257	20.9	-6.1	2.90	1.280	78.9	0.853	0.043	4-5087	59.0	219.7	-0.11	0.907	78.4	146.5	12.9	0.203
4-5000	4-5180	0.236	25.1	-5.3	2.90	1.286	80.1	0.865	0.043	4-5086	52.8	223.0	-0.31	0.916	78.1	153.1	9.6	0.202
4-5000	4-5190	0.216	30.0	-4.2	2.96	1.291	81.3	0.880	0.045	4-5085	46.4	226.2	-0.52	0.925	77.9	159.8	6.0	0.203
4-5000	4-5200	0.197	35.5	-2.9	3.09	1.296	82.5	0.895	0.047	4-5083	40.0	229.4	-0.73	0.934	77.6	166.6	2.2	0.203
4-5000	4-5210	0.179	42.0	-1.3	3.29	1.301	83.7	0.913	0.051	4-5082	33.4	232.5	-0.95	0.942	77.4	173.5	-1.8	0.205
4-5000	4-5220	0.163	49.8	0.4	3.56	1.305	84.9	0.931	0.057	4-5080	26.8	235.5	-1.17	0.950	77.2	180.5	-6.0	0.208
4-5010	4-5170	0.324	28.7	-5.6	3.98	1.270	75.3	0.807	0.056	4-5103	73.6	218.2	1.17	0.894	76.7	149.5	17.1	0.233
4-5010	4-5180	0.299	32.2	-5.0	3.68	1.277	76.6	0.818	0.052	4-5102	67.3	221.4	0.85	0.905	76.6	156.0	13.5	0.229
4-5010	4-5190	0.275	36.1	-4.2	3.47	1.284	78.0	0.830	0.050	4-5101	61.9	224.7	0.55	0.916	76.5	162.6	9.7	0.226
4-5010	4-5200	0.252	40.3	-3.1	3.36	1.290	79.3	0.844	0.049	4-5099	54.7	227.8	0.29	0.926	76.4	169.3	5.9	0.224
4-5010	4-5210	0.230	45.2	-1.8	3.33	1.296	80.6	0.860	0.049	4-5098	48.2	231.0	0.05	0.936	76.4	176.1	1.9	0.223
4-5010	4-5220	0.209	50.7	-0.3	3.38	1.301	81.9	0.877	0.051	4-5096	41.6	234.1	-0.16	0.945	76.3	183.1	-2.1	0.222
4-5010	4-5230	0.189	57.3	1.3	3.49	1.305	83.2	0.896	0.053	4-5094	34.9	237.1	-0.35	0.954	76.2	190.3	-6.0	0.222
4-5010	4-5240	0.172	65.1	3.0	3.65	1.309	84.5	0.916	0.057	4-5092	28.0	240.0	-0.52	0.963	76.1	197.8	-9.9	0.224
4-5020	4-5190	0.344	44.3	-4.2	4.45	1.274	74.3	0.785	0.061	4-5116	75.0	222.5	1.93	0.904	76.6	165.9	13.1	0.259
4-5020	4-5200	0.317	47.9	-3.3	4.00	1.281	75.8	0.797	0.055	4-5115	68.7	225.8	1.50	0.916	76.7	172.3	9.0	0.253
4-5020	4-5210	0.290	51.8	-2.2	3.69	1.288	77.2	0.811	0.052	4-5114	62.3	229.0	1.14	0.927	74.9	178.9	5.0	0.249
4-5020	4-5220	0.265	56.0	-0.9	3.49	1.294	78.6	0.826	0.050	4-5112	56.9	232.2	0.85	0.938	75.0	185.7	0.9	0.245
4-5020	4-5230	0.242	60.9	0.5	3.38	1.300	80.0	0.843	0.049	4-5110	49.3	235.3	0.61	0.949	75.1	192.8	-3.0	0.242
4-5020	4-5240	0.219	66.5	2.0	3.34	1.305	81.4	0.861	0.049	4-5108	42.5	238.3	0.43	0.958	75.1	200.1	-6.7	0.240
4-5020	4-5250	0.198	73.2	3.5	3.34	1.309	82.8	0.881	0.050	4-5106	35.7	241.3	0.30	0.967	75.2	207.8	-10.2	0.239
4-5020	4-5260	0.179	81.3	5.0	3.35	1.315	84.2	0.904	0.051	4-5104	28.6	244.1	0.23	0.978	75.4	215.9	-13.3	0.240
4-5030	4-5200	0.390	56.9	-3.4	5.19	1.269	71.9	0.758	0.068	4-5130	82.0	229.1	3.09	0.902	72.6	175.8	11.8	0.292

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5030	4-5210	0.360	60.3	-2.5	4.46	1.278	73.5	0.766	0.060	4-5129	75.8	226.4	2.47	0.915	72.9	182.0	7.5	0.283
4-5030	4-5220	0.331	63.9	-1.5	3.93	1.286	75.1	0.719	0.053	4-5128	69.4	229.6	1.98	0.928	73.2	188.5	3.3	0.276
4-5030	4-5230	0.303	67.8	-0.2	3.55	1.292	76.6	0.794	0.049	4-5127	63.0	232.9	1.61	0.940	73.5	195.3	-0.1	0.269
4-5030	4-5240	0.276	72.1	1.1	3.78	1.298	78.1	0.810	0.046	4-5125	56.4	236.1	1.33	0.951	73.8	202.5	-4.9	0.264
4-5030	4-5250	0.251	77.1	2.5	3.10	1.304	79.6	0.828	0.044	4-5123	49.7	239.2	1.13	0.962	74.0	210.0	-9.5	0.260
4-5030	4-5260	0.227	82.8	3.9	2.96	1.309	81.1	0.848	0.043	4-5120	42.8	242.2	1.02	0.971	74.2	217.6	-11.0	0.257
4-5030	4-5270	0.204	89.7	5.2	2.82	1.313	82.6	0.870	0.042	4-5118	35.8	245.1	0.98	0.980	74.4	226.2	-13.6	0.256
4-5040	4-5220	0.405	73.1	-1.9	4.83	1.274	71.2	0.737	0.062	4-5144	82.3	226.5	3.41	0.915	71.0	191.7	5.2	0.316
4-5040	4-5230	0.373	76.5	-0.8	4.06	1.282	72.9	0.750	0.053	4-5142	76.0	229.9	2.77	0.929	71.5	198.1	1.0	0.305
4-5040	4-5240	0.342	80.1	0.5	3.49	1.289	74.6	0.764	0.046	4-5141	69.6	233.2	2.29	0.942	71.9	205.0	-2.9	0.296
4-5040	4-5250	0.313	84.1	1.6	3.07	1.296	76.2	0.780	0.041	4-5139	63.0	236.4	1.94	0.954	72.4	212.2	-6.5	0.289
4-5040	4-5260	0.285	88.5	2.9	2.76	1.302	77.8	0.798	0.038	4-5137	56.4	239.6	1.71	0.965	72.8	219.8	-9.6	0.283
4-5040	4-5270	0.258	93.7	4.1	2.50	1.307	79.3	0.817	0.035	4-5135	49.5	242.7	1.59	0.975	73.2	227.9	-12.3	0.278
4-5040	4-5280	0.232	99.6	5.2	2.25	1.312	80.9	0.838	0.032	4-5132	42.5	245.7	1.56	0.984	73.5	236.4	-14.3	0.274
4-5040	4-5290	0.209	106.8	6.1	1.97	1.316	82.5	0.862	0.029	4-5129	35.2	248.4	1.66	0.992	73.8	245.2	-15.7	0.272
4-5050	4-5240	0.416	89.4	-0.3	4.04	1.278	70.7	0.723	0.051	4-5157	82.1	229.7	3.44	0.929	69.6	207.7	-1.8	0.337
4-5050	4-5250	0.383	92.9	0.9	3.29	1.286	72.5	0.736	0.042	4-5155	75.7	233.1	2.84	0.943	70.3	214.6	-5.6	0.325
4-5050	4-5260	0.351	96.6	2.0	2.74	1.293	74.2	0.752	0.036	4-5154	69.2	236.4	2.42	0.956	70.9	222.0	-8.9	0.315
4-5050	4-5270	0.320	100.7	3.2	2.32	1.300	75.9	0.769	0.031	4-5151	62.6	239.7	2.14	0.968	71.5	229.8	-11.7	0.307
4-5050	4-5280	0.290	105.3	4.3	1.97	1.306	77.6	0.788	0.027	4-5149	55.8	242.9	1.99	0.978	72.1	238.0	-13.9	0.299
4-5050	4-5290	0.262	110.6	5.2	1.64	1.311	79.3	0.808	0.023	4-5147	48.7	245.9	1.96	0.987	72.5	246.6	-15.3	0.294
4-5050	4-5300	0.235	116.9	5.9	1.28	1.316	80.9	0.831	0.018	4-5144	41.5	248.8	2.04	0.995	73.0	255.6	-16.0	0.290
4-5050	4-5310	0.210	124.5	6.3	0.84	1.320	82.6	0.857	0.012	4-5141	34.0	251.4	2.25	1.002	73.3	264.9	-15.8	0.288
4-5060	4-5250	0.460	102.6	0.2	3.85	1.274	68.4	0.698	0.047	4-5171	87.7	229.2	3.94	0.929	67.7	217.3	-5.0	0.369
4-5060	4-5260	0.424	105.9	1.3	2.94	1.282	70.4	0.711	0.036	4-5170	81.4	232.6	3.21	0.944	68.6	224.4	-8.6	0.355
4-5060	4-5270	0.389	109.5	2.4	2.27	1.290	72.3	0.725	0.029	4-5168	74.9	236.1	2.71	0.958	69.4	231.9	-11.5	0.343
4-5060	4-5280	0.356	113.3	3.4	1.76	1.298	74.1	0.742	0.023	4-5166	68.3	239.5	2.38	0.970	70.2	239.9	-13.9	0.332
4-5060	4-5290	0.324	117.5	4.3	1.35	1.304	75.9	0.760	0.018	4-5164	61.5	242.7	2.21	0.980	70.9	248.3	-15.9	0.322
4-5060	4-5300	0.293	122.3	5.1	0.97	1.309	77.6	0.780	0.013	4-5161	54.6	245.8	2.16	0.990	71.5	257.0	-16.4	0.315
4-5060	4-5310	0.264	127.9	5.6	0.58	1.314	79.4	0.803	0.008	4-5158	47.4	248.8	2.24	0.998	72.1	266.0	-16.5	0.309
4-5060	4-5320	0.236	134.6	5.8	0.11	1.319	81.1	0.827	0.001	4-5155	40.0	251.5	2.44	1.005	72.6	275.1	-15.7	0.304
4-5070	4-5270	0.407	119.2	1.7	2.40	1.279	68.3	0.687	0.029	4-5184	86.7	231.9	3.36	0.944	66.8	234.3	-11.6	0.386
4-5070	4-5280	0.429	122.6	2.7	1.65	1.287	70.3	0.701	0.020	4-5182	80.3	235.5	2.79	0.959	67.8	242.1	-14.2	0.371
4-5070	4-5290	0.393	126.2	3.7	1.10	1.295	72.2	0.717	0.014	4-5180	73.7	238.9	2.42	0.971	68.7	250.9	-16.0	0.358
4-5070	4-5300	0.359	130.2	4.3	0.66	1.302	74.1	0.734	0.008	4-5178	66.9	242.3	2.22	0.982	69.6	258.8	-17.1	0.346
4-5070	4-5310	0.326	134.6	4.9	0.27	1.308	76.0	0.754	0.004	4-5175	60.0	245.5	2.17	0.992	70.4	267.7	-17.4	0.337
4-5070	4-5320	0.294	139.7	5.2	-0.13	1.313	77.8	0.776	-0.002	4-5172	52.9	248.5	2.23	1.000	71.1	276.6	-16.9	0.328
4-5070	4-5330	0.263	145.6	5.2	-0.59	1.318	79.6	0.799	-0.008	4-5169	45.5	251.3	2.41	1.007	71.7	285.6	-16.5	0.322
4-5070	4-5340	0.234	152.7	4.9	-1.15	1.322	81.4	0.826	-0.016	4-5166	37.9	253.8	2.71	1.013	72.2	294.4	-13.1	0.317
4-5080	4-5280	0.511	132.7	2.0	1.66	1.275	66.1	0.664	0.019	4-5198	91.6	231.0	3.25	0.944	64.9	244.6	-14.6	0.418
4-5080	4-5290	0.470	136.0	2.9	0.86	1.284	68.3	0.678	0.010	4-5196	85.2	234.6	2.63	0.959	66.1	252.6	-16.7	0.401
4-5080	4-5300	0.432	139.4	3.6	0.32	1.292	70.4	0.693	0.004	4-5194	78.7	238.1	2.24	0.972	67.3	261.0	-18.0	0.385
4-5080	4-5310	0.395	143.2	4.3	-0.10	1.300	72.4	0.710	-0.001	4-5192	72.0	241.5	2.03	0.983	68.3	269.7	-18.4	0.371
4-5080	4-5320	0.359	147.4	4.6	-0.46	1.308	74.3	0.729	-0.006	4-5190	65.1	244.8	1.97	0.993	69.2	278.5	-18.1	0.359
4-5080	4-5330	0.325	151.9	4.8	-0.83	1.312	76.2	0.750	-0.011	4-5187	58.1	247.9	2.02	1.001	70.1	287.4	-17.0	0.349
4-5080	4-5340	0.292	157.3	4.7	-1.24	1.317	78.1	0.773	-0.016	4-5183	50.8	250.8	2.18	1.008	70.8	296.2	-15.0	0.340
4-5080	4-5350	0.260	163.6	4.2	-1.75	1.322	80.0	0.793	-0.024	4-5180	43.2	253.4	2.45	1.014	71.5	304.8	-12.3	0.333
4-5090	4-5300	0.512	149.5	3.1	-0.06	1.281	66.3	0.656	-0.001	4-5200	89.9	233.5	3.20	0.959	64.4	263.5	-18.9	0.431
4-5090	4-5310	0.471	152.8	3.7	-0.56	1.290	68.3	0.671	-0.007	4-5200	83.4	237.1	1.82	0.972	65.7	272.1	-19.5	0.413
4-5090	4-5320	0.431	156.4	4.1	-0.92	1.298	70.6	0.687	-0.011	4-5206	76.7	240.6	1.63	0.984	66.9	280.8	-19.3	0.397
4-5090	4-5330	0.393	160.3	4.4	-1.21	1.305	72.7	0.705	-0.015	4-5204	69.9	243.9	1.58	0.994	68.0	289.6	-18.4	0.382
4-5090	4-5340	0.357	164.6	4.4	-1.51	1.311	74.7	0.726	-0.019	4-5201	62.9	247.1	1.63	1.002	69.0	298.3	-16.7	0.370
4-5090	4-5350	0.322	169.5	4.1	-1.84	1.317	76.6	0.748	-0.024	4-5198	55.7	250.1	1.78	1.009	69.9	306.9	-14.3	0.359
4-5090	4-5360	0.286	175.1	3.5	-2.26	1.322	78.5	0.773	-0.030	4-5194	48.2	252.8	2.01	1.014	70.6	315.3	-11.2	0.349
4-5090	4-5370	0.257	181.8	2.6	-2.77	1.326	80.5	0.800	-0.037	4-5190	40.5	255.2	2.32	1.019	71.3	323.4	-7.6	0.342
4-5100	4-5310	0.555	163.1	3.2	-1.16	1.279	64.1	0.636	-0.013	4-5224	94.3	232.2	1.50	0.958	62.7	274.8	-20.6	0.463
4-5100	4-5320	0.511	166.4	3.7	-1.54	1.288	66.6	0.650	-0.018	4-5222	87.8	235.9	1.17	0.972	64.1	283.4	-20.5	0.442
4-5100	4-5330	0.469	169.8	4.0	-1.79	1.296	68.8	0.665	-0.021	4-5220	81.2	239.4	1.02	0.980	65.5	292.1	-19.7	0.424
4-5100	4-5340	0.429	173.5	4.1	-1.97	1.304	71.0	0.683	-0.023	4-5218	74.4	242.8	1.01	0.994	66.7	300.8	-18.1	0.407
4-5100	4-5350	0.390	177.6	3.9	-2.16	1.311	73.1	0.702	-0.026	4-5215	67.5	246.1	1.09	1.002	67.9	309.3	-15.9	0.392
4-5100	4-5360	0.353	182.1	3.5	-2.39	1.319	75.1	0.724	-0.030	4-5212	60.3	249.1	1.24	1.009	68.9	317.6	-13.1	0.378
4-5100	4-5370	0.317	187.2	2.8	-2.69	1.322	77.1	0.748	-0.034	4-5208	53.0	251.9	1.44	1.014	69.7	325.8	-9.8	0.367
4-5100	4-5380	0.283	193.2	1.6	-3.07	1.326	79.2	0.774	-0.040	4-5205	45.4	254.4	1.69	1.019	70.5	333.7	-6.0	0.357
4-5450	4-5520	0.622	165.0	-1.1	3.06	1.538	112.5	1.487	0.080	4-5496	305.1	490.1	0.21	1.220	125.7	283.3	-22.6	0.711
4-5450	4-5530	0.510	166.7	-1.1	2.49	1.432	109.7	1.465	0.070	4-5495	305.3	457.9	-0.45	1.141	120.9	289.7	-23.0	0.574
4-5450	4-5540	0.426	167.9	-0.9	2.03	1.374	107.2	1.439	0.069	4-5496	301.9	466.1	-0.74	1.035	116.3	296.0	-22.8	0.467
4-5450	4-5550	0.362	168.7	-0.7	2.90	1.334	105.0	1.406	0.070	4-5496	301.0	474.7	-0.94	0.983	111.9	301.8	-23.5	0.382
4-5450	4-5560	0.314	169.3	-0.2	3.08	1.306	103.3	1.381	0.075	4-5497	300.5	483.8	-1.14	0.947	107.8	307.1	-22.5	0.312
4-5450	4-5570	0.277	169.6	0.5	3.29	1.288	101.9	1.360	0.077	4-5498	300.2	493.2	-1.38	0.932	104.0	311.5	-23.0	0.255
4-5450	4-5580	0.250	169.7	1.6	3.62	1.275	100.9	1.343	0.084	4-5498	300.2	502.9	-1.69	0.907	100.6	314.8	-24.6	0.209
4-5450	4-5590	0.232	169.8	3.1	4.10	1.266	100.1	1.331	0.095	4-5499	300.3	512.7	-2.11	0.897	97.5	316.5	-28.1	0.172
4-5460	4-5530	0.560	177.4	-0.6	5.48	1.302	109.7	1.393	0.120	4-5511	310.3	448.2	2.46	1.203	123.6	293.8	-13.9	0.669
4-5460	4-5540	0.456	179.1	-0.6	3.95	1.422	107.1	1.385	0.090	4-5509	308.7	456.5	0.81	1.099	118.9	300.1	-19.1	0.538
4-5460	4-5550	0.379	180.2	-0.4	3.50	1.368	104.8	1.367	0.081	4-5509	307.7	465.1	0.23	1.024	114.5	306.1	-18.8	0.427
4-5460	4-5560	0.321	180.9	-0.0	3.35	1.331	102.9	1.346	0.077	4-5509	307.1	474.2	-0.10	0.981	110.2	311.6	-18.2	0.356
4-5460	4-5570	0.276	181.3	0.6	3.43	1.305	101.3	1.326	0.076	4-5510	307.0	483.7	-0.34	0.948	106.1	316.4	-17.0	0.290
4-5460	4-5580	0.244	181.4	1.6	3.41	1.288	100.1	1.309	0.077	4-5510	307.2	493.5	-0.58	0.926	102.8	320.4	-17.8	0.236
4-5460	4-5590	0.220	181.3	3.0	3.47	1.276	99.1	1.296	0.080	4-5511	307.5	503.6	-0.85	0.912	99.5	323.1	-18.9	0.192
4-5460	4-5600	0.203	181.3	4.8	3.86	1.268	98.5	1.287	0.086	4-5511	307.8	513.7	-1.10	0.904	96.7	324.2	-21.4	0.157
4-5470	4-5550	0.399	190.7	-0.1	5.28	1.409	104.4	1.308	0.113	4-5533	314.7	455.5	2.52	1.037	136.8	309.5	-13.8	0.501

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5470	4-5560	0.330	191.7	0.2	4.23	1.359	102.3	1.299	0.092	4-5522	314.1	464.7	1.42	1.021	112.5	315.2	-13.6	0.404
4-5470	4-5570	0.277	192.2	0.8	3.78	1.325	100.6	1.285	0.083	4-5522	314.0	474.3	0.88	0.977	108.4	320.2	-12.9	0.328
4-5470	4-5580	0.238	192.2	1.6	3.55	1.302	99.2	1.271	0.077	4-5523	314.3	484.3	0.53	0.948	104.7	324.6	-12.2	0.266
4-5470	4-5590	0.209	192.0	2.8	3.44	1.287	98.2	1.259	0.074	4-5523	314.9	494.7	0.27	0.929	101.4	327.9	-11.8	0.215
4-5470	4-5600	0.189	191.7	4.6	3.43	1.276	97.4	1.249	0.074	4-5523	315.6	505.2	0.00	0.917	98.4	330.0	-12.3	0.174
4-5470	4-5610	0.175	191.4	6.7	3.52	1.269	96.8	1.243	0.076	4-5523	316.2	515.6	-0.28	0.910	95.7	330.0	-14.2	0.142
4-5470	4-5620	0.168	191.3	9.0	3.72	1.263	96.5	1.239	0.080	4-5524	316.4	525.7	-0.61	0.907	93.2	327.4	-18.1	0.118
4-5480	4-5570	0.279	201.9	0.9	5.04	1.349	99.8	1.234	0.104	4-5536	321.2	464.9	2.80	1.012	110.4	323.0	-7.0	0.370
4-5480	4-5580	0.232	201.9	1.6	4.17	1.318	98.3	1.227	0.087	4-5536	321.7	475.3	1.94	0.973	106.5	327.7	-6.6	0.298
4-5480	4-5590	0.199	201.4	2.8	3.69	1.298	97.1	1.218	0.077	4-5536	322.6	486.1	1.45	0.947	103.0	331.5	-5.8	0.241
4-5480	4-5600	0.174	200.7	4.3	3.39	1.284	96.2	1.210	0.070	4-5536	323.7	497.0	1.10	0.930	99.9	335.1	-5.2	0.194
4-5480	4-5610	0.158	199.9	6.4	3.21	1.275	95.5	1.203	0.066	4-5536	324.8	507.9	0.81	0.920	97.1	335.0	-5.3	0.156
4-5480	4-5620	0.147	199.4	8.9	3.13	1.269	95.1	1.199	0.065	4-5536	325.6	518.7	0.54	0.915	94.6	333.7	-6.7	0.127
4-5480	4-5630	0.143	199.3	11.4	3.13	1.265	94.9	1.198	0.065	4-5536	325.8	528.8	0.28	0.913	92.3	329.6	-9.8	0.107
4-5480	4-5640	0.142	199.9	13.4	3.21	1.263	94.9	1.200	0.067	4-5536	325.3	538.3	0.06	0.914	90.4	322.8	-14.1	0.096
4-5490	4-5580	0.227	209.8	2.1	5.93	1.336	97.1	1.172	0.117	4-5550	329.5	466.1	4.38	1.001	108.2	329.3	0.8	0.337
4-5490	4-5590	0.188	208.9	4.6	4.53	1.309	95.9	1.170	0.090	4-5549	330.8	477.6	3.05	0.966	104.5	333.7	0.6	0.269
4-5490	4-5600	0.160	207.5	6.1	3.76	1.292	94.9	1.166	0.075	4-5549	332.4	489.2	2.34	0.944	101.2	336.6	-1.2	0.215
4-5490	4-5610	0.141	206.0	6.2	3.25	1.280	94.2	1.162	0.065	4-5549	334.1	500.9	1.88	0.930	98.2	338.4	1.8	0.172
4-5490	4-5620	0.129	204.6	8.7	2.90	1.272	93.7	1.158	0.058	4-5549	335.4	512.2	1.54	0.923	95.7	338.0	1.8	0.139
4-5490	4-5630	0.122	203.9	11.6	2.66	1.268	93.4	1.157	0.053	4-5549	336.2	523.0	1.26	0.919	93.4	334.9	0.5	0.114
4-5490	4-5640	0.120	204.0	14.1	2.51	1.265	93.3	1.158	0.050	4-5549	336.2	533.0	1.04	0.919	91.4	329.3	-2.0	0.098
4-5490	4-5650	0.121	205.2	15.6	2.39	1.264	93.4	1.161	0.048	4-5549	335.4	542.2	0.92	0.920	89.6	321.8	-5.3	0.092
4-5500	4-5600	0.147	211.1	3.9	4.84	1.299	93.3	1.117	0.092	4-5563	341.8	481.8	4.15	0.959	102.3	338.0	8.5	0.239
4-5500	4-5610	0.126	208.1	5.9	3.73	1.284	92.6	1.117	0.071	4-5563	344.1	494.5	3.16	0.940	99.2	340.2	8.5	0.190
4-5500	4-5620	0.113	205.4	8.5	3.01	1.275	92.1	1.115	0.058	4-5562	346.2	506.7	2.55	0.930	96.5	340.4	8.8	0.152
4-5500	4-5630	0.105	203.5	11.5	2.51	1.269	91.8	1.115	0.048	4-5562	347.6	518.3	2.13	0.924	94.2	338.2	8.3	0.123
4-5500	4-5640	0.102	202.8	14.4	2.14	1.266	91.6	1.116	0.041	4-5562	348.1	528.8	1.82	0.922	92.1	333.3	6.6	0.103
4-5500	4-5650	0.102	203.7	16.6	1.85	1.264	91.7	1.119	0.036	4-5562	347.6	538.3	1.63	0.923	90.3	326.5	3.9	0.093
4-5500	4-5660	0.104	206.3	17.3	1.59	1.264	91.9	1.124	0.031	4-5561	346.1	547.0	1.59	0.925	88.7	319.5	1.2	0.092
4-5500	4-5670	0.108	209.8	16.5	1.28	1.264	92.2	1.131	0.025	4-5561	343.7	554.7	1.69	0.927	87.3	314.5	-0.5	0.099
4-5510	4-5620	0.104	199.8	8.0	3.57	1.276	90.2	1.070	0.066	4-5576	358.4	502.4	3.80	0.935	97.2	340.9	15.5	0.166
4-551	4-5630	0.097	196.2	11.1	2.64	1.269	89.9	1.071	0.049	4-5576	0.4	154.8	3.01	0.928	94.7	339.4	14.5	0.133
4-55	4-5640	0.096	194.6	14.3	2.00	1.265	89.8	1.074	0.037	4-5575	1.4	166.0	2.49	0.924	92.6	335.2	12.7	0.110
4-5510	4-5650	0.093	195.2	16.8	1.54	1.263	89.8	1.077	0.029	4-5575	1.1	175.9	2.16	0.924	90.7	328.9	9.9	0.097
4-5510	4-5660	0.093	197.7	18.0	1.17	1.262	90.0	1.081	0.022	4-5575	359.8	544.6	2.01	0.926	89.2	322.3	6.8	0.093
4-5510	4-5670	0.094	202.2	17.7	0.81	1.263	90.3	1.088	0.015	4-5574	357.4	552.4	2.02	0.929	87.8	317.3	4.3	0.097
4-5510	4-5680	0.097	208.2	16.3	0.61	1.264	90.8	1.096	0.008	4-5574	354.1	559.3	2.17	0.932	86.5	314.9	3.2	0.106
4-5510	4-5690	0.102	215.2	14.1	-0.09	1.266	91.4	1.108	-0.002	4-5573	350.1	565.4	2.44	0.935	85.3	315.1	3.4	0.119
4-5520	4-5630	0.104	184.7	10.1	3.11	1.267	87.8	1.026	0.055	4-5590	15.1	153.2	4.04	0.928	95.0	338.1	20.1	0.143
4-5520	4-5640	0.102	182.7	13.2	2.03	1.262	87.7	1.030	0.036	4-5589	16.4	164.9	3.07	0.924	92.8	334.8	16.7	0.116
4-5520	4-5650	0.100	183.1	15.8	1.33	1.260	87.8	1.034	0.024	4-5589	16.2	175.0	2.50	0.923	90.9	329.2	12.7	0.100
4-5520	4-5660	0.099	185.5	17.3	0.85	1.260	88.0	1.039	0.015	4-5588	14.8	183.7	2.20	0.925	89.3	323.2	8.8	0.095
4-5520	4-5670	0.097	189.8	17.5	0.45	1.260	88.3	1.045	0.008	4-5588	12.3	191.3	2.12	0.928	87.9	318.6	5.8	0.097
4-5520	4-5680	0.095	196.0	16.6	0.07	1.262	88.8	1.053	0.001	4-5587	8.9	198.1	2.17	0.931	86.7	316.5	4.1	0.104
4-5520	4-5690	0.095	203.8	14.9	-0.37	1.264	89.4	1.063	-0.007	4-5586	4.7	204.1	2.34	0.935	85.7	316.9	3.8	0.115
4-5520	4-5700	0.096	212.9	12.6	-0.89	1.266	90.0	1.075	-0.016	4-5586	359.8	569.4	2.61	0.938	84.7	319.1	4.7	0.127
4-5530	4-5650	0.127	175.3	13.7	1.10	1.255	85.5	0.990	0.019	4-5603	32.9	175.9	2.67	0.919	90.8	327.4	12.6	0.105
4-5530	4-5660	0.123	177.3	15.2	0.47	1.255	85.8	0.996	0.008	4-5602	31.2	184.3	2.18	0.921	89.2	322.4	7.2	0.098
4-5530	4-5670	0.119	180.8	15.7	0.05	1.257	86.2	1.002	0.001	4-5601	28.3	191.5	1.97	0.925	87.8	318.7	3.6	0.099
4-5530	4-5680	0.113	185.7	15.4	-0.30	1.258	86.6	1.010	-0.005	4-5601	24.6	197.9	1.95	0.929	86.6	317.2	1.8	0.105
4-5530	4-5690	0.108	192.3	14.3	-0.66	1.261	87.2	1.019	-0.012	4-5600	20.1	203.6	2.05	0.933	85.6	318.0	1.5	0.114
4-5530	4-5700	0.103	200.3	12.6	-1.06	1.263	87.9	1.030	-0.019	4-5599	15.0	208.7	2.22	0.937	84.7	320.5	2.3	0.125
4-5530	4-5710	0.100	210.1	10.5	-1.55	1.266	88.7	1.043	-0.028	4-5598	9.4	213.3	2.48	0.941	83.9	324.3	4.1	0.137
4-5530	4-5720	0.100	221.2	8.1	-2.15	1.269	89.5	1.058	-0.039	4-5597	3.3	217.5	2.84	0.944	83.1	328.9	6.7	0.150
4-5540	4-5660	0.164	175.9	12.5	-0.09	1.248	83.2	0.953	-0.002	4-5616	48.7	185.9	1.96	0.913	88.7	320.0	2.6	0.105
4-5540	4-5670	0.157	178.7	13.2	-0.55	1.250	83.7	0.960	-0.009	4-5615	45.2	192.6	1.63	0.918	87.4	317.7	-1.4	0.106
4-5540	4-5680	0.148	182.5	13.3	-0.84	1.253	84.3	0.967	-0.014	4-5615	41.0	198.6	1.53	0.923	86.2	317.2	-3.1	0.112
4-5540	4-5690	0.139	187.3	12.7	-1.09	1.256	84.9	0.976	-0.018	4-5614	36.2	203.9	1.57	0.929	85.3	318.7	-3.1	0.119
4-5540	4-5700	0.129	193.3	11.7	-1.37	1.260	85.6	0.986	-0.023	4-5613	30.8	208.7	1.69	0.934	84.5	321.8	-2.0	0.128
4-5540	4-5710	0.120	200.7	10.1	-1.70	1.263	86.4	0.998	-0.029	4-5612	24.9	213.0	1.87	0.938	83.7	325.9	-0.1	0.138
4-5540	4-5720	0.113	209.6	8.2	-2.11	1.267	87.3	1.011	-0.037	4-5611	18.6	216.9	2.11	0.942	83.1	330.8	2.9	0.148
4-5540	4-5730	0.107	220.4	6.0	-2.61	1.270	88.2	1.027	-0.046	4-5610	12.1	220.5	2.42	0.946	82.5	336.3	5.7	0.158
4-5550	4-5680	0.196	184.9	10.9	-1.68	1.245	81.5	0.926	-0.027	4-5629	57.7	199.5	0.36	0.914	85.5	317.1	-9.9	0.124
4-5550	4-5690	0.183	188.6	10.8	-1.80	1.250	82.3	0.934	-0.029	4-5628	52.4	204.4	0.88	0.921	84.6	319.4	-9.3	0.131
4-5550	4-5700	0.170	193.1	10.3	-1.92	1.254	83.1	0.943	-0.031	4-5627	46.7	208.8	0.99	0.928	83.8	323.0	-7.6	0.138
4-5550	4-5710	0.157	198.4	9.2	-2.07	1.259	84.0	0.954	-0.034	4-5626	40.6	212.9	1.15	0.933	83.2	327.5	-5.3	0.145
4-5550	4-5720	0.144	204.9	7.8	-2.29	1.263	84.9	0.966	-0.038	4-5625	34.1	216.6	1.34	0.938	82.7	332.7	-2.5	0.153
4-5550	4-5730	0.132	212.6	6.0	-2.58	1.267	85.8	0.980	-0.044	4-5624	27.4	220.1	1.57	0.943	82.2	338.4	0.8	0.161
4-5550	4-5740	0.122	222.0	4.0	-2.96	1.271	86.9	0.996	-0.051	4-5623	20.4	223.2	1.83	0.947	81.7	344.4	4.4	0.169
4-5560	4-5750	0.115	233.3	1.8	-3.42	1.275	87.9	1.014	-0.060	4-5621	13.2	226.1	2.14	0.949	81.2	350.7	8.4	0.177
4-5560	4-5690	0.239	193.6	9.0	-2.95	1.240	79.3	0.893	-0.046	4-5642	68.5	204.7	-0.17	0.908	83.5	320.5	-16.5	0.151
4-5560	4-5700	0.222	197.4	8.8	-2.83	1.246	80.2	0.901	-0.044	4-5641	62.8	208.9	0.02	0.917	82.8	324.5	-14.0	0.156
4-5560	4-5710	0.205	201.6	8.2	-2.75	1.252	81.2	0.911	-0.043	4-5640	56.2	212.7	0.23	0.925	82.3	329.3	-11.1	0.160
4-5560	4-5720	0.189	206.4	7.2	-2.74	1.258	82.2	0.923	-0.044	4-5640	49.6	216.3	0.45	0.932	81.9	334.7	-7.8	0.166
4-5560	4-5730	0.172	212.0	5.8	-2.82	1.263	83.3	0.936	-0.045	4-5638	42.7	219.6	0.68	0.938	81.5	340.6	-4.2	0.171
4-5560	4-5740	0.157	218.6	4.1	-2.97	1.268	84.4	0.950	-0.049	4-5637	35.7	222.6	0.90	0.943	81.2	346.7	-0.5	0.176
4-5560	4-5750	0.143	226.6	2.2	-3.20	1.273	85.5	0.966	-0.053	4-5636	28.4	225.5	1.13	0.946	80.8	353.1	3.4	0.181
4-5560	4-5760	0.131	236.3	0.2	-3.51	1.277	86.6	0.984	-0.059	4-5634	21.0	228.1	1.37	0.950	80.5	359.8	7.4	0.187
4-5560	4-5770	0.122	247.9	-1.9	-3.89	1.281	87.8	1.004	-0.067	4-5633	13.4	230.5	1.64	0.952	80.1	6.7	11.6	0.194

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5570	4-5700	0.286	204.3	7.5	-4.37	1.235	76.9	0.862	-0.066	4-5655	77.7	208.4	-1.49	0.902	81.5	327.0	-21.0	0.184
4-5570	4-5710	0.265	207.9	7.2	-3.91	1.243	78.1	0.870	-0.059	4-5655	71.3	212.1	-1.06	0.913	81.1	331.8	-17.1	0.185
4-5570	4-5720	0.244	211.8	6.5	-3.58	1.250	79.3	0.880	-0.055	4-5654	64.6	215.6	-0.69	0.922	80.7	337.2	-13.1	0.187
4-5570	4-5730	0.223	216.1	5.5	-3.37	1.257	80.5	0.892	-0.052	4-5653	57.7	218.8	-0.37	0.929	80.5	342.0	-9.1	0.189
4-5570	4-5740	0.204	221.1	4.2	-3.27	1.263	81.6	0.905	-0.051	4-5652	50.6	221.8	-0.09	0.936	80.3	349.1	-5.1	0.191
4-5570	4-5750	0.185	226.8	2.6	-3.27	1.269	82.8	0.920	-0.052	4-5650	43.4	224.7	0.16	0.941	80.1	355.6	-1.1	0.194
4-5570	4-5760	0.167	233.6	0.8	-3.35	1.274	84.0	0.936	-0.054	4-5649	36.0	227.3	0.38	0.946	79.9	2.2	2.9	0.196
4-5570	4-5770	0.152	241.8	-1.1	-3.50	1.279	85.2	0.954	-0.057	4-5647	28.4	229.7	0.58	0.949	79.7	9.2	6.9	0.200
4-5570	4-5780	0.139	251.6	-3.0	-3.69	1.283	86.5	0.974	-0.062	4-5646	20.7	232.0	0.76	0.952	79.4	16.4	10.8	0.204
4-5600	4-5760	0.344	251.2	2.1	-4.85	1.255	74.5	0.803	-0.068	4-5693	78.2	222.2	-3.21	0.916	75.7	10.4	-6.8	0.275
4-5600	4-5770	0.315	255.1	0.9	-4.10	1.264	76.1	0.816	-0.058	4-5692	71.1	225.0	-2.56	0.925	75.9	16.6	-2.3	0.267
4-5600	4-5780	0.288	259.2	-0.4	-3.56	1.272	77.7	0.830	-0.051	4-5691	63.8	227.6	-2.09	0.933	76.2	23.2	1.9	0.261
4-5600	4-5790	0.262	263.8	-1.9	-3.18	1.279	79.2	0.845	-0.046	4-5690	56.5	230.2	-1.76	0.939	76.4	30.2	5.6	0.255
4-5600	4-5800	0.237	268.9	-3.3	-2.89	1.286	80.6	0.862	-0.043	4-5688	49.0	232.5	-1.55	0.944	76.6	37.7	8.8	0.250
4-5600	4-5810	0.214	274.9	-4.6	-2.66	1.291	82.1	0.881	-0.040	4-5686	41.5	234.8	-1.44	0.949	76.7	45.4	11.5	0.247
4-5600	4-5820	0.193	282.0	-5.8	-2.44	1.296	83.5	0.902	-0.038	4-5684	33.9	236.9	-1.42	0.953	76.7	53.6	13.7	0.244
4-5600	4-5830	0.174	290.4	-6.8	-2.20	1.301	85.0	0.924	-0.035	4-5681	26.3	239.0	-1.49	0.957	76.6	62.1	15.2	0.243
4-5610	4-5770	0.389	264.0	1.4	-5.15	1.254	72.3	0.775	-0.070	4-5707	84.1	222.2	-4.13	0.909	73.8	19.7	-4.4	0.308
4-5610	4-5780	0.357	267.6	0.2	-4.14	1.264	74.1	0.786	-0.057	4-5706	77.1	225.0	-3.29	0.920	74.3	25.9	0.1	0.296
4-5610	4-5790	0.327	271.5	-1.0	-3.42	1.2[illegible]	75.7	0.800	-0.047	4-5705	69.9	227.7	-2.71	0.928	74.7	32.6	4.1	0.286
4-5610	4-5800	0.298	275.6	-2.3	-2.90	1.281	77.[illegible]	0.815	-0.041	4-5703	62.7	230.3	-2.30	0.936	75.0	39.7	7.0	0.278
4-5610	4-5810	0.271	280.2	-3.6	-2.50	1.288	78.9	0.832	-0.036	4-5702	57.4	232.8	-2.55	0.942	75.3	47.2	10.5	0.271
4-5610	4-5820	0.246	285.4	-4.8	-2.17	1.294	80.4	0.852	-0.032	4-5700	51.0	235.1	-1.91	0.947	75.5	55.1	12.7	0.265
4-5610	4-5830	0.222	291.4	-5.[illegible]	-1.87	1.299	81.[illegible]	0.[illegible]	-0.028	4-5699	45.6	237.2	-1.89	0.952	75.7	63.3	14.4	0.260
4-5610	4-5840	0.200	298.5	-6.5	-1.54	1.304	[illegible]	0.891	-0.02[illegible]	4-5[illegible]	33.1	239.5	-1.96	0.957	75.7	71.8	15.3	0.257
4-5620	4-5790	0.401	280.5	-0.3	-4.03	5.264	1[illegible]	0.798	[illegible]	[illegible]720	82.8	224.7	-3.89	0.913	72.4	35.2	3.0	0.326
4-5620	4-5800	0.368	284.1	-1.5	-3.13	1.274	[illegible]	[illegible]	[illegible]	[illegible]719	75.9	227.4	-3.17	0.923	73.0	42.0	6.8	0.313
4-5620	4-5810	0.337	288.0	-2.[illegible]	-2.49	1.282	78.[illegible]	[illegible]	[illegible]	4-5717	69.7	230.1	-2.69	0.932	73.5	49.2	9.9	0.302
4-5620	4-5820	0.308	292.1	-3.[illegible]	-2.00	1.290	77.[illegible]	[illegible]	[illegible]	4-5716	61.6	232.6	-2.38	0.939	73.[illegible]	56.8	12.4	0.292
4-5620	4-5830	0.280	296.7	-4.8	-1.61	1.296	75.[illegible]	[illegible]	[illegible]	4-5714	54.4	235.1	-2.21	0.945	74.3	64.8	14.2	0.284
4-5620	4-5840	0.253	301.9	-5.6	-1.24	1.302	80.[illegible]	[illegible]	-0.01[illegible]	4-5712	47.1	237.5	-2.16	0.951	74.5	73.1	15.3	0.277
4-5620	4-5850	0.228	308.0	-6.2	-0.87	1.307	81.[illegible]	[illegible]	-0.013	4-5709	39.8	239.7	-2.22	0.956	74.7	81.6	15.7	0.272
4-5620	4-5860	0.200	315.1	-6.5	-0.45	1.312	83.[illegible]	[illegible]81	-0.007	4-5707	32.4	241.9	-2.38	0.961	74.8	90.2	15.2	0.268
4-5630	4-5810	0.412	297.1	-1.[illegible]	-2.69	1.274	71.5	0.742	-0.035	4-5733	81.5	226.8	-3.44	0.917	71.2	51.5	9.7	0.342
4-5630	4-5820	0.379	300.7	-2.9	-1.94	1.283	73.4	0.756	-0.026	4-5732	74.6	229.6	-2.87	0.927	71.8	58.9	12.5	0.327
4-5630	4-5830	0.346	304.5	-3.9	-1.40	1.291	75.1	0.771	-0.019	4-5730	67.6	232.2	-2.51	0.935	72.4	66.0	14.5	0.315
4-5630	4-5840	0.316	308.7	-4.7	-0.96	1.298	76.8	0.788	-0.013	4-5728	60.5	234.9	-2.31	0.943	72.9	74.7	15.8	0.304
4-5630	4-5850	0.287	313.3	-5.3	-0.58	1.304	78.5	0.806	-0.008	4-5726	53.5	237.3	-2.23	0.950	73.3	83.0	16.4	0.295
4-5630	4-5860	0.260	318.6	-5.7	-0.20	1.310	80.1	0.826	-0.003	4-5724	46.3	239.8	-2.26	0.956	73.6	91.5	16.2	0.288
4-5630	4-5870	0.234	324.6	-5.9	0.22	1.315	81.6	0.848	0.003	4-5721	39.1	242.1	-2.40	0.962	73.8	100.0	15.2	0.282
4-5630	4-5880	0.211	331.8	-5.7	0.72	1.319	83.2	0.871	0.011	4-5718	31.8	244.3	-2.64	0.967	74.0	108.5	13.4	0.278
4-5640	4-5820	0.458	310.4	-2.1	-2.05	1.273	69.2	0.715	-0.026	4-5747	87.0	225.9	-3.46	0.911	69.2	61.4	12.7	0.371
4-5640	4-5830	0.422	313.8	-3.1	-1.24	1.283	71.2	0.737	-0.016	4-5746	80.2	228.8	-2.82	0.922	70.0	68.9	15.0	0.354
4-5640	4-5840	0.387	317.4	-3.9	-0.67	1.292	73.1	0.742	-0.009	4-5744	73.4	231.6	-2.41	0.932	70.7	76.8	16.6	0.339
4-5640	4-5850	0.355	321.2	-4.5	-0.23	1.299	74.8	0.757	-0.003	4-5743	66.6	234.3	-2.18	0.941	71.4	84.9	17.4	0.325
4-5640	4-5860	0.323	325.3	-5.0	0.13	1.306	76.6	0.775	0.002	4-5741	59.6	237.0	-2.09	0.948	71.9	93.3	17.4	0.315
4-5640	4-5870	0.294	330.0	-5.3	0.49	1.312	78.2	0.794	0.007	4-5738	52.7	239.5	-2.10	0.956	72.3	101.6	16.7	0.305
4-5640	4-5880	0.266	335.2	-5.3	0.87	1.318	79.9	0.815	0.012	4-5736	45.6	242.0	-2.21	0.962	72.7	110.0	15.3	0.297
4-5640	4-5890	0.239	341.4	-5.0	1.32	1.322	81.5	0.837	0.019	4-5733	38.9	244.4	-2.41	0.969	73.0	118.3	13.1	0.291
4-5650	4-5840	0.467	327.1	-3.2	-0.37	1.282	68.9	0.700	-0.005	4-5760	85.8	227.7	-2.49	0.917	68.1	79.2	17.5	0.382
4-5650	4-5850	0.430	330.5	-3.9	0.18	1.292	70.9	0.713	0.002	4-5759	79.1	230.7	-2.06	0.928	69.0	87.2	18.5	0.365
4-5650	4-5860	0.395	334.0	-4.4	0.58	1.300	72.8	0.728	0.007	4-5757	72.4	233.[illegible]	-1.87	0.938	69.7	95.4	18.7	0.349
4-5650	4-5870	0.362	337.8	-4.7	0.89	1.307	74.6	0.744	0.012	4-5755	65.7	236.4	-1.73	0.947	70.4	103.7	18.2	0.336
4-5650	4-5880	0.330	342.0	-4.8	1.19	1.314	76.3	0.763	0.016	4-5753	58.9	239.1	-1.74	0.955	71.0	112.[illegible]	17.0	0.324
4-5650	4-5890	0.299	346.7	-4.7	1.50	1.319	78.0	0.782	0.020	4-5750	52.0	241.8	-1.83	0.963	71.5	120.3	15.1	0.314
4-5650	4-5900	0.270	352.0	-4.3	1.87	1.324	79.7	0.804	0.026	4-5748	45.1	244.3	-2.00	0.970	71.9	128.3	12.6	0.306
4-5650	4-5910	0.243	358.2	-3.6	2.31	1.329	81.4	0.827	0.032	4-5745	38.0	246.8	-2.24	0.977	72.2	136.3	9.4	0.299
4-5660	4-5860	0.475	343.8	-3.8	1.18	1.291	68.6	0.686	0.014	4-5774	84.7	229.6	-1.44	0.924	67.1	98.1	20.1	0.392
4-5660	4-5870	0.438	347.2	-4.2	1.48	1.300	70.6	0.699	0.018	4-5772	78.1	232.6	-1.23	0.935	68.0	106.3	19.7	0.374
4-5660	4-5880	0.402	350.7	-4.4	1.70	1.308	72.5	0.715	0.021	4-5770	71.6	235.6	-1.16	0.945	68.8	114.5	18.6	0.359
4-5660	4-5890	0.368	354.5	-4.4	1.90	1.314	74.3	0.732	0.024	4-5768	64.9	238.5	-1.18	0.955	69.5	122.7	16.9	0.345
4-5660	4-5900	0.335	358.7	-4.1	2.11	1.320	76.1	0.751	0.027	4-5765	58.2	241.3	-1.27	0.964	70.2	130.7	14.6	0.333
4-5660	4-5910	0.304	3.4	-3.6	2.37	1.326	77.9	0.771	0.031	4-5763	51.4	244.0	-1.43	0.972	70.7	138.6	11.8	0.322
4-5660	4-5920	0.274	8.8	-2.9	2.70	1.331	79.6	0.794	0.036	4-5760	44.5	246.7	-1.63	0.980	71.2	146.3	8.4	0.314
4-5660	4-5930	0.247	15.1	-1.9	3.10	1.335	81.3	0.818	0.043	4-5756	37.5	249.2	-1.89	0.987	71.6	153.9	4.6	0.307
4-5670	4-5870	0.522	357.3	-3.8	2.34	1.289	66.2	0.660	0.027	4-5788	90.1	228.4	-0.53	0.920	65.1	109.3	21.2	0.420
4-5670	4-5880	0.482	0.5	-4.0	2.48	1.299	68.3	0.672	0.029	4-5787	83.7	231.5	-0.40	0.933	66.1	117.4	20.2	0.401
4-5670	4-5890	0.444	3.9	-4.1	2.56	1.307	70.3	0.687	0.031	4-5785	77.1	234.6	-0.38	0.944	67.1	125.5	18.6	0.383
4-5670	4-5900	0.407	7.5	-4.0	2.61	1.314	72.3	0.703	0.032	4-5783	70.8	237.6	-0.45	0.955	68.0	133.4	16.3	0.368
4-5670	4-5910	0.372	11.3	-3.6	2.69	1.321	74.1	0.721	0.033	4-5781	64.2	240.6	-0.57	0.964	68.8	141.3	13.6	0.353
4-5670	4-5920	0.339	15.5	-3.0	2.87	1.326	75.9	0.740	0.036	4-5778	57.6	243.5	-0.74	0.974	69.5	148.9	10.5	0.341
4-5670	4-5930	0.307	20.3	-2.2	3.01	1.332	77.7	0.761	0.039	4-5775	50.8	246.3	-0.91	0.982	70.1	156.5	7.0	0.331
4-5670	4-5940	0.277	25.8	-1.2	3.27	1.336	79.5	0.784	0.043	4-5772	43.9	249.1	-1.14	0.990	70.6	164.1	3.2	0.322
4-5680	4-5890	0.528	14.1	-3.9	3.08	1.297	65.9	0.647	0.040	4-5802	89.1	230.3	0.67	0.930	64.2	128.7	20.0	0.429
4-5680	4-5900	0.487	17.3	-3.8	3.45	1.305	68.1	0.660	0.040	4-5800	82.8	233.5	0.57	0.943	65.3	136.6	17.9	0.410
4-5680	4-5910	0.448	20.7	-3.6	3.32	1.313	70.1	0.675	0.039	4-5798	76.4	236.6	0.42	0.955	66.4	144.3	15.2	0.392
4-5680	4-5920	0.411	24.2	-3.1	3.24	1.320	72.1	0.692	0.039	4-5796	70.0	239.8	0.24	0.965	67.3	151.9	12.3	0.376
4-5680	4-5930	0.376	28.1	-2.5	3.21	1.326	74.0	0.710	0.039	4-5793	63.5	242.8	0.04	0.975	68.1	159.4	8.8	0.362
4-5680	4-5940	0.342	32.4	-1.6	3.25	1.332	75.8	0.731	0.041	4-5790	56.9	245.6	-0.16	0.985	69.9	166.8	5.2	0.350
4-5680	4-5950	0.309	37.3	-0.6	3.36	1.336	77.6	0.753	0.043	4-5787	50.1	248.7	-0.36	0.994	69.5	174.3	1.4	0.339

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5680	4-5960	0.279	43.0	0.6	3.53	1.341	79.4	1.777	0.046	4-5783	43.2	251.5	-0.55	1.002	70.1	181.8	-2.5	0.330
4-5690	4-5900	0.575	27.8	-3.7	4.77	1.294	63.5	1.623	0.052	4-5816	96.3	228.9	1.94	0.928	62.2	140.1	19.2	0.460
4-5690	4-5910	0.532	30.9	-3.6	4.37	1.303	65.8	1.636	0.049	4-5815	86.1	232.2	1.68	0.942	63.5	147.6	16.5	0.439
4-5690	4-5920	0.491	34.1	-3.2	4.01	1.311	67.9	1.649	0.045	4-5813	81.9	235.5	1.40	0.955	64.6	155.1	13.4	0.419
4-5690	4-5930	0.451	37.5	-2.7	3.73	1.319	70.0	1.665	0.043	4-5811	75.6	238.7	1.12	0.966	65.7	162.4	10.1	0.401
4-5690	4-5940	0.414	41.1	-2.0	3.53	1.325	72.0	0.682	0.042	4-5808	69.2	241.9	0.86	0.977	66.7	169.7	6.6	0.385
4-5690	4-5950	0.378	45.1	-1.1	3.41	1.331	73.9	0.701	0.041	4-5805	62.6	245.1	0.62	0.987	67.6	177.1	2.9	0.371
4-5690	4-5960	0.343	49.5	-0.0	3.37	1.336	75.8	0.722	0.042	4-5802	56.0	248.2	0.62	0.997	68.4	184.5	-0.8	0.358
4-5690	4-5970	0.310	54.5	1.1	3.38	1.341	77.6	0.745	0.043	4-5799	49.2	251.1	0.25	1.006	69.1	192.1	-4.5	0.347
4-5700	4-5910	0.623	41.6	-3.5	6.03	1.290	61.8	0.602	0.063	4-5831	99.4	227.5	3.39	0.926	60.1	151.3	17.6	0.494
4-5700	4-5920	0.578	44.6	-3.3	5.30	1.300	63.4	0.613	0.057	4-5830	93.3	230.9	2.90	0.941	61.5	158.6	14.5	0.470
4-5700	4-5930	0.534	47.7	-2.9	4.66	1.309	65.7	0.625	0.051	4-5828	87.1	234.2	2.44	0.955	62.8	165.7	11.1	0.448
4-5700	4-5940	0.493	50.9	-2.3	4.15	1.316	67.8	0.640	0.046	4-5826	80.9	237.6	2.03	0.967	64.1	172.9	7.6	0.428
4-5700	4-5950	0.453	54.3	-1.5	3.75	1.323	69.6	0.656	0.043	4-5824	74.6	240.9	1.68	0.979	65.2	180.0	3.9	0.410
4-5700	4-5930	0.415	58.0	-0.6	3.47	1.329	71.9	0.674	0.040	4-5821	68.2	244.2	1.38	0.990	66.2	187.3	0.3	0.394
4-5700	4-5970	0.378	62.1	0.4	3.27	1.335	73.9	0.694	0.039	4-5818	61.6	247.4	1.14	1.000	67.2	194.7	-3.3	0.380
4-5700	4-5980	0.343	66.6	1.5	3.14	1.340	75.8	0.716	0.038	4-5814	55.0	250.6	0.97	1.009	68.0	202.4	-6.7	0.367
4-6050	4-5130	0.429	42.9	-2.3	-4.67	1.400	106.7	1.381	-0.107	4-6099	307.0	455.1	-2.64	1.105	117.3	160.6	2.1	0.496
4-6050	4-6140	0.359	44.0	-3.0	-3.78	1.350	104.6	1.365	-0.087	4-6099	306.5	463.8	-1.96	1.038	113.3	166.2	0.8	0.399
4-6050	4-6150	0.307	44.7	-3.9	-3.30	1.317	102.8	1.346	-0.076	4-6099	305.6	472.9	-1.46	0.991	109.5	171.0	-0.8	0.323
4-6050	4-6160	0.268	45.1	-5.1	-3.02	1.294	101.4	1.329	-0.069	4-6100	305.2	482.4	-1.16	0.957	106.1	175.1	-2.3	0.261
4-6050	4-6170	0.240	45.2	-6.6	-2.84	1.278	100.4	1.315	-0.064	4-6100	305.0	492.1	-0.91	0.932	102.9	178.0	-3.4	0.211
4-6050	4-6180	0.220	45.2	-8.2	-2.74	1.268	99.6	1.304	-0.062	4-6100	305.0	501.8	-0.69	0.915	100.0	179.4	-3.7	0.171
4-6050	4-6190	0.207	45.2	-9.9	-2.72	1.261	99.0	1.296	-0.061	4-6101	304.9	511.5	-0.48	0.903	97.3	178.8	-2.8	0.139
4-6050	4-6200	0.200	45.4	-11.4	-2.76	1.257	98.7	1.293	-0.062	4-6101	304.8	520.9	-0.30	0.894	94.9	175.5	-0.5	0.117
4-6060	4-6140	0.378	54.4	-3.0	-5.19	1.392	104.2	1.313	-0.113	4-6113	313.5	454.4	-4.17	1.092	115.6	168.8	-4.8	0.462
4-6060	4-6150	0.315	55.3	-3.8	-3.83	1.347	102.4	1.304	-0.084	4-6112	312.6	463.7	-2.87	1.029	111.7	174.3	-5.6	0.371
4-6060	4-6160	0.268	55.7	-4.9	-3.11	1.316	100.8	1.292	-0.069	4-6112	312.2	473.3	-2.23	0.985	108.1	178.8	-7.1	0.299
4-6060	4-6170	0.233	55.8	-6.2	-2.86	1.295	99.6	1.280	-0.058	4-6112	312.2	483.2	-1.84	0.954	104.8	182.5	-8.8	0.241
4-6060	4-6180	0.208	55.6	-7.8	-2.34	1.281	98.7	1.269	-0.051	4-6113	312.4	493.3	-1.56	0.931	101.8	184.9	-10.1	0.195
4-6060	4-6190	0.191	55.5	-9.6	-2.10	1.272	98.0	1.261	-0.044	4-6113	312.7	503.3	-1.35	0.916	99.0	185.6	-10.9	0.157
4-6060	4-6200	0.181	55.2	-11.3	-1.94	1.266	97.5	1.256	-0.040	4-6113	312.9	513.2	-1.19	0.905	96.5	184.0	-10.8	0.129
4-6060	4-6210	0.175	55.3	-12.7	-1.80	1.262	97.3	1.254	-0.039	4-6113	312.8	522.6	-1.10	0.897	94.2	179.5	-9.7	0.109
4-6070	4-6160	0.268	65.3	-4.7	-3.81	1.342	100.0	1.264	-0.080	4-6125	319.7	464.4	-3.72	1.017	110.0	181.7	-12.2	0.340
4-6070	4-6170	0.227	65.2	-5.9	-2.84	1.314	98.6	1.237	-0.060	4-6125	319.9	474.6	-2.87	0.977	106.5	186.1	-13.4	0.273
4-6070	4-6180	0.197	64.7	-7.5	-2.22	1.296	97.6	1.219	-0.047	4-6125	320.4	485.1	-2.38	0.949	103.4	189.3	-15.0	0.220
4-6070	4-6190	0.176	64.0	-9.2	-1.78	1.283	96.8	1.222	-0.037	4-6125	321.1	495.5	-2.06	0.929	100.5	191.1	-16.4	0.177
4-6070	4-6200	0.162	63.4	-11.1	-1.44	1.275	96.3	1.217	-0.030	4-6125	321.7	505.8	-1.84	0.915	97.9	190.9	-17.4	0.143
4-6070	4-6210	0.154	63.1	-12.8	-1.16	1.270	95.9	1.214	-0.024	4-6126	322.0	515.9	-1.69	0.906	95.5	188.0	-17.7	0.118
4-6070	4-6220	0.150	63.1	-13.9	-0.91	1.267	95.8	1.213	-0.019	4-6125	322.0	525.3	-1.65	0.900	93.0	182.3	-17.1	0.102
4-6070	4-5230	0.150	63.8	-13.9	-0.61	1.266	95.8	1.215	-0.013	4-6125	321.4	534.3	-1.75	0.896	91.3	174.3	-15.9	0.094
4-6080	4-6170	0.221	72.9	-5.6	-3.71	1.335	97.4	1.183	-0.074	4-6139	328.0	466.3	-4.46	1.004	108.1	188.5	-18.8	0.309
4-6080	4-6180	0.186	71.9	-7.1	-2.46	1.311	96.3	1.181	-0.049	4-6139	328.9	477.3	-3.35	0.967	104.8	192.7	-19.4	0.246
4-6080	4-6190	0.161	70.5	-8.9	-1.70	1.295	95.4	1.177	-0.034	4-6138	330.1	488.3	-2.75	0.942	101.8	195.4	-20.7	0.197
4-6080	4-6200	0.145	69.3	-10.9	-1.17	1.284	94.8	1.173	-0.023	4-6138	331.2	499.3	-2.37	0.925	99.1	198.3	-21.9	0.158
4-6080	4-6210	0.134	68.0	-12.8	-0.75	1.278	94.4	1.171	-0.015	4-6138	332.1	509.8	-2.12	0.913	96.6	194.8	-22.7	0.129
4-6080	4-6220	0.129	67.5	-14.4	-0.41	1.273	94.2	1.170	-0.008	4-6138	332.5	519.8	-1.97	0.906	94.4	190.4	-22.8	0.100
4-6080	4-6230	0.126	67.7	-15.0	-0.09	1.271	94.1	1.171	-0.002	4-6138	332.3	529.2	-1.95	0.901	92.3	185.5	-22.1	0.095
4-6080	4-6240	0.127	68.8	-14.4	0.27	1.270	94.2	1.175	0.005	4-6138	331.5	537.9	-2.08	0.899	90.5	179.3	-20.9	0.091
4-6090	4-6190	0.148	73.5	-8.5	-1.96	1.306	93.8	1.125	-0.038	4-6152	340.0	481.9	-3.60	0.956	102.9	198.3	-24.7	0.217
4-6090	4-6200	0.129	70.7	-10.6	-1.08	1.293	93.1	1.129	-0.021	4-6152	341.8	493.6	-2.88	0.934	100.1	200.1	-25.3	0.172
4-6090	4-6210	0.118	68.2	-12.7	-0.48	1.284	92.7	1.124	-0.009	4-6152	343.3	504.8	-2.44	0.920	97.5	199.6	-25.9	0.139
4-6090	4-6220	0.111	66.6	-14.6	-0.04	1.279	92.4	1.124	-0.001	4-6152	344.2	515.4	-2.15	0.911	95.2	196.7	-26.0	0.114
4-6090	4-6230	0.108	66.2	-15.8	0.32	1.276	92.3	1.125	0.006	4-6151	344.4	525.2	-2.01	0.905	93.1	190.7	-25.3	0.097
4-6090	4-6240	0.107	67.1	-15.7	0.66	1.274	92.4	1.128	0.013	4-6151	343.9	534.2	-2.00	0.902	91.2	183.0	-23.9	0.089
4-6090	4-6250	0.108	69.2	-14.2	1.04	1.274	92.6	1.133	0.020	4-6151	342.6	542.5	-2.15	0.902	89.5	175.5	-22.3	0.090
4-6090	4-6260	0.111	72.5	-11.6	1.51	1.274	92.9	1.140	0.030	4-6150	340.6	550.0	-2.44	0.902	87.9	170.2	-21.5	0.096
4-6100	4-6210	0.109	61.9	-12.4	-0.28	1.289	90.7	1.073	-0.005	4-6166	356.0	501.3	-2.65	0.925	98.1	203.1	-27.7	0.147
4-6100	4-6220	0.103	58.9	-14.5	0.32	1.282	90.4	1.075	0.006	4-6165	357.5	512.4	-2.16	0.914	95.7	201.0	-27.0	0.118
4-6100	4-6230	0.100	57.6	-16.0	0.74	1.278	90.3	1.077	0.014	4-6165	358.1	522.7	-1.87	0.907	93.6	196.0	-25.7	0.099
4-6100	4-6240	0.098	58.2	-16.4	1.06	1.277	90.3	1.080	0.020	4-6165	357.7	531.9	-1.76	0.904	91.7	188.8	-23.7	0.088
4-6100	4-6250	0.097	60.5	-15.3	1.36	1.276	90.5	1.085	0.025	4-6164	356.6	540.2	-1.79	0.903	89.9	181.5	-21.7	0.086
4-6100	4-6260	0.097	64.3	-13.0	1.69	1.277	90.8	1.091	0.032	4-6164	354.7	547.9	-1.95	0.904	88.4	175.9	-20.1	0.090
4-6100	4-6270	0.099	69.5	-10.0	2.11	1.278	91.2	1.098	0.040	4-6163	352.0	554.8	-2.21	0.906	86.9	173.0	-19.7	0.098
4-6100	4-6280	0.102	75.5	-6.8	2.63	1.279	91.7	1.108	0.050	4-6163	348.8	561.2	-2.56	0.909	85.6	172.5	-20.5	0.110
4-6110	4-6220	0.112	47.1	-13.8	0.90	1.283	88.0	1.022	0.016	4-6180	12.7	151.4	-1.79	0.914	96.0	203.7	-24.5	0.120
4-6110	4-6230	0.110	45.6	-15.3	1.36	1.279	88.0	1.027	0.024	4-6179	13.6	161.9	-1.37	0.906	93.8	199.4	-21.8	0.099
4-6110	4-6240	0.107	46.0	-15.8	1.63	1.277	88.0	1.031	0.029	4-6179	13.3	171.2	-1.19	0.903	91.8	192.8	-18.9	0.088
4-6110	4-6250	0.105	48.1	-15.1	1.83	1.276	88.2	1.035	0.033	4-6178	12.1	179.5	-1.19	0.902	90.1	185.8	-16.6	0.084
4-6110	4-6260	0.102	51.8	-13.2	2.02	1.277	88.5	1.041	0.036	4-6178	10.0	187.0	-1.31	0.903	88.5	180.3	-15.2	0.086
4-6110	4-6270	0.100	56.9	-10.6	2.26	1.278	88.9	1.048	0.041	4-6177	7.3	193.8	-1.49	0.905	87.1	177.3	-14.9	0.093
4-6110	4-6280	0.098	63.5	-7.6	2.58	1.280	89.4	1.057	0.047	4-6177	3.9	200.1	-1.73	0.909	85.8	176.8	-15.5	0.102
4-6110	4-6290	0.099	71.2	-4.6	2.98	1.282	90.0	1.068	0.055	4-6176	0.0	205.8	-2.01	0.913	84.6	178.3	-17.1	0.113
4-6120	4-6240	0.138	38.6	-14.3	2.71	1.274	85.4	0.980	0.046	4-6193	30.6	172.2	-0.08	0.898	91.7	195.5	-7.5	0.089
4-6120	4-6250	0.133	40.4	-13.8	2.67	1.274	85.7	0.986	0.045	4-6193	29.0	180.3	-0.19	0.898	89.9	188.7	-5.9	0.086
4-6120	4-6260	0.128	43.4	-12.4	2.64	1.275	86.0	0.992	0.045	4-6192	26.6	187.4	-0.38	0.899	88.4	183.4	-5.7	0.088
4-6120	4-6270	0.122	47.5	-10.3	2.86	1.276	86.4	0.998	0.046	4-6192	23.6	193.9	-0.61	0.902	87.0	180.7	-6.7	0.094
4-6120	4-6280	0.116	52.7	-7.4	2.77	1.279	87.0	1.007	0.048	4-6191	20.0	199.8	-0.87	0.907	85.7	180.2	-8.5	0.102
4-6120	4-6290	0.111	59.2	-5.2	2.95	1.281	87.6	1.016	0.052	4-6190	15.8	205.3	-1.07	0.911	84.6	181.9	-10.4	0.111
4-6120	4-6300	0.107	67.0	-2.4	3.21	1.283	88.2	1.027	0.057	4-6189	11.3	210.4	-1.30	0.917	83.6	185.0	-12.9	0.121

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

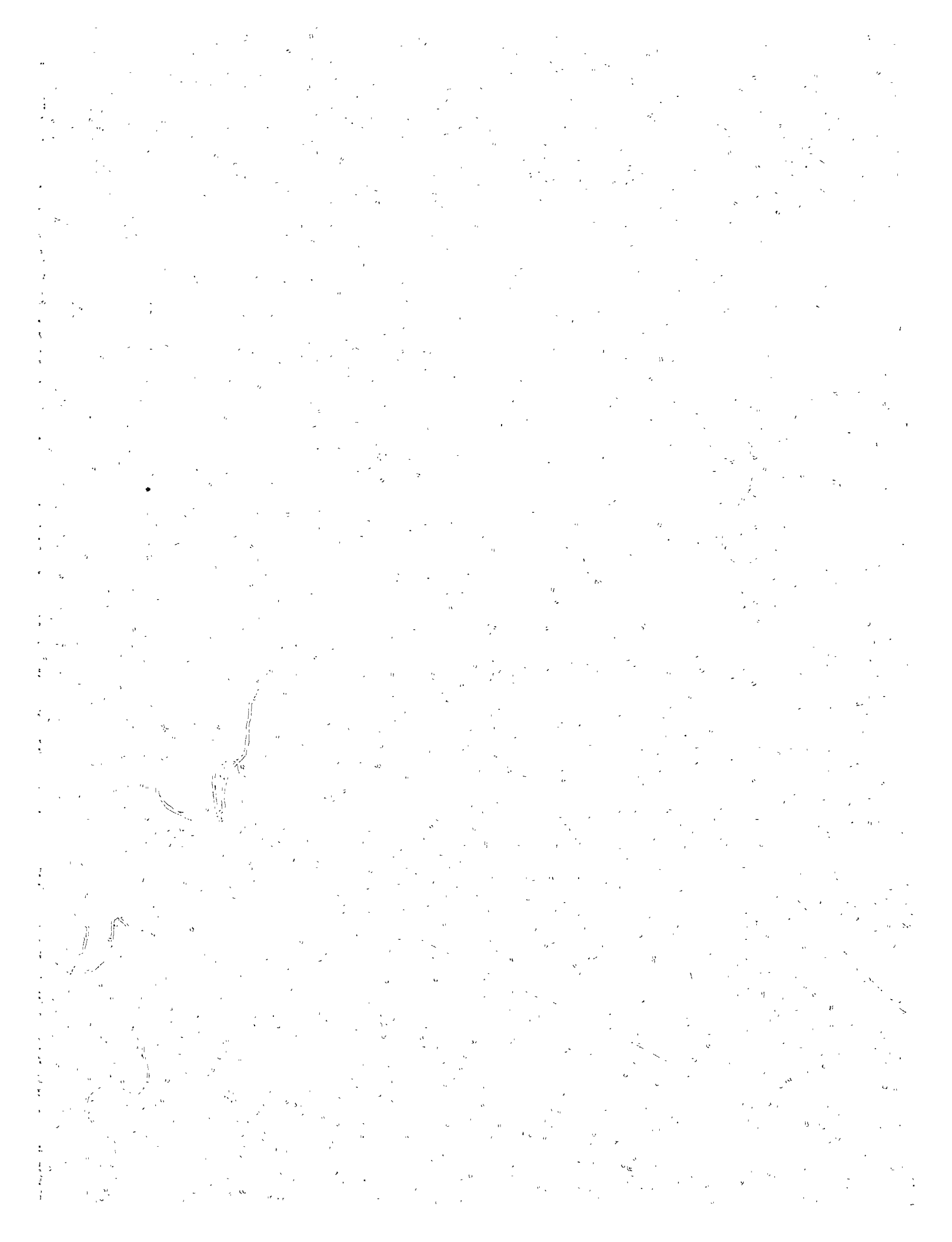
MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= VENUS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6120	4-6310	0.105	76.1	0.2	3.54	1.286	89.0	1.040	0.063	4-6188	6.4	215.2	-1.56	0.923	82.7	189.1	-15.9	0.131
4-6130	4-6260	0.171	42.0	-10.9	3.80	1.269	83.1	0.942	0.062	4-6207	44.3	188.8	1.01	0.892	87.9	185.9	7.4	0.098
4-6130	4-6270	0.162	45.2	-9.4	3.48	1.272	83.7	0.949	0.057	4-6206	40.7	194.8	0.59	0.896	86.5	183.3	4.1	0.103
4-6130	4-6280	0.152	49.1	-7.5	3.29	1.275	84.3	0.957	0.054	4-6206	36.7	200.3	0.24	0.901	85.3	183.2	0.8	0.109
4-6130	4-6290	0.143	53.9	-5.3	3.22	1.278	84.9	0.966	0.054	4-6205	32.2	205.5	-0.05	0.907	84.3	184.9	-2.6	0.116
4-6130	4-6300	0.134	59.6	-3.0	3.25	1.281	85.6	0.976	0.054	4-6204	27.4	210.3	-0.30	0.914	83.3	188.0	-5.9	0.124
4-6130	4-6310	0.125	66.5	-0.6	3.35	1.284	86.4	0.988	0.057	4-6203	22.3	214.9	-0.53	0.921	82.5	192.3	-9.2	0.133
4-6130	4-6320	0.118	74.8	1.8	3.52	1.287	87.2	1.001	0.060	4-6202	16.9	219.2	-0.73	0.928	81.7	197.4	-12.5	0.141
4-6130	4-6330	0.113	84.6	4.0	3.75	1.290	88.1	1.017	0.065	4-6201	11.2	223.2	-0.94	0.935	81.0	203.2	-15.9	0.151
4-6140	4-6270	0.215	48.4	-8.3	5.01	1.263	80.5	0.901	0.078	4-6221	58.2	196.1	2.38	0.886	85.7	186.2	16.1	0.124
4-6140	4-6280	0.202	51.5	-6.9	4.33	1.267	81.3	0.909	0.068	4-6220	53.6	201.1	1.69	0.893	84.5	185.9	10.4	0.127
4-6140	4-6290	0.189	55.2	-5.3	3.89	1.271	82.0	0.917	0.062	4-6220	48.8	205.9	1.19	0.900	83.5	187.6	5.6	0.131
4-6140	4-6300	0.176	59.4	-3.4	3.61	1.276	82.8	0.927	0.058	4-6219	43.7	210.4	0.80	0.908	82.7	190.7	1.1	0.137
4-6140	4-6310	0.164	64.4	-1.3	3.46	1.280	83.7	0.938	0.056	4-6218	38.3	214.7	0.50	0.916	81.9	194.9	-2.9	0.143
4-6140	4-6320	0.151	70.3	0.8	3.41	1.284	84.6	0.950	0.056	4-6217	32.7	218.8	0.26	0.924	81.2	200.0	-6.7	0.149
4-6140	4-6330	0.140	77.2	2.9	3.42	1.287	85.5	0.964	0.057	4-6216	27.0	222.7	0.08	0.932	80.6	205.8	-10.2	0.[illegible]
4-6140	4-6340	0.130	85.7	4.9	3.48	1.291	86.5	0.979	0.058	4-6214	20.9	226.5	-0.07	0.940	80.1	212.3	-13.4	0.163
4-6150	4-6290	0.248	60.5	-5.1	5.18	1.261	78.7	0.871	0.078	4-6234	65.1	206.1	2.91	0.889	82.4	190.5	13.4	0.158
4-6150	4-6300	0.231	64.0	-3.6	4.43	1.267	79.7	0.880	0.068	4-6234	59.7	210.3	2.20	0.898	81.6	193.3	7.7	0.159
4-6150	4-6310	0.214	67.8	-2.0	3.92	1.272	80.6	0.889	0.060	4-6233	54.2	214.4	1.68	0.908	80.9	197.3	2.7	0.162
4-6150	4-6320	0.198	72.2	-0.1	3.59	1.277	81.6	0.901	0.056	4-6232	48.4	218.3	1.29	0.917	80.4	202.2	-1.7	0.[illegible]
4-6150	4-6330	0.182	77.2	1.8	3.37	1.282	82.6	0.913	0.053	4-6231	42.5	222.1	1.02	0.927	79.9	207.9	-5.6	0.170
4-6150	4-6340	0.167	83.2	3.7	3.23	1.287	83.7	0.927	0.052	4-6229	36.3	225.8	0.82	0.936	79.5	214.2	-9.1	0.174
4-6150	4-6350	0.154	90.3	5.4	3.1[illegible]	1.291	84.8	0.943	0.051	4-6228	30.0	229.3	0.70	0.944	79.1	221.2	-12.1	0.179
4-6150	4-6360	0.141	98.9	7.0	3.06	1.294	85.9	0.961	0.050	4-6226	23.5	232.7	0.65	0.952	78.7	228.7	-14.6	0.185
4-6160	4-6310	0.276	74.4	-2.4	4.90	1.262	77.3	0.844	0.072	4-6248	69.5	213.7	3.22	0.896	79.6	200.0	7.7	0.192
4-6160	4-6320	0.255	78.0	-0.9	4.13	1.268	78.4	0.854	0.061	4-6247	63.6	217.4	2.52	0.908	79.1	204.5	2.5	0.191
4-6160	4-6330	0.236	81.9	0.7	3.60	1.274	79.6	0.866	0.054	4-6246	57.6	221.1	2.03	0.918	78.8	209.9	-2.0	0.192
4-6150	4-6340	0.217	86.4	2.4	3.22	1.280	80.7	0.879	0.049	4-6245	51.4	224.7	1.69	0.929	78.5	216.0	-5.9	0.193
4-6160	4-6350	0.198	94.5	4.1	2.95	1.285	81.8	0.893	0.045	4-6243	45.1	228.2	1.46	0.[illegible]9	78.2	222.8	-9.2	0.195
4-6160	4-6360	0.181	97.6	5.7	2.73	1.290	83.0	0.909	0.043	4-6242	38.5	231.6	1.34	0.948	78.0	230.1	-11.9	0.198
4-6160	4-6370	0.165	104.9	7.0	2.52	1.294	84.2	0.927	0.040	4-6240	31.8	234.8	1.31	0.957	77.8	238.0	-13.9	0.201
4-6160	4-6380	0.150	113.8	8.0	2.29	1.298	85.5	0.946	0.037	4-6238	24.8	237.9	1.37	0.965	77.6	246.3	-15.3	0.206
4-6170	4-6320	0.323	85.9	-1.5	5.26	1.256	74.8	0.812	0.074	4-6262	78.1	216.0	4.19	0.894	77.4	207.3	6.3	0.227
4-6170	4-6330	0.299	89.2	-0.1	4.21	1.263	76.1	0.822	0.060	4-6261	72.0	219.6	3.29	0.907	77.2	212.2	1.0	0.222
4-6170	4-6340	0.276	92.9	1.4	3.48	1.271	77.4	0.833	0.050	4-6260	65.8	223.2	2.66	0.919	77.0	217.9	-3.4	0.220
4-6170	4-6350	0.254	97.0	2.9	2.95	1.277	78.7	0.846	0.043	4-6259	59.5	226.7	2.24	0.931	77.0	224.4	-7.2	0.219
4-6170	4-6360	0.232	101.5	4.4	2.56	1.283	80.0	0.860	0.038	4-6257	53.1	230.1	1.97	0.942	76.9	231.5	-10.2	0.218
4-6170	4-6370	0.211	106.8	5.7	2.24	1.288	81.3	0.876	0.034	4-6256	46.4	233.4	1.82	0.952	76.9	239.1	-12.5	0.219
4-6170	4-6380	0.192	113.1	6.9	1.94	1.293	82.6	0.894	0.030	4-6254	39.5	236.5	1.79	0.961	76.9	247.3	-14.1	0.220
4-6170	4-6390	0.173	120.6	7.7	1.61	1.297	83.9	0.914	0.025	4-6252	32.4	239.5	1.87	0.969	76.8	255.8	-14.8	0.223
4-6180	4-6340	0.344	101.3	0.5	4.13	1.258	73.8	0.791	0.057	4-6275	79.6	221.0	3.90	0.905	75.2	220.2	-1.5	0.256
4-6180	4-6350	0.318	104.7	1.9	3.21	1.266	75.3	0.802	0.045	4-6274	73.3	224.5	3.14	0.919	75.3	226.3	-5.7	0.250
4-6180	4-6360	0.292	108.5	3.2	2.55	1.274	76.7	0.815	0.036	4-6273	66.9	227.9	2.62	0.932	75.4	233.1	-9.2	0.246
4-6180	4-6370	0.268	112.7	4.5	2.06	1.280	78.1	0.829	0.030	4-6271	60.3	231.3	2.30	0.944	75.5	240.5	-11.8	0.243
4-6180	4-6380	0.244	117.4	5.6	1.66	1.286	79.5	0.845	0.024	4-6270	53.6	234.6	2.13	0.954	75.7	248.4	-13.7	0.241
4-6180	4-6390	0.221	122.8	6.6	1.30	1.291	80.9	0.863	0.019	4-6268	46.7	237.7	2.08	0.964	75.8	256.7	-14.7	0.240
4-6180	4-6400	0.199	129.4	7.2	0.91	1.296	82.4	0.883	0.014	4-6266	39.5	240.7	2.16	0.972	75.9	265.3	-14.9	0.240
4-6180	4-6410	0.179	137.3	7.5	0.46	1.300	83.8	0.904	0.007	4-6263	32.1	243.4	2.36	0.979	76.0	274.1	-14.1	0.242
4-6190	4-6350	0.391	113.8	1.0	3.85	1.252	71.4	0.763	0.051	4-6289	86.4	221.7	4.31	0.903	73.1	228.6	-4.6	0.291
4-6190	4-6360	0.361	117.1	2.2	2.75	1.262	73.1	0.774	0.037	4-6288	80.0	225.2	3.40	0.919	73.4	235.0	-8.6	0.284
4-6190	4-6370	0.333	120.7	3.4	1.99	1.270	74.7	0.786	0.027	4-6287	73.6	228.6	2.80	0.933	73.7	242.1	-11.6	0.275
-6190	4-6380	0.305	124.6	4.5	1.44	1.277	76.2	0.800	0.020	4-6285	67.0	232.0	2.43	0.946	74.1	249.8	-13.8	0.269
-6190	4-6390	0.278	128.9	5.5	1.00	1.284	77.8	0.816	0.014	4-6284	60.2	235.3	2.23	0.956	74.4	257.9	-15.2	0.265
4-6190	4-6400	0.252	133.8	6.2	0.61	1.290	79.3	0.834	0.009	4-6282	53.3	238.4	2.18	0.966	74.7	266.4	-15.6	0.261
4-6190	4-6410	0.227	139.5	6.6	0.21	1.295	80.8	0.853	-0.003	4-6280	46.1	241.4	2.24	0.975	75.0	275.1	-15.2	0.259
4-6190	4-6420	0.204	146.4	6.7	-0.25	1.300	82.3	0.874	-0.004	4-6277	38.7	244.2	2.43	0.982	75.2	283.8	-13.9	0.259
4-6200	4-6370	0.406	129.9	2.5	2.10	1.257	70.9	0.747	0.027	4-6302	86.2	225.3	3.41	0.917	71.4	244.1	-11.7	0.314
4-6200	4-6380	0.374	133.3	3.6	1.28	1.266	72.6	0.760	0.017	4-6301	79.7	228.8	2.75	0.932	72.0	251.6	-14.3	0.305
4-6200	4-6390	0.343	137.0	4.5	0.70	1.274	74.3	0.773	0.009	4-6299	73.1	232.3	2.34	0.946	72.5	259.5	-15.9	0.296
4-6200	4-6400	0.314	141.0	5.3	0.26	1.282	76.0	0.789	0.004	4-6298	66.3	235.6	2.13	0.958	73.0	267.9	-16.7	0.289
4-6200	4-6410	0.285	145.5	5.8	-0.12	1.288	77.6	0.806	-0.002	4-6296	59.3	238.7	2.06	0.968	73.5	276.5	-16.5	0.284
4-6200	4-6420	0.257	150.6	6.0	-0.50	1.294	79.2	0.825	-0.007	4-6293	52.2	241.7	2.12	0.976	74.0	285.1	-15.5	0.279
4-6200	4-6430	0.231	156.6	5.9	-0.93	1.299	80.8	0.846	-0.013	4-6291	44.8	244.5	2.28	0.984	74.3	293.8	-13.[illegible]	0.276
4-6200	4-6440	0.206	163.9	5.4	-1.45	1.304	82.4	0.869	-0.021	4-6288	37.1	247.0	2.56	0.990	74.6	302.3	-11.0	0.275
4-6210	4-6390	0.417	146.3	3.7	0.39	1.262	70.5	0.734	0.005	4-6314	85.3	228.6	2.42	0.932	70.2	261.6	-16.9	0.336
4-6210	4-6400	0.383	149.8	4.5	-0.16	1.271	72.4	0.748	-0.002	4-6313	78.7	232.1	2.02	0.946	70.9	269.8	-17.9	0.324
4-6210	4-6410	0.350	153.6	5.0	-0.55	1.279	74.2	0.763	-0.007	4-6311	71.9	235.4	1.81	0.958	71.6	278.3	-16.0	0.315
4-6210	4-6420	0.319	157.8	5.4	-0.87	1.286	75.9	0.780	-0.012	4-6310	65.0	238.7	1.75	0.968	72.3	286.9	-17.2	0.307
4-6210	4-6430	0.289	162.4	5.4	-1.20	1.293	77.6	0.798	-0.016	4-6307	57.8	241.7	1.81	0.977	72.9	295.5	-15.7	0.300
4-6210	4-6440	0.260	167.8	5.1	-1.56	1.298	79.3	0.819	-0.022	4-6305	50.4	244.5	1.96	0.985	73.4	304.0	-13.3	0.295
4-6210	4-6450	0.232	174.2	4.5	-2.00	1.304	81.0	0.842	-0.029	4-6302	42.8	247.1	2.19	0.991	73.8	312.3	-10.3	0.291
4-6210	4-6460	0.207	181.9	3.6	-2.55	1.308	82.7	0.866	-0.038	4-6299	35.0	249.4	2.52	0.996	74.2	320.4	-6.6	0.289
4-6220	4-6400	0.461	159.5	3.8	-0.68	1.259	68.4	0.711	-0.008	4-6328	90.4	228.0	1.81	0.930	68.3	272.2	-18.2	0.367
4-6220	4-6410	0.424	162.9	4.4	-1.13	1.269	70.4	0.724	-0.014	4-6327	83.8	231.6	1.44	0.945	69.3	280.5	-19.5	0.354
4-6220	4-6420	0.389	166.5	4.8	-1.42	1.277	72.4	0.738	-0.018	4-6325	77.1	234.0	1.28	0.958	70.2	289.1	-18.9	0.342
4-6220	4-6430	0.354	170.5	4.9	-1.65	1.285	74.2	0.754	-0.022	4-6323	70.2	236.3	1.25	0.968	71.0	297.8	-17.5	0.331
4-6220	4-6440	0.321	174.8	4.8	-1.88	1.292	76.0	0.773	-0.025	4-6321	63.1	241.5	1.32	0.977	71.7	306.1	-15.4	0.322
4-6220	4-6450	0.290	179.7	4.4	-2.15	1.298	77.8	0.793	-0.029	4-6319	55.8	244.2	1.47	0.985	72.4	314.4	-12.7	0.314
4-6220	4-6460	0.260	185.3	3.6	-2.48	1.304	79.6	0.815	-0.035	4-6316	48.3	246.8	1.68	0.991	72.9	322.5	-9.3	0.307

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED



BROKEN - PLANE TRANSFERS
MARS TO EARTH
1965 - 2000

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8700	3-8890	0.142	58.9	15.7	1.36	0.677	95.1	0.944	0.022	3-8842	194.0	311.2	-0.36	1.097	80.1	23.3	7.8	0.221
3-8700	3-8900	0.141	55.6	14.4	1.54	0.685	95.4	0.942	0.025	3-8843	196.1	322.9	-0.18	1.100	82.7	22.7	8.4	0.184
3-8700	3-8910	0.140	53.1	13.6	1.62	0.691	95.6	0.940	0.026	3-8843	197.6	334.0	-0.09	1.102	84.9	20.2	7.8	0.154
3-8700	3-8920	0.139	51.9	13.3	1.64	0.694	95.6	0.938	0.026	3-8844	198.3	344.3	-0.07	1.103	87.0	15.6	6.0	0.133
3-8700	3-8930	0.137	51.5	13.4	1.63	0.695	95.5	0.936	0.026	3-8844	198.3	353.9	-0.12	1.103	88.8	9.9	2.9	0.122
3-8700	3-8940	0.135	52.0	13.9	1.62	0.695	95.2	0.933	0.026	3-8845	197.6	362.6	-0.22	1.102	90.5	3.3	-0.8	0.119
3-8700	3-8950	0.131	53.2	14.9	1.64	0.694	94.9	0.929	0.026	3-8846	196.2	370.7	-0.37	1.101	92.0	358.7	-3.2	0.124
3-8710	3-8900	0.158	54.5	14.7	1.77	0.687	97.6	0.965	0.029	3-8849	202.5	324.7	0.02	1.105	82.8	20.4	8.8	0.185
3-8710	3-8910	0.157	52.6	14.0	1.81	0.693	97.7	0.963	0.030	3-8850	204.0	335.8	0.08	1.107	85.2	17.6	8.1	0.155
3-8710	3-8920	0.156	51.6	13.8	1.79	0.696	97.6	0.960	0.029	3-8851	204.7	346.1	0.07	1.107	87.2	12.7	6.1	0.135
3-8710	3-8930	0.153	51.4	14.0	1.75	0.697	97.5	0.957	0.028	3-8851	204.5	355.5	0.00	1.107	89.1	6.4	2.8	0.125
3-8710	3-8940	0.150	52.0	14.5	1.71	0.696	97.2	0.954	0.028	3-8852	203.6	364.0	-0.11	1.106	90.8	0.6	-0.8	0.123
3-8710	3-8950	0.145	53.2	15.4	1.70	0.694	96.7	0.949	0.027	3-8853	202.0	371.9	-0.26	1.105	92.3	356.4	-4.0	0.129
3-8710	3-8960	0.140	55.1	16.6	1.74	0.691	96.2	0.944	0.028	3-8854	199.7	379.2	-0.44	1.103	93.8	354.6	-6.2	0.140
3-8720	3-8910	0.176	92.5	14.5	2.03	0.697	99.9	0.987	0.034	3-8856	210.7	338.0	0.28	1.112	85.4	14.5	8.3	0.157
3-8720	3-8920	0.174	51.8	14.4	1.96	0.700	99.8	0.983	0.033	3-8857	211.2	348.1	0.23	1.113	87.5	9.2	6.0	0.138
3-8720	3-8930	0.171	51.8	14.6	1.87	0.700	99.6	0.980	0.031	3-8858	210.9	357.2	0.14	1.112	89.4	3.1	2.6	0.129
3-8720	3-8940	0.167	52.4	15.2	1.80	0.699	99.2	0.976	0.030	3-8859	209.7	365.6	0.01	1.111	91.1	357.6	-1.0	0.129
3-8720	3-8950	0.162	53.7	16.0	1.76	0.696	98.7	0.971	0.029	3-8859	207.9	373.3	-0.15	1.109	92.7	354.0	-3.9	0.135
3-8720	3-8960	0.155	55.5	17.1	1.77	0.693	98.1	0.965	0.029	3-8860	205.4	380.4	-0.33	1.107	94.1	352.7	-5.8	0.146
3-8720	3-8970	0.148	58.0	18.3	1.85	0.689	97.3	0.958	0.030	3-8861	202.5	387.0	-0.54	1.105	95.4	353.5	-6.8	0.160
3-8730	3-8940	0.186	53.3	15.9	1.90	0.704	101.3	0.999	0.032	3-8865	216.0	367.4	0.13	1.116	91.6	354.4	-1.3	0.135
3-8730	3-8950	0.180	54.5	16.7	1.83	0.701	100.8	0.994	0.031	3-8866	213.9	374.8	-0.04	1.114	93.1	351.5	-4.0	0.143
3-8730	3-8960	0.173	56.3	17.7	1.81	0.696	100.1	0.987	0.030	3-8867	211.2	381.6	-0.22	1.112	94.5	350.8	-5.6	0.154
3-8730	3-8970	0.164	58.7	18.6	1.85	0.691	99.3	0.979	0.031	3-8868	208.0	388.0	-0.37	1.109	95.8	351.9	-6.2	0.168
3-8730	3-8980	0.155	61.8	20.1	1.96	0.685	98.4	0.971	0.032	3-8869	204.5	394.1	-0.64	1.107	97.0	354.7	-6.5	0.183
3-8730	3-8990	0.146	65.8	21.5	2.17	0.679	97.3	0.961	0.035	3-8871	200.7	399.8	-0.93	1.104	98.2	358.6	-6.2	0.200
3-8740	3-8950	0.200	55.8	17.4	1.90	0.707	103.0	1.018	0.033	3-8873	219.9	376.4	0.08	1.120	93.6	349.0	-4.1	0.152
3-8740	3-8960	0.192	57.5	18.3	1.85	0.702	102.3	1.011	0.032	3-8874	217.0	383.0	-0.11	1.117	95.0	348.9	-5.5	0.164
3-8740	3-8970	0.182	59.8	19.3	1.85	0.696	101.4	1.003	0.032	3-8875	213.6	389.1	-0.30	1.113	96.3	350.6	-6.1	0.177
3-8740	3-8980	0.172	62.7	20.5	1.93	0.689	100.5	0.993	0.032	3-8876	209.9	394.9	-0.51	1.111	97.4	353.6	-6.0	0.192
3-8740	3-8990	0.161	66.3	21.7	2.09	0.682	99.4	0.983	0.035	3-8878	205.8	400.5	-0.77	1.108	98.6	357.7	-5.4	0.207
3-8740	3-9000	0.150	71.0	23.1	2.36	0.674	98.1	0.971	0.039	3-8879	201.5	405.8	-1.09	1.105	99.7	2.6	-4.7	0.223
3-8750	3-8950	0.223	57.3	18.1	1.98	0.717	105.3	1.044	0.035	3-8879	226.0	378.0	0.19	1.128	94.1	346.5	-4.3	0.164
3-8750	3-8960	0.213	59.0	18.9	1.89	0.710	104.5	1.036	0.033	3-8880	222.8	384.3	0.00	1.124	95.5	347.0	-5.5	0.175
3-8750	3-8970	0.202	61.2	19.9	1.86	0.702	103.6	1.027	0.033	3-8881	219.2	390.3	-0.18	1.120	96.8	349.1	-5.9	0.188
3-8750	3-8980	0.191	63.9	20.9	1.90	0.694	102.6	1.018	0.033	3-8883	215.2	395.9	-0.39	1.116	97.9	352.5	-5.5	0.202
3-8750	3-8990	0.179	67.3	22.0	2.02	0.686	101.5	1.006	0.034	3-8884	211.0	401.2	-0.62	1.112	99.0	356.8	-4.8	0.217
3-8750	3-9000	0.166	71.5	23.2	2.23	0.677	100.2	0.994	0.037	3-8886	205.5	406.4	-0.90	1.109	100.1	1.8	-3.8	0.232
3-8760	3-8960	0.237	60.8	19.6	1.94	0.721	106.9	1.063	0.035	3-8806	228.6	385.7	0.12	1.132	96.1	345.2	-5.6	0.189
3-8760	3-8970	0.224	62.9	20.5	1.88	0.712	105.9	1.054	0.034	3-8888	224.8	391.4	-0.08	1.127	97.4	347.8	-5.7	0.201
3-8760	3-8980	0.211	65.5	21.4	1.89	0.702	104.8	1.043	0.033	3-8889	220.6	396.8	-0.27	1.122	98.5	351.4	-5.2	0.214
3-8760	3-8990	0.198	68.6	22.4	1.96	0.692	103.7	1.031	0.034	3-8890	216.2	402.0	-0.48	1.118	99.5	355.9	-4.3	0.228
3-8760	3-9000	0.184	72.5	23.4	2.12	0.683	102.3	1.018	0.036	3-8892	211.5	407.0	-0.73	1.113	100.6	1.1	-3.1	0.241
3-8760	3-9010	0.169	77.3	24.5	2.39	0.673	100.9	1.004	0.040	3-8894	206.7	411.9	-1.05	1.109	101.5	6.8	-1.9	0.256
3-8770	3-8960	0.263	62.8	20.3	1.99	0.735	109.3	1.093	0.037	3-8893	234.3	387.0	0.23	1.142	96.8	343.5	-5.6	0.205
3-8770	3-8970	0.249	64.9	21.0	1.90	0.724	108.3	1.082	0.035	3-8894	230.3	392.6	0.03	1.136	98.0	346.5	-5.6	0.217
3-8770	3-8980	0.234	67.4	21.9	1.87	0.712	107.2	1.071	0.034	3-8895	226.0	397.8	-0.16	1.130	99.1	350.4	-5.0	0.228
3-8770	3-8990	0.219	70.3	22.7	1.91	0.701	105.9	1.058	0.034	3-8897	221.4	402.8	-0.35	1.124	100.1	355.1	-3.9	0.241
3-8770	3-9000	0.203	73.9	23.7	2.03	0.690	104.6	1.044	0.036	3-8899	216.6	407.6	-0.58	1.119	101.1	0.4	-2.6	0.253
3-8770	3-9010	0.187	78.2	24.6	2.23	0.678	103.1	1.029	0.039	3-8901	211.6	412.4	-0.85	1.114	102.0	6.1	-1.1	0.266
3-8780	3-8960	0.292	65.0	20.9	2.05	0.752	111.8	1.124	0.040	3-8899	239.9	388.3	0.35	1.154	97.6	342.0	-5.7	0.224
3-8780	3-8970	0.276	67.1	21.6	1.93	0.739	110.7	1.112	0.037	3-8900	235.7	393.6	0.14	1.146	98.8	345.3	-5.5	0.235
3-8780	3-8980	0.260	69.5	22.3	1.87	0.726	109.6	1.100	0.035	3-8901	231.3	398.7	-0.05	1.139	99.9	349.5	-4.8	0.245
3-8780	3-8990	0.242	72.3	23.1	1.87	0.712	108.3	1.086	0.034	3-8903	226.5	403.6	-0.24	1.132	100.8	354.3	-3.6	0.256
3-8780	3-9000	0.225	75.6	23.9	1.95	0.699	106.9	1.072	0.035	3-8905	221.6	408.3	-0.44	1.126	101.7	359.7	-2.1	0.267
3-8780	3-9010	0.207	79.6	24.7	2.10	0.686	105.4	1.056	0.037	3-8907	216.5	412.9	-0.78	1.120	102.6	5.6	-0.5	0.278
3-8790	3-8970	0.307	69.4	22.1	1.96	0.758	113.2	1.145	0.038	3-8906	241.1	394.6	0.25	1.159	99.6	344.3	-5.5	0.256
3-8790	3-8980	0.288	71.8	22.8	1.87	0.742	112.0	1.131	0.036	3-8908	236.5	399.6	0.06	1.150	100.7	348.6	-4.6	0.264
3-8790	3-8990	0.268	74.5	23.4	1.84	0.727	110.7	1.117	0.035	3-8909	231.6	404.3	-0.13	1.141	101.6	353.6	-3.3	0.273
3-8790	3-9000	0.249	77.6	24.1	1.88	0.711	109.3	1.101	0.035	3-8911	226.6	408.9	-0.31	1.134	102.4	359.1	-1.7	0.282
3-8790	3-9010	0.230	81.3	24.8	1.99	0.697	107.7	1.084	0.036	3-8913	221.3	413.4	-0.52	1.126	103.2	5.0	0.0	0.292
3-8790	3-9020	0.210	85.8	25.5	2.19	0.682	106.0	1.066	0.039	3-8915	216.0	417.7	-0.78	1.120	104.0	11.3	1.8	0.302
3-8800	3-8970	0.341	71.9	22.6	1.99	0.782	115.8	1.180	0.040	3-8912	246.4	395.5	0.37	1.175	100.6	343.4	-5.4	0.280
3-8800	3-8980	0.319	74.2	23.2	1.87	0.763	114.6	1.165	0.037	3-8914	241.6	400.4	0.16	1.163	101.6	347.9	-4.5	0.287
3-8800	3-8990	0.297	76.9	23.8	1.81	0.744	113.2	1.149	0.035	3-8915	236.6	405.0	-0.02	1.153	102.4	353.0	-3.1	0.294
3-8800	3-9000	0.276	79.9	24.4	1.82	0.727	111.7	1.132	0.035	3-8917	231.5	409.5	-0.20	1.143	103.2	358.6	-1.4	0.301
3-8800	3-9010	0.254	83.3	25.0	1.89	0.710	110.2	1.114	0.035	3-8919	226.2	413.8	-0.32	1.135	103.9	4.6	0.5	0.308
3-8800	3-9020	0.233	87.5	25.5	2.03	0.693	108.4	1.096	0.037	3-8921	220.7	418.1	-0.61	1.127	104.7	10.9	2.4	0.316
3-8810	3-8980	0.354	76.8	23.6	1.87	0.788	117.1	1.201	0.039	3-8920	246.7	401.0	0.27	1.180	102.6	347.3	-4.4	0.313
3-8810	3-8990	0.330	79.4	24.1	1.79	0.766	115.7	1.184	0.036	3-8921	241.6	405.6	0.08	1.167	103.4	352.5	-2.9	0.318
3-8810	3-9000	0.305	82.3	24.6	1.76	0.745	114.3	1.166	0.035	3-8923	236.4	410.0	-0.09	1.155	104.1	358.2	-1.1	0.322
3-8810	3-9010	0.281	85.6	25.0	1.80	0.726	112.6	1.147	0.035	3-8925	231.0	414.2	-0.26	1.145	104.8	4.2	0.8	0.327
3-8810	3-9020	0.258	89.4	25.5	1.90	0.707	110.9	1.127	0.036	3-8927	225.4	418.4	-0.45	1.135	105.4	10.5	2.9	0.333
3-8810	3-9030	0.235	94.0	25.9	2.08	0.689	109.0	1.106	0.038	3-8930	219.8	422.6	-0.69	1.127	106.0	17.2	4.9	0.339
3-8820	3-8980	0.394	79.5	23.9	1.88	0.818	119.7	1.241	0.040	3-8926	251.6	401.6	0.38	1.200	103.7	346.9	-4.2	0.344
3-8820	3-8990	0.366	82.1	24.3	1.77	0.793	118.3	1.222	0.037	3-8928	246.4	406.0	0.18	1.184	104.4	352.1	-2.7	0.348
3-8820	3-9000	0.339	84.9	24.7	1.71	0.768	116.8	1.202	0.035	3-8929	241.2	410.4	0.01	1.169	105.1	357.8	-0.9	0.347
3-8820	3-9010	0.312	88.1	25.1	1.72	0.745	115.2	1.182	0.034	3-8931	235.7	414.6	-0.15	1.157	105.7	3.8	1.1	0.349
3-8820	3-9020	0.285	91.7	25.5	1.78	0.724	113.4	1.160	0.035	3-8933	230.1	418.7	-0.32	1.145	106.2	10.2	3.3	0.352

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
3-8820	3-9030	0.260	95.8	25.7	1.91	0.704	111.5	1.138	0.036	3-8936	224.4	422.8	-0.51	1.135	106.8	16.9	5.5	0.356
3-8830	3-8990	0.407	84.9	24.5	1.75	0.824	120.9	1.263	0.038	3-8933	251.2	406.4	0.28	1.205	105.6	351.9	-2.6	0.377
3-8830	3-9000	0.376	87.7	24.8	1.67	0.796	119.4	1.241	0.035	3-8935	245.8	410.7	0.11	1.187	106.2	357.6	-0.7	0.376
3-8830	3-9010	0.345	90.7	25.1	1.65	0.769	117.8	1.210	0.034	3-8937	240.4	414.9	-0.04	1.171	106.7	3.6	1.4	0.375
3-8830	3-9020	0.316	94.1	25.4	1.68	0.744	116.0	1.196	0.034	3-8939	234.7	419.0	-0.19	1.157	107.2	9.9	3.7	0.375
3-8830	3-9030	0.288	98.0	25.6	1.76	0.721	114.1	1.172	0.035	3-8941	229.0	423.0	-0.36	1.145	107.6	16.6	5.9	0.376
3-8830	3-9040	0.261	102.5	25.6	1.92	0.700	112.0	1.147	0.037	3-8944	223.2	427.0	-0.56	1.134	108.1	23.6	8.1	0.378
3-8840	3-9990	0.453	87.8	24.7	1.73	0.862	123.5	1.307	0.039	3-8939	255.3	406.6	0.38	1.230	106.9	351.8	-2.4	0.414
3-8840	3-9000	0.418	90.5	24.9	1.62	0.829	122.0	1.284	0.036	3-8941	250.5	410.9	0.20	1.208	107.4	357.4	-0.5	0.409
3-8840	3-9010	0.383	93.5	25.1	1.58	0.798	120.4	1.259	0.034	3-8943	244.9	415.1	0.05	1.189	107.9	3.4	1.7	0.404
3-8840	3-9020	0.351	96.7	25.3	1.58	0.769	118.6	1.234	0.033	3-8945	239.3	419.2	-0.09	1.172	108.3	9.8	4.0	0.401
3-8840	3-9030	0.319	100.3	25.4	1.63	0.742	116.7	1.209	0.033	3-8947	233.5	423.2	-0.23	1.157	108.6	16.4	6.3	0.398
3-8840	3-9040	0.289	104.5	25.3	1.74	0.718	114.6	1.182	0.034	3-8950	227.6	427.1	-0.39	1.144	109.0	23.4	8.6	0.397
3-8850	3-9000	0.465	93.5	24.9	1.58	0.868	124.6	1.330	0.036	3-8947	255.0	411.0	0.29	1.234	108.8	357.4	-0.3	0.447
3-8850	3-9010	0.426	96.4	25.0	1.51	0.832	123.0	1.304	0.034	3-8949	249.4	415.2	0.14	1.211	109.1	3.4	1.9	0.439
3-8850	3-9020	0.389	99.5	25.1	1.49	0.798	121.2	1.276	0.032	3-8951	243.8	419.2	0.02	1.190	109.4	9.7	4.2	0.431
3-8850	3-9030	0.354	102.9	25.1	1.51	0.767	119.3	1.248	0.032	3-8953	238.0	423.2	-0.11	1.172	109.7	16.3	6.6	0.425
3-8850	3-9040	0.321	106.8	25.0	1.57	0.739	117.2	1.220	0.032	3-8956	232.1	427.2	-0.24	1.156	110.0	23.3	9.1	0.420
3-8850	3-9050	0.289	111.3	24.8	1.70	0.713	115.0	1.191	0.034	3-8958	226.1	431.1	-0.40	1.142	110.2	30.5	11.9	0.417
3-8860	3-9000	0.520	96.5	24.9	1.54	0.915	127.2	1.380	0.037	3-8953	259.3	410.9	0.38	1.266	110.2	357.6	-0.1	0.493
3-8860	3-9010	0.475	99.4	24.9	1.45	0.872	125.6	1.352	0.034	3-8954	253.8	415.1	0.23	1.237	110.5	3.5	2.1	0.479
3-8860	3-9020	0.433	102.4	24.9	1.40	0.833	123.9	1.322	0.032	3-8956	248.2	419.2	0.11	1.212	110.7	9.7	4.5	0.466
3-8860	3-9030	0.394	105.6	24.8	1.39	0.797	121.9	1.292	0.030	3-8959	242.4	423.2	-0.00	1.190	110.9	16.3	6.9	0.456
3-8860	3-9040	0.356	109.3	24.6	1.43	0.765	119.9	1.261	0.030	3-8961	236.5	427.1	-0.11	1.171	111.1	23.2	9.4	0.447
3-8860	3-9050	0.321	113.4	24.3	1.50	0.735	117.7	1.230	0.031	3-8964	230.6	431.0	-0.23	1.154	111.2	30.4	11.8	0.440
3-8870	3-9010	0.531	102.4	24.7	1.38	0.921	128.2	1.404	0.034	3-8960	258.1	414.9	0.31	1.270	112.0	3.7	2.3	0.525
3-8870	3-9020	0.483	105.4	24.6	1.32	0.879	126.5	1.372	0.031	3-8962	252.5	419.0	0.19	1.239	112.2	9.9	4.7	0.507
3-8870	3-9030	0.438	108.5	24.4	1.29	0.833	124.6	1.338	0.029	3-8964	246.8	423.1	0.09	1.212	112.2	16.4	7.2	0.492
3-8870	3-9040	0.397	111.9	24.2	1.29	0.795	122.6	1.305	0.028	3-8967	240.9	427.0	0.00	1.189	112.3	23.2	9.7	0.478
3-8870	3-9050	0.357	115.8	23.8	1.33	0.761	120.4	1.272	0.028	3-8970	234.9	430.9	-0.09	1.169	112.3	30.4	12.2	0.467
3-8870	3-9060	0.321	120.1	23.3	1.40	0.730	118.0	1.239	0.029	3-8973	228.8	434.8	-0.19	1.152	112.4	37.9	14.5	0.459
3-8880	3-9010	0.596	105.6	24.4	1.32	0.979	130.8	1.462	0.033	3-8966	262.3	414.6	0.38	1.311	113.7	4.0	2.6	0.580
3-8880	3-9020	0.540	108.5	24.2	1.23	0.924	129.1	1.426	0.030	3-8968	256.8	418.8	0.26	1.272	113.7	10.1	4.9	0.555
3-8880	3-9030	0.489	111.5	24.0	1.19	0.875	127.3	1.390	0.028	3-8970	251.0	422.8	0.17	1.240	113.7	16.6	7.4	0.533
3-8880	3-9040	0.442	114.8	23.7	1.17	0.832	125.3	1.354	0.027	3-8973	245.2	426.8	0.10	1.212	113.6	23.3	10.0	0.515
3-8880	3-9050	0.398	118.3	23.3	1.18	0.792	123.1	1.317	0.026	3-8975	239.2	430.7	0.03	1.187	113.6	30.5	12.5	0.499
3-8880	3-9060	0.357	122.3	22.7	1.21	0.757	120.7	1.281	0.026	3-8978	233.1	434.6	-0.04	1.166	113.5	37.9	14.8	0.486
3-8890	3-9010	0.671	108.7	24.1	1.25	1.048	133.4	1.526	0.033	3-8972	266.4	414.2	0.44	1.361	115.4	4.5	2.9	0.644
3-8890	3-9020	0.606	111.6	23.8	1.15	0.983	131.8	1.487	0.030	3-8974	260.9	418.4	0.33	1.314	115.4	10.5	5.2	0.611
3-8890	3-9030	0.547	114.6	23.5	1.09	0.926	129.9	1.447	0.027	3-8976	255.2	422.5	0.25	1.274	115.3	16.8	7.7	0.582
3-8890	3-9040	0.493	117.7	23.1	1.05	0.875	128.0	1.407	0.025	3-8978	249.4	426.5	0.19	1.239	115.2	23.6	10.2	0.557
3-8890	3-9050	0.444	121.0	22.6	1.04	0.829	125.8	1.367	0.024	3-8981	243.5	430.4	0.14	1.210	115.0	30.6	12.8	0.535
3-8890	3-9060	0.398	124.8	22.0	1.04	0.788	123.5	1.328	0.023	3-8984	237.4	434.3	0.09	1.184	114.8	38.1	15.2	0.517
3-8900	3-9020	0.683	114.8	23.3	1.07	1.055	134.3	1.554	0.029	3-8979	265.0	417.8	0.38	1.365	117.3	11.0	5.5	0.678
3-8900	3-9030	0.615	117.7	22.9	0.99	0.986	132.6	1.510	0.026	3-8982	259.3	422.0	0.31	1.315	117.1	17.2	7.9	0.640
3-8900	3-9040	0.553	120.7	22.5	0.94	0.926	130.7	1.465	0.024	3-8984	253.6	426.0	0.26	1.273	116.8	23.9	10.5	0.607
3-8900	3-9050	0.496	123.9	21.9	0.91	0.873	128..	1.422	0.022	3-8987	247.7	430.0	0.22	1.237	116.5	30.9	13.0	0.578
3-8900	3-9060	0.444	127.4	21.3	0.88	0.825	126.2	1.379	0.020	3-8989	241.6	433.9	0.20	1.207	116.2	38.2	15.4	0.554
3-8900	3-9070	0.397	131.2	20.5	0.86	0.783	123.8	1.337	0.019	3-8992	235.5	437.8	0.20	1.180	115.9	46.0	17.7	0.533
3-8910	3-9030	0.693	120.9	22.3	0.89	1.058	135.2	1.580	0.025	3-8987	263.4	421.3	0.36	1.368	119.0	17.7	8.2	0.708
3-8910	3-9040	0.621	123.8	21.7	0.84	0.987	133.3	1.531	0.022	3-8989	257.6	425.4	0.32	1.315	118.6	24.3	10.7	0.665
3-8910	3-9050	0.556	126.9	21.1	0.79	0.924	131.3	1.482	0.020	3-8992	251.8	429.5	0.30	1.271	118.2	31.2	13.2	0.628
3-8910	3-9060	0.497	130.2	20.5	0.74	0.869	129.0	1.435	0.018	3-8995	245.8	433.5	0.30	1.234	117.8	38.5	15.7	0.597
3-8910	3-9070	0.444	133.7	19.6	0.69	0.821	126.6	1.389	0.016	3-8998	239.7	437.4	0.31	1.203	117.3	46.2	18.0	0.570
3-8920	3-9040	0.701	127.0	21.0	0.73	1.060	135.9	1.604	0.020	3-8995	261.7	424.7	0.37	1.368	120.6	24.8	11.0	0.735
3-8920	3-9050	0.626	130.0	20.3	0.67	0.986	134.0	1.550	0.018	3-8998	255.9	428.8	0.36	1.314	120.1	31.6	13.5	0.688
3-8920	3-9060	0.558	133.1	19.6	0.61	0.921	131.8	1.497	0.016	3-9000	249.9	432.9	0.37	1.268	119.5	38.9	15.9	0.648
3-8920	3-9070	0.498	136.4	18.7	0.55	0.865	129.4	1.446	0.013	3-9003	243.9	436.8	0.41	1.230	118.9	46.5	18.2	0.613
3-8920	3-9080	0.443	140.1	17.7	0.45	0.815	126.8	1.398	0.010	3-9007	237.8	440.7	0.48	1.197	118.4	54.5	20.3	0.584
3-8930	3-9050	0.707	133.1	19.4	0.56	1.060	136.6	1.625	0.016	3-9003	259.9	428.1	0.41	1.367	122.1	32.2	13.7	0.758
3-8930	3-9060	0.629	136.1	18.6	0.49	0.986	134.5	1.587	0.013	3-9006	254.0	432.1	0.44	1.311	121.4	39.4	16.1	0.708
3-8930	3-9070	0.559	139.2	17.7	0.41	0.917	132.2	1.510	0.010	3-9009	248.0	436.2	0.48	1.264	120.7	46.9	18.4	0.664
3-8930	3-9080	0.497	142.6	16.7	0.30	0.859	129.7	1.456	0.007	3-9012	242.0	440.1	0.57	1.224	120.0	54.9	20.5	0.627
3-8940	3-9060	0.711	139.2	17.6	0.38	1.058	137.2	1.649	0.011	3-9011	258.0	431.3	0.49	1.364	123.4	39.9	16.3	0.779
3-8940	3-9070	0.631	142.2	16.7	0.29	0.980	135.0	1.582	0.008	3-9014	252.1	435.4	0.55	1.307	122.6	47.4	18.6	0.725
3-8940	3-9080	0.559	145.4	15.7	-0.17	0.912	132.5	1.522	0.004	3-9018	246.1	439.4	0.64	1.298	121.8	55.3	20.7	0.678
3-8940	3-9090	0.495	148.9	14.5	-0.00	0.853	129.9	1.465	-0.000	3-9021	240.0	443.4	0.79	1.218	121.0	63.6	22.5	0.639
3-8940	3-9100	0.438	152.8	13.1	-0.30	0.801	127.0	1.411	-0.007	3-9024	233.7	447.3	1.07	1.184	120.3	72.1	24.2	0.606
3-8950	3-9070	0.714	145.2	15.5	0.18	1.055	137.8	1.662	0.005	3-9020	256.1	434.5	0.60	1.360	124.7	48.0	18.7	0.797
3-8950	3-9080	0.631	148.2	14.5	0.05	0.975	135.4	1.595	0.001	3-9023	250.2	438.6	0.70	1.301	123.8	55.8	20.8	0.739
3-8950	3-9090	0.558	151.5	13.4	-0.12	0.906	132.8	1.531	-0.003	3-9026	244.1	442.6	0.85	1.251	122.8	64.1	22.6	0.690
3-8950	3-9100	0.493	155.1	12.1	-0.40	0.846	130.0	1.472	-0.010	3-9030	237.9	446.6	1.11	1.210	122.0	72.6	24.2	0.649
3-8950	3-9110	0.435	159.1	10.5	-0.92	0.793	127.0	1.415	-0.021	3-9033	231.7	450.5	1.60	1.175	121.2	81.4	25.8	0.615
3-9500	3-9710	0.154	94.4	22.9	2.01	0.700	102.6	1.009	0.035	3-9635	218.1	370.7	0.55	1.123	92.3	19.1	12.6	0.147
3-9500	3-9720	0.147	96.9	23.6	1.86	0.696	101.9	1.003	0.032	3-9636	215.5	377.6	0.34	1.122	93.8	18.1	10.3	0.137
3-9500	3-9730	0.139	100.4	24.2	1.78	0.690	101.1	0.995	0.030	3-9637	212.3	384.1	0.16	1.120	95.2	19.0	9.2	0.170
3-9500	3-9740	0.131	104.8	24.7	1.77	0.683	100.2	0.987	0.029	3-9638	208.8	390.3	-0.01	1.118	96.5	21.4	8.9	0.185
3-9500	3-9750	0.122	110.5	24.9	1.81	0.676	99.2	0.977	0.030	3-9640	205.0	396.2	-0.18	1.116	97.8	25.0	9.3	0.200
3-9500	3-9760	0.114	117.7	24.6	1.91	0.669	98.0	0.966	0.031	3-9641	200.9	401.9	-0.36	1.114	99.0	29.6	10.1	0.217
3-9510	3-9720	0.164	97.9	23.7	1.87	0.705	103.9	1.026	0.033	3-9642	220.9	378.7	0.46	1.127	94.2	16.6	10.4	0.165

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9510	3-9730	0.155	101.1	24.3	1.76	0.698	103.0	1.018	0.030	3-9643	217.5	385.0	0.27	1.124	95.6	17.9	9.4	0.178
3-9510	3-9740	0.145	105.2	24.7	1.71	0.690	102.1	1.009	0.029	3-9645	213.8	390.9	0.10	1.122	96.8	20.6	9.3	0.192
3-9510	3-9750	0.135	110.3	24.9	1.71	0.683	101.0	0.999	0.029	3-9646	209.8	396.6	-0.05	1.119	98.0	24.5	9.9	0.206
3-9510	3-9760	0.125	116.7	24.7	1.77	0.674	99.8	0.987	0.029	3-9648	205.3	402.1	-0.21	1.117	99.2	29.2	10.8	0.221
3-9510	3-9770	0.116	124.7	23.9	1.90	0.666	98.4	0.974	0.031	3-9650	201.1	407.5	-0.38	1.114	100.4	34.6	12.0	0.237
3-9520	3-9720	0.183	99.3	23.8	1.89	0.716	105.8	1.050	0.034	3-9648	226.4	379.8	0.58	1.133	94.6	15.1	10.5	0.175
3-9520	3-9730	0.173	102.3	24.3	1.74	0.708	105.0	1.042	0.031	3-9649	222.8	385.9	0.38	1.129	96.0	16.8	9.6	0.187
3-9520	3-9740	0.162	106.1	24.6	1.66	0.699	104.0	1.032	0.029	3-9651	218.9	391.6	0.22	1.126	97.2	19.8	9.7	0.200
3-9520	3-9750	0.150	110.7	24.8	1.63	0.690	102.9	1.021	0.028	3-9652	214.7	397.1	0.07	1.123	98.4	23.9	10.3	0.214
3-9520	3-9760	0.139	116.4	24.6	1.66	0.681	101.7	1.009	0.028	3-9654	210.3	402.5	-0.07	1.120	99.5	28.7	11.4	0.228
3-9520	3-9770	0.128	123.5	24.0	1.73	0.677	100.3	0.996	0.029	3-9656	205.7	407.7	-0.22	1.117	100.6	34.3	12.7	0.242
3-9530	3-9730	0.193	103.8	24.3	1.72	0.720	107.0	1.067	0.031	3-9656	228.2	386.8	0.49	1.136	96.4	15.7	9.7	0.198
3-9530	3-9740	0.180	107.3	24.5	1.61	0.710	106.0	1.056	0.029	3-9657	224.1	392.4	0.32	1.132	97.6	19.0	9.9	0.210
3-9530	3-9750	0.167	111.6	24.6	1.56	0.700	104.8	1.045	0.028	3-9658	219.7	397.7	0.18	1.128	98.8	23.3	10.7	0.223
3-9530	3-9760	0.155	116.7	24.5	1.55	0.690	103.6	1.033	0.027	3-9660	215.1	402.9	0.05	1.124	99.8	28.3	11.8	0.235
3-9530	3-9770	0.142	123.0	23.9	1.59	0.679	102.2	1.019	0.027	3-9662	210.3	407.9	-0.08	1.120	100.9	33.9	13.2	0.249
3-9530	3-9780	0.130	130.8	22.7	1.67	0.669	100.7	1.004	0.028	3-9664	205.4	412.9	-0.21	1.116	101.9	40.1	14.7	0.262
3-9540	3-9730	0.215	105.6	24.2	1.72	0.735	109.0	1.093	0.032	3-9662	233.6	387.8	0.60	1.144	97.3	14.7	9.8	0.211
3-9540	3-9740	0.201	108.9	24.3	1.57	0.723	108.0	1.082	0.029	3-9663	229.3	393.2	0.42	1.139	98.1	18.3	10.1	0.222
3-9540	3-9750	0.186	112.8	24.4	1.49	0.712	106.8	1.070	0.027	3-9664	224.8	398.3	0.28	1.133	99.2	22.7	10.9	0.233
3-9540	3-9760	0.172	117.5	24.2	1.45	0.700	105.6	1.057	0.026	3-9666	220.0	403.4	0.16	1.129	100.2	27.9	12.2	0.245
3-9540	3-9770	0.158	123.2	23.7	1.46	0.688	104.1	1.043	0.025	3-9668	215.1	408.2	0.05	1.124	101.2	33.6	13.7	0.256
3-9540	3-9780	0.144	130.0	22.7	1.50	0.677	102.6	1.028	0.026	3-9670	210.0	413.1	-0.05	1.120	102.2	39.9	15.3	0.269
3-9550	3-9730	0.240	107.7	24.0	1.71	0.753	111.2	1.122	0.033	3-9668	239.0	388.7	0.72	1.154	97.6	13.7	9.8	0.226
3-9550	3-9740	0.224	110.8	24.1	1.54	0.739	110.1	1.110	0.029	3-9669	234.6	394.0	0.52	1.147	98.7	17.5	10.2	0.236
3-9550	3-9750	0.208	114.4	24.1	1.43	0.726	108.9	1.097	0.027	3-9671	229.8	399.0	0.37	1.140	99.8	22.2	11.1	0.246
3-9550	3-9760	0.192	118.7	23.9	1.37	0.712	107.6	1.083	0.025	3-9672	224.9	403.8	0.25	1.134	100.7	27.4	12.5	0.256
3-9550	3-9770	0.176	123.8	23.6	1.34	0.699	106.1	1.069	0.024	3-9674	219.8	408.6	0.16	1.129	101.6	33.3	14.1	0.266
3-9550	3-9780	0.160	129.9	22.5	1.35	0.687	104.6	1.053	0.024	3-9676	214.6	413.3	0.07	1.123	102.5	39.6	15.8	0.277
3-9560	3-9740	0.250	112.9	23.8	1.51	0.758	112.2	1.139	0.029	3-9675	239.3	394.7	0.62	1.157	99.4	16.9	10.2	0.253
3-9560	3-9750	0.232	116.3	23.7	1.37	0.743	111.0	1.126	0.026	3-9677	234.9	399.6	0.47	1.149	100.4	21.7	11.3	0.261
3-9560	3-9760	0.214	120.3	23.5	1.28	0.727	109.6	1.111	0.024	3-9678	229.9	404.3	0.35	1.142	101.3	27.1	12.7	0.269
3-9560	3-9770	0.196	124.9	23.0	1.24	0.712	108.2	1.095	0.023	3-9680	224.7	408.9	0.25	1.135	102.1	33.0	14.4	0.278
3-9560	3-9780	0.178	130.4	22.2	1.21	0.698	106.6	1.079	0.022	3-9682	219.3	413.5	0.18	1.128	103.0	39.4	16.1	0.286
3-9560	3-9790	0.162	137.0	20.9	1.21	0.684	104.9	1.061	0.021	3-9684	213.9	418.0	0.13	1.122	103.8	46.3	17.9	0.295
3-9570	3-9740	0.279	115.2	23.5	1.48	0.781	114.4	1.171	0.030	3-9681	245.0	395.4	0.72	1.170	100.1	16.3	10.3	0.273
3-9570	3-9750	0.259	118.5	23.3	1.32	0.763	113.1	1.156	0.026	3-9683	240.0	400.2	0.56	1.160	101.1	21.3	11.4	0.279
3-9570	3-9760	0.238	122.2	23.0	1.21	0.745	111.8	1.141	0.023	3-9684	234.9	404.8	0.43	1.151	101.9	26.8	12.9	0.285
3-9570	3-9770	0.218	126.4	22.5	1.14	0.728	110.3	1.124	0.022	3-9686	229.6	409.3	0.34	1.142	102.7	32.8	14.6	0.291
3-9570	3-9780	0.199	131.4	21.7	1.09	0.712	108.7	1.106	0.020	3-9688	224.1	413.7	0.28	1.134	103.5	39.2	16.4	0.298
3-9570	3-9790	0.180	137.2	20.5	1.06	0.696	107.0	1.088	0.019	3-9690	218.6	418.1	0.24	1.127	104.2	46.1	18.3	0.305
3-9580	3-9750	0.289	120.8	22.8	1.27	0.786	115.3	1.189	0.026	3-9689	245.1	400.7	0.64	1.173	101.9	20.9	11.5	0.299
3-9580	3-9760	0.266	124.3	22.5	1.13	0.766	113.9	1.172	0.023	3-9690	239.9	405.2	0.51	1.161	102.7	26.5	13.0	0.303
3-9580	3-9770	0.244	128.2	21.9	1.04	0.746	112.4	1.154	0.020	3-9692	234.5	409.6	0.42	1.151	103.4	32.6	14.8	0.308
3-9580	3-9780	0.222	132.7	21.2	0.98	0.728	110.8	1.136	0.019	3-9694	228.9	414.0	0.37	1.142	104.1	39.1	16.7	0.312
3-9580	3-9790	0.201	138.0	20.1	0.93	0.710	109.1	1.116	0.017	3-9696	223.3	418.3	0.34	1.133	104.7	46.1	18.6	0.317
3-9580	3-9800	0.181	144.2	18.5	0.87	0.694	107.2	1.096	0.018	3-9698	217.6	422.6	0.35	1.125	105.4	53.4	20.4	0.322
3-9590	3-9750	0.324	123.3	22.3	1.22	0.814	117.5	1.223	0.026	3-9695	250.2	401.1	0.73	1.189	102.8	20.7	11.5	0.324
3-9590	3-9760	0.298	126.6	21.8	1.06	0.790	116.1	1.206	0.022	3-9696	244.8	405.5	0.59	1.175	103.5	26.3	13.1	0.325
3-9590	3-9770	0.272	130.3	21.3	0.95	0.768	114.6	1.187	0.019	3-9698	239.4	409.9	0.50	1.162	104.1	32.4	14.9	0.327
3-9590	3-9780	0.248	134.4	20.5	0.87	0.747	113.0	1.167	0.017	3-9700	233.7	414.2	0.44	1.151	104.7	39.0	16.8	0.328
3-9590	3-9790	0.225	139.1	19.5	0.80	0.727	111.2	1.146	0.015	3-9702	228.0	418.4	0.42	1.141	105.3	46.0	18.8	0.331
3-9590	3-9800	0.203	144.7	18.0	0.73	0.708	109.3	1.125	0.014	3-9704	222.2	422.6	0.43	1.131	105.9	53.4	20.6	0.334
3-9600	3-9760	0.333	129.1	21.2	0.99	0.819	118.4	1.242	0.021	3-9702	249.8	405.8	0.66	1.191	104.4	26.3	13.2	0.351
3-9600	3-9770	0.305	132.5	20.5	0.87	0.793	116.8	1.222	0.018	3-9704	244.2	410.1	0.56	1.176	105.0	32.4	15.0	0.349
3-9600	3-9780	0.277	136.4	19.8	0.77	0.769	115.2	1.200	0.016	3-9706	238.6	414.3	0.51	1.162	105.5	39.0	17.0	0.348
3-9600	3-9790	0.251	140.7	18.8	0.69	0.746	113.4	1.179	0.014	3-9708	232.8	418.5	0.49	1.150	106.0	46.0	18.9	0.348
3-9600	3-9800	0.227	145.7	17.4	0.60	0.725	111.5	1.156	0.012	3-9710	226.9	422.6	0.61	1.139	106.5	53.4	20.8	0.348
3-9600	3-9810	0.204	151.5	15.6	0.48	0.706	109.5	1.133	0.009	3-9712	221.0	426.7	0.58	1.129	107.0	61.2	22.6	0.350
3-9610	3-9760	0.374	131.7	20.4	0.93	0.854	120.6	1.280	0.020	3-9708	254.6	405.9	0.72	1.212	105.5	26.4	13.3	0.381
3-9610	3-9770	0.341	135.0	19.7	0.78	0.823	119.1	1.259	0.017	3-9710	249.1	410.2	0.62	1.193	106.0	32.5	15.1	0.376
3-9610	3-9780	0.311	138.6	18.9	0.67	0.795	117.4	1.236	0.014	3-9712	243.4	414.4	0.57	1.176	106.4	39.0	17.1	0.371
3-9610	3-9790	0.281	142.5	18.0	0.58	0.769	115.7	1.213	0.012	3-9714	237.5	418.5	0.55	1.161	106.8	46.1	19.1	0.368
3-9610	3-9800	0.254	147.0	16.7	0.48	0.745	113.8	1.189	0.010	3-9716	231.6	422.6	0.57	1.148	107.2	53.5	21.0	0.365
3-9610	3-9810	0.228	152.3	15.1	0.35	0.723	111.7	1.164	0.007	3-9718	225.7	426.7	0.64	1.136	107.6	61.3	22.8	0.364
3-9620	3-9760	0.420	134.5	19.6	0.86	0.894	122.9	1.322	0.020	3-9714	259.4	405.9	0.78	1.237	106.7	26.6	13.4	0.416
3-9620	3-9770	0.383	137.6	18.9	0.70	0.858	121.4	1.299	0.016	3-9716	253.9	410.2	0.67	1.214	107.1	32.7	15.2	0.407
3-9620	3-9780	0.348	141.0	18.0	0.58	0.826	119.7	1.275	0.013	3-9717	249.1	414.4	0.62	1.193	107.5	39.2	17.2	0.399
3-9620	3-9790	0.316	144.7	17.0	0.47	0.796	117.9	1.250	0.010	3-9719	242.3	418.5	0.60	1.175	107.8	46.2	19.2	0.391
3-9620	3-9800	0.285	148.8	15.8	0.36	0.769	116.0	1.224	0.008	3-9722	236.4	422.5	0.62	1.159	108.1	53.6	21.1	0.386
3-9620	3-9810	0.256	153.4	14.3	0.24	0.744	114.0	1.198	0.005	3-9724	230.3	426.5	0.68	1.145	108.4	61.4	22.8	0.381
3-9630	3-9770	0.431	140.3	17.9	0.61	0.900	123.7	1.343	0.014	3-9722	258.6	410.0	0.72	1.240	108.3	33.0	15.3	0.444
3-9630	3-9780	0.391	143.5	17.0	0.48	0.862	122.0	1.317	0.011	3-9723	252.9	414.2	0.66	1.215	108.6	39.5	17.3	0.431
3-9630	3-9790	0.354	147.0	16.0	0.37	0.827	120.3	1.290	0.008	3-9725	247.0	418.3	0.64	1.193	108.8	46.4	19.2	0.419
3-9630	3-9800	0.320	150.8	14.9	0.26	0.796	118.3	1.263	0.006	3-9727	241.1	422.4	0.66	1.173	109.0	53.8	21.1	0.410
3-9630	3-9810	0.287	155.0	13.5	0.13	0.767	116.3	1.235	0.003	3-9730	235.0	426.4	.72	1.156	109.2	61.6	22.9	0.402
3-9630	3-9820	0.257	159.9	11.7	-0.05	0.741	114.2	1.207	-0.001	3-9732	228.9	430.4	0.85	1.141	109.4	69.8	24.5	0.395
3-9640	3-9760	0.537	140.7	17.8	0.71	1.000	127.4	1.416	0.017	3-9727	268.7	405.4	0.88	1.309	109.3	27.6	13.6	0.509
3-9640	3-9770	0.487	143.1	16.9	0.52	0.950	126.0	1.390	0.013	3-9728	263.2	409.7	0.75	1.273	109.7	33.5	15.4	0.488
3-9640	3-9780	0.441	146.2	16.0	0.39	0.904	124.4	1.362	0.009	3-9729	257.5	413.9	0.69	1.241	109.9	39.9	17.3	0.469

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
3-9640	3-9790	0.392	149.5	15.0	0.27	0.864	122.6	1.333	0.006	3-9731	251.7	418.0	0.67	1.214	110.0	46.8	19.3	0.452
3-9640	3-9800	0.359	153.0	13.8	0.15	0.828	120.7	1.304	0.003	3-9733	245.8	422.1	0.69	1.191	110.1	54.1	21.2	0.438
3-9640	3-9810	0.323	156.9	12.5	0.02	0.795	118.7	1.274	0.001	3-9736	239.7	426.1	0.75	1.171	110.2	61.9	22.9	0.426
3-9640	3-9820	0.290	161.3	10.8	-0.15	0.765	116.5	1.244	-0.003	3-9738	233.6	430.8	0.87	1.153	110.3	70.1	24.5	0.416
3-9650	3-9770	0.552	146.0	15.8	0.42	1.009	128.3	1.441	0.011	3-9734	267.8	409.2	0.77	1.314	111.1	34.2	15.5	0.540
3-9650	3-9780	0.498	149.0	14.9	0.29	0.955	126.7	1.412	0.007	3-9735	262.1	413.5	0.71	1.275	111.3	40.4	17.4	0.484
3-9650	3-9790	0.460	152.2	13.8	0.17	0.907	125.0	1.381	0.004	3-9737	256.3	417.7	0.69	1.242	111.4	47.2	19.3	0.452
3-9650	3-9800	0.405	155.5	12.7	0.05	0.865	123.1	1.349	0.001	3-9739	250.4	421.7	0.71	1.213	111.3	54.5	21.2	0.472
3-9650	3-9810	0.364	159.1	11.3	-0.08	0.827	121.1	1.317	-0.002	3-9741	244.4	425.8	0.77	1.188	111.3	62.3	22.9	0.455
3-9650	3-9820	0.326	163.1	9.8	-0.24	0.793	118.9	1.284	-0.005	3-9744	238.3	429.7	0.88	1.167	111.2	70.4	24.4	0.440
3-9650	3-9830	0.292	167.6	8.0	-0.47	0.763	116.6	1.252	-0.010	3-9746	232.1	433.7	1.07	1.148	111.2	78.9	25.7	0.428
3-9660	3-9780	0.565	151.9	13.7	0.17	1.016	129.1	1.466	0.004	3-9742	266.6	412.9	0.71	1.317	112.8	41.2	17.5	0.568
3-9660	3-9790	0.509	154.9	12.6	0.06	0.959	127.4	1.432	0.002	3-9743	260.9	417.1	0.73	1.276	112.8	47.8	19.4	0.538
3-9660	3-9800	0.457	158.1	11.4	-0.05	0.909	125.5	1.398	-0.001	3-9745	255.0	421.2	0.72	1.241	112.7	55.0	21.2	0.512
3-9660	3-9810	0.411	161.5	10.1	-0.17	0.865	123.5	1.363	-0.004	3-9747	249.0	425.3	0.78	1.211	112.6	62.7	22.9	0.489
3-9660	3-9820	0.368	165.1	8.7	-0.33	0.826	121.5	1.328	-0.007	3-9750	242.9	429.3	0.88	1.185	112.4	70.8	24.3	0.470
3-9660	3-9830	0.329	169.2	7.0	-0.54	0.791	119.1	1.294	-0.012	3-9752	236.8	433.8	1.05	1.162	112.2	79.3	25.6	0.453
3-9660	3-9840	0.293	173.9	5.0	-0.85	0.760	116.7	1.259	-0.018	3-9755	230.6	437.2	1.33	1.143	112.2	88.0	26.6	0.439
3-9670	3-9780	0.644	154.8	12.5	0.04	1.089	131.4	1.524	0.001	3-9748	271.0	412.1	0.68	1.370	114.5	42.1	17.6	0.634
3-9670	3-9790	0.578	157.8	11.3	-0.05	1.021	129.8	1.489	-0.001	3-9749	265.4	416.4	0.69	1.319	114.4	48.6	19.5	0.594
3-9670	3-9800	0.518	160.9	10.1	-0.15	0.962	127.9	1.452	-0.004	3-9751	259.6	420.6	0.72	1.275	113.2	55.7	21.3	0.560
3-9670	3-9810	0.464	164.1	8.8	-0.27	0.910	126.0	1.414	-0.007	3-9753	253.6	424.7	0.78	1.239	114.0	63.3	22.9	0.530
3-9670	3-9820	0.416	167.5	7.4	-0.41	0.864	123.8	1.376	-0.010	3-9755	247.6	428.7	0.87	1.207	113.7	71.3	24.3	0.505
3-9670	3-9830	0.371	171.2	5.9	-0.61	0.824	121.6	1.338	-0.014	3-9758	241.4	432.7	1.03	1.170	113.4	79.7	25.4	0.483
3-9670	3-9840	0.331	175.4	4.0	-0.89	0.789	119.2	1.302	-0.019	3-9761	235.2	436.7	1.27	1.137	113.2	88.4	26.3	0.464
3-9680	3-9790	0.659	160.8	10.0	-0.18	1.096	132.1	1.551	-0.005	3-9756	269.7	415.5	0.66	1.373	116.2	49.6	19.5	0.661
3-9680	3-9800	0.589	163.7	8.7	-0.26	1.025	130.4	1.511	-0.007	3-9757	264.0	419.7	0.71	1.319	115.9	56.5	21.3	0.617
3-9680	3-9810	0.527	166.8	7.5	-0.37	0.963	128.5	1.470	-0.009	3-9759	258 1	423.9	0.77	1.274	115.6	64.0	22.8	0.579
3-9680	3-9820	0.471	170.0	6.1	-0.50	0.909	126.4	1.428	-0.012	3-9761	252.1	428.0	0.86	1.235	115.2	71.9	24.2	0.546
3-9680	3-9830	0.420	173.5	4.6	-0.67	0.863	124.1	1.388	-0.016	3-9764	246.1	432.1	1.00	1.203	114.8	80.3	25.3	0.518
3-9680	3-9840	0.375	177.3	2.9	-0.92	0.822	121.7	1.348	-0.021	3-9766	239.9	436.0	1.21	1.175	114.4	88.9	26.1	0.494
3-9680	3-9850	0.334	181.7	1.0	-1.30	0.785	119.2	1.309	-0.028	3-9769	233.6	440.0	1.55	1.150	114.1	97.8	26.7	0.474
3-9690	3-9800	0.673	166.7	7.3	-0.38	1.101	132.8	1.577	-0.011	3-9763	268.4	418.7	0.67	1.375	117.7	57.5	21.3	0.687
3-9690	3-9810	0.600	169.7	6.0	-0.47	1.027	131.0	1.532	-0.012	3-9765	262.6	423.0	0.75	1.318	117.3	64.8	22.8	0.638
3-9690	3-9820	0.535	172.7	4.7	-0.58	0.963	128.9	1.486	-0.015	3-9767	256.7	427.2	0.84	1.271	116.8	72.7	24.1	0.596
3-9690	3-9830	0.477	176.0	3.3	-0.74	0.908	126.7	1.442	-0.018	3-9770	250.6	431.3	0.97	1.231	116.3	80.9	25.1	0.561
3-9690	3-9840	0.425	179.5	1.7	-0.96	0.860	124.3	1.398	-0.023	3-9772	244.5	435.3	1.16	1.197	115.7	89.5	25.8	0.530
3-9690	3-9850	0.378	183.5	-0.1	-1.28	0.819	121.8	1.356	-0.029	3-9775	238.3	439.3	1.45	1.168	115.3	98.3	26.3	0.504
3-9700	3-9810	0.686	172.6	4.6	-0.57	1.104	133.5	1.601	-0.016	3-9771	266.9	421.9	0.71	1.375	119.2	65.9	22.8	0.710
3-9700	3-9820	0.610	175.6	3.2	-0.67	1.028	131.5	1.551	-0.018	3-9773	261.1	426.1	0.81	1.316	118.6	73.5	24.0	0.657
3-9700	3-9830	0.543	178.7	1.8	-0.81	0.963	129.3	1.502	-0.021	3-9775	255.1	430.3	0.94	1.267	118.0	81.7	24.9	0.612
3-9700	3-9840	0.483	182.0	0.3	-1.00	0.906	127.0	1.454	-0.025	3-9778	249.1	434.4	1.10	1.226	117.3	90.1	25.5	0.573
3-9700	3-9850	0.430	185.6	-1.3	-1.28	0.858	124.5	1.408	-0.030	3-9781	242.9	438.4	1.35	1.191	116.7	98.9	25.9	0.540
3-9700	3-9860	0.382	189.7	-3.2	-1.70	0.816	121.9	1.364	-0.039	3-9784	236.7	442.4	1.74	1.161	116.1	107.8	26.0	0.512
4- 250	4- 440	0.093	149.7	10.6	2.77	0.691	98.9	0.976	0.046	4- 388	206.7	331.1	1.83	1.109	84.0	85.5	36.0	0.161
4- 250	4- 450	0.090	149.1	12.1	2.27	0.694	98.8	0.973	0.038	4- 389	207.3	341.2	1.43	1.112	86.2	79.3	34.5	0.140
4- 250	4- 460	0.088	150.2	13.2	1.90	0.695	98.6	0.969	0.031	4- 390	207.1	350.5	1.12	1.114	88.1	71.5	32.3	0.128
4- 250	4- 470	0.085	152.7	13.8	1.62	0.694	98.2	0.965	0.027	4- 390	206.1	359.2	0.88	1.115	89.8	64.1	29.3	0.125
4- 250	4- 480	0.083	156.6	13.7	1.43	0.692	97.8	0.961	0.023	4- 391	204.5	367.3	0.71	1.116	91.5	58.9	26.6	0.130
4- 250	4- 490	0.081	162.0	12.9	1.29	0.689	97.2	0.955	0.021	4- 392	202.2	374.8	0.58	1.117	93.0	56.5	24.6	0.140
4- 250	4- 500	0.079	168.6	11.1	1.20	0.685	96.5	0.949	0.019	4- 393	199.5	381.9	0.48	1.117	94.4	56.6	23.5	0.153
4- 250	4- 510	0.079	176.4	8.5	1.13	0.680	95.6	0.941	0.018	4- 394	196.4	388.7	0.42	1.116	95.8	58.8	23.2	0.169
4- 250	4- 520	0.080	185 1	5.0	1.08	0.675	94.6	0.932	0.017	4- 396	193.0	395.2	0.38	1.116	97.2	62.4	23.3	0.186
4- 260	4- 450	0.101	147.3	13.1	2.40	0.702	100.3	0.992	0.040	4- 395	212.3	341.7	1.64	1.114	86.2	78.3	36.0	0.142
4- 260	4- 460	0.098	148.3	14.1	1.95	0.703	100.0	0.988	0.033	4- 396	212.1	351.0	1.27	1.116	88.1	70.5	33.3	0.130
4- 260	4- 470	0.095	150.7	14.6	1.63	0.701	99.7	0.984	0.027	4- 397	211.0	359.5	1.00	1.117	89.9	63.4	30.2	0.127
4- 260	4- 480	0.091	154.4	14.6	1.40	0.699	99.2	0.979	0.023	4- 397	209.2	367.4	0.80	1.118	91.5	58.5	27.3	0.132
4- 260	4- 490	0.088	159.3	13.8	1.24	0.695	98.6	0.973	0.020	4- 398	206.8	374.8	0.66	1.118	93.0	56.4	25.2	0.142
4- 260	4- 500	0.085	165.5	12.3	1.12	0.691	97.9	0.966	0.018	4- 399	204.0	381.8	0.57	1.118	94.4	56.7	24.1	0.155
4- 260	4- 510	0.083	173.0	9.8	1.03	0.685	97.0	0.959	0.017	4- 401	200.7	388.4	0.51	1.117	95.8	59.0	23.8	0.169
4- 260	4- 520	0.083	181.5	6.6	0.95	0.680	96.0	0.949	0.015	4- 402	197.1	394.8	0.48	1.116	97.1	62.7	24.0	0.185
4- 260	4- 530	0.084	190.9	2.6	0.87	0.674	94.9	0.939	0.014	4- 404	193.3	401.0	0.48	1.115	98.5	67.6	24.5	0.202
4- 270	4- 460	0.109	147.1	14.7	2.02	0.712	101.6	1.008	0.035	4- 402	217.3	351.6	1.44	1.119	88.2	69.2	34.4	0.133
4- 270	4- 470	0.106	149.3	15.1	1.64	0.710	101.2	1.003	0.028	4- 403	216.1	360.0	1.12	1.120	90.0	62.3	30.9	0.131
4- 270	4- 480	0.101	152.7	13.1	1.37	0.707	100.7	0.998	0.023	4- 404	214.1	367.8	0.90	1.120	91.6	57.8	27.8	0.139
4- 270	4- 490	0.097	157.2	14.5	1.18	0.703	100.1	0.992	0.020	4- 405	211.6	375.0	0.75	1.120	93.1	56.0	25.7	0.144
4- 270	4- 500	0.093	163.0	13.1	1.04	0.698	99.3	0.985	0.017	4- 406	208.6	381.8	0.64	1.119	94.5	56.6	24.6	0.157
4- 270	4- 510	0.090	169.9	11.0	0.94	0.692	98.5	0.977	0.015	4- 407	205.2	388.3	0.59	1.118	95.8	59.0	24.3	0.171
4- 270	4- 520	0.087	178.1	8.0	0.84	0.686	97.5	0.968	0.014	4- 408	201.5	394.5	0.57	1.117	97.1	62.9	24.6	0.186
4- 270	4- 530	0.087	187.2	4.2	0.74	0.680	96.3	0.957	0.012	4- 410	197.5	400.6	0.58	1.116	98.4	67.9	25.1	0.201
4- 270	4- 540	0.089	197.0	-0.1	0.62	0.673	95.1	0.945	0.010	4- 412	193.3	406.5	0.64	1.114	99.7		25.8	0.218
4- 280	4- 480	0.114	151.7	15.4	1.35	0.717	102.2	1.018	0.023	4- 410	219.3	368.3	1.00	1.123	91.8		28.3	0.139
4- 280	4- 490	0.108	155.8	14.9	1.13	0.712	101.6	1.011	0.020	4- 411	216.6	375.4	0.82	1.123	93.2	59.5	26.1	0.148
4- 280	4- 500	0.103	161.0	13.7	0.97	0.706	100.8	1.004	0.017	4- 412	213.4	332.0	0.71	1.122	94.6	56.4	25.0	0.160
4- 280	4- 510	0.098	167.4	11.8	0.85	0.700	99.9	0.996	0.014	4- 413	209.8	388.3	0.65	1.120	95.9	59.0	24.7	0.173
4- 280	4- 520	0.094	175.0	9.1	0.74	0.693	98.9	0.987	0.012	4- 414	205.9	394.4	0.63	1.118	97.1	63.0	25.0	0.187
4- 280	4- 530	0.091	183.7	5.6	0.62	0.686	97.8	0.976	0.010	4- 416	201.8	400.3	0.66	1.116	98.4	68.2	25.6	0.202
4- 290	4- 490	0.122	155.0	14.9	1.09	0.723	103.1	1.032	0.019	4- 417	221.7	375.8	0.90	1.126	93.4	54.9	26.3	0.153
4- 290	4- 500	0.115	159.7	13.9	0.91	0.716	102.3	1.024	0.016	4- 418	218.4	382.3	0.78	1.124	94.8	56.1	25.2	0.164
4- 290	4- 510	0.109	165.5	12.3	0.77	0.709	101.4	1.016	0.013	4- 419	214.6	388.4	0.71	1.122	96.0	58.9	25.0	0.176

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 290	4- 520	0.102	172.4	9.9	0.64	0.702	100.4	1.006	0.011	4- 421	[illegible]	394.3	0.69	1.120	97.2	63.1	25.2	0.189
4- 290	4- 530	0.098	180.4	6.7	0.52	0.694	99.3	0.995	0.009	4- 422	[illegible]	400.1	0.71	1.118	98.4	68.3	25.9	0.203
4- 290	4- 540	0.096	189.6	2.9	0.37	0.686	98.0	0.983	0.006	4- 424	201.8	405.6	0.78	1.115	99.5	74.4	26.7	0.217
4- 300	4- 490	0.137	154.8	14.8	1.04	0.735	104.7	1.053	0.019	4- 423	227.1	376.4	0.97	1.130	93.6	54.1	26.5	0.159
4- 300	4- 500	0.129	159.1	13.9	0.84	0.728	103.9	1.045	0.015	4- 424	223.5	382.7	0.83	1.128	95.0	55.6	25.4	0.169
4- 300	4- 510	0.121	164.3	12.4	0.68	0.720	103.0	1.036	0.012	4- 425	219.6	388.7	0.75	1.125	96.2	58.7	25.1	0.181
4- 300	4- 520	0.114	170.5	10.4	0.55	0.712	102.0	1.027	0.010	4- 427	215.4	394.4	0.73	1.123	97.4	63.1	25.4	0.193
4- 300	4- 530	0.107	177.8	7.6	0.42	0.703	100.8	1.016	0.007	4- 428	211.0	400.0	0.75	1.120	98.5	68.5	26.0	0.205
4- 300	4- 540	0.103	186.3	4.0	0.27	0.695	99.6	1.003	0.004	4- 430	206.3	405.4	0.82	1.116	99.6	74.7	26.9	0.218
4- 310	4- 500	0.146	159.0	13.6	0.77	0.741	105.5	1.067	0.014	4- 431	228.9	383.2	0.89	1.133	95.2	55.1	25.4	0.176
4- 310	4- 510	0.136	163.7	12.3	0.60	0.732	104.5	1.058	0.011	4- 432	224.8	389.0	0.80	1.129	96.4	58.5	25.2	0.187
4- 310	4- 520	0.127	169.2	10.5	0.46	0.723	103.5	1.048	0.008	4- 433	220.4	394.6	0.76	1.126	97.5	63.0	25.5	0.198
4- 310	4- 530	0.119	175.8	8.1	0.33	0.713	102.4	1.037	0.006	4- 434	215.8	400.0	0.77	1.122	98.6	68.5	26.1	0.209
4- 310	4- 540	0.112	183.5	4.9	0.17	0.704	101.1	1.024	0.003	4- 436	211.0	405.2	0.84	1.118	99.6	74.8	26.9	0.221
4- 310	4- 550	0.107	192.4	1.0	-0.03	0.695	99.7	1.011	-0.001	4- 438	206.1	410.4	0.98	1.115	100.7	81.8	27.8	0.233
4- 320	4- 500	0.165	159.4	13.2	0.71	0.756	107.1	1.091	0.013	4- 437	234.4	383.8	0.94	1.139	95.6	54.6	25.4	0.185
4- 320	4- 510	0.154	163.7	12.0	0.52	0.746	106.2	1.081	0.010	4- 438	230.1	389.4	0.83	1.134	96.7	58.2	25.2	0.195
4- 320	4- 520	0.143	168.7	10.4	0.37	0.736	105.1	1.070	0.007	4- 439	225.5	394.8	0.78	1.130	97.8	62.9	25.5	0.204
4- 320	4- 530	0.133	174.5	8.2	0.23	0.725	104.0	1.059	0.004	4- 441	220.8	400.0	0.79	1.125	98.8	68.6	26.1	0.214
4- 320	4- 540	0.124	181.4	5.4	0.08	0.715	102.7	1.046	0.001	4- 442	215.8	405.2	0.85	1.121	99.8	75.0	26.9	0.225
4- 320	4- 550	0.116	189.5	2.0	-0.11	0.705	101.3	1.032	-0.002	4- 444	210.8	410.2	0.97	1.116	100.7	82.0	27.8	0.235
4- 330	4- 510	0.174	164.2	11.4	0.44	0.762	107.8	1.105	0.008	4- 444	235.5	389.9	0.86	1.141	97.1	57.9	25.1	0.204
4- 330	4- 520	0.162	168.7	9.9	0.28	0.750	106.8	1.094	0.005	4- 445	230.8	395.1	0.80	1.135	98.1	62.8	25.4	0.213
4- 330	4- 530	0.150	173.9	8.0	0.14	0.739	105.6	1.082	0.003	4- 447	225.9	400.2	0.80	1.130	99.1	68.6	26.1	0.221
4- 330	4- 540	0.138	180.0	5.6	-0.01	0.727	104.3	1.069	-0.000	4- 448	220.8	405.2	0.85	1.124	100.0	75.1	26.8	0.230
4- 330	4- 550	0.129	187.2	2.6	-0.19	0.716	103.0	1.055	-0.003	4- 450	215.6	410.1	0.96	1.119	100.9	82.2	27.7	0.239
4- 330	4- 560	0.121	195.6	-1.1	-0.44	0.705	101.5	1.039	-0.008	4- 452	210.4	414.9	1.15	1.114	101.8	89.8	28.5	0.248
4- 340	4- 510	0.198	165.1	10.7	0.35	0.781	109.6	1.130	0.007	4- 451	241.1	390.4	0.88	1.149	97.6	57.7	24.9	0.216
4- 340	4- 520	0.183	169.2	9.3	0.19	0.767	108.5	1.119	0.004	4- 452	236.2	395.4	0.81	1.142	98.5	62.7	25.3	0.223
4- 340	4- 530	0.169	173.9	7.6	0.04	0.754	107.3	1.106	0.001	4- 453	231.1	400.4	0.80	1.135	99.5	68.6	25.9	0.230
4- 340	4- 540	0.156	179.4	5.4	-0.10	0.741	106.0	1.093	-0.002	4- 454	225.9	405.2	0.84	1.129	100.3	75.2	26.7	0.237
4- 340	4- 550	0.144	185.7	2.8	-0.27	0.729	104.6	1.078	-0.005	4- 456	220.6	410.0	0.93	1.123	101.1	82.4	27.5	0.245
4- 340	4- 560	0.133	193.2	-0.5	-0.49	0.717	103.1	1.063	-0.009	4- 458	215.2	414.7	1.10	1.116	101.9	90.0	28.2	0.252
4- 350	4- 520	0.208	170.2	8.5	0.09	0.787	110.2	1.145	0.002	4- 458	241.7	395.8	0.82	1.150	99.0	62.7	25.1	0.236
4- 350	4- 530	0.192	174.4	6.9	-0.05	0.772	109.0	1.132	-0.001	4- 459	236.5	400.6	0.80	1.142	99.9	68.6	25.7	0.242
4- 350	4- 540	0.176	179.3	5.0	-0.19	0.757	107.7	1.118	-0.004	4- 461	231.1	405.3	0.82	1.135	100.7	75.3	26.5	0.247
4- 350	4- 550	0.162	185.0	2.7	-0.35	0.743	106.3	1.103	-0.006	4- 462	225.7	410.0	0.90	1.127	101.4	82.5	27.2	0.252
4- 350	4- 560	0.149	191.5	-0.2	-0.55	0.730	104.8	1.087	-0.010	4- 464	220.2	414.6	1.05	1.120	102.2	90.2	27.9	0.258
4- 350	4- 570	0.138	199.3	-3.6	-0.84	0.717	103.2	1.070	-0.01	4- 466	214.6	419.1	1.20	1.113	102.9	98.4	28.5	0.264
4- 360	4- 520	0.236	171.6	7.6	-0.02	0.810	112.0	1.173	-0.000	4- 464	247.2	396.1	0.81	1.161	99.6	62.7	24.8	0.252
4- 360	4- 530	0.218	176.5	6.1	-0.16	0.792	110.8	1.159	-0.003	4- 466	241.9	400.8	0.78	1.151	100.4	68.7	25.5	0.255
4- 360	4- 540	0.200	179.9	4.3	-0.29	0.775	109.5	1.144	-0.006	4- 467	236.5	405.4	0.80	1.142	101.2	75.4	26.3	0.259
4- 360	4- 550	0.183	184.9	2.2	-0.43	0.759	108.1	1.129	-0.008	4- 468	230.9	409.9	0.87	1.133	101.8	82.7	27.0	0.262
4- 360	4- 560	0.168	190.7	-0.3	-0.61	0.745	106.6	1.112	-0.012	4- 470	225.3	414.4	1.00	1.125	102.5	90.1	27.6	0.266
4- 360	4- 570	0.154	197.5	-3.3	-0.86	0.731	105.0	1.095	-0.016	4- 472	219.6	418.9	1.20	1.117	103.1	98.6	28.1	0.270
4- 370	4- 530	0.247	176.9	5.1	-0.27	0.816	112.7	1.188	-0.005	4- 472	247.3	400.9	0.76	1.163	101.1	68.9	25.2	0.273
4- 370	4- 540	0.227	180.9	3.5	-0.39	0.796	111.3	1.173	-0.008	4- 473	241.8	405.5	0.77	1.151	101.7	75.6	26.0	0.274
4- 370	4- 550	0.208	185.4	1.6	-0.52	0.778	109.9	1.156	-0.010	4- 475	236.2	409.9	0.83	1.141	102.3	82.9	26.6	0.275
4- 370	4- 560	0.190	190.5	-0.7	-0.68	0.761	108.4	1.139	-0.013	4- 476	230.5	414.3	0.94	1.131	102.9	90.7	27.2	0.276
4- 370	4- 570	0.174	196.5	-3.3	-0.90	0.746	106.8	1.121	-0.017	4- 478	224.7	418.7	1.12	1.121	103.5	98.8	27.6	0.278
4- 370	4- 580	0.160	203.5	-6.4	-1.21	0.731	105.1	1.102	-0.023	4- 480	218.9	423.1	1.40	1.113	104.1	107.3	27.9	0.281
4- 380	4- 530	0.282	178.6	4.0	-0.39	0.843	114.6	1.219	-0.008	4- 478	252.8	401.0	0.72	1.177	101.8	69.2	24.9	0.293
4- 380	4- 540	0.259	182.3	2.4	-0.53	0.820	113.2	1.203	-0.010	4- 480	247.2	405.5	0.73	1.163	102.4	75.9	25.7	0.292
4- 380	4- 550	0.237	186.4	0.7	-0.61	0.800	111.8	1.186	-0.013	4- 481	241.5	409.9	0.78	1.151	103.0	83.2	26.3	0.290
4- 380	4- 560	0.216	191.0	-1.3	-0.75	0.781	110.2	1.168	-0.015	4- 483	235.8	414.2	0.88	1.139	103.5	90.9	26.8	0.289
4- 380	4- 570	0.197	196.3	-3.6	-0.94	0.763	108.6	1.149	-0.018	4- 484	229.9	418.5	1.03	1.128	103.9	99.0	27.1	0.289
4- 380	4- 580	0.180	202.4	-6.3	-1.21	0.747	106.9	1.129	-0.023	4- 486	224.0	422.8	1.27	1.118	104.4	107.5	27.3	0.290
4- 390	4- 540	0.295	184.1	1.3	-0.52	0.849	115.2	1.235	-0.013	4- 486	252.6	405.4	0.67	1.178	103.2	76.3	25.3	0.314
4- 390	4- 550	0.270	187.9	-0.4	-0.72	0.825	113.7	1.217	-0.015	4- 487	246.9	409.7	0.72	1.163	103.7	83.5	26.0	0.309
4- 390	4- 560	0.246	192.1	-2.2	-0.84	0.803	112.2	1.198	-0.017	4- 489	241.1	414.0	0.81	1.149	104.1	91.2	26.4	0.306
4- 390	4- 570	0.224	196.8	-4.2	-0.99	0.782	110.5	1.178	-0.020	4- 491	235.2	418.3	0.95	1.136	104.5	99.3	26.6	0.303
4- 390	4- 580	0.204	202.2	-6.6	-1.22	0.764	108.8	1.158	-0.024	4- 492	229.2	422.5	1.15	1.124	104.9	107.7	26.6	0.301
4- 390	4- 590	0.187	208.5	-9.3	-1.55	0.747	107.0	1.137	-0.030	4- 495	223.2	426.7	1.46	1.113	105.3	116.3	26.5	0.300
4- 400	4- 540	0.337	186.2	-0.0	-0.75	0.882	117.2	1.270	-0.017	4- 493	258.0	405.1	0.60	1.198	104.1	76.9	24.9	0.341
4- 400	4- 550	0.308	189.7	-1.5	-0.83	0.854	115.8	1.251	-0.018	4- 494	252.2	409.5	0.65	1.179	104.5	84.0	25.6	0.333
4- 400	4- 560	0.281	193.6	-3.2	-0.92	0.828	114.2	1.231	-0.020	4- 495	246.4	413.7	0.74	1.162	104.9	91.6	26.0	0.326
4- 400	4- 570	0.256	197.8	-5.1	-1.05	0.805	112.5	1.210	-0.022	4- 497	240.5	418.0	0.86	1.147	105.2	99.7	26.1	0.320
4- 400	4- 580	0.233	202.6	-7.2	-1.24	0.784	110.8	1.188	-0.025	4- 499	234.5	422.2	1.04	1.133	105.5	108.0	26.0	0.315
4- 400	4- 590	0.212	208.1	-9.5	-1.51	0.765	109.0	1.166	-0.030	4- 501	228.4	426.3	1.29	1.120	105.8	116.5	25.8	0.311
4- 410	4- 550	0.352	191.9	-2.8	-0.95	0.988	117.9	1.287	-0.021	4- 500	257.5	409.1	0.57	1.199	105.5	84.7	25.2	0.362
4- 410	4- 560	0.321	195.5	-4.4	-1.02	0.858	116.3	1.266	-0.022	4- 502	251.7	413.3	0.65	1.178	105.8	92.4	25.5	0.351
4- 410	4- 570	0.292	199.4	-6.1	-1.12	0.831	114.6	1.244	-0.024	4- 503	245.7	417.6	0.77	1.160	106.0	100.1	25.6	0.341
4- 410	4- 580	0.265	203.7	-8.0	-1.27	0.807	112.9	1.221	-0.027	4- 505	239.7	421.7	0.93	1.143	106.2	108.4	25.5	0.333
4- 410	4- 590	0.241	208.6	-10.0	-1.50	0.785	111.0	1.198	-0.031	4- 507	233.7	425.9	1.15	1.128	106.4	116.8	25.0	0.326
4- 410	4- 600	0.219	214.2	-12.4	-1.83	0.765	109.1	1.175	-0.036	4- 509	227.6	430.0	1.47	1.115	106.6	125.5	24.5	0.321
4- 420	4- 550	0.403	194.3	-4.2	-1.10	0.929	120.1	1.326	-0.025	4- 507	262.7	408.5	0.46	1.225	106.7	85.5	24.7	0.396
4- 420	4- 560	0.367	197.7	-5.7	-1.13	0.893	118.5	1.304	-0.026	4- 508	256.9	412.8	0.56	1.200	106.8	92.9	25.1	0.381
4- 420	4- 570	0.334	201.3	-7.2	-1.20	0.861	116.8	1.280	-0.027	4- 510	251.0	417.0	0.67	1.177	107.0	100.1	25.2	0.367
4- 420	4- 580	0.303	205.3	-8.9	-1.32	0.833	115.0	1.256	-0.028	4- 511	245.0	421.2	0.82	1.157	107.1	108.8	24.9	0.355
4- 420	4- 590	0.275	209.6	-10.8	-1.50	0.808	113.2	1.232	-0.031	4- 513	239.0	425.4	1.01	1.140	107.2	117.2	24.3	0.345

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4- 420	4- 600	0.250	214.6	-12.8	-1.76	0.785	111.2	1.207	-0.036	4- 515	232.9	429.5	1.37	1.124	107.3	125.7	23.6	0.437
4- 430	4- 560	0.421	200.2	-7.0	-1.[illegible]	0.935	120.7	1.345	-0.029	4- 515	262.1	412.1	0.44	1.227	108.1	93.7	24.6	0.418
4- 430	4- 570	0.382	203.7	-8.5	-1.29	0.897	119.0	1.320	-0.030	4- 516	256.2	416.4	0.57	1.199	108.1	101.4	24.7	0.399
4- 430	4- 580	0.347	207.3	-10.0	-1.37	0.864	117.3	1.295	-0.031	4- 518	250.2	420.6	0.71	1.178	108.2	109.4	24.3	0.383
4- 430	4- 590	0.315	211.3	-11.7	-1.51	0.835	115.4	1.269	-0.033	4- 520	244.2	424.7	0.88	1.154	108.1	117.6	23.7	0.368
4- 430	4- 600	0.286	215.8	-13.5	-1.72	0.809	113.4	1.242	-0.036	4- 522	238.1	428.8	1.10	1.135	108.1	126.0	22.8	0.356
4- 430	4- 610	0.260	220.8	-15.4	-2.04	0.786	111.4	1.216	-0.042	4- 524	232.0	432.9	1.42	1.118	108.1	134.5	21.7	0.346
4- 440	4- 570	0.438	206.3	-9.8	-1.40	0.940	121.4	1.364	-0.033	4- 523	261.3	415.5	0.44	1.228	109.4	102.3	24.1	0.438
4- 440	4- 580	0.398	209.7	-11.2	-1.44	0.901	119.6	1.336	-0.033	4- 524	255.4	419.8	0.59	1.199	109.4	110.1	23.8	0.416
4- 440	4- 590	0.361	213.5	-12.7	-1.53	0.866	117.7	1.308	-0.034	4- 526	249.4	423.9	0.75	1.173	109.2	118.2	23.0	0.397
4- 440	4- 600	0.327	217.5	-14.3	-1.69	0.836	115.8	1.280	-0.037	4- 528	243.[illegible]	[illegible]	0.95	1.151	109.1	126.4	22.0	0.381
4- 440	4- 610	0.297	222.0	-16.0	-1.94	0.809	113.7	1.252	-0.041	4- 530	237.2	432.2	1.21	1.131	109.0	134.8	20.8	0.367
4- 440	4- 620	0.269	227.2	-17.8	-2.32	0.786	111.6	1.224	-0.048	4- 532	231.1	436.2	1.59	1.113	108.9	143.2	19.5	0.355
4- 450	4- 570	0.504	209.2	-11.2	-1.52	0.992	123.8	1.411	-0.038	4- 529	266.3	414.5	0.29	1.264	110.9	103.3	23.6	0.485
4- 450	4- 580	0.457	212.3	-12.5	-1.51	0.944	122.1	1.382	-0.036	4- 531	260.4	418.8	0.46	1.228	110.7	111.0	23.2	0.457
4- 450	4- 590	0.414	216.0	-13.9	-1.57	0.903	120.2	1.352	-0.037	4- 532	254.5	423.0	0.62	1.197	110.5	118.9	22.4	0.433
4- 450	4- 600	0.375	219.6	-15.5	-1.68	0.868	118.2	1.322	-0.038	4- 534	248.5	427.2	0.80	1.170	110.3	127.0	21.3	0.411
4- 450	4- 610	0.340	223.9	-16.8	-1.87	0.836	116.1	1.292	-0.041	4- 536	242.4	431.3	1.02	1.146	110.1	135.2	19.9	0.393
4- 450	4- 620	0.308	228.4	-18.3	-2.17	0.809	114.0	1.262	-0.046	4- 539	236.3	435.4	1.33	1.125	109.9	143.5	18.4	0.377
4- 460	4- 580	0.525	215.5	-13.8	-1.61	0.998	124.6	1.433	-0.040	4- 537	265.4	417.6	0.31	1.266	112.3	112.0	22.6	0.507
4- 460	4- 590	0.475	218.9	-15.0	-1.61	0.948	122.7	1.400	-0.039	4- 539	259.5	421.9	0.49	1.228	112.0	119.8	21.8	0.476
4- 460	4- 600	0.430	222.4	-16.3	-1.68	0.906	120.7	1.368	-0.040	4- 541	253.5	426.1	0.66	1.195	111.7	127.7	20.6	0.448
4- 460	4- 610	0.389	226.2	-17.6	-1.82	0.869	118.6	1.335	-0.042	4- 543	247.5	430.3	0.86	1.167	111.3	135.7	19.1	0.424
4- 460	4- 620	0.353	230.4	-19.0	-2.04	0.837	116.5	1.303	-0.045	4- 545	241.5	434.4	1.11	1.142	111.0	143.8	17.4	0.404
4- 460	4- 630	0.320	235.0	-20.4	-2.39	0.809	114.3	1.271	-0.051	4- 547	235.4	438.4	1.45	1.120	110.7	152.0	15.7	0.387
4- 470	4- 580	0.607	218.7	-15.1	-1.73	1.063	127.2	1.488	-0.045	4- 544	270.2	416.2	0.12	1.316	113.9	113.3	22.0	0.568
4- 470	4- 590	0.547	222.0	-16.3	-1.67	1.003	125.3	1.454	-0.042	4- 546	264.4	420.6	0.34	1.268	113.6	120.8	21.2	0.529
4- 470	4- 600	0.494	225.4	-17.4	-1.69	0.951	123.4	1.418	-0.042	4- 547	258.5	424.9	0.52	1.227	113.2	128.5	20.0	0.493
4- 470	4- 610	0.447	229.0	-18.6	-1.79	0.907	121.3	1.383	-0.043	4- 549	252.5	429.1	0.70	1.193	112.8	136.4	18.4	0.463
4- 470	4- 620	0.405	232.9	-19.7	-1.95	0.869	119.1	1.348	-0.045	4- 551	246.5	433.3	0.91	1.163	112.3	144.3	16.6	0.438
4- 470	4- 630	0.367	237.0	-21.0	-2.20	0.836	116.9	1.314	-0.045	4- 554	240.5	437.4	1.19	1.137	111.9	152.3	14.6	0.415
4- 480	4- 590	0.632	225.4	-17.5	-1.75	1.070	128.1	1.513	-0.046	4- 552	269.1	419.1	0.17	1.319	115.4	122.0	20.5	0.592
4- 480	4- 600	0.569	228.8	-18.5	-1.72	1.008	126.1	1.475	-0.044	4- 554	263.3	423.5	0.37	1.269	114.9	129.5	19.3	0.548
4- 480	4- 610	0.513	232.2	-19.5	-1.76	0.954	124.1	1.436	-0.044	4- 556	257.4	427.8	0.55	1.226	114.4	137.2	17.7	0.511
4- 480	4- 620	0.464	235.8	-20.5	-1.87	0.908	121.9	1.398	-0.043	4- 558	251.5	432.0	0.74	1.190	113.8	145.0	15.8	0.478
4- 480	4- 630	0.420	239.7	-21.6	-2.06	0.869	119.6	1.361	-0.048	4- 560	245.5	436.2	0.97	1.159	113.3	152.8	13.7	0.450
4- 480	4- 640	0.381	243.9	-22.6	-2.35	0.836	117.3	1.324	-0.053	4- 562	239.5	440.2	1.27	1.132	112.8	160.6	11.5	0.427
4- 490	4- 590	0.733	228.9	-18.6	-1.88	1.154	130.8	1.578	-0.052	4- 559	273.7	417.4	-0.04	1.387	117.3	123.5	19.8	0.672
4- 490	4- 600	0.657	232.3	-19.6	-1.75	1.077	128.9	1.538	-0.047	4- 561	268.0	421.9	0.22	1.323	116.8	130.7	18.6	0.616
4- 490	4- 610	0.591	235.7	-20.5	-1.75	1.012	126.9	1.496	-0.045	4- 562	262.2	426.3	0.41	1.269	116.2	138.2	17.0	0.569
4- 490	4- 620	0.533	239.1	-21.4	-1.81	0.956	124.8	1.454	-0.045	4- 564	256.3	430.6	0.58	1.225	115.6	145.7	15.0	0.528
4- 490	4- 630	0.482	242.7	-22.2	-1.94	0.909	122.5	1.413	-0.047	4- 566	250.4	434.8	0.78	1.187	114.9	153.4	12.8	0.493
4- 490	4- 640	0.436	246.6	-23.1	-2.16	0.869	120.1	1.373	-0.050	4- 569	244.5	438.9	1.02	1.155	114.2	161.1	10.5	0.463
4- 500	4- 600	0.762	236.0	-20.6	-1.82	1.164	131.8	1.608	-0.051	4- 567	272.5	420.1	0.04	1.393	118.9	132.1	17.9	0.700
4- 500	4- 610	0.683	239.3	-21.4	-1.74	1.083	129.9	1.563	-0.047	4- 569	266.8	424.6	0.26	1.326	118.2	139.3	16.3	0.640
4- 500	4- 620	0.614	242.7	-22.1	-1.76	1.015	127.7	1.517	-0.046	4- 571	261.0	429.0	0.44	1.270	117.5	146.7	14.3	0.589
4- 500	4- 630	0.553	246.2	-22.9	-1.84	0.958	125.5	1.471	-0.047	4- 573	255.2	433.3	0.61	1.223	116.7	154.1	12.0	0.545
4- 500	4- 640	0.500	249.8	-23.6	-1.99	0.909	123.1	1.427	-0.049	4- 575	249.3	437.5	0.80	1.184	115.9	161.7	9.6	0.508
4- 500	4- 650	0.452	253.7	-24.3	-2.23	0.868	120.7	1.385	-0.052	4- 578	243.4	441.6	1.05	1.150	115.2	169.3	7.1	0.476
4-1050	4-1260	0.087	242.2	-12.3	-0.47	0.732	96.4	0.972	-0.003	4-1180	204.1	360.9	0.81	1.109	90.2	125.8	28.4	0.103
4-1050	4-1270	0.088	245.9	-12.9	-0.32	0.730	96.0	0.968	-0.005	4-1181	202.2	369.1	0.77	1.110	91.6	120.8	28.5	0.109
4-1050	4-1280	0.091	250.3	-13.9	-0.45	0.727	95.4	0.963	-0.007	4-1182	199.9	376.8	0.79	1.110	93.0	118.8	28.3	0.119
4-1050	4-1290	0.094	255.3	-15.2	-0.61	0.723	94.8	0.957	-0.010	4-1183	197.1	384.1	0.87	1.109	94.4	119.6	28.2	0.131
4-1050	4-1300	0.099	260.8	-16.5	-0.81	0.719	94.0	0.949	-0.013	4-1184	193.9	391.1	1.01	1.108	95.6	122.6	28.0	0.145
4-1050	4-1310	0.106	266.5	-17.7	-1.09	0.715	93.1	0.941	-0.017	4-1185	190.4	397.8	1.26	1.106	96.9	127.1	28.0	0.160
4-1060	4-1270	0.090	242.1	-12.3	-0.42	0.738	97.0	0.983	-0.007	4-1188	206.6	368.1	0.75	1.110	91.5	122.5	28.0	0.108
4-1060	4-1280	0.091	246.6	-13.4	-0.55	0.734	96.5	0.978	-0.009	4-1188	204.2	375.8	0.76	1.110	92.8	120.4	27.9	0.117
4-1060	4-1290	0.094	251.9	-14.7	-0.69	0.731	95.8	0.972	-0.011	4-1189	201.3	383.0	0.83	1.109	94.1	121.1	27.7	0.128
4-1060	4-1300	0.097	257.7	-16.2	-0.87	0.727	95.1	0.965	-0.014	4-1190	198.1	389.9	0.96	1.107	95.4	123.9	27.5	0.141
4-1060	4-1310	0.103	263.9	-17.6	-1.12	0.722	94.2	0.956	-0.018	4-1191	194.5	396.6	1.17	1.105	96.6	128.3	27.4	0.155
4-1060	4-1320	0.110	270.2	-18.8	-1.50	0.717	93.2	0.947	-0.024	4-1193	190.7	403.0	1.51	1.102	97.8	133.9	27.5	0.170
4-1070	4-1270	0.094	237.9	-11.7	-0.53	0.746	98.1	0.999	-0.009	4-1194	211.4	367.4	0.71	1.110	91.3	123.9	27.3	0.108
4-1070	4-1280	0.094	242.4	-12.8	-0.65	0.743	97.5	0.994	-0.011	4-1195	208.9	375.0	0.72	1.110	92.7	121.7	27.3	0.116
4-1070	4-1290	0.095	247.8	-14.3	-0.78	0.739	96.9	0.988	-0.013	4-1196	205.9	382.1	0.78	1.109	94.0	122.2	27.2	0.126
4-1070	4-1300	0.098	253.8	-15.8	-0.93	0.734	96.2	0.981	-0.016	4-1197	202.5	389.0	0.90	1.107	95.2	124.9	26.9	0.138
4-1070	4-1310	0.101	260.3	-17.4	-1.15	0.730	95.4	0.972	-0.019	4-1198	198.9	395.5	1.08	1.105	96.4	129.2	26.7	0.151
4-1070	4-1320	0.106	267.2	-18.7	-1.46	0.725	94.4	0.963	-0.024	4-1199	195.0	401.8	1.36	1.102	97.5	134.8	26.6	0.165
4-1080	4-1270	0.101	233.8	-11.1	-0.66	0.756	99.2	1.015	-0.011	4-1201	216.4	366.9	0.65	1.112	91.3	124.8	26.5	0.108
4-1080	4-1280	0.100	238.2	-12.3	-0.76	0.752	98.7	1.010	-0.013	4-1202	213.8	374.4	0.66	1.111	92.6	122.6	26.5	0.116
4-1080	4-1290	0.100	243.4	-13.8	-0.87	0.748	98.0	1.004	-0.015	4-1202	210.7	381.5	0.71	1.110	93.9	123.1	26.4	0.125
4-1080	4-1300	0.100	249.4	-15.5	-1.00	0.743	97.3	0.997	-0.017	4-1203	207.3	388.2	0.62	1.108	95.1	125.8	26.2	0.136
4-1080	4-1310	0.102	256.0	-17.1	-1.18	0.738	96.5	0.989	-0.020	4-1204	203.5	394.6	0.98	1.105	96.2	130.0	25.9	0.148
4-1080	4-1320	0.105	263.2	-18.6	-1.44	0.733	95.6	0.980	-0.024	4-1206	199.5	400.7	1.22	1.102	97.3	135.5	25.6	0.160
4-1090	4-1280	0.109	234.3	-11.9	-0.89	0.762	99.8	1.027	-0.016	4-1208	219.1	374.1	0.57	1.113	92.6	124.1	25.5	0.117
4-1090	4-1290	0.107	239.1	-13.4	-0.97	0.757	99.2	1.021	-0.017	4-1209	215.9	381.0	0.63	1.111	93.8	123.7	25.5	0.126
4-1090	4-1300	0.106	244.8	-15.1	-1.08	0.752	98.5	1.014	-0.019	4-1210	212.3	387.5	0.73	1.109	95.0	126.4	25.3	0.136
4-1090	4-1310	0.106	251.3	-16.8	-1.22	0.747	97.7	1.006	-0.021	4-1211	208.4	393.8	0.87	1.106	96.1	130.6	25.0	0.147
4-1090	4-1320	0.107	258.5	-18.5	-1.44	0.741	96.8	0.997	-0.025	4-1212	204.3	399.9	1.08	1.102	97.1	136.0	24.6	0.158
4-1090	4-1330	0.110	266.2	-19.9	-1.77	0.735	95.8	0.987	-0.030	4-1214	200.0	405.8	1.39	1.098	98.1	142.3	24.3	0.170
4-1100	4-1280	0.121	231.0	-11.7	-1.04	0.773	101.1	1.045	-0.019	4-1215	224.7	373.9	0.46	1.115	92.6	123.2	24.6	0.119

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1100	4-1290	0.118	235.5	-13.2	-1.09	0.763	100.4	1.039	-0.019	4-1216	221.3	380.7	0.52	1.113	93.8	124.0	24.4	0.128
4-1100	4-1300	0.113	240.7	-14.8	-1.17	0.762	99.7	1.032	-0.021	4-1217	217.6	387.1	0.62	1.110	95.0	126.8	24.3	0.137
4-1100	4-1310	0.113	246.8	-16.4	-1.28	0.756	98.9	1.024	-0.022	4-1218	213.6	393.3	0.75	1.107	96.0	131.6	24.9	0.147
4-1100	4-1320	0.112	253.7	-18.3	-1.42	0.750	98.0	1.015	-0.025	4-1219	209.3	399.2	0.94	1.103	97.0	136.4	23.5	0.157
4-1100	4-1330	0.112	261.3	-19.8	-1.71	0.744	97.0	1.005	-0.029	4-1220	204.9	405.0	1.20	1.099	98.0	142.6	23.0	0.168
4-1110	4-1290	0.132	232.7	-13.1	-1.23	0.780	101.7	1.057	-0.022	4-1223	227.1	380.7	0.40	1.117	93.9	124.0	23.2	0.131
4-1110	4-1300	0.128	237.4	-14.7	-1.27	0.773	101.0	1.050	-0.023	4-1224	223.2	386.9	0.50	1.113	95.0	126.9	23.2	0.140
4-1110	4-1310	0.124	243.0	-16.4	-1.35	0.766	100.2	1.042	-0.024	4-1225	219.0	392.9	0.62	1.109	96.1	131.2	22.9	0.148
4-1110	4-1320	0.121	249.3	-18.1	-1.47	0.760	99.3	1.033	-0.026	4-1226	214.6	398.7	0.79	1.105	97.0	136.6	22.4	0.158
4-1110	4-1330	0.119	256.5	-19.8	-1.68	0.753	98.3	1.023	-0.029	4-1227	210.1	404.4	1.02	1.100	98.0	142.8	21.7	0.167
4-1110	4-1340	0.118	264.4	-21.2	-1.99	0.746	97.3	1.012	-0.034	4-1228	205.4	409.8	1.33	1.095	98.8	149.6	21.1	0.177
4-1120	4-1290	0.151	230.8	-13.4	-1.39	0.793	103.1	1.077	-0.026	4-1230	233.1	380.8	0.25	1.121	94.1	123.7	21.9	0.137
4-1120	4-1300	0.145	235.1	-14.8	-1.39	0.785	102.4	1.070	-0.026	4-1231	229.1	386.9	0.36	1.117	95.2	126.8	22.0	0.144
4-1120	4-1310	0.139	240.0	-16.3	-1.43	0.778	101.6	1.062	-0.026	4-1231	224.8	392.8	0.49	1.112	96.2	131.3	21.7	0.152
4-1120	4-1320	0.133	245.7	-18.0	-1.51	0.770	100.7	1.053	-0.027	4-1232	220.2	398.4	0.64	1.107	97.1	136.7	21.2	0.160
4-1120	4-1330	0.129	252.2	-19.7	-1.66	0.763	99.7	1.043	-0.030	4-1234	215.5	403.9	0.84	1.102	98.0	142.8	20.4	0.168
4-1120	4-1340	0.126	259.5	-21.2	-1.90	0.755	98.6	1.031	-0.034	4-1235	210.7	409.2	1.11	1.096	98.8	149.6	19.6	0.177
4-1130	4-1300	0.165	233.7	-15.1	-1.53	0.799	103.9	1.091	-0.029	4-1238	235.2	387.0	0.20	1.123	95.4	126.6	20.7	0.151
4-1130	4-1310	0.158	238.1	-16.5	-1.53	0.790	103.0	1.082	-0.028	4-1238	230.7	392.7	0.34	1.117	96.4	131.2	20.5	0.158
4-1130	4-1320	0.150	243.1	-18.1	-1.57	0.782	102.1	1.073	-0.029	4-1239	226.0	398.2	0.49	1.111	97.3	136.6	20.0	0.165
4-1130	4-1330	0.144	248.9	-19.6	-1.67	0.773	101.1	1.063	-0.030	4-1240	221.2	403.6	0.67	1.105	98.1	142.8	19.2	0.172
4-1130	4-1340	0.138	255.5	-21.2	-1.84	0.765	100.1	1.052	-0.033	4-1242	216.2	408.8	0.90	1.099	98.9	149.5	18.2	0.179
4-1130	4-1350	0.134	262.9	-22.5	-2.13	0.758	98.9	1.040	-0.038	4-1243	211.1	413.9	1.21	1.092	99.7	156.6	17.3	0.187
4-1140	4-1300	0.181	233.3	-15.6	-1.71	0.815	105.5	1.113	-0.033	4-1245	241.4	387.2	0.01	1.130	95.8	126.3	19.4	0.161
4-1140	4-1310	0.181	237.3	-16.9	-1.65	0.805	104.6	1.105	-0.031	4-1245	236.8	392.8	0.17	1.123	96.7	131.0	19.3	0.167
4-1140	4-1320	0.172	241.7	-18.3	-1.64	0.795	103.7	1.095	-0.031	4-1246	232.0	393.1	0.33	1.116	97.6	136.5	18.8	0.173
4-1140	4-1330	0.163	246.8	-19.7	-1.69	0.785	102.6	1.084	-0.032	4-1247	227.0	403.4	0.50	1.109	98.4	142.7	18.0	0.178
4-1140	4-1340	0.155	252.6	-21.2	-1.81	0.776	101.6	1.073	-0.033	4-1248	221.9	408.4	0.71	1.102	99.1	149.4	16.9	0.184
4-1140	4-1350	0.148	259.2	-22.6	-2.02	0.767	100.4	1.061	-0.037	4-1250	216.7	413.4	0.97	1.095	99.8	156.5	15.7	0.190
4-1150	4-1310	0.209	237.3	-17.5	-1.79	0.821	106.3	1.128	-0.035	4-1252	243.0	392.9	-0.02	1.132	97.1	130.8	18.1	0.179
4-1150	4-1320	0.198	241.3	-18.7	-1.73	0.810	105.3	1.118	-0.033	4-1253	238.1	398.1	0.16	1.124	98.0	136.4	17.7	0.183
4-1150	4-1330	0.187	245.8	-20.0	-1.73	0.799	104.3	1.107	-0.033	4-1254	233.0	403.2	0.34	1.115	98.7	142.6	16.8	0.187
4-1150	4-1340	0.176	250.9	-21.3	-1.80	0.788	103.2	1.096	-0.034	4-1255	227.8	408.2	0.53	1.107	99.4	149.3	15.7	0.191
4-1150	4-1350	0.167	256.6	-22.6	-1.94	0.778	102.0	1.083	-0.036	4-1257	222.5	413.1	0.75	1.099	100.0	156.3	14.4	0.196
4-1150	4-1360	0.159	263.1	-23.8	-2.18	0.769	100.8	1.070	-0.040	4-1258	217.2	417.8	1.04	1.091	100.6	163.6	13.0	0.200
4-1160	4-1310	0.242	238.1	-18.1	-1.96	0.841	108.1	1.154	-0.039	4-1259	249.3	393.0	-0.23	1.143	97.7	130.7	16.8	0.194
4-1160	4-1320	0.228	241.8	-19.2	-1.84	0.827	107.1	1.144	-0.036	4-1260	244.3	398.1	-0.02	1.133	98.5	136.4	16.5	0.197
4-1160	4-1330	0.215	245.8	-20.4	-1.79	0.814	106.1	1.132	-0.035	4-1261	239.1	403.1	0.16	1.123	99.2	142.6	15.7	0.199
4-1160	4-1340	0.202	250.3	-21.6	-1.80	0.802	104.9	1.120	-0.035	4-1262	233.8	408.0	0.35	1.114	99.8	149.2	14.5	0.202
4-1160	4-1350	0.191	255.3	-22.7	-1.89	0.790	103.7	1.107	-0.036	4-1264	228.4	412.7	0.55	1.104	100.4	156.2	13.1	0.204
4-1160	4-1360	0.180	261.0	-23.8	-2.05	0.780	102.5	1.093	-0.038	4-1265	223.0	417.4	0.80	1.095	101.0	163.4	11.5	0.207
4-1170	4-1320	0.264	243.0	-19.9	-1.98	0.847	109.1	1.171	-0.040	4-1267	250.4	398.0	-0.23	1.146	99.1	136.4	15.4	0.215
4-1170	4-1330	0.248	246.7	-20.9	-1.87	0.833	108.0	1.159	-0.037	4-1268	245.2	402.9	-0.02	1.134	99.8	142.6	14.7	0.219
4-1170	4-1340	0.233	250.7	-21.9	-1.83	0.817	106.8	1.146	-0.036	4-1269	239.8	407.7	0.17	1.123	100.4	149.2	13.5	0.216
4-1170	4-1350	0.219	255.2	-22.9	-1.86	0.804	105.6	1.132	-0.036	4-1271	234.3	412.4	0.37	1.112	100.9	156.1	12.0	0.216
4-1170	4-1360	0.205	260.2	-23.9	-1.96	0.792	104.3	1.118	-0.038	4-1272	228.8	417.0	0.58	1.101	101.4	163.2	10.3	0.218
4-1170	4-1370	0.193	265.8	-24.8	-2.15	0.780	102.9	1.103	-0.041	4-1273	223.3	421.6	0.84	1.091	101.9	170.5	8.5	0.219
4-1180	4-1330	0.287	248.3	-21.4	-1.96	0.853	110.1	1.188	-0.040	4-1275	251.2	402.7	-0.21	1.148	100.5	142.8	13.6	0.235
4-1180	4-1340	0.269	252.0	-22.3	-1.87	0.836	108.9	1.175	-0.038	4-1276	245.8	407.4	-0.00	1.134	101.1	149.3	12.5	0.234
4-1180	4-1350	0.252	256.0	-23.2	-1.84	0.820	107.6	1.160	-0.037	4-1278	240.3	412.1	0.19	1.122	101.6	156.1	10.9	0.232
4-1180	4-1360	0.235	260.4	-24.1	-1.89	0.806	106.2	1.145	-0.037	4-1279	234.7	416.6	0.39	1.110	102.0	163.2	9.1	0.232
4-1180	4-1370	0.221	265.3	-24.8	-2.01	0.793	104.9	1.129	-0.039	4-1280	229.1	421.1	0.61	1.098	102.4	170.4	7.2	0.231
4-1180	4-1380	0.207	270.8	-25.5	-2.22	0.781	103.4	1.113	-0.042	4-1282	223.4	425.5	0.87	1.087	102.7	177.8	5.3	0.232
4-1190	4-1330	0.332	250.5	-22.0	-2.09	0.879	112.3	1.220	-0.044	4-1283	257.1	402.3	-0.44	1.166	101.4	142.1	12.6	0.261
4-1190	4-1340	0.310	253.9	-22.8	-1.92	0.858	111.1	1.204	-0.040	4-1283	251.7	407.6	-0.19	1.150	101.9	149.6	11.5	0.256
4-1190	4-1330	0.290	257.6	-23.5	-1.85	0.839	109.7	1.190	-0.038	4-1285	246.1	411.6	0.02	1.131	102.4	156.3	10.0	0.253
4-1190	4-1360	0.271	261.3	-24.2	-1.84	0.822	108.4	1.174	-0.037	4-1286	240.5	416.1	0.21	1.120	102.7	163.2	8.1	0.249
4-1190	4-1370	0.253	266.0	-24.9	-1.90	0.807	106.9	1.157	-0.038	4-1287	234.9	420.6	0.40	1.107	103.1	170.4	6.1	0.247
4-1190	4-1380	0.236	270.7	-25.5	-2.04	0.793	105.5	1.140	-0.040	4-1289	229.2	424.9	0.62	1.095	103.3	177.7	4.0	0.245
4-1200	4-1340	0.358	256.4	-23.3	-2.00	0.886	113.5	1.240	-0.043	4-1291	237.4	406.4	-0.37	1.170	102.9	150.8	10.6	0.282
4-1200	4-1350	0.334	259.9	-23.9	-1.86	0.863	112.1	1.224	-0.040	4-1292	251.9	411.0	-0.16	1.151	103.3	156.6	9.1	0.278
4-1200	4-1360	0.312	263.6	-24.4	-1.81	0.842	110.7	1.207	-0.038	4-1293	246.3	415.8	0.04	1.135	103.6	163.5	7.8	0.272
4-1200	4-1370	0.290	267.5	-25.0	-1.82	0.824	109.2	1.189	-0.037	4-1294	240.6	419.9	0.22	1.119	103.9	170.4	6.1	0.267
4-1200	4-1380	0.271	271.7	-25.4	-1.89	0.807	107.7	1.170	-0.038	4-1296	234.9	424.3	0.41	1.105	104.1	177.7	4.8	0.263
4-1200	4-1390	0.252	276.4	-25.8	-2.04	0.792	106.1	1.151	-0.040	4-1298	229.1	428.5	0.63	1.091	104.3	185.3	3.6	0.259
4-1210	4-1340	0.414	259.3	-23.7	-2.11	0.920	116.0	1.278	-0.042	4-1296	263.0	405.7	-0.62	1.196	104.1	150.6	9.6	0.320
4-1210	4-1350	0.386	262.6	-24.2	-1.90	0.892	114.6	1.261	-0.042	4-1299	257.5	410.3	-0.34	1.172	104.4	157.1	8.2	0.309
4-1210	4-1360	0.359	266.1	-24.6	-1.78	0.866	113.1	1.242	-0.038	4-1300	251.9	414.8	-0.15	1.153	104.7	163.9	6.4	0.300
4-1210	4-1370	0.334	269.7	-25.0	-1.75	0.844	111.6	1.223	-0.037	4-1301	246.2	419.2	0.05	1.134	104.9	170.4	4.2	0.292
4-1210	4-1380	0.310	273.5	-25.4	-1.77	0.824	110.0	1.203	-0.037	4-1303	240.5	423.5	0.22	1.118	105.1	177.8	1.9	0.285
4-1210	4-1390	0.289	277.7	-25.6	-1.86	0.807	108.4	1.183	-0.038	4-1305	234.7	427.8	0.01	1.102	105.2	185.1	-0.5	0.279
4-1220	4-1350	0.445	266.7	-24.4	-1.95	0.928	117.3	1.301	-0.044	4-1306	262.9	409.3	-0.53	1.202	104.7	157.8	7.4	0.340
4-1220	4-1360	0.413	269.0	-24.8	-1.77	0.897	115.8	1.282	-0.039	4-1307	257.3	413.9	-0.29	1.177	104.9	164.4	5.6	0.334
4-1220	4-1370	0.383	272.4	-25.0	-1.69	0.870	114.2	1.261	-0.037	4-1308	251.6	418.3	-0.10	1.154	106.1	171.2	3.4	0.323
4-1220	4-1380	0.356	276.0	-25.3	-1.67	0.846	112.6	1.239	-0.036	4-1310	246.0	422.7	0.06	1.134	106.2	178.3	1.0	0.312
4-1220	4-1390	0.330	279.7	-25.4	-1.70	0.824	110.9	1.217	-0.036	4-1311	240.2	426.6	0.20	1.116	106.3	185.3	-1.4	0.303
4-1220	4-1400	0.307	283.7	-25.5	-1.80	0.805	109.2	1.195	-0.037	4-1313	234.4	431.1	0.39	1.099	106.4	192.6	-3.9	0.296
4-1230	4-1360	0.475	272.3	-24.8	-1.78	0.935	118.7	1.326	-0.041	4-1314	262.5	412.8	-0.46	1.207	107.4	163.2	4.8	0.376
4-1230	4-1370	0.440	275.5	-25.0	-1.64	0.902	117.0	1.303	-0.037	4-1315	256.9	417.3	-0.25	1.180	107.5	171.8	2.7	0.360
4-1230	4-1380	0.408	278.9	-25.1	-1.58	0.872	115.4	1.280	-0.035	4-1317	251.3	421.7	-0.09	1.156	107.5	178.6	0.3	0.346

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1230	4-1390	0.378	287.3	-25.2	-1.57	0.846	113.6	1.256	-0.034	4-1318	245.5	425.9	0.06	1.134	107.4	185.6	-2.2	0.333
4-1230	4-1400	0.350	286.0	-25.1	-1.61	0.824	111.8	1.232	-0.034	4-1320	239.8	430.1	0.20	1.114	107.4	192.8	-4.8	0.322
4-1230	4-1410	0.324	289.9	-25.0	-1.71	0.803	109.9	1.208	-0.035	4-1322	233.9	434.2	0.35	1.097	107.3	200.2	-7.3	0.313
4-1240	4-1360	0.548	275.9	-24.8	-1.80	0.983	121.6	1.374	-0.043	4-1321	267.8	411.6	-0.64	1.247	108.0	166.1	4.0	0.428
4-1240	4-1370	0.506	278.9	-24.9	-1.60	0.942	120.0	1.350	-0.038	4-1322	262.0	416.1	-0.39	1.213	109.0	172.6	2.0	0.406
4-1240	4-1380	0.468	282.1	-24.9	-1.50	0.906	118.3	1.325	-0.034	4-1324	256.4	420.5	-0.22	1.183	109.0	179.3	-0.4	0.386
4-1240	4-1390	0.432	285.4	-24.8	-1.45	0.874	116.5	1.299	-0.033	4-1325	250.7	424.8	-0.09	1.157	108.9	186.2	-2.9	0.369
4-1240	4-1400	0.400	288.7	-24.7	-1.45	0.847	114.6	1.272	-0.032	4-1327	245.0	429.1	0.04	1.133	108.7	193.2	-5.6	0.354
4-1240	4-1410	0.370	292.2	-24.5	-1.50	0.822	112.7	1.246	-0.032	4-1329	239.2	433.2	0.15	1.113	108.5	200.5	-8.1	0.342
4-1250	4-1370	0.582	282.5	-24.6	-1.58	0.993	123.1	1.403	-0.039	4-1329	266.9	414.8	-0.53	1.255	110.7	173.6	1.3	0.461
4-1250	4-1380	0.536	285.6	-24.5	-1.43	0.948	121.4	1.375	-0.034	4-1331	261.3	419.2	-0.35	1.218	110.6	180.1	-1.0	0.435
4-1250	4-1390	0.496	288.7	-24.4	-1.35	0.909	119.6	1.347	-0.031	4-1332	255.7	423.6	-0.21	1.186	110.5	186.8	-3.6	0.413
4-1250	4-1400	0.456	291.8	-24.2	-1.31	0.875	117.7	1.318	-0.030	4-1334	250.0	427.9	-0.10	1.158	110.2	193.8	-6.2	0.393
4-1250	4-1410	0.421	295.1	-23.9	-1.32	0.846	115.7	1.289	-0.029	4-1336	244.3	432.0	-0.00	1.133	110.0	201.0	-8.8	0.376
4-1250	4-1420	0.389	298.5	-23.6	-1.35	0.820	113.7	1.260	-0.029	4-1338	238.5	436.0	0.09	1.111	109.7	208.3	-11.4	0.362
4-1260	4-1380	0.616	289.2	-24.1	-1.36	1.002	124.6	1.432	-0.034	4-1338	266.1	417.8	-0.46	1.263	112.5	181.1	-1.7	0.494
4-1260	4-1390	0.566	292.2	-23.9	-1.25	0.954	122.8	1.401	-0.030	4-1339	260.5	422.2	-0.32	1.223	112.3	187.7	-4.1	0.465
4-1260	4-1400	0.521	295.2	-23.6	-1.18	0.912	120.9	1.363	-0.028	4-1341	254.9	426.5	-0.21	1.189	112.0	194.5	-6.8	0.440
4-1260	4-1410	0.480	298.3	-23.2	-1.16	0.876	118.8	1.337	-0.027	4-1343	249.2	430.7	-0.13	1.159	111.6	201.5	-9.4	0.417
4-1260	4-1420	0.442	301.4	-22.8	-1.15	0.845	116.8	1.305	-0.026	4-1345	243.4	434.8	-0.07	1.133	111.2	209.8	-12.0	0.398
4-1260	4-1430	0.407	304.7	-22.3	-1.17	0.817	114.6	1.278	-0.025	4-1347	237.6	438.8	-0.01	1.110	110.9	216.4	-14.4	0.382
4-1270	4-1380	0.709	293.0	-23.6	-1.30	1.071	127.9	1.496	-0.034	4-1345	270.6	416.3	-0.56	1.322	114.4	182.3	-2.3	0.567
4-1270	4-1390	0.659	295.9	-23.3	-1.15	1.011	126.1	1.462	-0.029	4-1346	265.1	420.8	-0.41	1.271	114.2	188.7	-4.7	0.528
4-1270	4-1400	0.595	298.8	-22.9	-1.06	0.959	124.2	1.426	-0.026	4-1348	259.5	425.1	-0.31	1.228	113.9	195.3	-7.3	0.495
4-1270	4-1410	0.546	301.7	-22.4	-1.01	0.915	122.2	1.391	-0.024	4-1350	253.9	429.4	-0.24	1.192	113.4	202.2	-9.9	0.467
4-1270	4-1420	0.502	304.6	-22.0	-0.96	0.876	120.0	1.356	-0.023	4-1352	248.2	433.5	-0.19	1.160	113.0	209.4	-12.5	0.442
4-1270	4-1430	0.462	307.6	-21.4	-0.96	0.843	117.8	1.322	-0.022	4-1354	242.5	437.5	-0.16	1.133	112.5	216.9	-15.0	0.421
4-1280	4-1380	0.820	296.7	-23.1	-1.23	1.159	131.2	1.567	-0.034	4-1352	274.9	414.6	-0.64	1.397	116.5	183.7	-2.9	0.655
4-1280	4-1390	0.746	299.6	-22.6	-1.05	1.083	129.5	1.530	-0.028	4-1353	269.5	419.1	-0.48	1.333	116.3	189.8	-5.3	0.606
4-1280	4-1400	0.681	302.4	-22.1	-0.95	1.019	127.6	1.491	-0.025	4-1354	264.0	423.6	-0.38	1.279	115.9	196.3	-7.8	0.563
4-1280	4-1410	0.623	305.2	-21.6	-0.88	0.964	125.6	1.452	-0.022	4-1356	258.5	427.9	-0.32	1.233	115.5	203.1	-10.4	0.526
4-1280	4-1420	0.571	308.0	-21.0	-0.83	0.916	123.5	1.413	-0.020	4-1358	252.8	432.1	-0.29	1.195	114.9	210.2	-13.0	0.494
4-1290	4-1390	0.861	303.3	-21.8	-0.95	1.176	132.8	1.608	-0.026	4-1360	273.7	417.4	-0.52	1.413	118.5	191.2	-5.8	0.700
4-1290	4-1400	0.782	306.1	-21.2	-0.83	1.095	131.1	1.565	-0.023	4-1361	268.3	421.9	-0.44	1.344	118.2	197.4	-8.3	0.645
4-1290	4-1410	0.712	308.8	-20.6	-0.75	1.026	129.1	1.521	-0.020	4-1363	262.8	426.3	-0.39	1.287	117.7	204.1	-10.8	0.597
4-1290	4-1420	0.650	311.5	-20.0	-0.68	0.968	127.0	1.477	-0.017	4-1365	257.3	430.6	-0.36	1.238	117.0	211.0	-13.4	0.557
4-1290	4-1430	0.595	314.1	-19.4	-0.63	0.918	124.8	1.434	-0.015	4-1367	251.7	434.7	-0.36	1.197	116.4	218.3	-15.8	0.522
4-1300	4-1410	0.816	312.4	-19.6	-0.62	1.106	132.6	1.601	-0.017	4-1369	267.0	424.7	-0.43	1.355	120.0	205.2	-12.2	0.683
4-1300	4-1420	0.741	315.0	-18.9	-0.55	1.033	130.6	1.551	-0.015	4-1371	261.5	429.0	-0.42	1.294	119.4	212.0	-13.7	0.632
4-1300	4-1430	0.676	317.6	-18.2	-0.48	0.971	128.4	1.502	-0.012	4-1374	256.0	433.2	-0.43	1.243	118.6	218.1	-16.1	0.588
4-1300	4-1440	0.617	320.1	-17.5	-0.41	0.918	126.1	1.455	-0.010	4-1376	250.4	437.3	-0.47	1.200	117.8	226.6	-18.4	0.550
4-1850	4-2050	0.113	312.6	-11.7	-2.00	0.771	92.4	0.950	-0.033	4-1975	191.3	342.7	-0.30	1.092	88.4	221.5	-19.9	0.089
4-1850	4-2060	0.111	313.0	-12.6	-1.90	0.772	92.4	0.949	-0.031	4-1975	191.4	353.0	-0.14	1.093	89.0	215.3	-16.2	0.079
4-1850	4-2070	0.111	314.3	-13.5	-1.85	0.772	92.2	0.947	-0.030	4-1976	190.8	362.6	0.04	1.092	90.4	208.8	-11.2	0.076
4-1850	4-2080	0.111	316.3	-14.5	-1.86	0.772	92.0	0.944	-0.030	4-1976	189.6	371.5	0.26	1.090	91.7	203.8	-8.2	0.079
4-1850	4-2090	0.113	319.2	-15.7	-1.96	0.770	91.7	0.940	-0.032	4-1977	187.8	379.9	0.50	1.088	92.9	201.5	-7.2	0.087
4-1850	4-2100	0.115	322.6	-15.6	-2.18	0.769	91.8	0.936	-0.035	4-1977	185.6	387.7	0.90	1.085	94.1	201.8	0.5	0.097
4-1860	4-2060	0.114	308.8	-13.9	-2.02	0.775	93.3	0.963	-0.033	4-1968	196.1	351.5	-0.34	1.093	88.7	217.5	-19.6	0.081
4-1860	4-2070	0.113	309.9	-14.9	-1.91	0.776	93.2	0.961	-0.032	4-1983	195.6	361.1	-0.14	1.092	90.2	210.9	-14.7	0.076
4-1860	4-2080	0.113	311.9	-15.9	-1.87	0.775	93.0	0.959	-0.031	4-1984	194.5	370.1	0.07	1.091	91.5	205.6	-9.6	0.079
4-1860	4-2090	0.113	314.7	-16.7	-1.91	0.774	92.7	0.954	-0.031	4-1984	192.7	378.5	0.30	1.088	92.7	203.0	-5.5	0.085
4-1860	4-2100	0.114	318.2	-17.1	-2.03	0.772	92.2	0.949	-0.033	4-1985	190.4	386.3	0.55	1.085	93.9	202.8	-2.7	0.094
4-1860	4-2110	0.116	322.3	-17.2	-2.26	0.770	91.7	0.944	-0.037	4-1986	187.7	393.6	0.86	1.081	95.0	203.9	-0.9	0.106
4-1870	4-2070	0.118	305.3	-16.4	-1.99	0.779	94.3	0.975	-0.033	4-1991	200.9	360.2	-0.34	1.093	90.0	211.8	-17.9	0.076
4-1870	4-2080	0.118	307.2	-17.3	-1.87	0.779	94.1	0.972	-0.032	4-1991	199.8	369.1	-0.12	1.091	91.4	206.5	-12.7	0.078
4-1870	4-2090	0.117	309.9	-18.2	-1.87	0.777	93.7	0.969	-0.031	4-1992	198.0	377.5	0.10	1.089	92.6	203.7	-8.5	0.084
4-1870	4-2100	0.117	313.3	-18.7	-1.93	0.775	93.3	0.964	-0.032	4-1992	195.7	385.2	-0.33	1.085	93.7	203.4	-5.6	0.093
4-1870	4-2110	0.118	317.4	-18.8	-2.08	0.773	92.8	0.959	-0.034	4-1993	192.9	392.5	0.59	1.082	94.8	205.2	-3.9	0.103
4-1870	4-2120	0.119	322.0	-18.5	-2.33	0.770	92.1	0.952	-0.038	4-1994	189.7	399.3	0.90	1.077	95.8	208.6	-2.8	0.115
4-1880	4-2070	0.128	300.9	-17.7	-2.10	0.783	95.5	0.991	-0.036	4-1998	206.8	359.8	-0.55	1.095	90.0	211.6	-20.8	0.080
4-1880	4-2080	0.127	302.6	-18.7	-1.94	0.782	95.3	0.988	-0.033	4-1999	205.6	368.7	-0.31	1.093	91.3	206.4	-15.5	0.080
4-1880	4-2090	0.126	305.2	-19.5	-1.86	0.781	94.9	0.984	-0.031	4-1999	203.8	376.9	-0.09	1.090	92.5	203.7	-11.1	0.085
4-1880	4-2100	0.125	308.4	-20.1	-1.84	0.779	94.5	0.980	-0.031	4-2000	201.3	384.6	0.13	1.087	93.7	203.4	-8.2	0.093
4-1880	4-2110	0.124	312.4	-20.3	-1.93	0.776	94.0	0.974	-0.032	4-2000	198.5	391.7	0.35	1.083	94.7	205.2	-6.5	0.103
4-1880	4-2120	0.123	317.0	-20.1	-2.10	0.773	93.3	0.968	-0.035	4-2001	195.1	398.4	0.60	1.078	95.7	208.6	-5.6	0.114
4-1890	4-2080	0.141	299.0	-19.7	-2.00	0.787	96.6	1.005	-0.035	4-2006	212.0	368.7	-0.51	1.096	91.3	205.3	-17.7	0.083
4-1890	4-2090	0.139	301.3	-20.5	-1.86	0.785	96.2	1.001	-0.032	4-2007	210.0	376.8	-0.27	1.093	92.6	203.0	-15.2	0.088
4-1890	4-2100	0.137	304.3	-21.1	-1.80	0.782	95.8	0.997	-0.031	4-2007	207.4	384.3	-0.06	1.089	93.7	202.9	-12.3	0.095
4-1890	4-2110	0.134	307.9	-21.4	-1.82	0.779	95.3	0.991	-0.031	4-2008	204.4	391.3	0.15	1.085	94.7	204.9	-8.7	0.104
4-1890	4-2120	0.132	312.2	-21.4	-1.91	0.776	94.6	0.985	-0.032	4-2009	201.0	397.9	0.36	1.080	95.7	208.3	-8.0	0.115
4-1890	4-2130	0.131	317.1	-21.0	-2.08	0.772	93.9	0.977	-0.035	4-2010	197.2	404.5	0.60	1.075	96.6	212.8	-7.8	0.126
4-1900	4-2080	0.160	296.3	-20.5	-2.09	0.792	98.1	1.024	-0.037	4-2014	218.8	369.2	-0.72	1.100	91.5	203.2	-19.4	0.088
4-1900	4-2090	0.157	298.5	-21.3	-1.88	0.789	97.7	1.020	-0.033	4-2014	216.6	377.1	-0.46	1.096	92.7	201.5	-14.9	0.093
4-1900	4-2100	0.153	301.3	-21.8	-1.77	0.786	97.2	1.015	-0.031	4-2015	213.9	384.4	-0.23	1.092	93.4	201.9	-11.9	0.100
4-1900	4-2110	0.150	304.6	-22.2	-1.73	0.783	96.7	1.009	-0.030	4-2015	210.7	391.3	-0.03	1.087	94.9	204.2	-10.4	0.108
4-1900	4-2120	0.146	308.4	-22.3	-1.77	0.779	96.0	1.002	-0.030	4-2016	207.1	397.7	0.16	1.082	95.8	207.7	-9.9	0.118
4-1900	4-2130	0.143	312.9	-22.0	-1.86	0.775	95.3	0.995	-0.032	4-2017	203.3	403.8	0.35	1.077	96.7	212.4	-10.0	0.128
4-1910	4-2090	0.179	296.9	-21.7	-1.92	0.795	99.4	1.040	-0.035	4-2022	223.6	377.8	-0.65	1.102	93.0	199.5	-16.0	0.100
4-1910	4-2100	0.175	299.4	-22.2	-1.75	0.791	98.9	1.035	-0.031	4-2022	220.7	384.9	-0.40	1.097	94.1	200.6	-13.1	0.106
4-1910	4-2110	0.170	302.4	-22.6	-1.66	0.787	98.3	1.029	-0.029	4-2023	217.3	391.5	-0.20	1.092	95.1	203.2	-11.7	0.115

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-1910	4-2120	0.165	305.9	-22.7	-1.64	0.782	97.6	1.022	-0.029	4-2024	213.5	397.8	-0.02	1.086	96.1	207.0	-11.3	0.125
4-1910	4-2130	0.159	309.9	-22.6	-1.68	0.778	96.8	1.014	-0.029	4-2025	209.5	403.7	0.15	1.080	96.9	211.8	-11.6	0.133
4-1910	4-2140	0.154	314.3	-22.1	-1.78	0.773	96.0	1.005	-0.031	4-2026	205.2	409.3	0.32	1.074	97.7	217.3	-12.2	0.142
4-1920	4-2090	0.206	296.4	-22.0	-1.98	0.803	101.3	1.063	-0.036	4-2029	230.9	378.7	-0.84	1.109	93.4	195.3	-16.6	0.110
4-1920	4-2100	0.200	298.8	-22.4	-1.75	0.798	100.7	1.057	-0.032	4-2030	227.6	385.6	-0.57	1.103	94.5	199.0	-13.9	0.116
4-1920	4-2110	0.194	301.5	-22.7	-1.61	0.792	100.0	1.050	-0.029	4-2030	224.0	392.0	-0.36	1.097	95.5	202.0	-12.6	0.124
4-1920	4-2120	0.187	304.6	-22.8	-1.54	0.787	99.3	1.043	-0.028	4-2031	220.1	398.0	-0.18	1.091	96.4	206.1	-12.4	0.132
4-1920	4-2130	0.181	308.2	-22.8	-1.53	0.781	98.5	1.034	-0.027	4-2032	215.9	403.8	-0.03	1.084	97.2	211.1	-12.8	0.140
4-1920	4-2140	0.174	312.2	-22.4	-1.58	0.775	97.6	1.025	-0.028	4-2033	211.4	409.2	0.12	1.077	98.0	216.7	-13.7	0.149
4-1930	4-2100	0.231	299.1	-22.4	-1.76	0.807	102.7	1.082	-0.033	4-2037	234.7	386.4	-0.74	1.112	95.0	197.3	-14.3	0.129
4-1930	4-2110	0.223	301.6	-22.6	-1.56	0.800	102.0	1.074	-0.029	4-2038	230.9	392.6	-0.51	1.105	96.0	200.8	-13.2	0.136
4-1930	4-2120	0.214	304.5	-22.7	-1.45	0.793	101.2	1.066	-0.027	4-2039	226.7	398.4	-0.32	1.098	96.9	205.3	-13.1	0.143
4-1930	4-2130	0.206	307.7	-22.6	-1.40	0.786	100.4	1.057	-0.026	4-2040	222.3	404.0	-0.17	1.090	97.7	210.4	-13.7	0.151
4-1930	4-2140	0.197	311.2	-22.3	-1.40	0.779	99.5	1.047	-0.025	4-2041	217.7	409.3	-0.05	1.082	98.4	216.2	-14.7	0.158
4-1930	4-2150	0.188	315.1	-21.7	-1.44	0.773	98.5	1.037	-0.026	4-2042	212.9	414.3	0.06	1.075	99.1	222.5	-15.9	0.166
4-1940	4-2110	0.256	302.6	-22.3	-1.53	0.810	104.2	1.101	-0.029	4-2045	237.7	393.2	-0.65	1.115	96.6	199.4	-13.5	0.152
4-1940	4-2120	0.246	305.2	-22.3	-1.38	0.801	103.4	1.092	-0.026	4-2046	233.4	398.9	-0.46	1.106	97.5	204.4	-13.6	0.150
4-1940	4-2130	0.235	308.1	-22.2	-1.29	0.793	102.4	1.082	-0.024	4-2047	228.8	404.2	-0.31	1.098	98.3	209.8	-14.3	0.164
4-1940	4-2140	0.225	311.3	-21.9	-1.25	0.784	101.5	1.071	-0.023	4-2048	224.1	409.4	-0.19	1.089	99.0	215.7	-15.4	0.171
4-1940	4-2150	0.214	314.8	-21.4	-1.25	0.777	100.4	1.060	-0.023	4-2049	219.1	414.3	-0.09	1.081	99.6	222.0	-16.8	0.178
4-1940	4-2160	0.203	318.6	-20.7	-1.27	0.769	99.3	1.048	-0.023	4-2051	214.1	419.0	-0.02	1.073	100.2	228.8	-18.2	0.184
4-1950	4-2100	0.307	301.9	-21.9	-1.83	0.834	107.5	1.139	-0.036	4-2052	248.7	388.0	-1.11	1.139	96.4	194.6	-14.4	0.167
4-1950	4-2110	0.295	304.2	-21.9	-1.51	0.823	106.6	1.130	-0.030	4-2053	244.4	393.8	-0.80	1.128	97.4	198.8	-13.6	0.172
4-1950	4-2120	0.282	306.7	-21.8	-1.31	0.812	105.7	1.120	-0.025	4-2053	239.9	399.2	-0.58	1.118	98.3	203.8	-13.8	0.177
4-1950	4-2130	0.269	309.3	-21.7	-1.19	0.802	104.7	1.110	-0.023	4-2054	235.2	404.5	-0.42	1.108	99.0	209.3	-14.7	0.182
4-1950	4-2140	0.256	312.2	-21.4	-1.11	0.792	103.7	1.098	-0.021	4-2056	230.3	409.5	-0.31	1.09	99.7	215.3	-15.9	0.187
4-1950	4-2150	0.243	315.3	-20.9	-1.08	0.782	102.5	1.086	-0.020	4-2057	225.3	414.3	-0.22	1.084	100.3	221.7	-17.4	0.192
4-1950	4-2160	0.230	318.7	-20.3	-1.06	0.773	101.3	1.073	-0.020	4-2058	220.1	418.9	-0.16	1.079	100.8	228.5	-18.9	0.198
4-1960	4-2110	0.339	306.3	-21.4	-1.50	0.841	109.3	1.162	-0.030	4-2060	250.9	394.2	-0.94	1.145	98.3	198.2	-13.6	0.196
4-1960	4-2120	0.323	308.7	-21.2	-1.25	0.827	108.3	1.152	-0.025	4-2061	246.3	399.5	-0.70	1.133	99.2	203.3	-13.9	0.200
4-1960	4-2130	0.307	311.2	-21.0	-1.09	0.814	107.2	1.140	-0.022	4-2062	241.5	404.7	-0.53	1.121	99.9	208.9	-14.9	0.203
4-1960	4-2140	0.292	313.8	-20.6	-0.99	0.802	106.1	1.128	-0.019	4-2063	236.5	409.6	-0.41	1.109	100.5	215.0	-16.2	0.207
4-1960	4-2150	0.277	316.7	-20.2	-0.93	0.791	104.9	1.114	-0.018	4-2064	231.4	414.3	-0.33	1.098	101.1	221.5	-17.8	0.210
4-1960	4-2160	0.261	319.7	-19.6	-0.89	0.779	103.6	1.100	-0.017	4-2066	226.1	418.8	-0.28	1.087	101.5	228.3	-19.4	0.214
4-1960	4-2170	0.247	323.0	-18.8	-0.85	0.769	102.3	1.085	-0.016	4-2067	220.8	423.2	-0.26	1.078	102.0	235.6	-21.0	0.218
4-1970	4-2120	0.370	311.0	-20.5	-1.20	0.848	111.0	1.187	-0.025	4-2068	252.4	399.7	-0.81	1.152	100.2	203.1	-14.0	0.228
4-1970	4-2130	0.351	313.4	-20.2	-1.01	0.831	109.9	1.174	-0.020	4-2069	247.5	404.7	-0.62	1.137	100.9	208.7	-15.0	0.229
4-1970	4-2140	0.332	315.9	-19.8	-0.88	0.816	108.7	1.160	-0.018	4-2070	242.4	409.5	-0.50	1.123	101.5	214.8	-16.4	0.231
4-1970	4-2150	0.314	318.5	-19.3	-0.79	0.801	107.4	1.146	-0.017	4-2071	237.3	414.2	-0.42	1.110	102.0	221.3	-18.0	0.232
4-1970	4-2160	0.297	321.3	-18.7	-0.73	0.788	106.1	1.130	-0.014	4-2073	232.0	418.7	-0.37	1.098	102.5	228.2	-19.7	0.234
4-1970	4-2170	0.279	324.3	-18.0	-0.67	0.775	104.7	1.114	-0.013	4-2074	226.6	423.0	-0.36	1.087	102.8	235.5	-21.3	0.237
4-1970	4-2180	0.262	327.5	-17.1	-0.60	0.764	103.2	1.097	-0.011	4-2076	221.0	427.1	-0.40	1.076	103.2	243.1	-22.9	0.240
4-1980	4-2130	0.400	315.9	-19.3	-0.92	0.854	112.8	1.211	-0.018	4-2076	253.3	404.6	-0.70	1.158	102.1	208.8	-15.1	0.261
4-1980	4-2140	0.378	318.3	-18.9	-0.77	0.834	111.5	1.196	-0.016	4-2077	248.2	409.4	-0.57	1.141	102.7	214.9	-16.5	0.260
4-1980	4-2150	0.357	320.8	-18.4	-0.66	0.816	110.2	1.180	-0.014	4-2078	243.0	414.0	-0.49	1.126	103.1	221.4	-18.2	0.259
4-1980	4-2160	0.336	323.4	-17.7	-0.58	0.800	108.8	1.164	-0.012	4-2080	237.6	418.4	-0.45	1.111	103.5	228.3	-19.9	0.259
4-1980	4-2170	0.316	326.1	-17.0	-0.51	0.786	107.3	1.146	-0.010	4-2082	232.2	422.7	-0.44	1.098	103.8	235.5	-21.5	0.259
4-1980	4-2180	0.296	329.0	-16.2	-0.42	0.771	105.8	1.128	-0.008	4-2083	226.6	426.8	-0.48	1.086	104.1	243.1	-23.1	0.260
4-1980	4-2190	0.430	321.0	-17.9	-0.67	0.859	114.6	1.237	-0.014	4-2084	253.7	409.1	-0.64	1.164	104.0	215.1	-16.6	0.295
4-1990	4-2150	0.405	323.3	-17.3	-0.54	0.837	113.2	1.219	-0.011	4-2086	246.5	413.6	-0.55	1.145	104.4	221.5	-18.2	0.291
4-1990	4-2160	0.380	325.6	-16.6	-0.45	0.816	111.7	1.201	-0.009	4-2087	243.1	418.0	-0.51	1.128	104.7	228.4	-20.0	0.288
4-1990	4-2170	0.356	328.3	-15.9	-0.36	0.798	110.1	1.181	-0.007	4-2089	237.6	422.3	-0.51	1.112	105.0	235.6	-21.6	0.286
4-1990	4-2180	0.334	331.0	-15.1	-0.27	0.781	108.5	1.162	-0.005	4-2090	232.1	426.4	-0.54	1.098	105.2	243.2	-23.2	0.284
4-1990	4-2190	0.312	333.8	-14.1	-0.14	0.766	106.8	1.141	-0.003	4-2092	226.4	430.4	-0.64	1.085	105.4	251.1	-24.7	0.283
4-1990	4-2140	0.484	323.8	-16.8	-0.56	0.892	117.8	1.282	-0.013	4-2091	259.0	408.6	-0.68	1.193	105.4	215.5	-16.6	0.336
4-2000	4-2150	0.459	326.1	-16.1	-0.43	0.864	116.3	1.262	-0.009	4-2092	253.7	413.1	-0.66	1.179	105.8	221.9	-18.3	0.329
4-2000	4-2160	0.435	328.4	-15.5	-0.32	0.839	114.8	1.242	-0.007	4-2094	248.4	417.6	-0.56	1.162	106.1	228.7	-20.0	0.323
4-2000	4-2170	0.402	330.8	-14.7	-0.23	0.816	113.2	1.220	-0.005	4-2096	242.9	421.8	-0.55	1.130	106.3	235.9	-21.7	0.317
4-2000	4-2180	0.376	333.3	-13.9	-0.13	0.795	111.5	1.199	-0.003	4-2097	237.2	425.9	-0.59	1.114	106.5	243.4	-23.2	0.313
4-2000	4-2190	0.350	335.9	-13.0	-0.00	0.777	109.7	1.177	-0.000	4-2099	231.7	429.9	-0.68	1.098	106.6	251.3	-24.7	0.309
4-2010	4-2150	0.520	328.9	-14.9	-0.31	0.899	119.6	1.310	-0.007	4-2094	268.7	412.5	-0.63	1.201	107.4	222.4	-18.3	0.374
4-2010	4-2160	0.486	331.2	-14.2	-0.20	0.868	118.0	1.287	-0.004	4-2101	253.4	416.9	-0.59	1.176	107.7	229.1	-20.0	0.364
4-2010	4-2170	0.454	333.5	-13.5	-0.10	0.840	116.4	1.264	-0.002	4-2102	247.9	421.2	-0.59	1.153	107.8	236.2	-21.7	0.354
4-2010	4-2180	0.423	335.8	-12.7	-0.00	0.815	114.6	1.240	-0.000	4-2104	242.4	425.4	-0.63	1.133	107.9	243.7	-23.2	0.347
4-2010	4-2190	0.394	338.2	-11.8	0.12	0.792	112.8	1.216	-0.002	4-2106	236.8	429.4	-0.71	1.115	107.9	251.5	-24.6	0.340
4-2010	4-2200	0.366	340.8	-10.7	0.30	0.772	110.8	1.191	0.006	4-2108	231.0	433.2	-0.85	1.099	107.9	259.6	-25.8	0.335
4-2020	4-2150	0.591	331.9	-13.7	-0.19	0.945	123.0	1.364	0.005	4-2106	263.5	411.7	-0.64	1.241	109.1	223.1	-18.3	0.428
4-2020	4-2160	0.550	334.1	-12.9	-0.08	0.906	121.4	1.339	-0.002	4-2108	258.2	416.2	-0.61	1.209	109.4	229.7	-20.0	0.412
4-2020	4-2170	0.512	336.7	-12.1	0.02	0.872	119.7	1.313	0.000	4-2109	252.8	420.5	-0.61	1.181	109.5	236.7	-21.7	0.398
4-2020	4-2180	0.476	338.5	-11.3	0.12	0.841	117.9	1.286	0.003	4-2111	247.3	424.7	-0.65	1.156	109.5	244.1	-23.2	0.386
4-2020	4-2190	0.442	340.8	-10.4	0.24	0.813	116.0	1.259	0.005	4-2113	241.7	428.7	-0.73	1.135	109.4	251.9	-24.5	0.376
4-2020	4-2200	0.410	343.2	-9.5	0.40	0.788	114.0	1.232	0.008	4-2115	236.0	432.6	-0.86	1.116	109.3	259.9	-25.6	0.367
4-2030	4-2160	0.623	337.0	-11.6	0.04	0.955	124.9	1.396	0.001	4-2114	262.8	415.3	-0.61	1.251	111.2	230.4	-20.0	0.469
4-2030	4-2170	0.578	339.1	-10.8	0.13	0.912	123.1	1.367	0.00	4-2116	257.4	419.7	-0.62	1.216	111.3	237.3	-21.7	0.450
4-2030	4-2180	0.536	341.3	-9.9	0.25	0.874	121.3	1.337	0.005	4-2118	252.0	423.9	-0.66	1.186	111.2	244.6	-23.1	0.432
4-2030	4-2190	0.497	343.5	-9.1	0.35	0.841	119.4	1.307	0.008	4-2120	246.4	428.0	-0.74	1.160	111.1	252.3	-24.4	0.417
4-2030	4-2200	0.460	345.8	-8.1	0.50	0.811	117.4	1.278	0.011	4-2122	240.7	431.9	-0.86	1.137	110.9	260.3	-25.4	0.404
4-2030	4-2210	0.425	348.1	-7.1	0.72	0.784	115.2	1.248	0.015	4-2124	235.0	435.7	-1.05	1.116	110.7	268.5	-26.2	0.394
4-2040	4-2170	0.653	342.1	-9.4	0.25	0.965	126.6	1.428	0.006	4-2122	261.8	418.7	-0.62	1.261	113.2	238.1	-21.6	0.511
4-2040	4-2180	0.604	344.2	-8.5	0.34	0.918	124.8	1.395	0.008	4-2124	256.4	423.0	-0.66	1.223	113.1	245.3	-23.1	0.487

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2040	4-2190	0.598	346.3	-7.6	0.45	0.877	122.9	1.362	0.010	4-2126	250.9	427.1	-0.74	1.191	112.9	252.8	-24.3	0.466
4-2040	4-2200	0.515	348.5	-6.7	0.59	0.840	120.8	1.328	0.013	4-2129	245.3	431.1	-0.86	1.163	112.7	260.7	-25.2	0.448
4-2040	4-2210	0.476	350.7	-5.7	0.79	0.807	118.7	1.295	0.017	4-2131	239.6	435.0	-1.03	1.138	112.4	266.9	-25.9	0.433
4-2040	4-2220	0.438	353.1	-4.6	1.08	0.778	116.4	1.262	0.023	4-2133	233.8	438.7	-1.30	1.117	112.1	277.3	-26.5	0.421
4-2050	4-2170	0.741	345.0	-8.0	0.37	1.031	130.1	1.497	0.010	4-2129	260.1	417.7	-0.59	1.316	115.3	239.3	-21.6	0.583
4-2050	4-2180	0.681	347.1	-7.1	0.45	0.973	128.4	1.460	0.011	4-2131	260.7	422.0	-0.66	1.270	115.2	246.0	-23.0	0.551
4-2050	4-2190	0.627	349.2	-6.2	0.54	0.927	126.5	1.422	0.013	4-2133	255.3	426.2	-0.74	1.229	114.9	253.4	-24.2	0.523
4-2050	4-2200	0.578	351.3	-5.3	0.67	0.878	124.4	1.385	0.016	4-2135	249.7	430.2	-0.85	1.195	114.6	261.2	-25.1	0.499
4-2050	4-2210	0.532	353.4	-4.3	0.85	0.838	122.2	1.348	0.020	4-2137	244.1	434.1	-1.01	1.165	114.2	269.3	-25.7	0.479
4-2050	4-2220	0.490	355.7	-3.2	1.11	0.803	119.9	1.312	0.025	4-2140	238.3	437.9	-1.24	1.140	113.8	277.6	-26.1	0.461
4-2060	4-2180	0.772	350.0	-5.7	0.55	1.043	131.9	1.533	0.015	4-2137	264.8	420.9	-0.63	1.328	117.4	246.9	-22.9	0.627
4-2060	4-2190	0.707	352.1	-4.7	0.63	0.980	130.0	1.491	0.016	4-2139	259.4	425.2	-0.73	1.278	117.1	254.2	-24.1	0.590
4-2060	4-2200	0.649	354.1	-3.8	0.75	0.926	128.0	1.448	0.019	4-2141	253.9	429.3	-0.84	1.235	116.7	261.8	-24.9	0.559
4-2060	4-2210	0.596	356.2	-2.8	0.91	0.878	125.9	1.407	0.022	4-2144	248.3	433.3	-0.99	1.199	116.2	269.8	-25.4	0.531
4-2060	4-2220	0.547	358.4	-1.8	1.14	0.836	123.6	1.366	0.026	4-2146	242.7	437.1	-1.20	1.167	115.7	278.0	-25.7	0.508
4-2060	4-2230	0.502	0.6	-0.8	1.48	0.799	121.1	1.327	0.033	4-2149	236.9	440.8	-1.52	1.141	115.2	286.4	-25.8	0.489
4-2070	4-2180	0.877	352.9	-4.2	0.67	1.131	135.3	1.616	0.019	4-2143	268.7	419.8	-0.59	1.402	119.7	247.9	-22.9	0.718
4-2070	4-2190	0.800	355.0	-3.3	0.72	1.053	133.6	1.568	0.020	4-2145	263.4	424.1	-0.70	1.339	119.4	255.0	-24.0	0.670
4-2070	4-2200	0.731	357.0	-2.3	0.82	0.986	131.6	1.521	0.022	4-2148	258.0	428.2	-0.82	1.285	118.9	262.5	-24.7	0.629
4-2070	4-2210	0.669	359.1	-1.4	0.97	0.928	129.5	1.473	0.024	4-2150	252.5	432.3	-0.97	1.240	118.4	270.4	-25.2	0.593
4-2070	4-2220	0.611	1.1	-0.4	1.18	0.877	127.2	1.428	0.028	4-2153	246.8	436.2	-1.16	1.202	117.8	278.5	-25.4	0.563
4-2070	4-2230	0.560	3.3	0.6	1.47	0.832	124.8	1.384	0.034	4-2156	241.1	440.0	-1.44	1.169	117.2	286.8	-25.4	0.537
4-2080	4-2200	0.826	359.9	-0.9	0.89	1.062	135.2	1.602	0.025	4-2154	261.9	427.1	-0.80	1.348	121.3	263.3	-24.6	0.712
4-2080	4-2210	0.752	1.9	0.1	1.02	0.991	133.1	1.549	0.027	4-2156	256.5	431.2	-0.95	1.292	120.7	271.0	-25.0	0.666
4-2080	4-2220	0.686	4.0	1.0	1.20	0.929	130.9	1.497	0.031	4-2159	250.9	435.2	-1.13	1.245	120.0	279.0	-25.1	0.627
4-2080	4-2230	0.626	6.1	2.0	1.47	0.875	128.5	1.447	0.036	4-2162	245.2	439.1	-1.37	1.204	119.3	287.2	-25.0	0.593
4-2080	4-2240	0.571	8.3	3.1	1.86	0.828	126.0	1.400	0.043	4-2165	239.5	442.9	-1.74	1.171	118.6	295.5	-24.6	0.565
4-2090	4-2210	0.849	4.9	1.5	1.06	1.070	136.7	1.635	0.030	4-2162	260.3	430.1	-0.93	1.357	123.2	271.8	-24.8	0.752
4-2090	4-2220	0.770	6.9	2.5	1.23	0.994	134.6	1.576	0.033	4-2165	254.8	434.2	-1.10	1.298	122.4	279.6	-24.9	0.701
4-2090	4-2230	0.700	8.9	3.4	1.47	0.929	132.3	1.519	0.038	4-2168	249.2	438.1	-1.32	1.248	121.5	287.7	-24.6	0.659
4-2090	4-2240	0.637	11.0	4.4	1.81	0.872	129.8	1.465	0.044	4-2171	243.5	442.0	-1.64	1.206	120.8	295.8	-24.1	0.622
4-2100	4-2220	0.869	9.8	3.9	1.24	1.075	138.1	1.666	0.036	4-2171	258.5	433.1	-1.07	1.364	125.0	280.3	-24.6	0.790
4-2100	4-2230	0.786	11.8	4.9	1.46	0.996	135.9	1.601	0.040	4-2174	253.0	437.1	-1.28	1.302	124.1	288.2	-24.3	0.735
4-2100	4-2240	0.713	13.9	5.8	1.76	0.928	133.5	1.540	0.045	4-2177	247.4	441.0	-1.55	1.251	123.1	296.3	-23.7	0.689
4-2100	4-2250	0.646	16.1	6.8	2.22	0.868	130.9	1.482	0.054	4-2180	241.6	444.8	-1.97	1.208	122.2	304.4	-22.9	0.650
4-2600	4-2810	0.131	4.1	4.4	-2.34	0.762	86.2	0.880	-0.035	4-2736	165.1	306.8	-1.13	1.080	81.6	297.0	-28.1	0.176
4-2600	4-2820	0.123	2.2	2.5	-2.05	0.768	86.8	0.882	-0.031	4-2736	166.1	317.9	-0.89	1.083	83.6	299.7	-27.3	0.147
4-2600	4-2830	0.117	0.7	0.4	-1.83	0.772	87.2	0.883	-0.028	4-2736	167.0	328.9	-0.66	1.084	85.4	300.4	-26.5	0.122
4-2600	4-2840	0.113	359.9	-1.7	-1.68	0.776	87.5	0.884	-0.026	4-2736	167.7	339.7	-0.45	1.084	87.0	298.3	-25.7	0.102
4-2600	4-2850	0.111	359.7	-3.5	-1.60	0.778	87.6	0.884	-0.024	4-2736	168.1	350.0	-0.24	1.083	88.6	293.2	-24.7	0.088
4-2600	4-2860	0.110	0.2	-4.9	-1.61	0.779	87.7	0.884	-0.024	4-2737	168.0	359.9	-0.03	1.081	90.0	285.2	-23.2	0.080
4-2600	4-2870	0.110	1.4	-5.8	-1.68	0.779	87.6	0.882	-0.025	4-2737	167.5	369.2	0.17	1.079	91.3	276.5	-21.0	0.079
4-2610	4-2820	0.122	359.4	1.2	-2.14	0.764	87.6	0.894	-0.033	4-2744	170.1	315.6	-1.11	1.082	83.2	301.9	-28.2	0.153
4-2610	4-2830	0.116	357.5	-1.1	-1.86	0.769	88.1	0.896	-0.029	4-2744	171.3	326.9	-0.85	1.083	85.1	302.8	-27.5	0.127
4-2610	4-2840	0.113	356.3	-3.3	-1.66	0.773	88.4	0.896	-0.026	4-2744	172.2	337.8	-0.63	1.084	86.8	301.3	-26.9	0.106
4-2610	4-2850	0.111	355.9	-5.2	-1.53	0.775	88.5	0.896	-0.024	4-2744	172.7	348.3	-0.41	1.083	88.3	296.4	-26.3	0.090
4-2610	4-2860	0.109	356.3	-6.8	-1.48	0.776	88.6	0.896	-0.023	4-2745	172.7	358.3	-0.21	1.081	89.8	288.7	-25.2	0.081
4-2610	4-2870	0.109	357.4	-7.7	-1.49	0.777	88.5	0.894	-0.023	4-2745	172.2	367.7	-0.03	1.079	91.1	279.9	-23.6	0.079
4-2610	4-2880	0.110	359.2	-7.9	-1.55	0.776	88.3	0.892	-0.024	4-2745	171.2	376.5	0.13	1.076	92.3	272.5	-21.7	0.082
4-2620	4-2820	0.123	355.9	-0.5	-2.27	0.760	88.7	0.909	-0.035	4-2752	174.6	313.9	-1.35	1.081	82.9	303.6	-29.3	0.158
4-2620	4-2830	0.118	353.6	-2.9	-1.92	0.765	89.1	0.909	-0.030	4-2752	176.1	325.4	-1.05	1.083	84.8	304.6	-28.5	0.131
4-2620	4-2840	0.115	352.2	-5.2	-1.65	0.769	89.4	0.910	-0.026	4-2752	177.2	336.5	-0.80	1.084	86.6	303.1	-28.1	0.109
4-2620	4-2850	0.113	351.5	-7.2	-1.47	0.772	89.6	0.910	-0.023	4-2752	177.9	347.2	-0.57	1.083	88.2	298.6	-27.6	0.093
4-2620	4-2860	0.112	351.8	-8.7	-1.37	0.773	89.6	0.909	-0.021	4-2753	178.0	357.3	-0.37	1.082	89.6	290.9	-26.9	0.082
4-2620	4-2870	0.112	352.8	-9.6	-1.33	0.774	89.5	0.907	-0.021	4-2753	177.5	366.7	-0.20	1.080	90.9	282.1	-25.7	0.079
4-2620	4-2880	0.112	354.6	-9.9	-1.35	0.774	89.3	0.905	-0.021	4-2753	176.5	375.5	-0.06	1.077	92.2	274.5	-24.1	0.082
4-2630	4-2820	0.124	349.5	-4.8	-1.99	0.762	90.3	0.925	-0.032	4-2760	181.5	324.6	-1.26	1.084	84.6	305.7	-29.8	0.135
4-2630	4-2840	0.122	347.9	-7.0	-1.66	0.766	90.6	0.925	-0.026	4-2760	182.8	335.9	-0.96	1.085	86.4	304.2	-29.3	0.112
4-2630	4-2850	0.120	347.2	-8.9	-1.43	0.769	90.8	0.925	-0.023	4-2760	183.6	346.7	-0.71	1.084	88.1	299.5	-29.0	0.095
4-2630	4-2860	0.119	347.4	-10.4	-1.28	0.771	90.8	0.924	-0.020	4-2760	183.8	356.8	-0.50	1.083	89.5	291.9	-28.5	0.084
4-2630	4-2870	0.118	348.3	-11.3	-1.20	0.771	90.7	0.922	-0.019	4-2761	183.4	366.3	-0.33	1.081	90.9	283.0	-27.4	0.080
4-2630	4-2880	0.118	350.0	-11.6	-1.17	0.771	90.4	0.919	-0.019	4-2761	182.2	375.0	-0.20	1.078	92.2	275.3	-26.0	0.083
4-2630	4-2890	0.117	352.4	-11.3	-1.18	0.770	90.1	0.915	-0.019	4-2762	180.6	383.2	-0.12	1.074	93.3	270.7	-24.8	0.091
4-2640	4-2840	0.132	344.1	-8.7	-1.69	0.764	92.0	0.941	-0.027	4-2768	189.1	336.1	-1.13	1.087	86.4	304.2	-30.8	0.114
4-2640	4-2850	0.131	343.4	-10.4	-1.40	0.767	92.1	0.941	-0.023	4-2768	190.0	346.9	-0.85	1.086	88.1	299.3	-30.4	0.097
4-2640	4-2860	0.130	343.6	-11.8	-1.20	0.768	92.1	0.940	-0.019	4-2768	190.2	357.1	-0.62	1.085	89.6	291.4	-29.9	0.086
4-2640	4-2870	0.129	344.5	-12.6	-1.09	0.768	92.0	0.938	-0.018	4-2769	189.6	366.4	-0.44	1.082	90.9	282.5	-28.8	0.082
4-2640	4-2880	0.128	346.1	-12.9	-1.02	0.768	91.7	0.935	-0.016	4-2769	188.5	375.1	-0.32	1.079	92.2	275.1	-27.4	0.085
4-2640	4-2890	0.126	348.3	-12.6	-0.99	0.767	91.4	0.931	-0.016	4-2770	186.6	383.1	-0.24	1.076	93.4	270.7	-26.3	0.093
4-2640	4-2900	0.124	351.1	-11.8	-0.97	0.765	90.9	0.926	-0.015	4-2771	184.3	390.5	-0.21	1.072	94.4	269.4	-25.7	0.103
4-2650	4-2850	0.146	340.5	-11.5	-1.37	0.765	93.7	0.959	-0.022	4-2776	196.9	347.8	-0.97	1.089	88.1	297.7	-32.0	0.099
4-2650	4-2860	0.145	340.8	-12.6	-1.13	0.766	93.6	0.957	-0.019	4-2776	197.0	357.9	-0.72	1.088	89.7	289.5	-31.2	0.088
4-2650	4-2870	0.144	341.7	-13.3	-0.98	0.766	93.5	0.955	-0.016	4-2776	196.4	367.1	-0.54	1.085	91.1	280.7	-30.0	0.085
4-2650	4-2880	0.142	343.1	-13.6	-0.89	0.766	93.2	0.952	-0.015	4-2777	195.0	375.6	-0.41	1.082	92.3	273.7	-28.4	0.088
4-2650	4-2890	0.139	345.2	-13.4	-0.83	0.764	92.8	0.947	-0.014	4-2778	193.1	383.4	-0.34	1.078	93.5	269.8	-27.3	0.096
4-2650	4-2900	0.136	347.8	-12.6	-0.78	0.762	92.3	0.942	-0.013	4-2778	190.5	390.6	-0.32	1.074	94.6	269.0	-26.6	0.106
4-2660	4-2850	0.164	338.9	-13.0	-1.07	0.766	95.3	0.977	-0.018	4-2784	204.4	359.3	-0.82	1.092	89.9	286.2	-32.5	0.092
4-2660	4-2870	0.162	339.8	-13.6	-0.88	0.765	95.1	0.974	-0.015	4-2784	203.6	368.3	-0.62	1.089	91.3	277.6	-30.8	0.089
4-2660	4-2880	0.159	341.2	-13.8	-0.76	0.764	94.8	0.970	-0.013	4-2785	202.0	376.6	-0.49	1.085	92.6	271.3	-29.1	0.093
4-2660	4-2890	0.156	343.1	-13.6	-0.68	0.762	94.4	0.966	-0.011	4-2785	199.8	384.2	-0.41	1.081	93.7	268.2	-27.9	0.101

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2660	4-2900	0.152	345.5	-13.0	-0.62	0.760	93.9	0.960	-0.010	4-2786	197.1	391.2	-0.39	1.077	94.8	268.0	-27.2	0.111
4-2660	4-2910	0.148	348.3	-12.0	-0.54	0.757	93.2	0.954	-0.009	4-2787	193.9	397.7	-0.43	1.073	95.8	270.0	-27.2	0.123
4-2670	4-2860	0.187	338.1	-13.1	-1.01	0.766	97.3	0.998	-0.017	4-2781	212.1	361.1	-0.91	1.097	90.2	281.4	-33.5	0.096
4-2670	4-2870	0.184	339.0	-13.5	-0.73	0.766	97.0	0.995	-0.013	4-2792	211.0	369.9	-0.69	1.094	91.6	273.5	-31.4	0.095
4-2670	4-2880	0.180	340.3	-13.6	-0.66	0.764	96.6	0.991	-0.011	4-2792	209.2	377.9	-0.55	1.090	92.9	268.2	-29.5	0.099
4-2670	4-2890	0.176	342.1	-13.4	-0.55	0.761	96.1	0.986	-0.009	4-2793	206.7	385.2	-0.48	1.085	94.1	266.0	-28.2	0.108
4-2670	4-2900	0.171	344.2	-12.8	-0.47	0.758	95.6	0.980	-0.008	4-2794	203.8	392.0	-0.45	1.081	95.1	266.5	-27.5	0.118
4-2670	4-2910	0.165	346.8	-12.0	-0.38	0.755	94.9	0.973	-0.006	4-2795	200.4	398.3	-0.48	1.076	96.1	269.1	-27.4	0.130
4-2680	4-2870	0.210	338.9	-13.1	-0.69	0.768	99.1	1.018	-0.012	4-2799	218.7	371.7	-0.76	1.100	92.1	268.6	-31.5	0.103
4-2680	4-2880	0.205	340.3	-13.1	-0.53	0.765	98.6	1.013	-0.009	4-2800	216.5	379.4	-0.61	1.096	93.4	268.6	-29.5	0.108
4-2680	4-2890	0.199	341.9	-12.9	-0.42	0.762	98.1	1.008	-0.007	4-2800	213.8	386.5	-0.53	1.091	94.5	263.5	-28.2	0.117
4-2680	4-2900	0.193	343.9	-12.4	-0.33	0.758	97.5	1.001	-0.006	4-2801	210.8	393.0	-0.50	1.086	95.6	264.8	-27.6	0.127
4-2680	4-2910	0.186	346.3	-11.6	-0.24	0.753	96.7	0.994	-0.004	4-2802	206.9	399.0	-0.52	1.081	96.5	267.9	-27.5	0.138
4-2680	4-2920	0.178	349.0	-10.5	-0.12	0.749	95.9	0.985	-0.002	4-2803	203.0	404.7	-0.61	1.075	97.4	272.3	-27.7	0.150
4-2690	4-2870	0.239	339.5	-12.5	-0.61	0.773	101.4	1.044	-0.011	4-2806	226.4	373.8	-0.81	1.109	92.5	263.5	-31.3	0.114
4-2690	4-2880	0.233	340.9	-12.4	-0.42	0.769	100.9	1.038	-0.007	4-2807	223.9	381.1	-0.65	1.104	93.9	260.9	-29.2	0.120
4-2690	4-2890	0.226	342.5	-12.1	-0.29	0.765	100.3	1.032	-0.005	4-2809	220.9	387.8	-0.57	1.098	95.1	260.8	-28.0	0.129
4-2690	4-2900	0.218	344.3	-11.[illegible]	-0.19	0.759	99.5	1.025	-0.003	4-2809	217.4	394.1	-0.53	1.092	96.1	262.9	-27.5	0.139
4-2690	4-2910	0.210	346.5	-10.[illegible]	-0.10	0.754	98.8	1.017	-0.002	4-2810	213.5	399.9	-0.55	1.086	97.0	266.6	-27.4	0.149
4-2690	4-2920	0.201	349.0	-9.9	0.01	0.749	97.9	1.007	0.000	4-2811	209.4	405.4	-0.63	1.080	97.9	271.4	-27.6	0.161
4-2700	4-2880	0.264	342.0	-11.5	-0.34	0.776	103.3	1.066	-0.006	4-2814	231.2	382.8	-0.69	1.114	94.6	257.3	-28.7	0.134
4-2700	4-2890	0.256	343.6	-11.2	-0.17	0.772	102.6	1.059	-0.003	4-2815	227.9	389.2	-0.60	1.107	95.7	258.3	-27.6	0.143
4-2700	4-2900	0.246	345.3	-10.7	-0.07	0.768	101.8	1.051	-0.001	4-2816	224.2	395.2	-0.56	1.100	96.8	261.1	-27.2	0.153
4-2700	4-2910	0.236	347.3	-10.0	0.03	0.766	101.0	1.042	0.001	4-2817	220.1	400.8	-0.57	1.093	97.7	265.3	-27.2	0.163
4-2700	4-2920	0.226	349.6	-9.1	0.14	0.769	100.9	1.032	0.002	4-2818	215.7	406.1	-0.63	1.086	98.5	270.5	-27.4	0.173
4-2700	4-2930	0.214	352.2	-7.9	0.29	0.743	99.0	1.021	0.005	4-2820	211.1	411.1	-0.76	1.080	99.3	276.5	-27.7	0.184
4-2710	4-2890	0.269	345.1	-10.1	-0.05	0.779	105.2	1.088	-0.001	4-2822	234.7	390.6	-0.62	1.118	96.5	256.0	-27.1	0.161
4-2710	4-2900	0.258	346.8	-9.6	0.06	0.775	104.3	1.079	0.001	4-2823	230.8	396.3	-0.57	1.110	97.5	259.4	-26.8	0.170
4-2710	4-2910	0.246	348.7	-8.9	0.15	0.761	103.4	1.069	0.003	4-2824	226.5	401.7	-0.58	1.102	98.4	264.0	-26.9	0.180
4-2710	4-2920	0.234	350.8	-8.1	0.26	0.753	102.4	1.058	0.005	4-2826	222.0	406.8	-0.64	1.094	99.2	269.5	-27.1	0.189
4-2710	4-2930	0.241	353.1	-7.0	0.40	0.744	101.2	1.046	0.007	4-2827	217.2	411.6	-0.75	1.087	100.0	275.8	-27.4	0.198
4-2710	4-2940	0.227	355.6	-5.8	0.60	0.7[illegible]	100.0	1.033	0.010	4-2829	212.2	416.2	-0.94	1.080	100.6	282.6	-27.7	0.208
4-2720	4-2890	0.327	346.9	-9.6	0.07	0.8[illegible]	108.0	1.120	0.001	4-2829	241.4	391.8	-0.62	1.132	97.4	254.1	-26.5	0.183
4-2720	4-2900	0.314	348.5	-8.4	0.18	0.7[illegible]	107.0	1.110	0.003	4-2830	237.2	397.3	-0.58	1.122	98.4	258.0	-26.4	0.191
4-2720	4-2910	0.299	350.3	-7.7	0.27	0.770	106.0	1.099	0.005	4-2831	232.7	402.5	-0.58	1.113	99.3	262.7	-26.5	0.200
4-2720	4-2920	0.285	352.3	-6.7	0.37	0.759	104.9	1.087	0.007	4-2832	228.0	407.5	-0.63	1.104	100.1	268.7	-26.8	0.208
4-2720	4-2930	0.270	354.5	-6.0	0.50	0.749	103.7	1.074	0.009	4-2834	223.2	412.2	-0.73	1.095	100.8	275.1	-27.0	0.216
4-2720	4-2940	0.254	357.0	-4.8	0.68	0.739	102.4	1.060	0.012	4-2836	218.1	416.7	-0.90	1.087	101.4	282.0	-27.3	0.225
4-2730	4-2900	0.353	350.5	-7.2	0.30	0.796	109.9	1.144	0.006	4-2837	243.4	398.1	-0.58	1.138	99.6	256.8	-25.9	0.217
4-2730	4-2910	0.336	352.3	-6.5	0.39	0.742	108.8	1.132	0.008	4-2838	238.8	403.2	-0.58	1.126	100.3	262.0	-26.1	0.223
4-2730	4-2920	0.319	354.2	-5.7	0.48	0.762	107.6	1.119	0.009	4-2840	233.9	408.0	-0.62	1.116	101.1	268.0	-26.4	0.230
4-2730	4-2930	0.302	356.3	-4.8	0.60	0.756	106.3	1.105	0.011	4-2841	228.9	412.6	-0.71	1.105	101.7	274.5	-26.6	0.236
4-2730	4-2940	0.284	359.5	-3.7	0.76	0.744	105.0	1.090	0.014	4-2843	223.8	417.0	-0.86	1.096	102.3	281.6	-26.8	0.243
4-2730	4-2950	0.267	1.0	-2.5	0.99	0.733	103.5	1.074	0.018	4-2845	218.5	421.3	-1.09	1.087	102.8	289.0	-26.9	0.250
4-2740	4-2900	0.398	357.7	-5.9	0.42	0.816	113.0	1.182	0.009	4-2844	249.3	398.8	-0.56	1.152	100.6	255.9	-25.4	0.246
4-2740	4-2910	0.378	354.5	-5.2	0.51	0.799	111.8	1.168	0.010	4-2845	244.5	403.8	-0.56	1.143	101.5	261.3	-25.7	0.251
4-2740	4-2920	0.358	356.3	-4.4	0.59	0.783	110.5	1.154	0.012	4-2847	239.6	408.5	-0.61	1.130	102.2	267.4	-26.0	0.256
4-2740	4-2930	0.338	358.3	-3.5	0.70	0.767	109.2	1.138	0.014	4-2846	234.6	413.9	-0.69	1.118	102.8	274.1	-26.3	0.260
4-2740	4-2940	0.318	0.4	-2.5	0.83	0.753	107.7	1.122	0.016	4-2850	229.3	417.3	-0.82	1.107	103.3	281.2	-26.4	0.265
4-2740	4-2950	0.298	2.7	-1.3	1.04	0.739	106.2	1.104	0.019	4-2852	223.9	421.5	-1.02	1.097	103.6	288.6	-26.4	0.270
4-2750	4-2910	0.424	356.8	-3.8	0.62	0.822	114.9	1.208	0.011	4-2852	250.1	404.1	-0.54	1.164	102.7	260.8	-25.3	0.284
4-2750	4-2920	0.401	358.6	-3.0	0.70	0.802	113.6	1.192	0.014	4-2853	245.1	408.8	-0.58	1.149	103.4	267.0	-25.7	0.286
4-2750	4-2930	0.377	0.5	-2.2	0.79	0.783	112.1	1.175	0.016	4-2855	239.9	413.2	-0.66	1.134	103.9	273.7	-25.9	0.288
4-2750	4-2940	0.354	2.5	-1.2	0.91	0.765	110.6	1.157	0.018	4-2857	234.7	417.5	-0.78	1.120	104.4	280.8	-26.0	0.291
4-2750	4-2950	0.332	4.7	-0.1	1.09	0.749	109.0	1.138	0.021	4-2858	229.2	421.6	-0.96	1.108	104.8	288.3	-25.9	0.294
4-2750	4-2960	0.309	7.1	1.1	1.35	0.733	107.3	1.118	0.026	4-2861	223.7	425.6	-1.22	1.098	105.2	296.0	-25.7	0.298
4-2760	4-2910	0.477	359.2	-2.5	0.74	0.853	118.1	1.253	0.016	4-2859	255.3	404.3	-0.49	1.191	104.1	260.6	-24.9	0.323
4-2760	4-2920	0.449	1.0	-1.7	0.80	0.823	116.7	1.235	0.017	4-2860	250.3	408.9	-0.55	1.171	104.8	266.8	-25.3	0.322
4-2760	4-2930	0.422	2.8	-0.8	0.88	0.804	115.3	1.215	0.018	4-2862	245.1	413.4	-0.63	1.153	105.3	273.5	-25.6	0.321
4-2760	4-2940	0.395	4.8	0.1	0.99	0.783	113.7	1.195	0.020	4-2863	239.8	417.6	-0.74	1.137	105.7	280.6	-25.6	0.321
4-2760	4-2950	0.369	6.9	1.4	1.14	0.763	112.0	1.175	0.023	4-2865	234.4	421.7	-0.90	1.123	106.0	288.1	-25.5	0.321
4-2760	4-2960	0.344	9.2	2.3	1.36	0.744	110.3	1.154	0.027	4-2867	228.8	425.7	-1.13	1.110	106.3	295.8	-25.1	0.322
4-2770	4-2920	0.[illegible]03	3.5	-0.3	0.91	0.861	120.0	1.281	0.020	4-2867	255.3	408.9	-0.50	1.199	106.3	266.8	-25.0	0.363
4-2770	4-2930	0.[illegible]71	5.3	0.6	0.97	0.832	118.5	1.269	0.021	4-2868	250.1	413.3	-0.59	1.177	106.9	273.5	-25.3	0.359
4-2770	4-2940	0.441	7.2	1.5	1.06	0.806	116.9	1.238	0.022	4-2870	244.8	417.6	-0.70	1.157	107.1	280.6	-25.3	0.355
4-2770	4-2950	0.411	9.7	2.4	1.19	0.781	115.2	1.219	0.025	4-2872	239.3	421.8	-0.85	1.140	107.4	288.0	-25.1	0.352
4-2770	4-2960	0.382	11.4	3.5	1.38	0.759	113.4	1.192	0.028	4-2874	233.8	425.6	-1.05	1.124	107.8	295.6	-24.6	0.351
4-2770	4-2970	0.355	13.8	4.7	1.66	0.739	111.4	1.168	0.033	4-2876	228.1	429.6	-1.35	1.111	107.8	303.5	-24.1	0.350
4-2780	4-2920	0.565	6.0	1.1	1.02	0.903	123.3	1.333	0.024	4-2873	260.0	408.7	-0.44	1.233	107.9	266.9	-24.7	0.412
4-2780	4-2930	0.527	7.9	1.9	1.00	0.868	121.8	1.309	0.024	4-2875	254.8	413.2	-0.54	1.206	108.3	273.6	-25.0	0.403
4-2780	4-2940	0.492	9.8	2.8	1.14	0.835	120.2	1.285	0.025	4-2876	249.5	417.4	-0.66	1.182	108.6	280.6	-25.0	0.395
4-2780	4-2950	0.458	11.7	3.8	1.24	0.806	118.4	1.260	0.027	4-2878	244.1	421.5	-0.80	1.161	108.8	288.0	-24.7	0.389
4-2780	4-2960	0.425	13.8	4.8	1.41	0.779	116.6	1.234	0.029	4-2880	238.5	425.3	-0.98	1.142	109.0	295.6	-24.2	0.384
4-2780	4-2970	0.394	16.1	5.9	1.66	0.755	114.6	1.208	0.034	4-2883	232.9	429.3	-1.24	1.126	109.1	303.3	-23.5	0.380
4-2790	4-2930	0.591	10.5	3.3	1.15	0.912	125.2	1.364	0.027	4-2881	259.4	412.8	-0.49	1.243	110.1	273.8	-24.6	0.455
4-2790	4-2940	0.549	12.4	4.2	1.20	0.873	123.5	1.337	0.028	4-2883	254.1	417.1	-0.61	1.213	110.3	280.8	-24.6	0.442
4-2790	4-2950	0.510	14.3	5.1	1.29	0.838	121.8	1.309	0.029	4-2885	248.7	421.3	-0.75	1.187	110.5	288.1	-24.3	0.431
4-2790	4-2960	0.473	16.3	6.1	1.43	0.806	119.9	1.280	0.031	4-2887	243.1	425.3	-0.92	1.164	110.5	295.6	-23.8	0.422
4-2790	4-2970	0.437	18.6	7.1	1.64	0.777	117.9	1.251	0.035	4-2889	237.5	429.1	-1.15	1.144	110.6	303.3	-23.0	0.414
4-2790	4-2980	0.403	20.9	8.2	1.97	0.750	115.7	1.222	0.040	4-2892	231.7	432.9	-1.47	1.127	110.6	311.1	-22.0	0.408

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-2800	4-2930	0.684	13.1	4.7	1.25	0.969	128.5	1.425	0.031	4-2887	263.7	412.4	-0.42	1.288	111.9	274.3	-24.4	0.516
4-2800	4-2940	0.615	15.0	5.5	1.26	0.921	126.9	1.395	0.030	4-2886	258.5	416.7	-0.56	1.251	112.1	281.1	-24.4	0.497
4-2800	4-2950	0.569	16.9	6.4	1.33	0.878	125.1	1.363	0.031	4-2891	253.2	420.8	-0.70	1.219	112.2	288.3	-24.0	0.480
4-2800	4-2960	0.526	19.0	7.6	1.45	0.859	123.2	1.331	0.033	4-2893	247.6	424.9	-0.86	1.191	112.2	295.7	-23.4	0.465
4-2800	4-2970	0.485	21.1	8.3	1.63	0.804	121.2	1.299	0.036	4-2895	241.9	428.8	-1.06	1.167	112.2	303.3	-22.5	0.453
4-2800	4-2980	0.447	23.3	9.4	1.91	0.773	119.1	1.267	0.041	4-2898	236.2	432.6	-1.35	1.146	112.1	311.1	-21.4	0.443
4-2810	4-2940	0.690	17.7	6.9	1.33	0.980	130.2	1.459	0.034	4-2895	262.6	416.2	-0.49	1.299	114.1	281.5	-24.1	0.561
4-2810	4-2950	0.636	19.7	7.8	1.38	0.928	128.5	1.424	0.034	4-2897	257.3	420.4	-0.64	1.259	114.1	288.6	-23.7	0.537
4-2810	4-2960	0.586	21.6	8.7	1.47	0.881	126.6	1.388	0.035	4-2899	251.8	424.5	-0.80	1.224	114.1	295.9	-23.1	0.516
4-2810	4-2970	0.540	23.7	9.6	1.63	0.839	124.6	1.353	0.037	4-2902	246.2	428.4	-0.99	1.195	113.9	303.5	-22.1	0.498
4-2810	4-2980	0.498	25.9	10.6	1.86	0.802	122.5	1.317	0.041	4-2904	240.6	432.3	-1.24	1.169	113.7	311.1	-20.9	0.483
4-2810	4-2990	0.455	28.3	11.6	2.22	0.768	120.2	1.282	0.048	4-2907	234.7	436.0	-1.59	1.147	113.6	318.9	-19.6	0.471
4-2820	4-2940	0.778	20.4	8.2	1.41	1.053	133.4	1.531	0.038	4-2901	266.6	415.5	-0.42	1.358	116.1	282.2	-23.8	0.636
4-2820	4-2950	0.714	22.4	9.1	1.42	0.990	131.8	1.492	0.037	4-2903	261.3	419.8	-0.59	1.308	116.2	289.1	-23.4	0.604
4-2820	4-2960	0.655	24.4	9.9	1.49	0.933	130.0	1.452	0.037	4-2905	255.9	423.9	-0.75	1.265	116.0	296.3	-22.8	0.575
4-2820	4-2970	0.601	26.5	10.8	1.62	0.883	128.0	1.412	0.039	4-2908	250.4	427.9	-0.92	1.229	115.8	303.7	-21.7	0.551
4-2820	4-296	0.551	28.6	11.7	1.83	0.838	125.9	1.372	0.042	4-2910	244.8	431.8	-1.15	1.198	115.5	311.2	-20.5	0.530
4-2820	4-2990	0.505	31.9	12.7	2.13	0.798	123.6	1.334	0.047	4-2913	239.0	435.6	-1.45	1.171	115.2	318.9	-19.1	0.512
4-2830	4-2950	0.803	25.2	10.3	1.46	1.066	135.0	1.568	0.040	4-2909	265.2	419.1	-0.53	1.369	118.3	289.7	-23.2	0.682
4-2830	4-2960	0.734	27.2	11.2	1.51	0.997	133.3	1.523	0.040	4-2911	259.9	423.3	-0.70	1.316	118.1	296.7	-22.5	0.644
4-2830	4-2970	0.671	29.3	12.0	1.61	0.937	131.4	1.478	0.041	4-2914	254.4	427.3	-0.87	1.271	117.9	304.0	-21.4	0.612
4-2830	4-2980	0.614	31.4	12.9	1.79	0.893	129.4	1.434	0.043	4-2916	248.8	431.3	-1.07	1.232	117.5	311.4	-20.1	0.584
4-2830	4-2990	0.560	33.6	13.8	2.04	0.836	127.1	1.390	0.048	4-2919	243.1	435.1	-1.33	1.199	117.1	319.0	-18.5	0.560
4-2830	4-3000	0.511	36.0	14.8	2.44	0.793	124.7	1.348	0.055	4-2922	237.3	438.8	-1.71	1.171	116.7	326.6	-16.9	0.540
4-2840	4-2960	0.826	30.0	12.4	1.52	1.076	136.6	1.604	0.042	4-2917	263.7	422.5	-0.65	1.379	120.4	297.3	-22.2	0.726
4-2840	4-2970	0.752	32.1	13.2	1.60	1.003	134.8	1.553	0.043	4-2919	258.3	426.6	-0.81	1.323	120.0	304.4	-21.1	0.683
4-2840	4-2980	0.695	34.2	14.0	1.75	0.939	132.8	1.503	0.045	4-2922	252.7	430.6	-1.00	1.275	119.6	311.7	-19.7	0.646
4-2840	4-2990	0.624	36.4	14.9	1.98	0.882	130.6	1.454	0.048	4-2925	247.1	434.5	-1.23	1.235	119.1	319.2	-18.1	0.615
4-2840	4-3000	0.567	38.8	15.8	2.31	0.832	128.2	1.407	0.054	4-2928	241.3	438.3	-1.55	1.201	118.6	326.7	-16.3	0.588
4-2850	4-2970	0.845	35.0	14.4	1.59	1.084	138.0	1.637	0.045	4-2925	262.0	425.8	-0.77	1.387	122.3	304.9	-20.8	0.767
4-2850	4-2980	0.766	37.2	15.2	1.71	1.007	136.1	1.580	0.046	4-2928	256.5	429.9	-0.94	1.328	121.8	312.1	-19.4	0.720
4-2850	4-2990	0.695	39.3	15.9	1.91	0.939	134.0	1.525	0.049	4-2931	250.9	433.9	-1.15	1.278	121.2	319.4	-17.7	0.679
4-2850	4-3000	0.631	41.6	16.8	2.19	0.880	131.7	1.472	0.054	4-2934	245.2	437.7	-1.42	1.236	120.6	326.8	-15.8	0.644
4-2850	4-3010	0.572	44.1	17.6	2.62	0.827	129.2	1.421	0.061	4-2937	239.4	441.5	-1.83	1.201	120.0	334.4	-13.9	0.615
4-2860	4-2980	0.862	40.1	16.2	1.67	1.090	139.3	1.668	0.048	4-2933	260.2	429.1	-0.90	1.394	124.2	312.6	-19.0	0.806
4-2860	4-2990	0.778	42.3	17.0	1.84	1.009	137.3	1.605	0.050	4-2936	254.7	433.1	-1.08	1.332	123.5	319.8	-17.3	0.754
4-2860	4-3000	0.704	44.6	17.7	2.09	0.938	135.1	1.545	0.054	4-2939	249.0	437.1	-1.32	1.280	122.8	327.1	-15.4	0.709
4-2860	4-3010	0.636	47.0	18.5	2.45	0.876	132.7	1.488	0.060	4-2943	243.3	440.9	-1.65	1.237	122.1	334.5	-13.3	0.671
4-2870	4-2990	0.875	45.3	17.9	1.77	1.094	140.6	1.697	0.051	4-2942	258.3	432.3	-1.03	1.399	126.0	320.2	-17.0	0.842
4-2870	4-3000	0.788	47.6	18.6	1.99	1.009	138.5	1.628	0.054	4-2945	252.7	436.3	-1.23	1.335	125.2	327.4	-15.0	0.785
4-2870	4-3010	0.710	49.9	19.3	2.30	0.935	136.2	1.563	0.060	4-2948	247.0	440.2	-1.51	1.281	124.3	334.7	-12.8	0.737
4-2870	4-3020	0.639	52.5	20.1	2.76	0.870	133.6	1.502	0.068	4-2952	241.2	444.0	-1.93	1.236	123.4	342.1	-10.7	0.697
4-2880	4-3000	0.865	50.7	19.5	1.89	1.096	141.7	1.723	0.055	4-2951	256.3	435.5	-1.16	1.402	127.6	327.7	-14.6	0.815
4-2880	4-3010	0.794	53.0	20.2	2.16	1.007	139.5	1.649	0.059	4-2954	250.7	439.5	-1.40	1.336	126.7	334.9	-12.4	0.814
4-2880	4-3020	0.713	55.5	20.8	2.55	0.931	137.1	1.579	0.066	4-2957	244.9	443.3	-1.74	1.280	125.7	342.2	-10.1	0.763
4-2880	4-3030	0.640	58.1	21.5	3.16	0.863	134.5	1.514	0.077	4-2961	239.0	447.2	-2.30	1.234	124.8	349.7	-8.0	0.720
4-2890	4-3010	0.893	56.2	20.9	2.02	1.095	142.8	1.747	0.059	4-2959	254.2	438.6	-1.31	1.404	129.2	335.2	-12.0	0.905
4-2890	4-3020	0.798	58.6	21.5	2.36	1.004	140.5	1.667	0.065	4-2963	248.6	442.6	-1.59	1.335	128.1	342.4	-9.6	0.841
4-2890	4-3030	0.715	61.1	22.1	2.86	0.924	138.0	1.593	0.074	4-2967	242.7	446.4	-2.03	1.279	127.0	349.8	-7.3	0.787
4-2900	4-3020	0.898	61.8	22.1	2.19	1.092	143.8	1.767	0.064	4-2968	252.1	441.7	-1.47	1.404	130.7	342.7	-9.2	0.932
4-2900	4-3030	0.800	64.3	22.7	2.61	0.998	141.4	1.682	0.072	4-2972	246.3	445.7	-1.82	1.334	129.5	349.9	-6.7	0.865
4-2900	4-3040	0.714	67.0	23.2	3.26	0.916	138.7	1.604	0.084	4-2976	240.5	449.5	-2.40	1.276	128.3	353.4	-4.4	0.808
4-3400	4-3630	0.137	11.5	-2.0	0.06	0.736	92.1	0.922	0.001	4-3537	188.8	352.2	-0.67	1.089	88.7	337.2	-17.1	0.104
4-3400	4-3640	0.135	11.7	-2.4	0.18	0.737	92.0	0.920	0.003	4-3538	188.5	361.6	-0.60	1.087	90.3	329.8	-19.4	0.098
4-3400	4-3650	0.133	12.6	-2.2	0.29	0.737	91.8	0.917	0.005	4-3538	187.5	370.2	-0.61	1.085	91.7	322.8	-21.7	0.099
4-3400	4-3660	0.130	14.2	-1.4	0.41	0.736	91.4	0.913	0.006	4-3539	185.9	378.3	-0.69	1.083	93.0	317.9	-23.5	0.107
4-3400	4-3670	0.127	16.3	-0.1	0.58	0.734	90.9	0.908	0.009	4-3540	183.8	385.7	-0.85	1.080	94.2	316.0	-24.9	0.118
4-3407	4-3680	0.123	19.3	1.6	0.86	0.732	90.3	0.902	0.013	4-3541	181.2	392.7	-1.13	1.078	95.3	316.7	-26.2	0.133
4-3410	4-3640	0.151	10.4	-2.3	0.31	0.734	93.8	0.939	0.005	4-3545	195.3	363.0	-0.57	1.090	90.5	326.9	-19.9	0.101
4-3410	4-3650	0.149	11.3	-2.0	0.41	0.733	93.5	0.936	0.006	4-3546	194.2	371.4	-0.58	1.088	91.9	320.3	-21.9	0.103
4-3410	4-3660	0.145	12.8	-1.3	0.51	0.732	93.1	0.931	0.008	4-3547	192.4	379.3	-0.65	1.085	93.2	316.0	-23.4	0.111
4-3410	4-3670	0.141	14.9	-0.1	0.66	0.730	92.5	0.926	0.011	4-3548	190.0	386.5	-0.80	1.083	94.4	314.5	-24.5	0.123
4-3410	4-3680	0.136	17.4	1.4	0.90	0.727	91.9	0.920	0.014	4-3549	187.2	393.2	-1.03	1.080	95.6	315.6	-25.4	0.137
4-3410	4-3690	0.130	20.8	3.4	1.28	0.724	91.1	0.912	0.020	4-3550	184.0	399.6	-1.42	1.077	96.7	318.7	-26.4	0.153
4-3420	4-3640	0.170	9.9	-1.8	0.43	0.733	95.7	0.960	0.007	4-3553	202.4	364.7	-0.54	1.094	90.8	323.2	-20.5	0.105
4-3420	4-3650	0.167	10.8	-1.5	0.52	0.731	95.3	0.956	0.009	4-3553	200.9	373.0	-0.54	1.092	92.2	317.1	-22.2	0.108
4-3420	4-3660	0.162	12.2	-0.9	0.62	0.729	94.9	0.951	0.010	4-3554	198.9	380.5	-0.61	1.089	93.5	313.6	-23.3	0.117
4-3420	4-3670	0.157	14.0	0.2	0.75	0.727	94.3	0.945	0.012	4-3555	196.3	387.5	-0.74	1.086	94.7	312.8	-24.1	0.128
4-3420	4-3680	0.151	16.4	1.6	0.95	0.723	93.6	0.938	0.015	4-3556	193.3	394.0	-0.95	1.083	95.9	314.3	-24.7	0.143
4-3420	4-3690	0.144	19.5	3.4	1.26	0.720	92.8	0.930	0.020	4-3557	189.9	400.1	-1.27	1.080	96.9	317.7	-25.3	0.158
4-3430	4-3650	0.187	10.9	-0.8	0.64	0.731	97.4	0.978	0.011	4-3561	207.9	374.7	-0.50	1.097	92.6	313.6	-22.4	0.115
4-3430	4-3660	0.182	12.3	-0.2	0.73	0.728	96.8	0.973	0.012	4-3561	205.6	382.0	-0.56	1.093	93.9	310.9	-23.3	0.124
4-3430	4-3670	0.175	14.0	0.8	0.83	0.725	96.2	0.966	0.014	4-3562	202.7	388.7	-0.68	1.090	95.1	310.9	-23.8	0.136
4-3430	4-3680	0.168	16.1	2.1	1.00	0.721	95.5	0.959	0.016	4-3564	199.5	395.0	-0.86	1.086	96.2	312.9	-24.1	0.150
4-3430	4-3690	0.160	18.9	3.7	1.26	0.716	94.6	0.950	0.020	4-3565	195.8	400.9	-1.14	1.083	97.3	316.5	-24.4	0.165
4-3430	4-3700	0.152	22.3	5.6	1.68	0.712	93.6	0.940	0.027	4-3566	191.9	406.5	-1.56	1.080	98.3	321.4	-24.9	0.181
4-3440	4-3650	0.210	11.6	0.1	0.76	0.733	99.6	1.002	0.013	4-3568	214.9	376.5	-0.46	1.103	93.1	309.8	-22.6	0.124
4-3440	4-3660	0.203	12.9	0.7	0.83	0.729	99.0	0.996	0.014	4-3569	212.3	383.5	-0.52	1.099	94.4	308.1	-23.2	0.134
4-3440	4-3670	0.196	14.5	1.6	0.92	0.725	98.3	0.989	0.016	4-3570	209.2	390.0	-0.62	1.095	95.6	308.8	-23.5	0.145
4-3440	4-3680	0.188	16.5	2.8	1.06	0.720	97.5	0.981	0.018	4-3571	205.7	396.0	-0.79	1.091	96.7	311.4	-23.6	0.159

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3440	4-3690	0.178	19.0	4.2	1.28	0.715	96.5	0.972	0.021	4-3572	201.8	401.7	-1.03	1.087	97.7	315.3	-23.6	0.173
4-3440	4-3700	0.169	22.0	5.9	1.62	0.709	95.5	0.961	0.026	4-3574	197.6	407.1	-1.38	1.083	98.7	320.4	-23.7	0.188
4-3450	4-3650	0.236	12.6	1.1	0.89	0.737	101.9	1.027	0.016	4-3575	221.9	378.5	-0.41	1.111	93.7	306.1	-22.8	0.135
4-3450	4-3660	0.228	13.9	1.7	0.94	0.732	101.3	1.021	0.016	4-3576	219.0	385.2	-0.47	1.106	95.0	305.3	-23.1	0.145
4-3450	4-3670	0.219	15.5	2.6	1.01	0.727	100.5	1.013	0.018	4-3577	215.6	391.4	-0.57	1.101	96.2	306.7	-23.2	0.157
4-3450	4-3680	0.209	17.4	3.6	1.13	0.721	99.6	1.004	0.019	4-3578	211.9	397.2	-0.72	1.096	97.2	309.8	-23.2	0.170
4-3450	4-3690	0.199	19.6	4.9	1.31	0.715	98.6	0.995	0.022	4-3579	207.8	402.6	-0.93	1.091	98.2	314.1	-23.0	0.183
4-3450	4-3700	0.188	22.4	6.5	1.59	0.708	97.5	0.984	0.026	4-3581	203.4	407.8	-1.23	1.087	99.2	319.4	-22.8	0.198
4-3460	4-3660	0.255	15.3	2.8	1.05	0.739	103.7	1.048	0.019	4-3583	225.6	386.8	-0.41	1.114	95.7	302.6	-23.0	0.160
4-3460	4-3670	0.244	16.8	3.6	1.10	0.732	102.9	1.040	0.020	4-3584	222.0	392.8	-0.51	1.109	96.9	304.7	-23.0	0.171
4-3460	4-3680	0.233	18.6	4.6	1.19	0.724	102.0	1.030	0.021	4-3585	218.0	398.3	-0.65	1.103	97.9	308.3	-22.8	0.183
4-3460	4-3690	0.221	20.7	5.8	1.34	0.716	100.9	1.019	0.023	4-3586	213.7	403.6	-0.83	1.097	98.8	312.9	-22.4	0.196
4-3460	4-3700	0.209	23.3	7.2	1.57	0.709	99.7	1.008	0.027	4-3588	209.2	408.6	-1.10	1.092	99.7	318.4	-22.0	0.209
4-3460	4-3710	0.196	26.3	8.8	1.94	0.701	98.5	0.995	0.033	4-3590	204.4	413.4	-1.48	1.088	100.6	324.6	-21.7	0.223
4-3470	4-3660	0.285	16.9	4.0	1.16	0.748	106.4	1.078	0.021	4-3589	232.0	388.4	-0.35	1.125	96.5	300.1	-22.8	0.177
4-3470	4-3670	0.273	18.4	4.8	1.20	0.739	105.5	1.068	0.022	4-3591	228.2	394.1	-0.45	1.118	97.6	302.9	-22.7	0.188
4-3470	4-3680	0.260	20.2	5.7	1.26	0.730	104.4	1.058	0.023	4-3592	224.0	399.4	-0.58	1.111	98.6	306.9	-22.4	0.199
4-3470	4-3690	0.246	22.2	6.8	1.38	0.721	103.3	1.046	0.025	4-3593	219.5	404.5	-0.75	1.105	99.5	311.8	-21.9	0.211
4-3470	4-3700	0.232	24.5	8.0	1.57	0.712	102.1	1.034	0.028	4-3595	214.8	409.3	-0.98	1.099	100.4	317.5	-21.3	0.223
4-3470	4-3710	0.217	27.3	9.5	1.80	0.702	100.7	1.020	0.032	4-3597	209.9	414.0	-1.31	1.093	101.2	323.7	-20.7	0.235
4-3480	4-3670	0.304	20.3	6.0	1.29	0.751	108.2	1.099	0.024	4-3597	234.2	395.3	-0.38	1.129	98.5	301.2	-22.5	0.208
4-3480	4-3680	0.289	22.0	6.8	1.33	0.739	107.1	1.088	0.025	4-3598	229.9	400.5	-0.51	1.121	99.5	305.6	-22.1	0.218
4-3480	4-3690	0.273	23.9	7.8	1.43	0.728	105.9	1.075	0.026	4-3600	225.2	405.4	-0.67	1.113	100.3	310.8	-21.5	0.228
4-3480	4-3700	0.257	26.1	9.0	1.58	0.717	104.6	1.062	0.028	4-3602	220.4	410.1	-0.88	1.106	101.2	316.6	-20.8	0.239
4-3480	4-3710	0.241	28.7	10.3	1.83	0.706	103.2	1.047	0.032	4-3603	215.4	414.6	-1.16	1.100	101.9	322.9	-19.9	0.250
4-3480	4-3720	0.224	31.8	11.8	2.23	0.696	101.7	1.031	0.039	4-3605	210.2	419.0	-1.58	1.094	102.6	329.7	-19.2	0.261
4-3490	4-3670	0.339	22.3	7.1	1.38	0.766	111.0	1.133	0.027	4-3604	240.1	396.4	-0.31	1.144	99.5	299.7	-22.2	0.231
4-3490	4-3680	0.321	24.0	8.0	1.41	0.752	109.8	1.120	0.027	4-3605	235.6	401.4	-0.44	1.133	100.4	304.4	-21.8	0.240
4-3490	4-3690	0.304	25.9	8.9	1.47	0.739	108.6	1.107	0.028	4-3607	230.8	406.2	-0.59	1.124	101.3	309.8	-21.1	0.249
4-3490	4-3700	0.285	28.0	10.0	1.60	0.725	107.2	1.092	0.030	4-3606	225.8	410.8	-0.78	1.115	102.0	315.8	-20.3	0.258
4-3490	4-3710	0.267	30.4	11.2	1.80	0.713	105.8	1.076	0.033	4-3610	220.7	415.2	-1.03	1.108	102.7	322.2	-19.3	0.267
4-3490	4-3720	0.248	33.3	12.6	2.12	0.700	104.2	1.059	0.038	4-3612	215.4	419.5	-1.38	1.100	103.4	329.0	-18.3	0.277
4-3500	4-3680	0.358	26.2	9.2	1.48	0.770	112.7	1.156	0.029	4-3612	241.1	402.3	-0.37	1.148	101.5	303.4	-21.5	0.265
4-3500	4-3690	0.337	28.0	10.1	1.52	0.753	111.4	1.141	0.030	4-3613	236.2	406.9	-0.52	1.137	102.3	309.0	-20.8	0.272
4-3500	4-3700	0.316	30.1	11.0	1.62	0.737	110.0	1.125	0.031	4-3615	231.1	411.4	-0.69	1.127	103.0	315.1	-19.9	0.279
4-3500	4-3710	0.296	32.4	12.1	1.78	0.722	108.5	1.107	0.033	4-3617	225.9	415.7	-0.92	1.117	103.6	321.6	-18.7	0.287
4-3500	4-3720	0.275	35.0	13.4	2.05	0.707	106.8	1.089	0.038	4-3619	220.5	419.9	-1.22	1.109	104.2	328.4	-17.6	0.294
4-3500	4-3730	0.254	38.1	14.8	2.47	0.694	105.1	1.071	0.044	4-3621	215.1	424.0	-1.66	1.101	104.8	335.5	-16.5	0.303
4-3510	4-3680	0.398	28.4	10.3	1.55	0.792	115.7	1.194	.032	4-3616	246.4	402.9	-0.29	1.167	102.6	302.7	-21.2	0.295
4-3510	4-3690	0.374	30.3	11.2	1.57	0.772	114.3	1.178	0.032	4-3619	241.4	407.5	-0.44	1.153	103.4	308.4	-20.5	0.300
4-3510	4-3700	0.351	32.3	12.1	1.64	0.753	112.9	1.160	0.0[illegible]	4-3621	236.3	411.9	-0.61	1.140	104.0	314.5	-19.5	0.304
4-3510	4-3710	0.327	34.5	13.1	1.77	0.735	111.3	1.141	0.[illegible]	4-3623	231.0	416.2	-0.81	1.129	104.6	321.0	-18.3	0.309
4-3510	4-3720	0.304	37.0	14.3	1.99	0.718	109.6	1.122	0.038	4-3625	225.6	420.3	-1.08	1.119	105.2	327.8	-16.9	0.315
4-3510	4-3730	0.281	39.9	15.5	2.33	0.702	107.8	1.104	0.043	4-3627	220.0	424.3	-1.45	1.109	105.7	334.9	-15.6	0.321
4-3520	4-3690	0.416	32.7	12.3	1.62	0.797	117.3	1.218	0.034	4-3626	246.5	408.0	-0.36	1.172	104.6	307.9	-20.2	0.331
4-3520	4-3700	0.389	34.[illegible]	13.2	1.66	0.774	115.8	1.199	0.034	4-3628	241.3	412.3	-0.53	1.157	105.2	314.1	-19.1	0.333
4-3520	4-3710	0.362	36.[illegible]	14.1	1.76	0.752	114.2	1.178	0.035	4-3629	236.0	416.5	-0.71	1.143	105.8	320.6	-17.8	0.336
4-3520	4-3720	0.336	39.[illegible]	15.2	1.94	0.732	112.5	1.157	0.038	4-3632	230.5	420.6	-0.95	1.131	106.2	327.4	-16.4	0.339
4-3520	4-3730	0.311	42.0	16.3	2.22	0.713	110.6	1.135	0.042	4-3634	224.9	424.6	-1.27	1.120	106.7	334.9	-14.9	0.342
4-3520	4-3740	0.286	45.2	17.6	2.67	0.695	108.6	1.113	0.050	4-3636	219.2	428.5	-1.73	1.110	107.1	341.7	-13.5	0.347
4-3530	4-3690	0.462	35.2	13.4	1.67	0.828	120.4	1.262	0.036	4-3632	251.3	408.3	-0.28	1.196	106.0	307.5	-19.9	0.368
4-3530	4-3700	0.432	37.2	14.2	1.69	0.800	118.8	1.241	0.036	4-3634	246.1	412.6	-0.45	1.177	106.5	313.8	-18.8	0.367
4-3530	4-3710	0.401	39.3	15.1	1.76	0.774	117.2	1.218	0.036	4-3636	240.7	416.8	-0.62	1.160	107.0	320.3	-17.5	0.366
4-3530	4-3720	0.372	41.7	16.1	1.90	0.750	115.4	1.195	0.038	4-3638	235.2	420.8	-0.84	1.145	107.4	327.1	-15.9	0.366
4-3530	4-3730	0.344	44.3	17.1	2.13	0.728	113.5	1.172	0.042	4-3640	229.6	424.8	-1.11	1.132	107.8	334.0	-14.3	0.367
4-3530	4-3740	0.316	47.2	18.2	2.50	0.708	111.5	1.147	0.048	4-3643	223.9	428.6	-1.50	1.120	108.1	341.2	-12.6	0.369
4-3540	4-3690	0.515	37.8	14.5	1.73	0.866	123.4	1.310	0.039	4-3638	256.0	408.4	-0.19	1.225	107.5	307.4	-19.6	0.410
4-3540	4-3700	0.479	39.8	15.3	1.71	0.833	121.9	1.287	0.038	4-3640	250.7	412.7	-0.37	1.202	108.0	313.6	-18.5	0.405
4-3540	4-3710	0.445	41.9	16.1	1.76	0.802	120.2	1.262	0.038	4-3642	245.4	416.9	-0.54	1.181	108.4	320.1	-17.1	0.401
4-3540	4-3720	0.412	44.2	17.0	1.87	0.774	118.5	1.237	0.039	4-3644	239.9	421.0	-0.74	1.163	108.7	326.8	-15.5	0.397
4-3540	4-3730	0.380	46.7	17.9	2.05	0.748	116.5	1.211	0.042	4-3646	234.2	424.9	-0.98	1.147	109.0	333.7	-13.7	0.395
4-3540	4-3740	0.349	49.5	18.9	2.30	0.724	114.5	1.185	0.047	4-3649	228.6	428.7	-1.31	1.133	109.2	340.9	-11.9	0.394
4-3550	4-3700	0.534	42.5	16.3	1.74	0.873	125.0	1.337	0.040	4-3646	255.2	412.8	-0.29	1.232	109.3	313.5	-18.2	0.450
4-3550	4-3710	0.494	44.6	17.1	1.78	0.836	123.3	1.310	0.039	4-3648	249.0	416.9	-0.46	1.206	109.9	320.0	-16.8	0.441
4-3550	4-3720	0.456	46.9	17.9	1.84	0.803	121.5	1.283	0.040	4-3650	244.4	421.0	-0.64	1.184	110.1	326.7	-15.1	0.433
4-3550	4-3730	0.420	49.3	18.7	1.99	0.772	119.6	1.254	0.042	4-3652	238.7	424.9	-0.86	1.165	110.3	333.5	-13.3	0.427
4-3550	4-3740	0.386	52.0	19.6	2.23	0.744	117.5	1.226	0.046	4-3655	233.0	428.8	-1.14	1.148	110.5	340.6	-11.3	0.422
4-3550	4-3750	0.353	55.1	20.6	2.61	0.718	115.3	1.197	0.052	4-3658	227.1	432.5	-1.54	1.133	110.7	347.8	-9.5	0.420
4-3560	4-3700	0.595	45.2	17.3	1.77	0.922	128.0	1.393	0.043	4-3652	259.5	412.6	-0.20	1.269	111.2	313.6	-17.9	0.502
4-3560	4-3710	0.550	47.4	18.0	1.76	0.879	126.4	1.363	0.041	4-3654	254.2	416.8	-0.38	1.237	111.5	320.0	-16.9	0.488
4-3560	4-3720	0.506	49.6	18.7	1.81	0.839	124.6	1.332	0.041	4-3656	248.7	420.9	-0.56	1.210	111.7	326.6	-14.8	0.475
4-3560	4-3730	0.466	52.0	19.5	1.93	0.802	122.7	1.301	0.042	4-3658	243.1	424.9	-0.75	1.186	111.8	333.4	-12.9	0.464
4-3560	4-3740	0.427	54.6	20.3	2.12	0.769	120.6	1.270	0.045	4-3661	237.4	428.7	-1.00	1.166	111.8	340.4	-10.8	0.455
4-3560	4-3750	0.390	57.5	21.2	2.43	0.739	118.4	1.238	0.050	4-3664	231.5	432.5	-1.33	1.148	111.9	347.6	-8.6	0.449
4-3570	4-3710	0.613	50.2	18.9	1.76	0.930	129.5	1.422	0.043	4-3660	258.4	416.6	-0.31	1.275	113.2	320.2	-16.2	0.541
4-3570	4-3720	0.563	52.5	19.6	1.78	0.882	127.7	1.388	0.042	4-3662	252.9	420.7	-0.48	1.242	113.4	326.7	-14.5	0.523
4-3570	4-3730	0.516	54.9	20.3	1.87	0.839	125.8	1.353	0.043	4-3664	247.3	424.7	-0.66	1.213	113.4	333.4	-12.5	0.507
4-3570	4-3740	0.473	57.4	21.0	2.03	0.801	123.8	1.318	0.045	4-3667	241.6	428.6	-0.87	1.188	113.3	340.3	-10.4	0.493
4-3570	4-3750	0.431	60.2	21.8	2.28	0.765	121.6	1.284	0.049	4-3669	235.8	432.4	-1.15	1.166	113.3	347.4	-8.2	0.482
4-3570	4-3760	0.392	63.3	22.6	2.68	0.733	119.2	1.250	0.055	4-3672	229.8	436.1	-1.56	1.148	113.3	354.7	-6.1	0.474

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-3580	4-3710	0.686	53.1	19.8	1.75	0.992	132.5	1.487	0.045	4-3666	262.4	416.2	-0.23	1.323	115.1	320.3	-15.9	0.605
4-3580	4-3720	0.628	55.4	20.4	1.75	0.935	130.8	1.449	0.044	4-3668	257.0	420.4	-0.40	1.281	115.2	326.9	-14.2	0.579
4-3580	4-3730	0.574	57.8	21.0	1.82	0.885	128.9	1.410	0.044	4-3670	251.5	424.4	-0.57	1.246	115.1	333.5	-12.2	0.556
4-3580	4-3740	0.524	60.3	21.7	1.94	0.839	126.9	1.372	0.045	4-3673	245.8	428.3	-0.76	1.215	115..	340.3	-10.0	0.537
4-3580	4-3750	0.478	63.0	22.3	2.15	0.797	124.7	1.334	0.048	4-3675	240.0	432.2	-1.00	1.189	114.8	347.3	-7.7	0.521
4-3580	4-3760	0.434	66.0	23.0	2.47	0.760	122.4	1.296	0.053	4-3678	234.1	436.9	-1.34	1.166	114.7	354.5	-5.4	0.507
4-3590	4-3720	0.702	58.4	21.1	1.73	1.000	133.0	1.517	0.045	4-3673	260.9	419.9	-0.34	1.329	117.1	327.2	-13.9	0.644
4-3590	4-3730	0.640	60.8	21.7	1.76	0.939	132.0	1.474	0.045	4-3676	255.4	424.0	-0.50	1.285	117.0	333.7	-11.9	0.614
4-3590	4-3740	0.583	63.3	22.3	1.86	0.885	130.0	1.431	0.045	4-3678	249.8	428.0	-0.67	1.248	116.8	340.4	-9.6	0.588
4-3590	4-3750	0.530	65.9	22.8	2.03	0.837	127.9	1.389	0.047	4-3681	244.1	431.9	-0.87	1.216	116.5	347.3	-7.3	0.565
4-3590	4-3760	0.481	68.8	23.4	2.20	0.793	125.6	1.348	0.051	4-3684	238.2	435.7	-1.15	1.188	116.3	354.4	-4.9	0.546
4-3590	4-3770	0.435	72.0	24.0	2.70	0.754	123.1	1.307	0.058	4-3687	232.2	439.4	-1.56	1.165	116.0	1.7	-2.6	0.531
4-3600	4-3720	0.799	61.4	21.8	1.69	1.078	136.7	1.593	0.047	4-3679	264.7	419.4	-0.27	1.389	119.2	327.6	-13.6	0.721
4-3600	4-3730	0.716	63.9	22.3	1.71	1.005	135.0	1.545	0.045	4-3681	259.3	423.5	-0.43	1.335	119.0	334.0	-11.5	0.681
4-3600	4-3740	0.649	66.3	22.8	1.78	0.941	133.1	1.497	0.045	4-3684	253.7	427.6	-0.58	1.288	118.7	340.6	-9.3	0.646
4-3600	4-3750	0.589	68.9	23.3	1.92	0.884	131.0	1.450	0.047	4-3687	248.0	431.5	-0.76	1.249	118.3	347.4	-8.9	0.616
4-3600	4-3760	0.533	71.7	23.8	2.13	0.833	128.8	1.404	0.050	4-3690	242.2	435.3	-0.99	1.216	118.0	354.4	-4.4	0.591
4-3600	4-3770	0.482	74.8	24.3	2.45	0.787	126.3	1.359	0.055	4-3693	236.3	439.1	-1.32	1.187	117.6	1.6	-2.0	0.570
4-3610	4-3730	0.804	67.0	22.9	1.65	1.085	137.9	1.625	0.046	4-3687	263.1	422.9	-0.37	1.396	121.1	334.4	-11.2	0.760
4-3610	4-3740	0.727	69.5	23.3	1.70	1.008	136.1	1.571	0.046	4-3689	257.5	427.0	-0.51	1.348	120.8	340.9	-9.0	0.715
4-3610	4-3750	0.657	72.0	23.7	1.81	0.941	134.1	1.518	0.047	4-3692	251.9	431.0	-0.66	1.290	120.3	347.6	-6.5	0.676
4-3610	4-3760	0.593	74.8	24.2	1.98	0.881	131.9	1.467	0.049	4-3695	246.1	434.9	-0.85	1.249	119.8	354.5	-3.9	0.643
4-3610	4-3770	0.535	77.7	24.6	2.24	0.828	129.5	1.417	0.052	4-3699	240.2	438.7	-1.12	1.214	119.3	1.6	-1.4	0.615
4-3610	4-3780	0.481	81.0	25.0	2.66	0.781	126.9	1.369	0.059	4-3702	234.2	442.5	-1.52	1.185	118.9	8.9	1.0	0.591
4-3620	4-3740	0.816	72.7	23.8	1.62	1.090	139.1	1.654	0.046	4-3695	261.3	426.3	-0.45	1.401	123.0	341.3	-8.6	0.796
4-3620	4-3750	0.735	75.2	24.1	1.71	1.009	137.2	1.595	0.046	4-3698	255.7	430.4	-0.58	1.340	122.4	347.9	-6.2	0.746
4-3620	4-3760	0.661	77.9	24.4	1.84	0.939	135.0	1.537	0.048	4-3701	250.0	434.4	-0.74	1.290	121.8	354.7	-3.6	0.703
4-3620	4-3770	0.595	80.7	24.8	2.05	0.877	132.7	1.481	0.050	4-3704	244.1	438.3	-0.95	1.248	121.2	1.7	-0.9	0.667
4-3620	4-3780	0.534	83.9	25.1	2.38	0.821	130.2	1.428	0.056	4-3707	238.1	442.1	-1.26	1.212	120.6	8.9	1.6	0.636
4-3630	4-3750	0.826	78.5	24.4	1.60	1.092	140.1	1.681	0.046	4-3703	259.3	429.7	-0.52	1.403	124.7	348.3	-5.8	0.829
4-3630	4-3760	0.740	81.1	24.7	1.72	1.008	138.1	1.616	0.047	4-3706	253.7	433.7	-0.65	1.341	124.0	355.0	-3.2	0.774
4-3630	4-3770	0.664	83.9	24.9	1.89	0.935	135.9	1.553	0.049	4-3710	247.9	437.7	-0.81	1.289	123.3	1.9	-0.5	0.728
4-3630	4-3780	0.595	86.9	25.1	2.14	0.871	133.4	1.494	0.053	4-3713	242.0	441.6	-1.05	1.245	122.5	9.0	2.1	0.689
4-3630	4-3790	0.532	90.2	25.3	2.54	0.814	130.7	1.438	0.059	4-3716	236.0	445.4	-1.42	1.209	121.9	16.4	4.6	0.656
4-3640	4-3760	0.832	84.4	24.8	1.59	1.092	141.0	1.705	0.046	4-3712	257.3	433.0	-0.57	1.404	126.3	355.3	-2.8	0.858
4-3640	4-3770	0.744	87.1	25.0	1.73	1.005	138.9	1.634	0.047	4-3715	251.6	437.0	-0.69	1.340	125.5	2.1	-0.1	0.800
4-3640	4-3780	0.664	90.0	25.1	1.93	0.930	136.6	1.567	0.050	4-3718	245.8	441.8	-0.87	1.287	124.6	9.2	2.6	0.750
4-3640	4-3790	0.593	93.1	25.2	2.23	0.863	134.0	1.504	0.055	4-3722	239.8	444.8	-1.15	1.242	123.8	16.5	5.2	0.708
4-3650	4-3770	0.836	90.5	25.0	1.58	1.090	141.9	1.727	0.046	4-3720	255.3	436.3	-0.60	1.403	127.8	2.5	0.2	0.884
4-3650	4-3780	0.744	93.3	25.0	1.74	1.000	139.7	1.650	0.048	4-3724	249.5	440.3	-0.73	1.337	126.9	9.4	3.0	0.822
4-3650	4-3790	0.663	96.2	25.0	1.97	0.922	137.2	1.579	0.051	4-3727	243.6	444.2	-0.93	1.283	125.9	16.6	5.7	0.769
4-4200	4-4420	0.194	42.5	13.1	1.65	0.707	100.8	0.998	0.028	4-4334	214.4	378.6	-0.21	1.111	93.9	339.6	-10.4	0.145
4-4200	4-4430	0.186	44.2	14.1	1.67	0.702	100.1	0.991	0.028	4-4335	211.5	385.2	-0.38	1.108	95.2	339.7	-11.4	0.157
4-4200	4-4440	0.177	46.4	15.3	1.75	0.697	99.2	0.983	0.029	4-4336	208.1	391.4	-0.58	1.105	96.4	341.6	-11.8	0.171
4-4200	4-4450	0.167	49.3	16.7	1.91	0.691	98.2	0.974	0.031	4-4337	204.4	397.2	-0.83	1.102	97.6	344.9	-11.7	0.187
4-4200	4-4460	0.157	52.9	18.2	2.17	0.684	97.1	0.963	0.035	4-4339	200.4	402.8	-1.15	1.099	98.7	349.2	-11.3	0.203
4-4210	4-4420	0.216	43.8	14.9	1.72	0.713	103.0	1.023	0.030	4-4341	220.6	380.3	-0.11	1.118	96.4	337.1	-10.5	0.156
4-4210	4-4430	0.206	45.5	14.9	1.71	0.707	102.3	1.016	0.030	4-4342	217.4	386.6	-0.28	1.114	95.7	337.8	-11.3	0.168
4-4210	4-4440	0.196	47.6	16.0	1.76	0.700	101.4	1.007	0.030	4-4343	213.8	392.5	-0.47	1.110	96.9	340.1	-11.4	0.182
4-4210	4-4450	0.185	50.2	17.2	1.88	0.693	100.4	0.997	0.032	4-4344	209.9	398.2	-0.69	1.107	98.0	343.7	-11.1	0.196
4-4210	4-4460	0.174	53.5	18.6	2.09	0.686	99.2	0.986	0.035	4-4346	205.7	403.5	-0.98	1.103	99.1	348.3	-10.5	0.211
4-4210	4-4470	0.162	57.7	20.2	2.44	0.678	97.9	0.974	0.040	4-4348	201.3	408.7	-1.36	1.100	100.1	353.6	-9.9	0.228
4-4220	4-4420	0.240	45.4	14.9	1.81	0.722	105.4	1.050	0.032	4-4347	226.8	381.9	-0.01	1.126	95.0	334.6	-10.6	0.169
4-4220	4-4430	0.229	47.0	15.7	1.77	0.715	104.6	1.042	0.031	4-4348	223.3	388.0	-0.18	1.121	96.3	335.9	-11.2	0.181
4-4220	4-4440	0.218	49.1	16.7	1.78	0.706	103.7	1.032	0.031	4-4349	219.5	393.7	-0.36	1.117	97.5	338.7	-11.2	0.194
4-4220	4-4450	0.205	51.6	17.8	1.86	0.698	102.6	1.022	0.032	4-4351	215.4	399.1	-0.57	1.112	98.6	342.6	-10.7	0.208
4-4220	4-4460	0.192	54.6	19.1	2.03	0.689	101.4	1.010	0.035	4-4352	211.0	404.3	-0.82	1.108	99.6	347.3	-9.8	0.222
4-4220	4-4470	0.179	58.4	20.4	2.30	0.681	100.1	0.997	0.039	4-4354	206.4	409.3	-1.15	1.104	100.6	352.7	-8.9	0.236
4-4230	4-4430	0.255	48.8	16.5	1.82	0.725	107.1	1.070	0.033	4-4355	229.2	389.3	.08	1.130	97.0	334.2	-11.2	0.196
4-4230	4-4440	0.241	50.8	17.4	1.81	0.715	106.0	1.060	0.033	4-4356	225.2	394.8	-0.26	1.124	98.1	337.4	-11.0	0.208
4-4230	4-4450	0.227	53.2	18.4	1.85	0.705	104.9	1.048	0.033	4-4357	220.8	400.1	-0.45	1.119	99.2	341.5	-10.3	0.221
4-4230	4-4460	0.213	56.0	19.6	1.98	0.695	103.7	1.036	0.035	4-4359	216.3	405.1	-0.68	1.114	100.2	346.4	-9.3	0.234
4-4230	4-4470	0.198	59.5	20.8	2.19	0.685	102.3	1.022	0.038	4-4361	211.5	409.9	-0.97	1.109	101.1	351.9	-8.1	0.247
4-4230	4-4480	0.183	63.8	22.2	2.55	0.675	100.8	1.007	0.043	4-4363	206.6	414.6	-1.36	1.105	102.1	358.0	-7.0	0.261
4-4240	4-4430	0.283	50.8	17.4	1.88	0.739	109.6	1.100	0.035	4-4361	234.9	390.6	0.03	1.141	97.8	332.6	-11.2	0.214
4-4240	4-4440	0.268	52.8	18.2	1.84	0.727	108.5	1.089	0.034	4-4362	230.7	395.9	-0.16	1.134	98.9	336.1	-10.8	0.225
4-4240	4-4450	0.252	55.1	19.1	1.85	0.715	107.4	1.077	0.034	4-4364	226.2	401.0	-0.35	1.127	99.9	340.5	-10.0	0.237
4-4240	4-4460	0.236	57.8	20.1	1.93	0.703	106.1	1.063	0.035	4-4365	221.5	405.9	-0.56	1.121	100.8	345.6	-8.8	0.248
4-4240	4-4470	0.219	61.0	21.2	2.10	0.692	104.7	1.049	0.037	4-4367	216.6	410.5	-0.81	1.115	101.7	351.2	-7.5	0.260
4-4240	4-4480	0.202	64.9	22.4	2.38	0.680	103.1	1.033	0.041	4-4369	211.5	415.1	-1.14	1.110	102.6	357.3	-6.1	0.273
4-4250	4-4430	0.314	53.0	18.2	1.95	0.757	112.2	1.133	0.038	4-4367	240.6	391.8	0.14	1.154	98.6	331.1	-11.1	0.235
4-4250	4-4440	0.297	55.0	19.0	1.87	0.742	111.1	1.120	0.036	4-4369	236.2	397.0	-0.06	1.145	99.7	335.0	-10.7	0.245
4-4250	4-4450	0.279	57.2	19.8	1.85	0.728	109.9	1.107	0.035	4-4370	231.5	401.9	-0.24	1.137	100.7	339.6	-9.7	0.255
4-4250	4-4460	0.261	59.8	20.7	1.90	0.714	108.5	1.093	0.035	4-4372	226.7	406.6	-0.43	1.129	101.6	344.8	-8.4	0.265
4-4250	4-4470	0.242	62.8	21.7	2.03	0.701	107.1	1.077	0.037	4-4373	221.6	411.2	-0.66	1.122	102.4	350.5	-7.0	0.275
4-4250	4-4480	0.224	66.5	22.7	2.24	0.688	105.6	1.061	0.040	4-4376	216.4	415.6	-0.95	1.116	103.2	356.6	-5.4	0.286
4-4260	4-4440	0.329	57.3	19.7	1.90	0.762	113.7	1.154	0.038	4-4375	241.5	397.9	0.05	1.159	100.7	334.0	-10.5	0.268
4-4260	4-4450	0.309	59.5	20.5	1.86	0.745	112.5	1.140	0.036	4-4376	236.8	402.7	-0.14	1.149	101.6	338.8	-9.5	0.276
4-4260	4-4460	0.289	62.0	21.3	1.88	0.729	111.1	1.124	0.036	4-4378	231.8	407.3	-0.33	1.140	102.4	344.2	-8.1	0.284
4-4260	4-4470	0.268	64.9	22.1	1.96	0.713	109.6	1.107	0.037	4-4380	226.6	411.7	-0.53	1.131	103.2	349.9	-6.5	0.293

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4260	4-4480	0.247	68.3	23.0	2.13	0.697	108.0	1.090	0.039	4-4382	221.7	416.1	-0.78	1.123	103.9	356.1	-4.8	0.301
4-4260	4-4490	0.227	72.3	24.0	2.41	0.683	106.2	1.071	0.043	4-4384	215.9	420.3	-1.11	1.116	104.7	2.6	-3.1	0.311
4-4270	4-4440	0.306	59.8	20.4	1.95	0.786	116.4	1.191	0.040	4-4381	246.7	398.7	0.16	1.176	101.7	333.2	-10.4	0.295
4-4270	4-4450	0.342	62.0	21.1	1.87	0.766	115.1	1.175	0.038	4-4382	241.9	403.4	-0.04	1.163	102.6	338.1	-9.3	0.301
4-4270	4-4460	0.319	64.4	21.8	1.85	0.746	113.7	1.158	0.037	4-4384	236.8	407.9	-0.22	1.152	103.4	343.6	-7.9	0.307
4-4270	4-4470	0.296	67.2	22.6	1.91	0.728	112.2	1.140	0.037	4-4386	231.5	412.3	-0.41	1.141	104.1	349.4	-6.2	0.313
4-4270	4-4480	0.273	70.4	23.4	2.03	0.710	110.6	1.121	0.038	4-4388	226.2	416.5	-0.63	1.132	104.7	355.6	-4.3	0.319
4-4270	4-4490	0.251	74.1	24.2	2.25	0.693	108.7	1.101	0.041	4-4390	220.6	420.7	-0.91	1.124	105.4	2.1	-2.4	0.326
4-4280	4-4450	0.380	64.6	21.7	1.88	0.792	117.8	1.21[illegible]	0.039	4-4388	246.8	404.0	0.06	1.181	103.7	337.6	-9.2	0.329
4-4280	4-4460	0.354	67.0	22.4	1.84	0.769	116.4	1.19[illegible]	0.03[illegible]	4-4390	241.7	408.4	-0.12	1.167	104.4	343.1	-7.6	0.333
4-4280	4-4470	0.328	69.7	23.0	1.86	0.747	114.8	1.175	0.037	4-4392	236.4	412.7	-0.30	1.154	105.1	349.0	-5.8	0.336
4-4280	4-4480	0.302	72.7	23.7	1.94	0.726	113.2	1.155	0.038	4-4394	230.9	416.9	-0.50	1.143	105.6	355.2	-3.9	0.340
4-4280	4-4490	0.277	76.2	24.4	2.11	0.707	111.3	1.134	0.040	4-4396	225.4	421.0	-0.74	1.133	106.2	1.[illegible]	-1.8	0.345
4-4280	4-4500	0.253	80.4	25.1	2.39	0.688	109.4	1.111	0.044	4-4399	219.7	425.1	-1.06	1.124	106.8	8.5	0.1	0.350
4-4290	4-4450	0.422	67.3	22.3	1.89	0.823	120.6	1.255	0.041	4-4394	251.6	404.5	0.16	1.203	104.9	337.2	-9.0	0.362
4-4290	4-4460	0.392	69.7	22.9	1.82	0.796	119.1	1.234	0.038	4-4396	244.5	408.8	-0.03	1.185	105.6	342.7	-7.4	0.362
4-4290	4-4470	0.363	72.3	23.4	1.81	0.770	117.6	1.213	0.037	4-4398	241.1	413.1	-0.20	1.170	106.1	348.6	-5.6	0.363
4-4290	4-4480	0.334	75.2	24.0	1.86	0.746	115.8	1.191	0.038	4-4400	235.6	417.2	-0.39	1.156	106.7	354.8	-3.5	0.364
4-4290	4-4490	0.307	78.5	24.6	1.98	0.724	114.0	1.168	0.039	4-4402	230.0	421.3	-0.59	1.144	107.1	1.3	-1.3	0.366
4-4290	4-4500	0.280	82.4	25.2	2.20	0.701	112.0	1.145	0.042	4-4405	224.3	425.3	-0.85	1.133	107.6	8.1	0.8	0.369
4-4300	4-4460	0.436	72.5	23.3	1.81	0.828	121.9	1.277	0.040	4-4402	251.1	409.1	0.07	1.208	106.8	342.5	-7.2	0.397
4-4300	4-4470	0.402	75.1	23.8	1.77	0.798	120.3	1.254	0.038	4-4404	245.7	413.4	-0.10	1.188	107.3	348.4	-5.3	0.394
4-4300	4-4480	0.370	77.9	24.3	1.79	0.770	118.6	1.230	0.037	4-4406	240.2	417.5	-0.27	1.172	107.8	354.6	-3.2	0.392
4-4300	4-4490	0.339	81.0	24.8	1.88	0.744	116.7	1.206	0.038	4-4408	234.6	421.5	-0.46	1.157	108.2	1.1	-0.9	0.391
4-4300	4-4500	0.310	84.6	25.3	2.03	0.720	114.7	1.180	0.040	4-4411	228.8	425.5	-0.68	1.144	108.6	7.8	1.3	0.390
4-4300	4-4510	0.281	88.8	25.7	2.30	0.698	118.6	1.154	0.044	4-4413	222.9	429.4	-0.97	1.132	109.0	14.8	3.5	0.392
4-4310	4-4460	0.485	75.4	23.7	1.80	0.868	124.6	1.324	0.041	4-4408	255.6	409.3	0.16	1.235	108.2	342.4	-7.0	0.437
4-4310	4-4470	0.447	77.9	24.1	1.73	0.837	123.0	1.299	0.039	4-4410	250.2	413.5	-0.01	1.211	108.7	348.3	-5.1	0.430
4-4310	4-4480	0.410	80.7	24.5	1.73	0.800	121.3	1.273	0.037	4-4412	244.7	417.6	-0.17	1.191	109.0	354.4	-2.9	0.424
4-4310	4-4490	0.376	83.7	24.9	1.78	0.769	119.5	1.246	0.037	4-4414	239.0	421.6	-0.34	1.173	109.3	0.9	-0.6	0.419
4-4310	4-4500	0.343	87.1	25.3	1.89	0.741	117.5	1.219	0.039	4-4416	233.3	425.6	-0.52	1.157	109.6	7.6	1.8	0.415
4-4310	4-4510	0.311	91.0	25.6	2.09	0.716	115.3	1.191	0.041	4-4419	227.4	429.5	-0.76	1.143	109.9	14.6	4.1	0.413
4-4320	4-4470	0.497	80.9	24.4	1.70	0.873	125.8	1.348	0.039	4-4416	254.6	413.5	0.08	1.239	110.1	348.3	-4.8	0.472
4-4320	4-4480	0.456	83.6	24.7	1.66	0.835	124.1	1.319	0.038	4-4418	249.1	417.6	-0.08	1.214	110.4	354.4	-2.6	0.461
4-4320	4-4490	0.417	86.6	25.0	1.69	0.800	122.2	1.290	0.037	4-4420	243.4	421.7	-0.23	1.192	110.6	0.8	-0.3	0.452
4-4320	4-4500	0.380	89.8	25.3	1.76	0.767	120.2	1.260	0.037	4-4422	237.7	425.6	-0.39	1.173	110.8	7.5	2.2	0.444
4-4320	4-4510	0.344	93.4	25.5	1.91	0.738	118.1	1.230	0.039	4-4425	231.8	429.5	-0.58	1.156	111.0	14.4	4.6	0.438
4-4320	4-4520	0.311	97.7	25.7	2.15	0.710	115.8	1.200	0.043	4-4428	225.8	433.3	-0.85	1.141	111.2	21.6	6.8	0.435
4-4330	4-4470	0.555	83.9	24.6	1.66	0.923	128.5	1.402	0.040	4-4421	258.9	413.4	0.16	1.274	111.7	348.4	-4.6	0.520
4-4330	4-4480	0.507	86.6	24.9	1.60	0.877	126.9	1.370	0.038	4-4423	253.4	417.6	0.01	1.243	111.9	354.5	-2.4	0.504
4-4330	4-4490	0.463	89.5	25.1	1.60	0.836	125.0	1.338	0.036	4-4426	247.8	421.6	-0.13	1.216	112.0	0.8	0.0	0.489
4-4330	4-4500	0.421	92.6	25.3	1.65	0.798	123.0	1.306	0.036	4-4428	242.0	425.5	-0.27	1.192	112.1	7.4	2.5	0.477
4-4330	4-4510	0.382	96.0	25.4	1.75	0.764	120.9	1.273	0.037	4-4431	236.1	429.4	-0.43	1.172	112.2	14.3	5.0	0.467
4-4330	4-4520	0.345	100.0	25.4	1.92	0.733	118.6	1.240	0.040	4-4434	230.1	433.3	-0.64	1.155	112.3	21.4	7.4	0.460
4-4340	4-4480	0.566	89.7	25.0	1.54	0.928	129.6	1.426	0.038	4-4429	257.6	417.3	0.09	1.278	113.5	354.6	-2.1	0.554
4-4340	4-4490	0.515	92.6	25.1	1.52	0.879	127.8	1.391	0.036	4-4431	252.0	421.4	-0.04	1.245	113.6	0.9	0.3	0.533
4-4340	4-4500	0.468	95.6	25.2	1.54	0.835	125.9	1.355	0.035	4-4434	246.2	425.4	-0.17	1.216	113.5	7.4	2.8	0.516
4-4340	4-4510	0.424	98.8	25.2	1.60	0.796	123.7	1.319	0.036	4-4436	240.4	429.3	-0.30	1.192	113.5	14.3	5.4	0.501
4-4340	4-4520	0.382	102.5	25.2	1.73	0.760	121.4	1.284	0.037	4-4439	234.4	433.1	-0.46	1.171	113.5	21.4	7.9	0.489
4-4340	4-4530	0.343	106.7	25.0	1.93	0.727	119.0	1.249	0.040	4-4442	228.3	437.0	-0.68	1.152	113.5	28.8	10.2	0.479
4-4350	4-4480	0.634	92.9	25.0	1.48	0.989	132.3	1.488	0.038	4-4435	261.7	417.0	0.16	1.321	115.2	354.9	-1.8	0.612
4-4350	4-4490	0.575	95.7	25.0	1.44	0.931	130.6	1.449	0.036	4-4437	256.1	421.1	0.04	1.280	115.2	1.1	0.6	0.585
4-4350	4-4500	0.521	98.6	25.0	1.44	0.879	128.7	1.410	0.034	4-4439	250.4	425.1	-0.07	1.246	115.1	7.6	3.1	0.561
4-4350	4-4510	0.471	101.7	25.0	1.47	0.833	126.6	1.370	0.034	4-4442	244.5	429.1	-0.18	1.216	115.0	14.3	5.7	0.540
4-4350	4-4520	0.425	105.2	24.9	1.55	0.792	124.3	1.332	0.034	4-4445	238.6	432.9	-0.31	1.190	114.8	21.4	8.3	0.523
4-4350	4-4530	0.382	109.1	24.6	1.69	0.754	121.9	1.293	0.036	4-4448	232.5	436.8	-0.47	1.158	114.7	28.7	10.7	0.508
4-4360	4-4480	0.713	96.1	24.9	1.42	1.062	134.9	1.557	0.039	4-4441	265.6	416.5	0.22	1.375	117.1	355.4	-1.6	0.681
4-4360	4-4490	0.645	98.9	24.9	1.36	0.993	133.3	1.514	0.036	4-4443	260.1	420.7	0.11	1.325	117.0	1.4	0.8	0.645
4-4360	4-4500	0.582	101.8	24.8	1.34	0.932	131.4	1.470	0.034	4-4445	254.5	424.7	0.01	1.282	116.8	7.8	3.4	0.613
4-4360	4-4510	0.525	104.8	24.7	1.35	0.878	129.4	1.427	0.033	4-4448	248.7	428.7	-0.09	1.245	116.6	14.5	6.0	0.585
4-4360	4-4520	0.473	108.0	24.5	1.40	0.830	127.2	1.384	0.032	4-4450	242.7	432.6	-0.18	1.214	116.3	21.5	8.7	0.562
4-4360	4-4530	0.424	111.6	24.2	1.48	0.787	124.8	1.342	0.033	4-4453	236.7	436.5	-0.29	1.187	116.1	28.8	11.2	0.542
4-4370	4-4490	0.725	102.1	24.7	1.28	1.067	135.9	1.585	0.035	4-4448	264.0	420.1	0.16	1.379	119.0	1.9	1.1	0.716
4-4370	4-4500	0.653	105.0	24.5	1.24	0.995	134.2	1.537	0.033	4-4451	258.4	424.2	0.08	1.326	118.7	8.2	3.7	0.674
4-4370	4-4510	0.587	107.9	24.3	1.23	0.931	132.2	1.489	0.031	4-4453	252.7	428.3	0.00	1.281	118.4	14.8	6.3	0.638
4-4370	4-4520	0.528	111.0	24.0	1.25	0.875	130.0	1.442	0.030	4-4456	246.8	432.2	-0.07	1.243	118.0	21.7	9.0	0.607
4-4370	4-4530	0.473	114.4	23.7	1.30	0.825	127.7	1.396	0.030	4-4459	240.8	436.1	-0.15	1.211	117.6	28.9	11.5	0.581
4-4370	4-4540	0.423	118.2	23.2	1.39	0.781	125.1	1.351	0.031	4-4462	234.7	440.0	-0.25	1.184	117.2	36.5	14.0	0.559
4-4380	4-4500	0.735	108.2	24.1	1.14	1.071	136.8	1.612	0.032	4-4456	262.3	423.6	0.14	1.382	120.7	8.6	4.0	0.747
4-4380	4-4510	0.659	111.1	23.8	1.12	0.995	135.0	1.558	0.030	4-4459	256.7	427.7	0.08	1.326	120.3	15.1	6.6	0.701
4-4380	4-4520	0.590	114.1	23.5	1.12	0.929	132.9	1.506	0.029	4-4461	250.8	431.7	0.03	1.280	119.8	21.9	9.3	0.661
4-4380	4-4530	0.528	117.3	23.1	1.14	0.871	130.6	1.455	0.028	4-4464	244.9	435.6	-0.03	1.240	119.2	29.1	11.9	0.627
4-4380	4-4540	0.472	120.8	22.6	1.18	0.819	128.1	1.406	0.027	4-4468	238.8	439.5	-0.08	1.207	118.8	36.6	14.3	0.599
4-4390	4-4510	0.742	114.4	23.3	1.01	1.072	137.7	1.636	0.028	4-4464	260.5	427.0	0.14	1.382	122.3	15.6	6.9	0.775
4-4390	4-4520	0.663	117.3	22.9	1.00	0.994	135.7	1.577	0.027	4-4467	254.8	431.1	0.11	1.325	121.7	22.3	9.5	0.724
4-4390	4-4530	0.592	120.3	22.4	0.99	0.925	133.5	1.521	0.025	4-4470	248.9	435.1	0.08	1.277	121.1	29.4	12.2	0.681
4-4390	4-4540	0.527	123.6	21.9	1.00	0.865	131.0	1.466	0.024	4-4473	242.9	439.0	0.05	1.236	120.4	36.9	14.7	0.645
4-4390	4-4550	0.469	127.3	21.2	1.01	0.813	128.4	1.414	0.024	4-4476	236.8	442.9	0.03	1.202	119.9	44.6	17.0	0.614
4-4400	4-4520	0.748	120.5	22.3	0.87	1.071	138.4	1.658	0.025	4-4472	258.6	430.3	0.17	1.381	123.8	22.8	9.8	0.799
4-4400	4-4530	0.665	123.5	21.7	0.86	0.990	136.3	1.594	0.023	4-4475	252.8	434.4	0.16	1.322	123.1	29.8	12.4	0.745

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-4400	4-4540	0.591	126.6	21.1	0.84	0.920	133.9	1.533	0.021	4-4479	246.9	438.4	0.16	1.273	122.3	37.2	15.0	0.699
4-4400	4-4550	0.525	130.0	20.4	0.82	0.859	131.4	1.476	0.020	4-4482	240.8	442.3	0.18	1.231	121.6	44.9	17.3	0.660
4-4940	4-5150	0.141	73.8	18.5	2.22	0.688	98.6	0.965	0.036	4-5082	206.5	346.5	0.49	1.111	87.2	27.2	15.4	0.138
4-4940	4-5160	0.138	73.9	19.0	2.07	0.689	98.3	0.961	0.034	4-5083	206.2	355.7	0.33	1.111	89.1	20.9	11.9	0.129
4-4940	4-5170	0.134	74.8	19.8	1.96	0.688	98.0	0.957	0.032	4-5083	205.1	364.1	0.16	1.111	90.8	15.4	8.0	0.129
4-4940	4-5180	0.129	76.6	20.8	1.90	0.686	97.5	0.953	0.031	4-5084	203.3	371.9	-0.03	1.111	92.4	11.7	4.8	0.136
4-4940	4-5190	0.124	79.4	22.0	1.90	0.682	96.9	0.947	0.030	4-5085	201.0	379.1	-0.22	1.110	93.9	10.4	2.7	0.147
4-4940	4-5200	0.117	83.3	23.1	1.97	0.678	96.1	0.940	0.031	4-5086	198.2	385.9	-0.44	1.109	95.2	11.1	1.5	0.162
4-4950	4-5160	0.154	74.2	19.6	2.18	0.694	100.3	0.983	0.036	4-5089	212.1	357.2	0.48	1.116	89.4	18.0	12.0	0.133
4-4950	4-5170	0.149	75.2	20.3	2.02	0.693	99.9	0.979	0.034	4-5090	210.8	365.4	0.29	1.115	91.1	12.9	8.1	0.134
4-4950	4-5180	0.144	76.9	21.2	1.93	0.690	99.4	0.974	0.032	4-5091	208.8	372.9	0.09	1.114	92.7	9.9	5.1	0.141
4-4950	4-5190	0.137	79.5	22.3	1.89	0.686	98.7	0.967	0.031	4-5092	206.3	380.0	-0.10	1.113	94.1	9.0	3.1	0.153
4-4950	4-5200	0.130	83.1	23.3	1.92	0.681	97.9	0.960	0.031	4-5093	203.3	386.6	-0.30	1.111	95.5	10.0	2.2	0.167
4-4950	4-5210	0.122	87.8	24.3	2.03	0.675	97.0	0.951	0.033	4-5094	199.9	392.8	-0.52	1.110	96.8	12.6	2.0	0.183
4-4960	4-5160	0.172	74.9	20.1	2.30	0.702	102.4	1.006	0.039	4-5095	218.1	358.8	0.64	1.121	89.7	14.8	12.0	0.139
4-4960	4-5170	0.166	76.0	20.8	2.10	0.699	101.9	1.001	0.036	4-5096	216.6	366.8	0.42	1.120	91.5	10.3	8.1	0.140
4-4960	4-5180	0.160	77.7	21.6	1.96	0.695	101.4	0.996	0.033	4-5097	214.4	374.2	0.22	1.119	93.0	7.9	5.7	0.148
4-4960	4-5190	0.152	80.1	22.6	1.89	0.691	100.7	0.989	0.032	4-5098	211.7	381.0	0.02	1.117	94.5	7.5	3.4	0.160
4-4960	4-5200	0.144	83.4	23.5	1.89	0.685	99.8	0.981	0.031	4-5099	208.5	387.4	-0.17	1.115	95.8	8.9	2.7	0.174
4-4960	4-5210	0.135	87.7	24.4	1.96	0.679	98.3	0.972	0.032	4-5101	204.9	393.4	-0.38	1.113	97.1	11.8	2.7	0.189
4-4970	4-5170	0.186	77.1	21.3	2.18	0.708	104.0	1.026	0.038	4-5103	222.5	368.4	0.57	1.126	91.9	7.5	7.9	0.148
4-4970	4-5180	0.178	78.8	22.0	2.01	0.703	103.4	1.019	0.035	4-5103	220.1	375.5	0.34	1.124	93.4	5.8	5.2	0.156
4-4970	4-5190	0.170	81.2	22.9	1.90	0.697	102.7	1.012	0.033	4-5104	217.1	382.1	0.14	1.122	94.9	6.0	3.6	0.168
4-4970	4-5200	0.160	84.2	23.7	1.86	0.691	101.8	1.004	0.032	4-5106	213.7	388.2	-0.05	1.119	96.2	7.8	3.0	0.181
4-4970	4-5210	0.150	88.1	24.5	1.89	0.684	100.8	0.994	0.032	4-5107	209.9	394.1	-0.24	1.116	97.4	10.9	3.2	0.196
4-4970	4-5220	0.140	93.1	25.3	1.99	0.676	99.7	0.983	0.033	4-5109	205.9	399.7	-0.45	1.114	98.6	15.0	3.9	0.212
4-4980	4-5170	0.207	78.6	21.8	2.28	0.720	106.2	1.051	0.041	4-5109	228.5	370.0	0.72	1.134	92.4	4.7	7.7	0.158
4-4980	4-5180	0.198	80.3	22.4	2.06	0.714	105.5	1.044	0.037	4-5110	225.8	376.9	0.47	1.131	93.9	3.7	5.1	0.166
4-4980	4-5190	0.189	82.6	23.2	1.92	0.707	104.7	1.036	0.034	4-5111	222.6	383.2	0.26	1.127	95.3	4.4	3.7	0.178
4-4980	4-5200	0.178	85.4	23.9	1.85	0.699	103.8	1.027	0.032	4-5112	219.0	389.2	0.07	1.124	96.6	6.6	3.3	0.191
4-4980	4-5210	0.167	89.0	24.6	1.84	0.690	102.8	1.017	0.032	4-5113	215.0	394.8	-0.12	1.121	97.8	10.0	3.6	0.205
4-4980	4-5220	0.155	93.5	25.3	1.90	0.682	101.6	1.006	0.032	4-5115	210.8	400.3	-0.31	1.118	98.9	14.3	4.5	0.219
4-4990	4-5180	0.221	82.1	22.8	2.12	0.727	107.7	1.071	0.039	4-5116	231.6	378.3	0.61	1.139	94.5	1.7	4.9	0.179
4-4990	4-5190	0.210	84.3	23.5	1.94	0.718	106.9	1.062	0.035	4-5117	228.2	384.4	0.38	1.135	95.8	2.9	3.7	0.190
4-4990	4-5200	0.198	87.0	24.1	1.83	0.709	105.9	1.053	0.033	4-5118	224.3	390.2	0.18	1.130	97.1	5.5	3.5	0.202
4-4990	4-5210	0.185	90.4	24.7	1.79	0.699	104.9	1.042	0.032	4-5120	220.2	395.6	-0.00	1.126	98.3	9.2	4.0	0.215
4-4990	4-5220	0.172	94.5	25.3	1.81	0.689	103.7	1.030	0.032	4-5121	215.8	400.9	-0.18	1.122	99.4	13.7	4.9	0.228
4-4990	4-5230	0.159	99.5	25.7	1.90	0.680	102.3	1.017	0.033	4-5123	211.1	406.0	-0.36	1.118	100.4	18.8	6.2	0.242
4-5000	4-5180	0.246	84.0	23.2	2.19	0.743	110.0	1.099	0.041	4-5122	237.4	379.7	0.75	1.149	95.1	359.7	4.7	0.194
4-5000	4-5190	0.234	86.2	23.7	1.96	0.733	109.1	1.090	0.037	4-5123	233.7	385.6	0.50	1.143	96.4	1.5	3.7	0.204
4-5000	4-5200	0.220	88.9	24.3	1.82	0.722	108.1	1.079	0.034	4-5124	229.7	391.1	0.29	1.138	97.7	4.5	3.6	0.215
4-5000	4-5210	0.206	92.0	24.8	1.75	0.710	107.0	1.068	0.032	4-5126	225.4	396.4	0.11	1.133	98.8	8.4	4.2	0.227
4-5000	4-5220	0.191	95.8	25.2	1.74	0.699	105.8	1.055	0.031	4-5127	220.8	401.5	-0.06	1.126	99.8	13.0	5.3	0.239
4-5000	4-5230	0.176	100.4	25.6	1.79	0.688	104.4	1.042	0.031	4-5129	216.0	406.5	-0.22	1.123	100.8	18.3	6.7	0.252
4-5010	4-5190	0.260	88.4	23.9	2.00	0.750	111.4	1.119	0.038	4-5129	239.3	386.7	0.62	1.154	97.1	0.2	3.6	0.221
4-5010	4-5200	0.244	91.0	24.4	1.82	0.737	110.3	1.108	0.034	4-5131	235.1	392.1	0.40	1.147	98.3	3.5	3.7	0.231
4-5010	4-5210	0.228	94.0	24.8	1.72	0.724	109.2	1.096	0.032	4-5132	230.6	397.2	0.22	1.141	99.4	7.6	4.4	0.241
4-5010	4-5220	0.212	97.5	25.2	1.68	0.711	107.9	1.082	0.031	4-5133	225.8	402.2	0.06	1.134	100.4	12.4	5.6	0.252
4-5010	4-5230	0.196	101.7	25.4	1.69	0.698	106.5	1.068	0.030	4-5135	220.9	407.0	-0.10	1.129	101.3	17.8	7.1	0.263
4-5010	4-5240	0.179	106.8	25.5	1.76	0.686	105.0	1.052	0.031	4-5137	215.8	411.7	-0.26	1.123	102.3	23.7	8.8	0.274
4-5020	4-5190	0.290	90.7	24.1	2.04	0.772	113.7	1.150	0.040	4-5135	244.8	387.8	0.76	1.167	97.9	359.0	3.5	0.240
4-5020	4-5200	0.272	93.2	24.5	1.82	0.756	112.6	1.138	0.036	4-5137	240.4	393.0	0.52	1.159	99.1	2.6	3.7	0.249
4-5020	4-5210	0.254	96.1	24.8	1.69	0.741	111.4	1.125	0.032	4-5138	235.7	398.0	0.32	1.150	100.1	6.9	4.5	0.258
4-5020	4-5220	0.236	99.5	25.1	1.62	0.726	110.1	1.111	0.031	4-5139	230.8	402.8	0.16	1.143	101.0	11.9	5.8	0.267
4-5020	4-5230	0.217	103.4	25.2	1.60	0.711	108.7	1.096	0.030	4-5141	225.8	407.5	0.02	1.135	101.9	17.4	7.4	0.276
4-5020	4-5240	0.199	108.0	25.3	1.64	0.697	107.2	1.079	0.030	4-5143	220.5	412.0	-0.13	1.129	102.8	23.3	9.2	0.286
4-5030	4-5190	0.324	93.2	24.2	2.09	0.798	116.0	1.184	0.043	4-5142	250.2	388.8	0.91	1.183	98.7	358.0	3.5	0.264
4-5030	4-5200	0.303	95.7	24.5	1.83	0.779	114.9	1.171	0.037	4-5143	245.6	393.9	0.63	1.172	99.9	1.8	3.7	0.271
4-5030	4-5210	0.282	98.5	24.7	1.66	0.761	113.7	1.157	0.033	4-5144	240.8	398.7	0.43	1.162	100.9	6.3	4.6	0.278
4-5030	4-5220	0.262	101.7	24.9	1.56	0.743	112.4	1.142	0.030	4-5146	235.8	403.4	0.26	1.153	101.8	11.4	6.0	0.285
4-5030	4-5230	0.241	105.3	25.0	1.52	0.726	111.0	1.125	0.029	4-5147	230.7	408.0	0.12	1.144	102.6	17.0	7.7	0.292
4-5030	4-5240	0.221	109.6	25.0	1.52	0.710	109.4	1.108	0.028	4-5149	225.3	412.4	-0.00	1.136	103.4	23.0	9.6	0.299
4-5040	4-5200	0.338	98.3	24.5	1.85	0.807	117.8	1.206	0.038	4-5149	250.8	394.6	0.76	1.189	100.8	1.1	3.8	0.296
4-5040	4-5210	0.315	101.0	24.6	1.64	0.785	116.1	1.191	0.034	4-5150	245.9	399.4	0.53	1.176	101.8	5.8	4.7	0.300
4-5040	4-5220	0.291	104.1	24.7	1.51	0.765	114.7	1.174	0.030	4-5152	240.8	404.0	0.36	1.165	102.6	11.0	6.2	0.305
4-5040	4-5230	0.268	107.5	24.7	1.44	0.745	113.3	1.157	0.028	4-5153	235.5	408.4	0.22	1.154	103.4	16.6	7.9	0.310
4-5040	4-5240	0.246	111.5	24.6	1.42	0.726	111.7	1.138	0.027	4-5155	230.1	412.8	0.10	1.144	104.1	22.7	9.9	0.315
4-5040	4-5250	0.224	116.1	24.4	1.43	0.708	110.0	1.119	0.027	4-5157	224.6	417.1	-0.01	1.136	104.7	29.2	11.9	0.321
4-5050	4-5200	0.378	101.0	24.4	1.87	0.840	119.7	1.243	0.040	4-5155	255.9	395.2	0.89	1.210	101.8	0.7	3.8	0.325
4-5050	4-5210	0.351	103.7	24.5	1.62	0.814	118.4	1.227	0.034	4-5156	250.9	399.9	0.63	1.194	102.7	5.4	4.8	0.327
4-5050	4-5220	0.324	106.7	24.5	1.47	0.790	117.1	1.209	0.030	4-5157	245.8	404.4	0.45	1.180	103.5	10.7	6.3	0.329
4-5050	4-5230	0.298	110.0	24.4	1.37	0.767	115.6	1.191	0.028	4-5159	240.4	408.8	0.31	1.167	104.2	16.4	8.1	0.332
4-5050	4-5240	0.273	113.6	24.2	1.32	0.745	114.0	1.171	0.026	4-5161	234.9	413.1	0.20	1.155	104.8	22.5	10.1	0.334
4-5050	4-5250	0.249	117.9	23.9	1.31	0.725	112.3	1.150	0.025	4-5163	229.3	417.3	0.11	1.144	105.4	29.0	12.2	0.337
4-5060	4-5210	0.392	106.5	24.3	1.61	0.849	120.8	1.266	0.035	4-5162	255.8	400.3	0.74	1.216	103.8	5.2	4.9	0.358
4-5060	4-5220	0.362	109.4	24.2	1.43	0.820	119.4	1.247	0.031	4-5163	250.6	404.8	0.54	1.198	104.5	10.5	6.4	0.357
4-5060	4-5230	0.332	112.5	24.0	1.31	0.793	117.9	1.227	0.027	4-5165	245.2	409.1	0.40	1.182	105.2	16.2	8.3	0.356
4-5060	4-5240	0.306	116.0	23.8	1.23	0.768	116.3	1.206	0.025	4-5167	239.7	413.3	0.29	1.167	105.7	22.3	10.4	0.356
4-5060	4-5250	0.277	119.9	23.4	1.19	0.745	114.6	1.184	0.024	4-5169	234.0	417.5	0.20	1.155	106.2	28.9	12.5	0.357
4-5060	4-5260	0.251	124.4	22.8	1.18	0.723	112.7	1.161	0.023	4-5171	228.2	421.6	0.13	1.143	106.7	35.8	14.7	0.358

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5070	4-5210	0.439	109.4	24.0	1.61	0.890	123.2	1.308	0.037	4-5168	260.6	400.6	0.86	1.242	105.0	5.1	5.1	0.395
4-5070	4-5220	0.404	112.2	23.8	1.39	0.856	121.8	1.288	0.031	4-5169	255.4	405.0	0.63	1.220	105.7	10.4	6.6	0.390
4-5070	4-5230	0.371	115.2	23.6	1.24	0.824	120.3	1.266	0.027	4-5171	250.0	409.3	0.48	1.200	106.2	16.1	8.4	0.385
4-5070	4-5240	0.339	118.5	23.3	1.15	0.795	118.7	1.243	0.024	4-5173	244.4	413.5	0.37	1.183	106.7	22.3	10.5	0.382
4-5070	4-5250	0.309	122.2	22.8	1.09	0.768	117.0	1.220	0.022	4-5175	238.7	417.6	0.29	1.167	107.2	28.8	12.7	0.379
4-5070	4-5260	0.280	126.3	22.2	1.05	0.743	115.1	1.196	0.021	4-5177	232.8	421.7	0.23	1.154	107.6	35.7	14.9	0.377
4-5080	4-5220	0.453	115.1	23.4	1.35	0.898	124.7	1.332	0.031	4-5175	260.1	405.1	0.72	1.248	106.9	10.5	6.7	0.429
4-5080	4-5230	0.415	118.1	23.1	1.18	0.861	122.7	1.309	0.027	4-5177	254.6	409.4	0.56	1.223	107.4	16.2	8.6	0.420
4-5080	4-5240	0.379	121.2	22.7	1.06	0.827	121.1	1.284	0.023	4-5179	249.0	413.6	0.45	1.202	107.8	22.3	10.7	0.412
4-5080	4-5250	0.344	124.7	22.2	0.99	0.796	119.4	1.259	0.021	4-5181	243.3	417.7	0.37	1.183	108.2	28.8	12.9	0.405
4-5080	4-5260	0.312	128.5	21.6	0.93	0.767	117.5	1.233	0.019	4-5183	237.4	421.7	0.32	1.166	108.5	35.7	15.2	0.400
4-5080	4-5270	0.281	132.8	20.7	0.89	0.741	115.5	1.206	0.018	4-5185	231.5	425.7	0.29	1.152	108.8	43.0	17.3	0.396
4-5090	4-5220	0.509	118.1	22.9	1.31	0.949	126.6	1.380	0.032	4-5182	264.6	405.0	0.81	1.282	108.3	10.8	6.9	0.474
4-5090	4-5230	0.465	121.0	22.5	1.12	0.905	125.2	1.355	0.026	4-5183	259.2	409.3	0.63	1.252	108.7	16.4	8.7	0.460
4-5090	4-5240	0.424	124.1	22.0	0.98	0.865	123.6	1.328	0.023	4-5185	253.6	413.5	0.52	1.225	109.1	22.5	10.9	0.447
4-5090	4-5250	0.385	127.3	21.5	0.89	0.829	121.8	1.301	0.020	4-5186	247.9	417.6	0.44	1.202	109.3	29.0	13.1	0.436
4-5090	4-5260	0.348	130.9	20.8	0.82	0.796	119.9	1.273	0.018	4-5189	242.0	421.7	0.40	1.182	109.5	35.8	15.3	0.427
4-5090	4-5270	0.314	134.9	20.0	0.76	0.766	117.9	1.244	0.016	4-5191	236.1	425.6	0.38	1.165	109.7	43.1	17.5	0.419
4-5100	4-5230	0.523	124.0	21.7	1.05	0.957	127.6	1.405	0.026	4-5189	263.7	409.1	0.70	1.287	110.2	16.8	8.9	0.507
4-5100	4-5240	0.475	127.0	21.3	0.90	0.910	126.0	1.376	0.022	4-5190	258.1	413.3	0.58	1.254	110.4	22.8	11.0	0.488
4-5100	4-5250	0.431	130.1	20.7	0.80	0.867	124.3	1.346	0.018	4-5192	252.4	417.4	0.50	1.226	110.6	29.2	13.2	0.472
4-5100	4-5260	0.390	133.5	20.0	0.71	0.829	122.4	1.316	0.016	4-5194	246.6	421.5	0.46	1.202	110.7	36.0	15.5	0.458
4-5100	4-5270	0.351	137.2	19.1	0.64	0.795	120.4	1.285	0.014	4-5197	240.6	425.5	0.45	1.180	110.8	43.3	17.7	0.446
4-5100	4-5280	0.315	141.3	18.1	0.55	0.763	118.2	1.254	0.012	4-5199	234.5	429.4	0.48	1.162	110.9	50.9	19.8	0.436
4-5110	4-5230	0.591	127.0	21.2	0.79	1.020	129.9	1.459	0.025	4-5195	268.1	408.7	0.75	1.331	111.7	17.3	9.1	0.563
4-5110	4-5240	0.535	129.9	20.5	0.82	0.964	128.4	1.428	0.020	4-5196	62.5	413.0	0.63	1.291	111.9	23.2	11.2	0.537
4-5110	4-5250	0.484	133.0	19.8	0.70	0.913	126.7	1.396	0.017	4-5198	256.9	417.1	0.56	1.256	112.0	29.5	13.4	0.515
4-5110	4-5260	0.437	136.2	19.1	0.61	0.869	124.9	1.363	0.014	4-5200	251.0	421.2	0.52	1.226	112.0	36.3	15.7	0.495
4-5110	4-5270	0.393	139.6	18.2	0.52	0.828	122.9	1.330	0.012	4-5202	245.1	425.2	0.51	1.200	112.0	43.5	17.9	0.478
4-5110	4-5280	0.353	143.4	17.2	0.43	0.792	120.7	1.296	0.009	4-5205	239.1	429.2	0.54	1.178	112.0	51.1	20.0	0.463
4-5120	4-5240	0.604	133.0	19.7	0.73	1.025	130.8	1.485	0.019	4-5202	266.9	412.5	0.67	1.336	113.5	23.8	11.4	0.595
4-5120	4-5250	0.545	135.9	18.9	0.61	0.968	129.2	1.451	0.015	4-5204	261.2	416.7	0.60	1.293	113.6	30.0	13.6	0.565
4-5120	4-5260	0.491	139.0	18.1	0.51	0.915	127.4	1.415	0.012	4-5206	255.5	420.8	0.57	1.256	113.5	36.7	15.8	0.538
4-5120	4-5270	0.441	142.3	17.2	0.41	0.868	125.4	1.379	0.010	4-5208	249.5	424.8	0.56	1.224	113.4	43.8	18.0	0.515
4-5120	4-5280	0.396	145.8	16.2	0.31	0.827	123.3	1.342	0.007	4-5211	243.5	428.8	0.60	1.197	113.2	51.4	20.1	0.495
4-5120	4-5290	0.354	149.7	14.9	0.19	0.789	121.0	1.306	0.004	4-5213	237.4	432.8	0.67	1.174	113.1	59.3	22.0	0.478
4-5130	4-5240	0.686	136.0	18.8	0.63	1.105	133.2	1.548	0.017	4-5209	271.1	411.8	0.69	1.393	115.2	24.6	11.6	0.665
4-5130	4-5250	0.616	139.0	17.9	0.51	1.034	131.6	1.511	0.013	4-5210	265.5	416.1	0.60	1.339	115.3	30.6	13.8	0.624
4-5130	4-5260	0.554	141.9	17.1	0.40	0.971	129.9	1.472	0.010	4-5212	259.8	420.2	0.61	1.293	115.1	37.2	16.0	0.590
4-5130	4-5270	0.497	145.1	16.1	0.31	0.916	127.9	1.432	0.008	4-5214	253.9	424.3	0.61	1.254	114.9	44.3	18.1	0.559
4-5130	4-5280	0.445	148.4	15.1	0.20	0.867	125.8	1.392	0.005	4-5216	248.0	428.4	0.64	1.222	114.6	51.8	20.2	0.533
4-5130	4-5290	0.398	152.0	13.9	0.07	0.824	123.6	1.353	0.002	4-5219	241.9	432.3	0.72	1.193	114.4	59.7	22.1	0.511
4-5140	4-5250	0.701	142.0	16.9	0.40	1.113	134.0	1.577	0.011	4-5216	269.7	415.3	0.63	1.397	117.0	31.5	14.0	0.696
4-5140	4-5260	0.627	144.9	16.0	0.30	1.037	132.3	1.535	0.008	4-5218	264.1	419.5	0.62	1.340	116.9	37.9	16.1	0.651
4-5140	4-5270	0.561	147.9	15.0	0.20	0.972	130.5	1.491	0.005	4-5220	258.3	423.7	0.63	1.292	116.5	44.8	18.2	0.612
4-5140	4-5280	0.502	151.1	13.9	0.10	0.915	128.4	1.448	0.002	4-5222	252.3	427.8	0.67	1.252	116.2	52.2	20.3	0.578
4-5140	4-5290	0.448	154.5	12.7	-0.03	0.865	126.2	1.405	-0.001	4-5225	246.3	431.8	0.75	1.218	115.8	60.1	22.1	0.549
4-5140	4-5300	0.399	158.2	11.4	-0.21	0.821	123.8	1.363	-0.005	4-5227	240.2	435.7	0.88	1.188	115.4	68.3	23.8	0.524
4-5150	4-5260	0.713	148.0	14.8	0.18	1.118	134.8	1.605	0.005	4-5224	268.3	418.7	0.62	1.400	118.7	39.7	16.3	0.725
4-5150	4-5270	0.636	150.9	13.8	0.10	1.040	133.0	1.557	0.003	4-5226	262.5	422.9	0.65	1.340	118.3	45.5	18.4	0.674
4-5150	4-5280	0.567	153.9	12.7	-0.01	0.972	131.0	1.509	-0.000	4-5228	256.7	427.0	0.70	1.290	117.9	52.6	20.4	0.631
4-5150	4-5290	0.506	157.1	11.5	-0.13	0.913	128.8	1.462	-0.003	4-5230	250.7	431.1	0.77	1.248	117.4	60.6	22.2	0.594
4-5150	4-5300	0.450	160.5	10.2	-0.30	0.862	126.5	1.416	-0.007	4-5233	244.6	435.1	0.90	1.213	116.8	68.8	23.8	0.56
4-5160	4-5270	0.724	154.0	12.5	-0.02	1.121	135.5	1.630	-0.000	4-5231	266.7	421.9	0.65	1.400	120.3	46.4	18.5	0.750
4-5160	4-5280	0.644	156.9	11.4	-0.11	1.040	133.6	1.578	-0.003	4-5234	260.9	426.1	0.71	1.338	119.7	53.6	20.5	0.695
4-5160	4-5290	0.572	159.9	10.2	-0.23	0.971	131.4	1.525	-0.006	4-5236	255.0	430.3	0.79	1.287	119.1	61.3	22.2	0.649
4-5160	4-5300	0.509	163.1	8.9	-0.39	0.910	129.1	1.475	-0.010	4-5239	249.0	434.3	0.91	1.243	118.5	69.4	23.7	0.609
4-5170	4-5280	0.734	159.9	10.0	-0.21	1.123	136.1	1.654	-0.006	4-5239	265.1	425.1	0.71	1.399	121.8	54.5	20.6	0.772
4-5170	4-5290	0.651	162.9	8.8	-0.32	1.040	134.1	1.596	-0.009	4-5242	259.3	429.3	0.79	1.335	121.0	62.0	22.3	0.714
4-5170	4-5300	0.577	165.9	7.5	-0.47	0.968	131.8	1.540	-0.012	4-5244	253.3	433.4	0.91	1.282	120.3	70.0	23.7	0.663
4-5170	4-5310	0.512	169.2	6.1	-0.67	0.907	129.4	1.486	-0.017	4-5247	247.2	437.5	1.08	1.238	119.5	78.4	24.9	0.621
4-5180	4-5290	0.749	165.9	7.4	-0.41	1.123	136.7	1.676	-0.012	4-5248	263.5	428.2	0.79	1.397	123.1	62.9	22.3	0.792
4-5180	4-5300	0.657	168.8	6.1	-0.55	1.038	134.5	1.613	-0.015	4-5250	257.6	432.4	0.91	1.331	122.2	70.8	23.7	0.729
4-5180	4-5310	0.581	171.9	4.7	-0.73	0.965	132.2	1.553	-0.019	4-5253	251.6	436.5	1.06	1.276	121.3	79.1	24.8	0.676
4-5190	4-5300	0.751	171.9	4.6	-0.62	1.122	137.2	1.697	-0.018	4-5256	261.8	431.2	0.89	1.394	124.4	71.8	23.7	0.810
4-5190	4-5310	0.662	174.8	3.3	-0.79	1.035	134.9	1.629	-0.022	4-5259	255.9	435.4	1.04	1.326	123.4	80.0	24.7	0.743
4-5190	4-5320	0.585	177.9	1.9	-1.02	0.961	132.4	1.565	-0.027	4-5262	249.8	439.5	1.25	1.270	122.3	88.5	25.4	0.687
4-5690	4-5900	0.089	128.6	14.6	2.59	0.674	95.8	0.936	0.041	4-5837	196.8	327.9	1.11	1.105	83.4	70.4	29.6	0.168
4-5690	4-5910	0.086	126.8	15.9	2.31	0.678	95.9	0.934	0.036	4-5838	197.6	338.2	0.89	1.108	85.6	65.7	28.5	0.144
4-5690	4-5920	0.084	126.7	17.1	2.07	0.679	95.8	0.932	0.033	4-5838	197.7	347.8	0.69	1.110	87.6	58.8	26.4	0.129
4-5690	4-5930	0.082	128.3	18.2	1.90	0.679	95.5	0.929	0.030	4-5839	197.1	356.8	0.50	1.111	89.4	51.5	23.4	0.124
4-5690	4-5940	0.080	131.5	18.8	1.78	0.678	95.2	0.925	0.028	4-5840	195.9	365.2	0.32	1.112	91.0	45.6	20.2	0.127
4-5700	4-5910	0.095	124.7	16.8	2.43	0.682	97.4	0.953	0.039	4-5844	202.4	338.6	1.09	1.110	85.6	64.7	29.8	0.146
4-5700	4-5920	0.093	124.7	18.0	2.14	0.684	97.3	0.950	0.034	4-5845	202.5	348.2	0.85	1.112	87.6	57.8	27.5	0.131
4-5700	4-5930	0.090	126.2	18.9	1.92	0.684	97.1	0.946	0.031	4-5845	201.9	357.1	0.63	1.113	89.4	50.6	24.3	0.126
4-5700	4-5940	0.087	129.2	19.6	1.77	0.682	96.7	0.942	0.028	4-5846	200.5	365.4	0.44	1.114	91.1	45.0	21.6	0.129
4-5700	4-5960	0.082	139.9	19.2	1.64	0.676	95.5	0.931	0.026	4-5848	196.2	380.4	0.14	1.115	94.2	41.2	17.0	0.152
4-5710	4-5910	0.106	123.1	17.6	2.58	0.688	99.1	0.972	0.042	4-5850	207.5	339.3	1.31	1.112	85.7	63.3	31.2	0.148
4-5710	4-5920	0.103	123.2	18.6	2.22	0.689	98.9	0.969	0.037	4-5851	207.5	348.9	1.01	1.114	87.7	56.4	28.6	0.133
4-5710	4-5930	0.100	124.-	19.5	1.95	0.689	98.6	0.965	0.032	4-5852	206.8	357.7	0.77	1.115	89.5	49.4	25.1	0.128

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
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ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5710	4-5940	0.096	127.5	20.2	1.76	0.687	98.2	0.961	0.029	4-5853	205.3	365.8	0.56	1.116	91.2	44.1	21.8	0.131
4-5710	4-5960	0.089	137.5	20.4	1.58	0.680	97.0	0.949	0.025	4-5854	200.6	380.5	0.20	1.116	94.2	41.0	17.4	0.154
4-5720	4-5920	0.115	122.4	19.2	2.32	0.697	100.6	0.989	0.039	4-5857	212.8	349.7	1.19	1.117	87.8	54.6	29.6	0.136
4-5720	4-5930	0.111	123.8	20.0	2.00	0.696	100.3	0.985	0.033	4-5858	211.9	358.4	0.91	1.118	89.7	47.8	25.9	0.131
4-5720	4-5940	0.107	126.4	20.5	1.77	0.693	99.8	0.980	0.029	4-5859	210.3	366.4	0.68	1.118	91.3	42.9	22.4	0.135
4-5720	4-5960	0.098	135.4	20.5	1.52	0.685	9[illegible].5	0.968	0.025	4-5861	205.3	380.8	0.36	1.118	94.3	40.4	18.4	0.156
4-5720	4-5970	0.093	142.0	19.5	1.47	0.680	9[illegible].7	0.960	0.024	4-5862	202.1	387.4	0.24	1.117	95.7	42.2	17.9	0.171
4-5730	4-5930	0.125	123.5	20.3	2.05	0.704	101.9	1.005	0.035	4-5864	217.3	359.3	1.06	1.122	89.8	45.9	26.5	0.136
4-5730	4-5940	0.120	126.0	20.8	1.77	0.702	101.4	1.000	0.030	4-5865	215.5	357.1	0.80	1.122	91.5	41.5	22.9	0.139
4-5730	4-5960	0.108	134.2	20.8	1.46	0.692	10[illegible].1	0.987	0.024	4-5867	210.1	381.1	0.46	1.120	94.5	39.8	18.9	0.160
4-5730	4-5970	0.102	140.1	20.0	1.39	0.685	99.2	0.979	0.023	4-5868	206.8	387.6	0.34	1.119	95.8	41.8	18.4	0.174
4-5730	4-5980	0.097	147.4	18.5	1.35	0.680	98.3	0.970	0.022	4-5870	203.1	393.7	0.26	1.118	97.1	45.3	18.7	0.189
4-5740	4-5930	0.140	123.7	20.4	2.12	0.715	103.7	1.027	0.037	4-5871	222.8	360.4	1.22	1.126	90.1	43.7	26.9	0.141
4-5740	4-5940	0.134	126.1	20.9	1.79	0.711	103.1	1.021	0.031	4-5871	220.8	368.0	0.93	1.126	91.7	40.0	23.2	0.144
4-5740	4-5960	0.121	133.6	20.9	1.41	0.700	101.7	1.008	0.024	4-5873	215.1	381.6	0.55	1.123	94.7	39.1	19.3	0.165
4-5740	4-5970	0.114	138.9	20.2	1.31	0.694	100.9	0.999	0.022	4-5875	211.6	387.9	0.44	1.122	96.0	41.4	18.9	0.178
4-5740	4-5980	0.107	145.5	18.9	1.25	0.687	99.9	0.990	0.021	4-5876	207.7	393.9	0.35	1.120	97.2	45.1	19.2	0.193
4-5750	4-5940	0.151	126.6	20.8	1.82	0.723	104.9	1.044	0.032	4-5878	226.3	369.0	1.06	1.131	92.0	38.2	25.4	0.151
4-5750	4-5960	0.135	133.6	20.8	1.57	0.710	103.4	1.029	0.024	4-5880	220.2	382.2	0.65	1.127	94.9	36.3	19.5	0.171
4-5750	4-5970	0.127	138.4	20.2	1.[illegible]4	0.703	102.5	1.021	0.022	4-5881	216.5	388.3	0.52	1.125	96.2	40.9	19.2	0.184
4-5750	4-5980	0.118	144.3	19.1	1.16	0.695	101.5	1.011	0.020	4-5882	212.5	394.1	0.44	1.122	97.4	44.8	19.6	0.197
4-5750	4-5990	0.110	151.5	17.3	1.09	0.687	100.4	1.000	0.018	4-5884	208.2	399.7	0.39	1.120	98.6	49.6	20.4	0.211
4-5760	4-5960	0.152	134.0	20.5	1.33	0.727	105.2	1.052	0.024	4-5886	225.5	382.9	0.74	1.132	95.2	37.5	19.7	0.178
4-5760	4-5970	0.142	138.4	20.0	1.18	0.714	104.2	1.043	0.021	4-5887	221.6	388.8	0.61	1.129	96.5	40.4	19.4	0.190
4-5760	4-5980	0.132	143.7	19.0	1.07	0.705	103.2	1.033	0.019	4-5888	217.4	394.4	0.52	1.126	97.7	44.5	19.9	0.203
4-5760	4-5990	0.122	150.7	17.5	0.99	0.696	102.0	1.021	0.017	4-5890	212.9	399.9	0.47	1.123	98.8	49.4	20.7	0.216
4-5760	4-6000	0.114	157.8	15.1	0.91	0.686	100.7	1.009	0.016	4-5891	208.3	405.2	0.45	1.119	99.9	55.2	21.8	0.229
4-5770	4-5960	0.170	135.0	20.2	1.29	0.736	106.9	1.076	0.024	4-5892	230.8	383.7	0.83	1.138	95.6	36.6	19.8	0.188
4-5770	4-5970	0.159	139.0	19.7	1.12	0.726	106.0	1.066	0.020	4-5893	226.8	389.4	0.68	1.134	96.8	39.8	19.6	0.199
4-5770	4-5980	0.148	143.8	18.8	0.99	0.716	104.9	1.055	0.018	4-5894	222.4	394.8	0.59	1.130	98.0	44.1	20.1	0.210
4-5770	4-5990	0.137	149.5	17.4	0.89	0.706	103.8	1.044	0.016	4-5896	217.8	400.1	0.54	1.126	99.0	49.2	21.0	0.222
4-5770	4-6000	0.126	156.3	15.4	0.80	0.696	102.5	1.031	0.014	4-5898	213.0	405.3	0.52	1.122	100.1	55.1	22.1	0.234
4-5780	4-5960	0.192	136.2	19.7	1.26	0.752	108.8	1.101	0.024	4-5898	236.3	384.5	0.92	1.145	96.1	35.8	19.8	0.199
4-5780	4-5970	0.179	139.9	19.2	1.06	0.741	107.8	1.091	0.020	4-5899	232.0	390.0	0.76	1.140	97.2	39.3	19.7	0.209
4-5780	4-5980	0.166	144.3	18.4	0.91	0.729	106.7	1.079	0.017	4-5901	227.5	395.3	0.65	1.135	98.3	43.8	20.2	0.219
4-5780	4-5990	0.153	149.5	17.1	0.80	0.718	105.5	1.067	0.014	4-5902	222.7	400.4	0.60	1.130	99.3	49.0	21.1	0.229
4-5780	4-6000	0.141	155.6	15.4	0.70	0.706	104.2	1.054	0.012	4-5904	217.8	405.4	0.58	1.126	100.3	55.0	22.3	0.240
4-5780	4-6010	0.129	162.8	12.9	0.59	0.695	102.8	1.039	0.010	4-5905	212.7	410.3	0.62	1.121	101.3	61.6	23.6	0.251
4-5790	4-5960	0.216	137.8	19.2	1.23	0.771	110.7	1.127	0.024	4-5904	241.8	385.3	1.01	1.154	96.6	35.0	19.8	0.213
4-5790	4-5970	0.201	141.3	18.6	1.00	0.758	109.6	1.117	0.019	4-5905	237.4	390.6	0.83	1.148	97.7	38.8	19.7	0.221
4-5790	4-5980	0.186	145.3	17.8	0.84	0.745	108.5	1.105	0.016	4-5907	232.7	395.8	0.71	1.142	98.8	43.4	20.3	0.230
4-5790	4-5990	0.172	149.9	16.7	0.71	0.732	107.3	1.092	0.013	4-5908	227.8	400.7	0.65	1.136	99.7	48.9	21.2	0.239
4-5790	4-6000	0.157	155.4	15.1	0.59	0.719	106.0	1.078	0.011	4-5910	222.7	405.6	0.63	1.130	100.6	55.0	22.5	0.248
4-5790	4-6010	0.144	161.8	13.0	0.48	0.707	104.5	1.063	0.009	4-5911	217.5	410.4	0.66	1.124	101.5	61.6	23.8	0.257
4-5800	4-5970	0.226	142.9	17.9	0.95	0.778	111.5	1.144	0.019	4-5912	242.8	391.3	0.90	1.158	98.3	38.3	19.6	0.236
4-5800	4-5980	0.210	146.6	17.1	0.76	0.763	110.4	1.132	0.015	4-5913	238.0	396.3	0.77	1.150	99.3	43.1	20.[illegible]	0.243
4-5800	4-5990	0.193	150.9	16.1	0.62	0.748	109.2	1.118	0.012	4-5914	232.9	401.1	0.70	1.142	100.2	48.7	21.3	0.250
4-5800	4-6000	0.177	155.8	14.6	0.50	0.734	107.8	1.104	0.009	4-5916	227.7	405.8	0.67	1.135	101.1	54.9	22.5	0.258
4-5800	4-6010	0.162	161.5	12.7	0.37	0.720	106.3	1.088	0.007	4-5917	222.3	410.5	0.70	1.129	101.9	61.7	2[illegible].9	0.265
4-5800	4-6020	0.148	168.2	10.2	0.23	0.706	104.8	1.072	0.004	4-5919	216.9	415.1	0.78	1.123	102.7	68.9	25.2	0.273
4-5810	4-5970	0.255	144.8	17.2	0.89	0.802	113.5	1.173	0.018	4-5918	248.3	391.7	0.97	1.170	98.9	37.9	19.6	0.254
4-5810	4-5980	0.236	148.3	16.3	0.69	0.784	112.3	1.160	0.014	4-5919	243.3	396.7	0.82	1.160	99.9	42.9	20.2	0.259
4-5810	4-5990	0.217	152.2	15.3	0.53	0.767	111.0	1.146	0.010	4-5920	238.1	401.4	0.74	1.151	100.8	48.6	21.3	0.264
4-5810	4-6000	0.199	156.6	14.0	0.40	0.751	109.7	1.131	0.008	4-5922	232.8	406.1	0.71	1.142	101.5	54.8	22.5	0.270
4-5810	4-6010	0.182	161.7	12.3	0.27	0.735	108.2	1.115	0.005	4-5924	227.3	410.6	0.72	1.135	102.3	61.7	23.9	0.275
4-5810	4-6020	0.165	167.7	10.0	0.13	0.720	106.6	1.097	0.002	4-5925	221.7	415.1	0.80	1.127	103.0	69.0	25.2	0.281
4-5820	4-5980	0.266	150.2	15.5	0.61	0.809	114.3	1.191	0.013	4-5925	248.6	397.1	0.87	1.173	100.6	42.8	20.2	0.278
4-5820	4-5990	0.245	153.8	14.4	0.44	0.789	113.0	1.176	0.009	4-5927	243.3	401.7	0.77	1.162	101.4	48.5	21.2	0.281
4-5820	4-6000	0.224	157.9	13.2	0.31	0.770	111.6	1.160	0.006	4-5928	237.9	406.3	0.74	1.151	102.1	54.8	22.5	0.284
4-5820	4-6010	0.205	162.5	11.6	0.18	0.752	110.1	1.143	0.003	4-5930	232.3	410.7	0.75	1.142	102.8	61.7	23.8	0.287
4-5820	4-6020	0.186	167.8	9.6	0.03	0.736	108.5	1.125	0.001	4-5931	226.7	415.1	0.81	1.133	103.4	69.1	25.1	0.291
4-5820	4-6030	0.169	174.1	7.1	-0.15	0.720	106.8	1.106	-0.003	4-5933	220.9	419.5	0.94	1.124	104.1	77.0	26.4	0.295
4-5830	4-5990	0.277	155.8	13.5	0.35	0.815	115.0	1.207	0.007	4-5933	248.6	402.0	0.80	1.175	102.1	48.6	21.2	0.301
4-5830	4-6000	0.253	159.5	12.2	0.21	0.793	113.6	1.190	0.004	4-5934	243.1	406.4	0.76	1.162	102.8	54.9	22.5	0.302
4-5830	4-6010	0.231	163.7	10.8	0.08	0.772	112.1	1.172	0.002	4-5936	237.4	410.8	0.76	1.151	103.4	61.9	23.8	0.302
4-5830	4-6020	0.210	168.4	9.0	-0.06	0.753	110.5	1.153	-0.001	4-5937	231.7	415.1	0.81	1.140	104.0	69.3	25.1	0.304
4-5830	4-6030	0.190	174.0	6.7	-0.23	0.736	108.7	1.134	-0.004	4-5939	225.9	419.4	0.92	1.130	104.5	77.1	26.2	0.306
4-5830	4-6040	0.172	180.4	4.0	-0.48	0.719	106.9	1.113	-0.0[illegible]9	4-5942	220.0	423.7	1.12	1.121	105.1	85.4	27.3	0.308
4-5840	4-5990	0.313	157.9	12.4	0.26	0.845	117.0	1.241	0.006	4-5939	253.8	402.1	0.82	1.191	103.0	48.8	21.1	0.326
4-5840	4-6000	0.286	161.4	11.2	0.11	0.819	115.6	1.223	0.002	4-5940	248.2	406.5	0.77	1.176	103.6	55.1	22.4	0.323
4-5840	4-6010	0.261	165.2	9.8	-0.02	0.796	114.1	1.204	-0.000	4-5942	242.5	410.8	0.76	1.162	104.1	62.0	23.7	0.321
4-5840	4-6020	0.237	169.5	8.1	-0.15	0.774	112.5	1.184	-0.003	4-5944	236.7	415.1	0.81	1.149	104.6	69.5	24.9	0.319
4-5840	4-6030	0.215	174.5	6.1	-0.32	0.754	110.7	1.163	-0.006	4-5945	230.9	419.3	0.91	1.137	105.1	77.3	26.1	0.318
4-5840	4-6040	0.194	180.2	3.7	-0.54	0.736	108.9	1.142	-0.010	4-5948	224.9	423.5	1.08	1.127	105.5	85.6	27.1	0.319
4-5850	4-6000	0.324	163.9	10.0	0.01	0.850	117.7	1.258	0.000	4-5946	253.4	406.5	0.77	1.193	104.5	55.4	22.3	0.348
4-5850	4-6010	0.295	167.1	8.7	-0.12	0.823	116.1	1.238	-0.003	4-5948	247.6	410.8	0.76	1.176	105.0	62.3	23.6	0.343
4-5850	4-6020	0.268	171.1	7.1	-0.25	0.798	114.5	1.217	-0.005	4-5950	241.8	415.0	0.80	1.160	105.4	69.7	24.8	0.338
4-5850	4-6030	0.243	175.5	5.3	-0.40	0.775	112.8	1.195	-0.008	4-5951	235.9	419.2	0.88	1.147	105.7	77.6	25.9	0.334
4-5850	4-6040	0.219	180.6	3.1	-0.60	0.754	110.9	1.173	-0.012	4-5954	229.9	423.3	1.03	1.134	106.1	85.8	26.8	0.332
4-5850	4-6050	0.198	186.5	0.5	-0.88	0.735	109.0	1.150	-0.017	4-5956	223.9	427.4	1.28	1.123	106.5	94.4	27.6	0.330

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-5860	4-6000	0.367	165.9	8.8	-0.10	0.887	119.8	1.295	-0.002	4-5953	258.5	406.3	0.76	1.215	105.5	55.9	22.2	0.379
4-5860	4-6010	0.334	169.2	7.5	-0.22	0.855	118.2	1.274	-0.005	4-5954	252.7	410.6	0.75	1.194	105.9	62.7	23.4	0.369
4-5860	4-6020	0.303	172.9	6.0	-0.35	0.826	116.6	1.252	-0.007	4-5956	246.9	414.8	0.78	1.175	106.2	70.1	24.6	0.361
4-5860	4-6030	0.275	176.9	4.3	-0.49	0.799	114.8	1.229	-0.010	4-5958	240.9	418.9	0.86	1.158	106.5	77.9	25.7	0.354
4-5860	4-6040	0.248	181.5	2.4	-0.66	0.776	113.0	1.205	-0.014	4-5960	234.9	423.1	0.99	1.144	106.6	86.1	26.5	0.348
4-5860	4-6050	0.224	186.7	0.0	-0.91	0.754	111.1	1.181	-0.018	4-5962	228.8	427.1	1.20	1.130	107.1	96.7	27.1	0.344
4-5870	4-6010	0.380	171.6	6.2	-0.34	0.892	120.4	1.314	-0.008	4-5960	257.8	410.3	0.72	1.216	107.0	63.3	23.3	0.401
4-5870	4-6020	0.344	175.0	4.8	-0.45	0.858	118.8	1.290	-0.010	4-5962	251.9	414.5	0.75	1.193	107.2	70.6	24.5	0.388
4-5870	4-6030	0.312	178.7	3.2	-0.57	0.828	117.0	1.265	-0.012	4-5964	246.0	418.6	0.82	1.173	107.4	78.3	25.5	0.377
4-5870	4-6040	0.281	182.8	1.4	-0.73	0.800	115.1	1.240	-0.015	4-5966	239.9	422.7	0.94	1.156	107.6	86.5	26.2	0.368
4-5870	4-6050	0.254	187.5	-0.7	-0.95	0.776	113.2	1.215	-0.019	4-5968	233.9	426.8	1.12	1.140	107.8	95.0	26.7	0.360
4-5870	4-6060	0.229	192.9	-3.1	-1.27	0.753	111.1	1.189	-0.025	4-5970	227.7	430.9	1.41	1.125	108.0	103.8	27.1	0.354
4-5880	4-6010	0.432	174.1	4.9	-0.46	0.937	122.6	1.356	-0.011	4-5967	262.7	409.8	0.67	1.244	108.2	64.0	23.1	0.439
4-5880	4-6020	0.391	177.4	3.5	-0.56	0.897	121.0	1.331	-0.013	4-5968	256.9	414.0	0.71	1.216	108.4	71.2	24.3	0.422
4-5880	4-6030	0.354	180.8	1.9	-0.66	0.861	119.2	1.305	-0.015	4-5970	251.0	418.2	0.78	1.192	108.5	78.9	25.2	0.406
4-5880	4-6040	0.320	184.6	0.3	-0.80	0.829	117.3	1.278	-0.018	4-5972	245.0	422.3	0.89	1.171	108.5	87.0	25.9	0.392
4-5880	4-6050	0.288	188.8	-1.6	-0.99	0.801	115.4	1.251	-0.021	4-5974	238.9	426.4	1.05	1.152	108.6	95.4	26.4	0.381
4-5880	4-6060	0.260	193.6	-3.8	-1.26	0.775	113.3	1.223	-0.026	4-5976	232.7	430.4	1.29	1.135	108.7	104.1	26.6	0.371
4-5890	4-6020	0.446	179.9	2.1	-0.68	0.942	123.2	1.375	-0.016	4-5975	261.8	413.4	0.65	1.246	109.7	72.0	24.1	0.461
4-5890	4-6030	0.403	183.2	0.6	-0.76	0.900	121.5	1.347	-0.018	4-5976	255.9	417.6	0.73	1.216	109.7	79.5	25.0	0.440
4-5890	4-6040	0.364	186.7	-1.0	-0.88	0.863	119.6	1.319	-0.020	4-5978	250.0	421.8	0.83	1.190	109.6	87.5	25.6	0.422
4-5890	4-6050	0.328	190.6	-2.7	-1.04	0.830	117.7	1.290	-0.023	4-5980	243.9	425.8	0.97	1.167	109.6	95.9	26.0	0.406
4-5890	4-6060	0.295	194.9	-4.6	-1.27	0.801	115.6	1.260	-0.027	4-5982	237.7	429.9	1.18	1.147	109.5	104.5	26.0	0.392
4-5890	4-6070	0.266	199.8	-6.8	-1.61	0.775	113.4	1.231	-0.033	4-5984	231.6	433.9	1.49	1.129	109.5	113.3	25.9	0.381
4-5900	4-6020	0.510	182.7	0.6	-0.82	0.997	125.6	1.424	-0.020	4-5981	266.7	412.6	0.57	1.283	111.1	73.0	23.9	0.509
4-5900	4-6030	0.460	185.8	-0.8	-0.87	0.946	123.8	1.384	-0.021	4-5982	260.8	416.9	0.66	1.246	111.0	80.3	24.7	0.482
4-5900	4-6040	0.415	189.2	-2.3	-0.96	0.903	122.0	1.363	-0.023	4-5984	254.9	421.1	0.76	1.214	110.9	88.2	25.3	0.457
4-5900	4-6050	0.373	192.7	-3.9	-1.10	0.864	120.0	1.332	-0.025	4-5986	248.8	425.2	0.89	1.187	110.7	96.5	25.6	0.436
4-5900	4-6060	0.336	196.7	-5.7	-1.29	0.830	117.9	1.301	-0.029	4-5988	242.7	429.3	1.08	1.163	110.6	105.0	25.5	0.418
4-5900	4-6070	0.302	201.1	-7.6	-1.57	0.800	115.7	1.270	-0.034	4-5990	236.6	433.3	1.34	1.142	110.4	113.7	25.3	0.403
4-5910	4-6030	0.526	188.6	-2.3	-0.99	1.002	126.2	1.445	-0.025	4-5989	265.6	415.9	0.57	1.285	112.5	81.4	24.5	0.532
4-5910	4-6040	0.474	191.8	-3.7	-1.05	0.950	124.4	1.412	-0.026	4-5990	259.7	420.2	0.68	1.245	112.3	89.1	25.0	0.500
4-5910	4-6050	0.426	195.2	-5.2	-1.16	0.904	122.4	1.378	-0.027	4-5992	253.8	424.4	0.81	1.212	112.1	97.2	25.2	0.473
4-5910	4-6060	0.383	198.8	-6.9	-1.31	0.865	120.3	1.345	-0.030	4-5994	247.7	428.5	0.98	1.183	111.8	105.6	25.1	0.442
4-5910	4-6070	0.346	202.8	-8.6	-1.54	0.830	118.2	1.311	-0.034	4-5997	241.6	432.5	1.20	1.158	111.5	114.2	24.6	0.429
4-5910	4-6080	0.310	207.3	-10.6	-1.89	0.799	115.9	1.278	-0.041	4-5999	235.4	436.6	1.52	1.136	111.3	122.9	24.0	0.412
4-5920	4-6040	0.543	194.7	-5.2	-1.15	1.007	126.8	1.466	-0.029	4-5997	264.5	419.1	0.59	1.285	113.9	90.1	24.7	0.553
4-5920	4-6050	0.487	197.9	-6.6	-1.22	0.953	124.9	1.429	-0.030	4-5998	258.6	423.4	0.72	1.244	113.6	98.0	24.8	0.518
4-5920	4-6060	0.438	201.3	-8.1	-1.35	0.905	122.8	1.393	-0.032	4-6000	252.6	427.6	0.88	1.209	113.2	106.3	24.6	0.488
4-5920	4-6070	0.394	205.0	-9.7	-1.53	0.865	120.7	1.357	-0.036	4-6003	246.5	431.7	1.07	1.179	112.8	114.7	24.1	0.462
4-5920	4-6080	0.354	209.1	-11.5	-1.81	0.829	118.4	1.321	-0.041	4-6005	240.4	435.7	1.34	1.153	112.4	123.3	23.3	0.439
4-5920	4-6090	0.318	213.7	-13.3	-2.23	0.796	116.0	1.286	-0.048	4-6008	234.2	439.7	1.74	1.130	112.1	132.0	22.4	0.421
4-5930	4-6040	0.624	197.7	-6.7	-1.28	1.076	129.3	1.525	-0.034	4-6003	269.2	417.9	0.46	1.336	115.6	91.3	24.3	0.616
4-5930	4-6050	0.559	200.8	-8.1	-1.30	1.011	127.5	1.486	-0.034	4-6005	263.3	422.2	0.62	1.285	115.2	99.1	24.5	0.572
4-5930	4-6060	0.501	204.1	-9.5	-1.39	0.954	125.4	1.446	-0.035	4-6007	257.4	426.5	0.78	1.242	114.7	107.1	24.2	0.534
4-5930	4-6070	0.450	207.6	-11.0	-1.53	0.906	123.2	1.407	-0.037	4-6009	251.4	430.6	0.95	1.205	114.2	115.4	23.5	0.501
4-5930	4-6080	0.404	211.3	-12.5	-1.76	0.864	121.0	1.368	-0.041	4-6011	245.3	434.7	1.18	1.174	113.7	123.9	22.6	0.473
4-5930	4-6090	0.363	215.5	-14.2	-2.09	0.828	118.6	1.331	-0.047	4-6014	239.2	438.8	1.50	1.147	113.2	132.4	21.4	0.449
4-5940	4-6050	0.644	204.0	-9.6	-1.39	1.082	130.1	1.548	-0.038	4-6011	268.0	420.9	0.50	1.338	117.0	100.3	24.0	0.638
4-5940	4-6060	0.576	207.2	-10.9	-1.43	1.014	128.1	1.505	-0.037	4-6013	262.1	425.2	0.67	1.284	116.5	108.1	23.7	0.590
4-5940	4-6070	0.516	210.5	-12.2	-1.54	0.956	125.9	1.462	-0.039	4-6015	256.2	429.4	0.84	1.239	115.9	116.3	23.0	0.549
4-5940	4-6080	0.462	214.0	-13.6	-1.72	0.906	123.6	1.420	-0.042	4-6017	250.2	433.6	1.04	1.201	115.2	124.6	21.9	0.513
4-5940	4-6090	0.415	217.8	-15.1	-1.98	0.864	121.3	1.379	-0.046	4-6020	244.1	437.7	1.30	1.168	114.6	132.9	20.6	0.483
4-5940	4-6100	0.373	222.1	-16.7	-2.38	0.827	118.8	1.340	-0.054	4-6022	238.0	441.7	1.68	1.140	114.0	141.4	19.2	0.457
4-5950	4-6050	0.745	207.2	-11.0	-1.52	1.169	132.6	1.617	-0.043	4-6018	272.5	419.3	0.34	1.407	119.0	101.7	23.6	0.720
4-5950	4-6060	0.663	210.4	-12.3	-1.49	1.086	130.8	1.571	-0.041	4-6019	266.7	423.7	0.55	1.339	118.4	109.3	23.2	0.659
4-5950	4-6070	0.592	213.6	-13.6	-1.56	1.016	128.7	1.524	-0.041	4-6021	260.9	428.1	0.72	1.282	117.7	117.3	22.4	0.607
4-5950	4-6080	0.530	217.0	-14.8	-1.69	0.956	127.4	1.478	-0.043	4-6024	254.9	432.3	0.90	1.236	116.9	125.4	21.3	0.563
4-5950	4-6090	0.475	220.6	-16.1	-1.90	0.906	124.0	1.433	-0.046	4-6026	248.9	436.5	1.12	1.196	116.2	133.6	19.8	0.525
4-5950	4-6100	0.427	224.4	-17.5	-2.21	0.863	121.6	1.390	-0.052	4-6028	242.9	440.6	1.43	1.163	115.5	141.8	18.2	0.493
4-5960	4-6060	0.768	213.8	-13.7	-1.58	1.176	133.4	1.645	-0.045	4-6026	271.2	422.1	0.40	1.410	120.4	110.8	22.7	0.744
4-5960	4-6070	0.683	217.0	-14.9	-1.68	1.090	131.5	1.594	-0.044	4-6028	265.4	426.5	0.60	1.339	119.7	118.4	21.9	0.679
4-5960	4-6080	0.610	220.3	-16.1	-1.67	1.018	129.3	1.543	-0.045	4-6030	259.6	430.8	0.77	1.280	118.9	126.3	20.7	0.624
4-5960	4-6090	0.545	223.7	-17.7	-1.83	0.957	126.9	1.493	-0.047	4-6032	253.7	435.1	0.97	1.232	118.0	134.3	19.1	0.577
4-5960	4-6100	0.489	227.3	-18.4	-2.07	0.905	124.4	1.445	-0.051	4-6035	247.7	439.2	1.21	1.191	117.1	142.4	17.3	0.537
4-5960	4-6110	0.439	231.2	-19.7	-2.43	0.861	121.9	1.400	-0.057	4-6037	241.6	443.3	1.56	1.157	116.3	150.5	15.5	0.503
4-5970	4-6070	0.792	220.6	-16.2	-1.62	1.182	134.3	1.672	-0.047	4-6034	269.9	424.8	0.47	1.412	121.9	119.8	21.4	0.767
4-5970	4-6080	0.703	223.8	-17.3	-1.66	1.093	132.2	1.616	-0.047	4-6036	264.1	429.2	0.65	1.339	121.0	127.4	20.1	0.698
4-5970	4-6090	0.627	227.1	-18.3	-1.77	1.019	129.9	1.560	-0.048	4-6038	258.3	433.5	0.83	1.278	120.0	135.2	18.5	0.639
4-5970	4-6100	0.561	230.5	-19.4	-1.95	0.957	127.4	1.507	-0.050	4-6041	252.4	437.7	1.03	1.228	119.0	143.1	16.6	0.590
4-5970	4-6110	0.503	234.2	-20.5	-2.23	0.904	124.9	1.457	-0.055	4-6044	246.4	441.9	1.31	1.186	118.0	151.1	14.5	0.548
4-5980	4-6080	0.815	227.5	-18.5	-1.66	1.187	135.1	1.699	-0.049	4-6043	268.6	427.3	0.53	1.414	123.2	128.7	19.5	0.790
4-5980	4-6090	0.724	230.7	-19.4	-1.72	1.096	132.9	1.638	-0.049	4-6045	262.8	431.8	0.70	1.338	122.2	136.3	17.8	0.717
4-5980	4-6100	0.645	234.1	-20.4	-1.86	1.020	130.5	1.578	-0.050	4-6047	257.0	436.1	0.88	1.276	121.1	144.0	15.8	0.655
4-5980	4-6110	0.577	237.5	-21.3	-2.07	0.956	128.0	1.522	-0.054	4-6050	251.1	440.3	1.09	1.224	120.0	151.7	13.7	0.603
4-5990	4-6090	0.840	234.6	-20.5	-1.88	1.191	135.9	1.726	-0.050	4-6051	267.2	429.9	0.58	1.416	124.6	137.5	17.2	0.812
4-5990	4-6100	0.745	237.9	-21.3	-1.77	1.098	133.6	1.659	-0.051	4-6053	261.5	434.3	0.74	1.337	123.4	145.0	15.1	0.735
4-5990	4-6110	0.664	241.2	-22.1	-1.93	1.020	131.1	1.595	-0.053	4-6056	255.7	438.6	0.92	1.273	122.2	152.6	12.9	0.671
4-5990	4-6120	0.593	244.7	-22.8	-2.16	0.955	128.5	1.536	-0.056	4-6059	249.8	442.8	1.15	1.220	121.0	160.2	10.5	0.617
4-6490	4-6700	0.076	204.6	-4.6	1.09	0.708	96.8	0.962	0.018	4-6627	203.2	349.8	1.17	1.110	88.0	106.2	33.9	0.116

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6490	4-6710	0.076	207.6	-4.4	0.83	0.707	96.5	0.958	0.013	4-6628	202.2	358.6	0.97	1.112	89.7	97.9	32.8	0.114
4-6490	4-6720	0.077	211.7	-5.0	0.63	0.705	96.1	0.954	0.010	4-6628	200.6	366.8	0.85	1.114	91.3	91.9	31.4	0.119
4-6490	4-6730	0.078	216.8	-6.3	0.48	0.703	95.6	0.949	0.008	4-6629	198.5	374.6	0.78	1.114	92.8	89.1	30.2	0.129
4-6490	4-6740	0.082	222.6	-8.1	0.34	0.699	94.9	0.942	0.005	4-6630	195.8	382.0	0.77	1.114	94.2	89.1	29.6	0.142
4-6490	4-6750	0.086	228.9	-10.2	0.20	0.695	94.1	0.935	0.003	4-6631	192.8	389.0	0.80	1.114	95.6	91.4	29.1	0.157
4-6500	4-6710	0.079	204.1	-3.0	0.78	0.715	97.7	0.974	0.013	4-6634	206.6	350.1	1.04	1.113	89.6	99.2	33.4	0.114
4-6500	4-6720	0.079	208.2	-3.7	0.56	0.713	97.3	0.970	0.009	4-6635	204.9	366.3	0.90	1.114	91.2	93.1	31.9	0.119
4-6500	4-6730	0.080	213.3	-5.1	0.40	0.709	96.7	0.964	0.007	4-6636	202.6	373.9	0.83	1.114	92.7	90.2	30.7	0.128
4-6500	4-6740	0.082	219.3	-7.0	0.25	0.706	96.1	0.958	0.004	4-6636	199.9	381.2	0.81	1.114	94.1	90.2	29.9	0.140
4-6500	4-6750	0.085	225.9	-9.3	0.10	0.701	95.3	0.951	0.002	4-6638	196.8	388.1	0.84	1.114	95.4	92.4	29.5	0.154
4-6500	4-6760	0.090	232.8	-11.7	-0.08	0.696	94.3	0.942	-0.001	4-6639	193.4	394.8	0.92	1.113	96.7	96.4	29.4	0.169
4-6510	4-6710	0.085	200.6	-1.8	0.73	0.723	98.9	0.991	0.012	4-6641	211.2	357.[illegible]	1.10	1.114	89.6	100.1	33.8	0.115
4-6510	4-6720	0.084	204.6	-2.4	0.49	0.721	98.4	0.986	0.008	4-6641	209.4	365.8	0.95	1.115	91.1	94.1	32.3	0.119
4-6510	4-6730	0.083	209.6	-3.8	0.31	0.717	97.9	0.981	0.005	4-6642	207.1	373.4	0.86	1.115	92.6	91.1	31.0	0.128
4-6510	4-6740	0.084	215.6	-5.8	0.16	0.713	97.2	0.975	0.003	4-6643	204.2	380.6	0.84	1.115	94.0	91.1	30.2	0.139
4-6510	4-6750	0.086	222.3	-8.2	0.01	0.708	96.5	0.967	0.000	4-6644	201.0	387.4	0.87	1.114	95.3	93.3	29.7	0.152
4-6510	4-6760	0.090	229.6	-10.7	-0.17	0.703	95.6	0.959	-0.003	4-6645	197.5	394.0	0.94	1.112	96.5	97.3	29.6	0.166
4-6520	4-6720	0.091	201.2	-1.3	0.42	0.730	99.6	1.003	0.007	4-6648	214.2	365.6	0.98	1.116	91.1	94.7	32.5	0.120
4-6520	4-6730	0.089	206.0	-2.7	0.23	0.726	99.1	0.998	0.004	4-6648	211.8	373.1	0.89	1.116	92.5	91.8	31.2	0.128
4-6520	4-6740	0.088	211.7	-4.6	0.07	0.722	98.4	0.991	0.001	4-6649	208.8	380.1	0.85	1.115	93.9	91.8	30.3	0.139
4-6520	4-6750	0.089	218.4	-7.0	-0.08	0.716	97.7	0.984	-0.001	4-6650	205.4	386.8	0.87	1.114	95.2	94.1	29.8	0.151
4-6520	4-6760	0.090	225.9	-9.7	-0.25	0.711	96.8	0.976	-0.004	4-6652	201.8	393.2	0.95	1.113	96.4	98.1	29.6	0.164
4-6520	4-6770	0.094	233.8	-12.4	-0.47	0.705	95.8	0.966	-0.008	4-6653	197.8	399.4	1.09	1.111	97.6	103.4	29.6	0.179
4-6530	4-6720	0.100	198.3	-0.5	0.34	0.740	100.9	1.021	0.006	4-6654	219.3	365.6	1.00	1.118	91.1	94.9	32.6	0.122
4-6530	4-6730	0.097	202.7	-1.8	0.14	0.736	100.3	1.015	0.002	4-6655	216.7	372.9	0.89	1.118	92.5	92.3	31.2	0.129
4-6530	4-6740	0.095	208.1	-3.6	-0.02	0.734	99.7	1.009	-0.000	4-6656	213.6	379.8	0.85	1.117	93.9	92.4	30.3	0.139
4-6530	4-6750	0.094	214.5	-6.0	-0.17	0.725	98.9	1.002	-0.003	4-6657	210.1	386.4	0.87	1.115	95.1	94.7	29.8	0.151
4-6530	4-6760	0.094	221.8	-8.6	-0.34	0.719	98.0	0.993	-0.006	4-6658	206.3	392.7	0.93	1.113	96.3	98.8	29.6	0.163
4-6530	4-6770	0.095	229.8	-11.5	-0.54	0.713	97.0	0.984	-0.009	4-6659	202.2	398.7	1.06	1.111	97.5	104.0	29.5	0.177
4-6540	4-6730	0.108	200.1	-1.2	0.04	0.747	101.6	1.034	0.001	4-6662	221.9	372.9	0.89	1.120	92.6	92.4	31.0	0.132
4-6540	4-6740	0.104	205.0	-2.9	-0.12	0.741	100.9	1.027	-0.002	4-6662	218.7	379.7	0.84	1.119	93.9	92.7	30.1	0.141
4-6540	4-6750	0.101	211.0	-5.1	-0.26	0.735	100.2	1.020	-0.005	4-6663	215.0	386.1	0.89	1.117	95.1	95.2	29.6	0.152
4-6540	4-6760	0.099	217.8	-7.7	-0.42	0.729	99.3	1.011	-0.007	4-6664	211.1	392.2	0.91	1.114	96.3	99.3	29.3	0.164
4-6540	4-6770	0.099	225.6	-10.5	-0.60	0.722	98.3	1.002	-0.010	4-6666	206.9	398.2	1.02	1.111	97.4	104.6	29.2	0.176
4-6540	4-6780	0.100	234.0	-13.4	-0.86	0.715	97.2	0.991	-0.014	4-6667	202.5	404.0	1.21	1.108	98.5	110.9	29.2	0.188
4-6550	4-6730	0.122	198.1	-0.9	-0.06	0.759	103.0	1.053	-0.001	4-6638	227.4	373.1	0.87	1.123	92.7	92.3	30.6	0.136
4-6550	4-6740	0.117	202.6	-2.4	-0.22	0.753	102.3	1.046	-0.004	4-6669	224.0	379.7	0.81	1.121	94.0	92.8	29.7	0.144
4-6550	4-6750	0.112	208.0	-4.4	-0.36	0.746	101.5	1.039	-0.006	4-6670	220.2	386.0	0.81	1.119	95.2	95.5	29.2	0.154
4-6550	4-6760	0.108	214.3	-6.9	-0.50	0.739	100.6	1.030	-0.009	4-6671	216.1	392.0	0.86	1.116	96.3	99.7	29.0	0.165
4-6550	4-6770	0.105	221.5	-9.6	-0.67	0.732	99.6	1.020	-0.012	4-6672	211.7	397.7	0.96	1.113	97.4	105.1	28.8	0.176
4-6550	4-6780	0.104	229.7	-12.5	-0.89	0.725	98.5	1.010	-0.015	4-6673	207.2	403.4	1.13	1.109	98.4	111.4	28.7	0.187
4-6560	4-6740	0.132	201.0	-2.4	-0.34	0.766	103.6	1.066	-0.006	4-6675	229.6	379.9	0.77	1.125	94.1	92.8	29.2	0.149
4-6560	4-6750	0.126	205.8	-4.2	-0.47	0.759	102.8	1.058	-0.009	4-6676	225.6	386.0	0.76	1.122	95.3	95.6	28.7	0.158
4-6560	4-6760	0.120	211.5	-6.4	-0.60	0.751	102.0	1.050	-0.011	4-6677	221.3	391.8	0.81	1.119	96.4	99.9	28.5	0.168
4-6560	4-6770	0.115	218.1	-8.9	-0.74	0.743	101.0	1.040	-0.013	4-6678	216.8	397.5	0.90	1.115	97.4	105.4	28.3	0.178
4-6560	4-6780	0.112	225.6	-11.7	-0.94	0.735	99.9	1.029	-0.016	4-6680	212.2	402.9	1.05	1.111	98.4	111.7	28.2	0.188
4-6560	4-6790	0.110	234.1	-14.5	-1.21	0.727	98.7	1.017	-0.021	4-6681	207.4	408.3	1.28	1.106	99.3	118.7	28.0	0.198
4-6570	4-6740	0.150	200.1	-2.6	-0.47	0.781	105.1	1.087	-0.009	4-6682	235.4	380.2	0.71	1.130	94.3	92.6	28.6	0.176
4-6570	4-6750	0.142	204.4	-4.2	-0.59	0.773	104.3	1.079	-0.011	4-6683	231.2	386.1	0.70	1.126	95.5	95.6	28.2	0.164
4-6570	4-6760	0.135	209.5	-6.2	-0.70	0.764	103.4	1.070	-0.013	4-6684	226.8	391.8	0.74	1.122	96.5	100.1	27.9	0.172
4-6570	4-6770	0.128	215.3	-8.5	-0.82	0.755	102.4	1.060	-0.015	4-6685	222.1	397.3	0.82	1.119	97.5	105.6	27.7	0.181
4-6570	4-6780	0.122	222.1	-11.1	-0.99	0.746	101.3	1.049	-0.018	4-6686	217.3	402.6	0.95	1.113	98.4	112.0	27.5	0.190
4-6570	4-6790	0.118	230.0	-13.8	-1.21	0.737	100.1	1.037	-0.021	4-6688	212.4	407.9	1.15	1.108	99.3	119.0	27.2	0.199
4-6580	4-6750	0.163	203.8	-4.6	-0.72	0.788	105.8	1.101	-0.014	4-6690	237.0	386.4	0.62	1.132	95.8	95.5	27.4	0.172
4-6580	4-6760	0.153	208.3	-6.3	-0.81	0.778	104.8	1.092	-0.015	4-6690	232.4	391.9	0.66	1.127	96.8	100.1	27.2	0.179
4-6580	4-6770	0.145	213.5	-8.4	-0.91	0.768	103.8	1.081	-0.017	4-6692	227.7	397.2	0.73	1.121	97.7	105.8	27.1	0.186
4-6580	4-6780	0.137	219.5	-10.7	-1.05	0.758	102.8	1.070	-0.019	4-6693	222.7	402.4	0.85	1.116	98.6	112.2	26.8	0.194
4-6580	4-6790	0.130	226.5	-13.3	-1.24	0.749	101.6	1.058	-0.022	4-6694	217.6	407.5	1.03	1.110	99.4	119.2	26.4	0.201
4-6580	4-6800	0.125	234.5	-15.9	-1.51	0.739	100.3	1.045	-0.027	4-6696	212.4	412.5	1.28	1.104	100.2	126.7	26.0	0.209
4-6590	4-6760	0.175	207.9	-6.8	-0.94	0.794	106.4	1.114	-0.018	4-6697	238.3	392.0	0.56	1.133	97.1	100.2	26.5	0.188
4-6590	4-6770	0.165	212.6	-8.6	-1.02	0.783	105.4	1.104	-0.019	4-6698	233.3	397.2	0.64	1.127	98.0	105.9	26.3	0.194
4-6590	4-6780	0.154	217.9	-10.7	-1.12	0.772	104.3	1.092	-0.021	4-6699	228.2	402.3	0.75	1.120	98.8	112.3	26.0	0.200
4-6590	4-6790	0.145	224.0	-13.0	-1.27	0.761	103.1	1.080	-0.023	4-6701	223.0	407.3	0.90	1.113	99.6	119.4	25.6	0.206
4-6590	4-6800	0.138	231.1	-15.5	-1.49	0.751	101.8	1.067	-0.027	4-6702	217.7	412.2	1.12	1.107	100.3	126.8	25.1	0.212
4-6590	4-5810	0.132	239.3	-17.9	-1.83	0.741	100.5	1.052	-0.033	4-6704	212.4	417.0	1.44	1.100	101.1	134.7	24.5	0.219
4-6600	4-6760	0.202	208.2	-7.5	-1.09	0.813	108.0	1.139	-0.021	4-6704	244.2	392.2	0.45	1.142	97.5	100.2	25.7	0.200
4-6600	4-6770	0.189	212.4	-9.1	-1.13	0.800	107.0	1.128	-0.022	4-6705	239.1	397.3	0.53	1.134	98.4	106.0	25.5	0.204
4-6600	4-6780	0.176	217.1	-11.0	-1.20	0.787	105.9	1.116	-0.023	4-6706	233.9	402.2	0.63	1.126	99.2	112.4	25.3	0.208
4-6600	4-6790	0.165	222.5	-13.0	-1.32	0.775	104.7	1.103	-0.025	4-6707	228.6	407.1	0.77	1.118	99.9	119.5	24.8	0.213
4-6600	4-6800	0.155	228.7	-15.3	-1.49	0.764	103.4	1.089	-0.028	4-6709	223.2	411.9	0.97	1.110	100.6	126.9	24.1	0.217
4-6600	4-6810	0.146	235.9	-17.6	-1.76	0.753	102.1	1.075	-0.032	4-6710	217.7	416.6	1.23	1.103	101.2	134.7	23.4	0.222
4-6610	4-6770	0.217	212.9	-9.9	-1.27	0.820	108.7	1.153	-0.025	4-6712	245.0	397.3	0.40	1.143	98.9	106.1	24.7	0.217
4-6610	4-6780	0.202	217.2	-11.5	-1.30	0.805	107.6	1.141	-0.026	4-6713	239.7	402.2	0.51	1.133	99.6	112.6	24.4	0.220
4-6610	4-6790	0.188	222.0	-13.3	-1.38	0.791	106.3	1.127	-0.027	4-6714	234.3	406.9	0.64	1.124	100.3	119.6	23.9	0.222
4-6610	4-6800	0.176	227.4	-15.3	-1.51	0.778	105.1	1.113	-0.029	4-6715	228.8	411.6	0.82	1.115	100.9	127.0	23.2	0.225
4-6610	4-6810	0.164	233.7	-17.4	-1.71	0.766	103.7	1.099	-0.032	4-6717	223.2	416.2	1.04	1.107	101.5	134.7	22.3	0.228
4-6610	4-6820	0.155	240.9	-19.5	-2.03	0.755	102.3	1.083	-0.037	4-6718	217.6	420.8	1.36	1.098	102.1	142.7	21.4	0.232
4-6620	4-6770	0.250	214.1	-10.8	-1.42	0.842	110.5	1.180	-0.029	4-6718	251.0	397.3	0.25	1.155	99.5	106.4	23.8	0.234
4-6620	4-6780	0.232	217.9	-12.3	-1.42	0.825	109.4	1.167	-0.029	4-6719	245.6	402.1	0.37	1.144	100.1	112.8	23.6	0.234
4-6620	4-6790	0.216	222.2	-13.9	-1.45	0.809	108.1	1.154	-0.029	4-6721	240.1	406.8	0.51	1.133	100.8	119.8	23.1	0.235

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THETI	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-6620	4-6800	0.201	227.0	-15.6	-1.54	0.794	106.8	1.139	-0.030	4-6722	234.5	411.4	0.67	1.122	101.3	127.1	22.3	0.236
4-6620	4-6810	0.187	232.5	-17.5	-1.69	0.780	105.4	1.124	-0.033	4-6723	228.8	415.9	0.87	1.112	101.8	134.8	21.3	0.237
4-6620	4-6820	0.174	238.8	-19.4	-1.93	0.768	104.0	1.107	-0.037	4-6725	223.1	420.4	1.14	1.103	102.3	142.7	20.1	0.239
4-6630	4-6780	0.268	219.3	-13.2	-1.55	0.849	111.3	1.196	-0.032	4-6726	251.4	401.9	0.22	1.157	100.8	113.1	22.7	0.233
4-6630	4-6790	0.249	223.2	-14.6	-1.54	0.830	110.0	1.182	-0.032	4-6727	245.8	406.5	0.36	1.144	101.4	120.0	22.2	0.251
4-6630	4-6800	0.231	227.5	-16.2	-1.59	0.813	108.6	1.166	-0.032	4-6729	240.2	411.1	0.52	1.131	101.9	127.3	21.4	0.250
4-6630	4-6810	0.214	232.4	-17.8	-1.69	0.797	107.2	1.150	-0.033	4-6730	234.5	415.6	0.70	1.120	102.3	134.9	20.3	0.249
4-6630	4-6820	0.199	237.8	-19.5	-1.87	0.782	105.8	1.133	-0.036	4-6732	228.7	420.0	0.93	1.109	102.8	142.7	19.0	0.248
4-6630	4-6830	0.185	244.1	-21.2	-2.15	0.769	104.3	1.116	-0.041	4-6733	223.0	424.4	1.24	1.098	103.2	150.6	17.7	0.249
4-6640	4-6790	0.287	224.8	-15.5	-1.65	0.854	112.0	1.212	-0.035	4-6734	251.6	406.2	0.20	1.158	102.1	120.4	21.4	0.272
4-6640	4-6800	0.265	228.7	-16.8	-1.65	0.834	110.6	1.196	-0.034	4-6735	245.9	410.7	0.37	1.143	102.6	127.6	20.5	0.268
4-6640	4-6810	0.246	233.1	-18.3	-1.71	0.815	109.2	1.179	-0.035	4-6737	240.2	415.2	0.54	1.129	103.0	135.1	19.4	0.264
4-6640	4-6820	0.227	237.9	-19.8	-1.83	0.799	107.7	1.161	-0.036	4-6738	234.4	419.5	0.74	1.117	103.3	142.8	18.0	0.261
4-6640	4-6830	0.211	243.4	-21.3	-2.04	0.784	106.1	1.143	-0.040	4-6740	228.6	423.9	1.00	1.105	103.7	150.6	16.4	0.260
4-6640	4-6840	0.196	249.6	-22.8	-2.37	0.770	104.5	1.125	-0.045	4-6742	222.7	428.1	1.35	1.093	104.0	158.6	15.0	0.259
4-6650	4-6790	0.331	226.9	-16.4	-1.79	0.883	114.1	1.245	-0.039	4-6741	257.3	405.7	0.02	1.176	103.0	121.0	20.5	0.298
4-6650	4-6800	0.306	230.5	-17.7	-1.73	0.859	112.7	1.228	-0.037	4-6742	251.6	410.2	0.21	1.158	103.4	128.0	19.7	0.290
4-6650	4-6810	0.283	234.5	-19.2	-1.74	0.837	111.3	1.210	-0.036	4-6743	245.8	414.7	0.38	1.142	103.8	135.4	18.5	0.284
4-6650	4-6820	0.261	238.8	-20.2	-1.81	0.818	109.7	1.191	-0.037	4-6745	240.0	419.0	0.57	1.127	104.3	143.0	17.0	0.278
4-6650	4-6830	0.241	243.7	-21.5	-1.95	0.800	108.1	1.172	-0.039	4-6747	234.2	423.3	0.79	1.113	104.3	150.7	15.3	0.274
4-6650	4-6840	0.224	249.1	-22.9	-2.19	0.785	106.5	1.153	-0.043	4-6748	228.3	427.6	1.07	1.100	104.5	158.5	13.6	0.271
4-6660	4-6800	0.353	232.9	-18.5	-1.83	0.889	115.0	1.263	-0.040	4-6749	257.2	409.6	0.03	1.178	104.4	128.6	18.8	0.318
4-6660	4-6810	0.325	236.6	-19.6	-1.78	0.863	113.5	1.244	-0.038	4-6750	251.4	414.0	0.22	1.158	104.7	135.9	17.6	0.309
4-6660	4-6820	0.300	240.5	-20.8	-1.80	0.840	111.9	1.224	-0.038	4-6752	245.6	418.4	0.40	1.141	104.9	143.3	16.1	0.290
4-6660	4-6830	0.277	244.8	-21.9	-1.89	0.820	110.3	1.204	-0.039	4-6753	239.8	422.7	0.60	1.124	105.1	150.8	14.3	0.293
4-6660	4-6840	0.256	249.6	-23.0	-2.06	0.801	108.6	1.183	-0.042	4-6755	233.9	426.9	0.84	1.109	105.2	158.5	12.4	0.296
4-6660	4-6850	0.237	255.0	-24.1	-2.33	0.785	106.9	1.162	-0.046	4-6757	228.0	431.1	1.14	1.095	105.4	166.3	10.5	0.287
4-6670	4-6800	0.407	235.6	-19.4	-1.95	0.926	117.4	1.301	-0.044	4-6756	262.7	408.8	-0.18	1.204	105.6	129.6	17.9	0.353
4-6670	4-6810	0.375	239.1	-20.4	-1.84	0.894	115.9	1.281	-0.041	4-6757	256.9	413.2	0.05	1.180	105.8	136.5	16.8	0.339
4-6670	4-6820	0.346	242.8	-21.4	-1.81	0.867	114.3	1.260	-0.039	4-6759	251.1	417.6	0.24	1.156	105.9	143.7	15.2	0.327
4-6670	4-6830	0.319	246.7	-22.4	-1.85	0.842	112.6	1.238	-0.039	4-6760	245.3	421.9	0.42	1.139	106.0	151.2	13.4	0.316
4-6670	4-6840	0.294	251.0	-23.3	-1.96	0.821	110.9	1.216	-0.041	4-6762	239.4	426.2	0.63	1.121	106.1	158.7	11.3	0.307
4-6670	4-6850	0.271	255.8	-24.3	-2.15	0.801	109.1	1.194	-0.044	4-6764	233.5	430.3	0.88	1.105	106.1	166.3	9.2	0.299
4-6680	4-6810	0.433	242.0	-21.2	-1.92	0.933	118.4	1.322	-0.044	4-6764	262.3	412.3	-0.14	1.207	107.0	137.2	15.9	0.377
4-6680	4-6820	0.398	245.5	-22.0	-1.83	0.899	116.8	1.299	-0.041	4-6765	256.5	416.7	0.08	1.181	107.1	144.4	14.4	0.360
4-6680	4-6830	0.366	249.2	-22.9	-1.82	0.870	115.1	1.276	-0.040	4-6767	250.7	421.0	0.26	1.158	107.2	151.6	12.5	0.345
4-6680	4-6840	0.337	253.7	-23.7	-1.88	0.844	113.3	1.253	-0.040	4-6769	244.8	425.3	0.44	1.137	107.1	159.0	10.4	0.332
4-6680	4-6850	0.311	257.4	-24.4	-2.00	0.821	111.5	1.229	-0.042	4-6770	238.9	429.5	0.65	1.118	107.1	166.5	8.1	0.321
4-6680	4-6860	0.286	262.1	-25.1	-2.22	0.801	109.6	1.205	-0.046	4-6772	233.0	433.6	0.91	1.101	107.1	174.1	5.9	0.312
4-6690	4-6820	0.459	248.6	-22.7	-1.87	0.939	119.4	1.343	-0.044	4-6772	261.7	415.6	-0.11	1.211	108.5	145.2	13.6	0.400
4-6690	4-6830	0.422	252.1	-23.4	-1.81	0.903	117.7	1.318	-0.041	4-6774	255.9	420.0	0.09	1.182	108.5	152.3	11.7	0.381
4-6690	4-6840	0.388	255.8	-24.0	-1.81	0.872	115.9	1.292	-0.040	4-6775	250.1	424.3	0.27	1.157	108.4	159.5	9.5	0.364
4-6690	4-6850	0.356	259.7	-24.6	-1.88	0.845	114.0	1.267	-0.041	4-6777	244.3	428.5	0.46	1.135	108.2	166.9	7.2	0.349
4-6690	4-6860	0.328	263.9	-25.2	-2.03	0.821	112.1	1.241	-0.043	4-6779	238.3	432.6	0.67	1.115	108.1	174.3	4.8	0.336
4-6690	4-6870	0.302	268.5	-25.7	-2.26	0.800	110.1	1.215	-0.047	4-6781	232.4	436.7	0.93	1.097	108.0	181.9	2.4	0.325
4-6700	4-6820	0.530	252.0	-23.3	-1.93	0.988	122.2	1.391	-0.047	4-6779	266.8	414.3	-0.30	1.249	110.0	146.2	12.8	0.450
4-6700	4-6830	0.485	255.4	-23.8	-1.80	0.944	120.4	1.365	-0.043	4-6781	261.1	418.7	-0.07	1.214	109.9	153.1	10.9	0.424
4-6700	4-6840	0.445	258.9	-24.4	-1.76	0.906	118.6	1.337	-0.041	4-6782	255.3	423.1	0.11	1.183	109.8	160.1	8.7	0.402
4-6700	4-6850	0.409	262.6	-24.8	-1.78	0.874	116.7	1.309	-0.040	4-6784	249.5	427.3	0.28	1.156	109.6	167.3	6.3	0.382
4-6700	4-6860	0.376	266.4	-25.3	-1.87	0.845	114.8	1.281	-0.041	4-6786	243.6	431.5	0.46	1.133	109.3	174.7	3.8	0.365
4-6700	4-6870	0.345	270.6	-25.6	-2.02	0.820	112.8	1.253	-0.043	4-6788	237.7	435.6	0.67	1.112	109.1	182.1	1.3	0.351
4-6710	4-6830	0.460	257.9	-24.2	-1.82	0.896	123.4	1.416	-0.045	4-6788	266.7	417.9	-0.24	1.254	111.6	154.1	10.1	0.478
4-6710	4-6840	0.412	262.4	-24.6	-1.72	0.949	121.5	1.386	-0.041	4-6789	260.3	421.7	-0.04	1.216	111.4	161.0	8.0	0.449
4-6710	4-6850	0.469	265.8	-25.0	-1.70	0.909	119.6	1.356	-0.040	4-6791	254.5	426.1	0.13	1.184	111.3	168.0	5.5	0.423
4-6710	4-6860	0.430	269.4	-25.3	-1.73	0.875	117.6	1.325	-0.040	4-6793	248.7	430.3	0.28	1.155	110.8	175.2	2.9	0.401
4-6710	4-6870	0.395	273.1	-25.5	-1.83	0.845	115.6	1.295	-0.040	4-6795	242.8	434.4	0.45	1.130	110.4	182.3	0.3	0.382
4-6710	4-6880	0.363	277.2	-25.7	-1.99	0.819	113.4	1.265	-0.043	4-6797	236.9	438.5	0.65	1.108	110.1	189.9	-2.3	0.366
4-6720	4-6830	0.647	262.7	-24.6	-1.85	1.060	126.3	1.474	-0.048	4-6795	270.7	415.8	-0.42	1.307	113.4	155.3	9.3	0.543
4-6720	4-6840	0.590	266.1	-24.8	-1.69	1.003	124.6	1.442	-0.042	4-6796	265.1	420.3	-0.18	1.259	113.2	161.9	7.2	0.505
4-6720	4-6850	0.539	269.4	-25.1	-1.62	0.954	122.6	1.408	-0.040	4-6797	259.4	424.6	-0.01	1.219	112.8	168.8	4.8	0.473
4-6720	4-6860	0.493	272.8	-25.2	-1.62	0.912	120.6	1.375	-0.038	4-6799	253.6	428.9	0.13	1.184	112.4	175.8	2.2	0.445
4-6720	4-6870	0.452	276.3	-25.4	-1.66	0.875	118.5	1.342	-0.038	4-6801	247.8	433.1	0.27	1.154	112.0	183.0	-0.5	0.421
4-6720	4-6880	0.414	279.9	-25.4	-1.76	0.844	116.4	1.309	-0.039	4-6803	242.0	437.2	0.42	1.128	111.5	190.3	-3.2	0.400
4-6730	4-6840	0.681	269.9	-25.0	-1.67	1.070	127.7	1.504	-0.044	4-6803	269.7	418.6	-0.33	1.315	115.1	163.1	6.4	0.575
4-6730	4-6850	0.620	273.2	-25.1	-1.56	1.009	125.8	1.468	-0.040	4-6804	264.1	423.1	-0.14	1.264	114.7	169.8	4.1	0.534
4-6730	4-6860	0.565	276.4	-25.1	-1.51	0.958	123.8	1.431	-0.037	4-6806	258.4	427.4	-0.00	1.222	114.2	176.6	1.5	0.498
4-6730	4-6870	0.517	279.7	-25.1	-1.52	0.913	121.7	1.394	-0.036	4-6808	252.7	431.6	0.12	1.185	113.7	183.6	-1.3	0.467
4-6730	4-6880	0.473	283.1	-25.1	-1.57	0.875	119.5	1.358	-0.036	4-6810	246.9	435.8	0.24	1.153	113.4	190.8	-4.0	0.441
4-6730	4-6890	0.433	286.7	-24.9	-1.66	0.842	117.2	1.323	-0.037	4-6812	241.1	439.8	0.31	1.126	112	198.2	-4.7	0.418
4-6740	4-6850	0.715	277.1	-25.0	-1.49	1.080	129.0	1.535	-0.040	4-6811	268.6	421.3	-0.26	1.323	116	170.9	3.4	0.608
4-6740	4-6860	0.649	280.3	-24.9	-1.41	1.016	127.0	1.494	-0.037	4-6813	263.0	425.8	-0.12	1.269	116	177.8	0.8	0.562
4-6740	4-6870	0.591	283.4	-24.8	-1.39	0.961	124.9	1.453	-0.035	4-6815	257.1	430.1	-0.01	1.224	115	184.4	-1.9	0.523
4-6740	4-6880	0.540	286.6	-24.6	-1.40	0.914	122.7	1.413	-0.034	4-6817	251.6	434.3	0.09	1.186	115.0	191.5	-4.7	0.490
4-6740	4-6890	0.493	289.9	-24.4	-1.45	0.874	120.4	1.374	-0.034	4-6819	245.9	438.4	0.19	1.152	114.3	198.7	-7.5	0.461
4-6740	4-6900	0.451	293.4	-24.1	-1.53	0.840	118.1	1.336	-0.035	4-6822	240.1	442.4	0.30	1.124	113.7	206.1	-10.1	0.437
4-7290	4-7500	0.107	293.3	-13.6	-1.25	0.752	92.9	0.946	-0.020	4-7419	192.4	348.3	0.32	1.099	88.1	182.1	3.4	0.080
4-7290	4-7510	0.107	294.4	-13.8	-1.29	0.752	92.8	0.943	-0.021	4-7420	191.8	357.9	0.36	1.100	89.3	175.4	7.1	0.084
4-7290	4-7520	0.108	296.2	-14.3	-1.35	0.751	92.5	0.940	-0.022	4-7420	190.7	366.9	0.47	1.100	91.1	169.9	10.8	0.087
4-7290	4-7530	0.111	298.8	-15.1	-1.45	0.750	92.1	0.937	-0.023	4-7421	188.9	375.3	0.64	1.099	92.3	166.9	13.7	0.095
4-7290	4-7540	0.114	301.8	-15.8	-1.64	0.748	91.6	0.932	-0.026	4-7422	186.7	383.3	0.88	1.098	93.8	166.7	15.6	0.106

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THETI THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-7290	4-7550	0.120	305.3	-16.4	-1.94	0.745	91.0	0.926	-0.031	4-7423	184.1	390.9	1.22	1.095	95.0	168.8	17.0	0.119
4-7300	4-7510	0.105	291.8	-14.2	-1.41	0.758	93.6	0.956	-0.023	4-7427	195.7	355.9	0.25	1.099	89.3	178.7	4.2	0.084
4-7300	4-7520	0.106	293.7	-14.7	-1.44	0.757	93.3	0.953	-0.024	4-7427	194.6	364.9	0.36	1.099	90.8	173.0	8.1	0.085
4-7300	4-7530	0.107	296.3	-15.4	-1.51	0.756	93.0	0.950	-0.025	4-7428	192.9	373.5	0.51	1.099	92.1	169.5	11.2	0.091
4-7300	4-7540	0.110	299.5	-16.2	-1.64	0.754	92.5	0.945	-0.027	4-7429	190.7	381.5	0.72	1.097	93.4	168.8	13.4	0.101
4-7300	4-7550	0.114	303.3	-16.8	-1.87	0.751	92.0	0.939	-0.030	4-7429	188.1	389.0	1.01	1.094	94.6	170.4	14.8	0.113
4-7300	4-7560	0.120	307.4	-17.2	-2.25	0.748	91.3	0.932	-0.036	4-7431	185.1	396.2	1.42	1.091	95.8	174.0	15.9	0.127
4-7310	4-7510	0.105	288.3	-14.7	-1.55	0.764	94.5	0.970	-0.026	4-7434	199.9	354.1	0.13	1.099	89.1	181.4	1.2	0.083
4-7310	4-7520	0.105	290.1	-15.3	-1.55	0.763	94.2	0.967	-0.026	4-7434	198.9	363.3	0.23	1.099	90.5	175.4	5.3	0.083
4-7310	4-7530	0.106	292.7	-16.0	-1.57	0.762	93.9	0.963	-0.026	4-7435	197.3	371.8	0.38	1.098	91.9	171.6	8.7	0.089
4-7310	4-7540	0.108	296.1	-16.8	-1.66	0.760	93.5	0.959	-0.027	4-7436	195.1	379.8	0.57	1.096	93.1	170.5	11.1	0.097
4-7310	4-7550	0.111	300.2	-17.5	-1.83	0.757	92.9	0.953	-0.030	4-7436	192.4	387.4	0.81	1.094	94.3	171.8	12.5	0.108
4-7310	4-7560	0.115	304.6	-17.9	-2.11	0.754	92.3	0.947	-0.034	4-7437	189.4	394.5	1.15	1.091	95.5	174.9	13.5	0.121
4-7320	4-7520	0.108	285.8	-16.0	-1.67	0.769	95.2	0.981	-0.028	4-7442	203.6	362.0	0.08	1.099	90.3	177.2	2.4	0.083
4-7320	4-7530	0.108	288.4	-16.8	-1.66	0.768	94.9	0.977	-0.028	4-7442	202.0	370.5	0.23	1.098	91.7	173.2	6.1	0.087
4-7320	4-7540	0.108	291.8	-17.6	-1.69	0.766	94.5	0.973	-0.028	4-7443	199.8	378.5	0.41	1.097	92.9	171.8	8.7	0.095
4-7320	4-7550	0.110	296.0	-18.3	-1.80	0.763	93.9	0.968	-0.030	4-7444	197.1	386.0	0.63	1.094	94.1	172.8	10.2	0.105
4-7320	4-7560	0.113	300.7	-18.8	-2.01	0.760	93.3	0.961	-0.033	4-7444	194.0	393.1	0.91	1.091	95.2	175.7	11.1	0.117
4-7320	4-7570	0.116	305.9	-19.0	-2.35	0.756	92.6	0.954	-0.038	4-7445	190.6	399.8	1.29	1.087	96.3	180.1	11.8	0.129
4-7330	4-7520	0.113	281.2	-16.8	-1.82	0.776	96.2	0.996	-0.031	4-7449	208.8	361.0	-0.10	1.100	90.2	178.1	-0.6	0.083
4-7330	4-7530	0.113	283.7	-17.6	-1.76	0.774	95.9	0.992	-0.030	4-7449	207.1	369.6	0.06	1.099	91.5	174.1	3.4	0.087
4-7330	4-7540	0.112	287.0	-18.5	-1.74	0.772	95.5	0.988	-0.030	4-7450	204.9	377.5	0.24	1.097	92.8	172.6	6.3	0.094
4-7330	4-7550	0.113	291.1	-19.3	-1.80	0.769	95.0	0.983	-0.030	4-7451	202.2	384.9	0.45	1.094	93.9	173.5	8.0	0.103
4-7330	4-7560	0.114	295.9	-19.9	-1.94	0.766	94.4	0.977	-0.032	4-7452	199.0	391.9	0.69	1.091	95.0	176.2	8.9	0.114
4-7330	4-7570	0.116	301.3	-20.2	-2.18	0.762	93.7	0.969	-0.036	4-7453	195.5	398.6	1.00	1.087	96.0	180.4	9.3	0.125
4-7340	4-7530	0.122	279.1	-18.4	-1.88	0.781	97.1	1.008	-0.033	4-7457	212.8	369.0	-0.12	1.101	91.4	174.2	0.8	0.088
4-7340	4-7540	0.120	282.3	-19.3	-1.81	0.778	96.7	1.004	-0.031	4-7457	210.4	376.8	0.07	1.098	92.7	172.9	3.9	0.094
4-7340	4-7550	0.119	286.2	-20.2	-1.82	0.775	96.1	0.999	-0.031	4-7458	207.6	384.2	0.27	1.096	93.8	173.7	5.8	0.103
4-7340	4-7560	0.119	290.9	-20.9	-1.89	0.772	95.6	0.993	-0.032	4-7459	204.4	391.1	0.49	1.092	94.9	176.4	6.7	0.112
4-7340	4-7570	0.119	296.2	-21.3	-2.06	0.768	94.9	0.986	-0.035	4-7460	200.8	397.7	0.75	1.087	95.9	180.5	7.0	0.123
4-7340	4-7580	0.120	302.1	-21.4	-2.34	0.764	94.1	0.977	-0.039	4-7461	196.9	403.9	1.08	1.083	96.9	185.6	7.0	0.135
4-7350	4-7530	0.135	275.3	-19.2	-2.03	0.788	98.3	1.026	-0.036	4-7464	218.8	368.9	-0.33	1.103	91.5	173.6	-1.6	0.091
4-7350	4-7540	0.132	278.2	-20.1	-1.90	0.785	97.9	1.021	-0.033	4-7465	216.4	376.6	-0.12	1.101	92.7	172.5	1.7	0.096
4-7350	4-7550	0.130	281.8	-20.9	-1.85	0.782	97.4	1.016	-0.032	4-7465	213.4	383.8	0.08	1.098	93.8	173.6	3.7	0.104
4-7350	4-7560	0.128	286.2	-21.7	-1.87	0.778	96.8	1.010	-0.032	4-7466	210.1	390.6	0.29	1.093	94.9	176.3	4.7	0.113
4-7350	4-7570	0.126	291.2	-22.2	-1.97	0.774	96.1	1.002	-0.034	4-7467	206.4	397.0	0.52	1.089	95.9	180.4	4.9	0.123
4-7350	4-7580	0.125	296.8	-22.5	-2.16	0.769	95.3	0.994	-0.037	4-7468	202.4	403.1	0.80	1.084	96.8	185.4	4.7	0.133
4-7360	4-7540	0.149	275.2	-20.7	-2.02	0.793	99.3	1.039	-0.036	4-7472	222.7	376.6	-0.32	1.105	92.8	171.6	-0.2	0.101
4-7360	4-7550	0.146	278.4	-21.6	-1.90	0.789	98.8	1.034	-0.034	4-7472	219.6	383.7	-0.10	1.101	93.9	173.0	1.9	0.108
4-7360	4-7560	0.142	282.4	-22.3	-1.86	0.784	98.1	1.028	-0.033	4-7473	216.1	390.3	0.11	1.096	95.0	175.9	2.9	0.116
4-7360	4-7570	0.139	287.0	-23.0	-1.90	0.780	97.4	1.020	-0.033	4-7474	212.3	396.6	0.32	1.091	95.9	180.0	3.0	0.125
4-7360	4-7580	0.136	292.2	-23.3	-2.02	0.775	96.7	1.012	-0.035	4-7475	208.2	402.6	0.55	1.086	96.8	185.1	2.6	0.134
4-7360	4-7590	0.133	298.0	-23.4	-2.24	0.770	95.8	1.003	-0.038	4-7476	203.9	408.3	0.83	1.080	97.7	190.9	2.1	0.144
4-7370	4-7540	0.171	273.3	-21.3	-2.16	0.802	100.9	1.059	-0.039	4-7479	229.4	377.0	-0.55	1.110	93.0	170.2	-2.0	0.108
4-7370	4-7550	0.166	276.3	-22.1	-1.97	0.797	100.3	1.054	-0.036	4-7480	226.1	383.9	-0.30	1.105	94.2	172.0	0.3	0.114
4-7370	4-7560	0.161	279.8	-22.8	-1.88	0.792	99.6	1.047	-0.034	4-7481	222.4	390.3	-0.08	1.100	95.2	175.3	1.3	0.122
4-7370	4-7570	0.156	283.9	-23.4	-1.86	0.786	98.9	1.040	-0.033	4-7481	218.4	396.5	0.13	1.095	96.1	179.5	1.4	0.130
4-7370	4-7580	0.151	288.6	-23.9	-1.92	0.781	98.1	1.031	-0.034	4-7482	214.2	402.3	0.34	1.089	97.0	184.7	0.9	0.138
4-7370	4-7590	0.146	293.9	-24.1	-2.05	0.775	97.2	1.022	-0.036	4-7483	209.7	407.9	0.57	1.082	97.8	190.4	0.1	0.147
4-7380	4-7550	0.191	275.3	-22.5	-2.07	0.807	102.0	1.075	-0.038	4-7487	232.9	384.3	-0.51	1.112	94.5	170.9	-1.1	0.123
4-7380	4-7560	0.184	278.4	-23.2	-1.91	0.801	101.3	1.068	-0.035	4-7488	229.0	390.5	-0.27	1.106	95.5	174.4	-0.1	0.130
4-7380	4-7570	0.177	282.1	-23.7	-1.84	0.794	100.5	1.060	-0.034	4-7489	224.8	396.5	-0.05	1.099	96.4	178.9	-0.0	0.137
4-7380	4-7580	0.171	286.3	-24.2	-1.84	0.788	99.7	1.052	-0.033	4-7490	220.4	402.2	0.15	1.093	97.2	184.1	-0.6	0.144
4-7380	4-7590	0.164	291.0	-24.8	-1.91	0.781	98.8	1.042	-0.034	4-7491	215.8	407.6	0.35	1.086	98.0	189.9	-1.6	0.152
4-7380	4-7600	0.158	296.2	-24.8	-2.06	0.775	97.8	1.032	-0.036	4-7492	211.1	412.9	0.58	1.079	98.7	196.2	-2.7	0.160
4-7390	4-7560	0.212	278.2	-23.4	-1.96	0.811	103.1	1.091	-0.037	4-7495	235.7	390.9	-0.46	1.114	95.9	173.6	-1.2	0.141
4-7390	4-7570	0.204	281.5	-23.9	-1.83	0.803	102.3	1.083	-0.034	4-7496	231.3	396.7	-0.23	1.106	96.8	178.3	-1.1	0.148
4-7390	4-7580	0.195	285.3	-24.3	-1.78	0.796	101.4	1.074	-0.033	4-7497	226.8	402.2	-0.03	1.098	97.6	183.6	-1.8	0.154
4-7390	4-7590	0.187	289.4	-24.6	-1.79	0.789	100.5	1.064	-0.033	4-7498	222.1	407.5	0.16	1.091	98.3	189.5	-2.9	0.160
4-7390	4-7600	0.179	294.0	-24.7	-1.88	0.781	99.5	1.053	-0.034	4-7499	217.2	412.6	0.53	1.083	99.0	195.8	-4.3	0.167
4-7390	4-7610	0.171	299.2	-24.5	-2.03	0.774	98.4	1.042	-0.036	4-7500	212.2	417.6	0.57	1.075	99.6	202.4	-5.6	0.173
4-7400	4-7560	0.246	279.0	-23.6	-2.03	0.825	105.1	1.117	-0.039	4-7503	242.4	391.3	-0.66	1.124	96.5	172.9	-2.1	0.156
4-7400	4-7570	0.235	282.0	-24.0	-1.84	0.815	104.3	1.108	-0.035	4-7503	237.9	396.9	-0.42	1.115	97.3	177.7	-2.1	0.161
4-7400	4-7580	0.224	285.4	-24.4	-1.73	0.805	103.4	1.098	-0.033	4-7504	233.2	402.3	-0.20	1.106	98.1	183.1	-2.8	0.166
4-7400	4-7590	0.214	289.1	-24.6	-1.70	0.796	102.4	1.088	-0.032	4-7505	228.3	407.5	-0.07	1.097	98.8	189.1	-4.0	0.172
4-7400	4-7600	0.203	293.1	-24.7	-1.73	0.788	101.3	1.077	-0.032	4-7506	223.3	412.5	0.16	1.089	99.4	195.4	-5.5	0.177
4-7400	4-7610	0.194	297.7	-24.6	-1.82	0.779	100.2	1.065	-0.033	4-7508	218.2	417.3	0.33	1.080	100.0	202.0	-7.1	0.182
4-7410	4-7570	0.271	283.3	-24.0	-1.86	0.829	106.5	1.136	-0.037	4-7511	244.4	397.1	-0.59	1.127	98.0	177.2	-2.8	0.179
4-7410	4-7580	0.258	286.4	-24.3	-1.70	0.817	105.5	1.125	-0.033	4-7512	239.6	402.3	-0.30	1.116	98.8	182.8	-3.6	0.183
4-7410	4-7590	0.245	289.7	-24.4	-1.62	0.807	104.4	1.114	-0.031	4-7513	234.6	407.4	-0.18	1.106	99.5	188.7	-4.9	0.187
4-7410	4-7600	0.233	293.4	-24.5	-1.60	0.796	103.3	1.102	-0.030	4-7514	229.5	412.3	-0.01	1.096	100.0	195.1	-6.5	0.190
4-7410	4-7610	0.221	297.4	-24.4	-1.64	0.786	102.2	1.089	-0.031	4-7515	224.3	417.0	0.14	1.087	100.6	201.7	-8.3	0.194
4-7410	4-7620	0.209	301.8	-24.1	-1.73	0.777	101.0	1.076	-0.032	4-7516	219.0	421.6	0.30	1.077	101.0	208.7	-10.1	0.198
4-7420	4-7570	0.313	285.2	-24.0	-1.91	0.847	108.9	1.166	-0.039	4-7518	250.8	397.2	-0.78	1.142	98.8	177.0	-3.4	0.202
4-7420	4-7580	0.297	288.1	-24.1	-1.68	0.833	107.8	1.155	-0.034	4-7519	245.8	402.3	-0.52	1.130	99.6	182.6	-4.3	0.204
4-7420	4-7590	0.282	291.2	-24.2	-1.56	0.820	106.7	1.145	-0.031	4-7520	240.8	407.3	-0.33	1.118	100.2	188.5	-5.6	0.205
4-7420	4-7600	0.267	294.5	-24.2	-1.49	0.807	105.5	1.130	-0.029	4-7521	235.6	412.1	-0.16	1.106	100.8	194.9	-7.3	0.207
4-7420	4-7610	0.252	298.1	-24.1	-1.48	0.795	104.3	1.116	-0.028	4-7522	230.3	416.8	-0.02	1.095	101.3	201.5	-9.2	0.210
4-7420	4-7620	0.238	301.9	-23.8	-1.52	0.784	103.0	1.102	-0.029	4-7524	225.0	421.3	0.11	1.084	101.7	209.5	-11.1	0.212
4-7430	4-7580	0.342	290.4	-23.8	-1.68	0.853	110.4	1.188	-0.035	4-7526	252.0	402.2	-0.68	1.147	100.5	182.5	-4.8	0.229

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-7430	4-7590	0.323	293.3	-23.8	-1.50	0.836	109.2	1.179	-0.031	4-7527	246.8	407.1	-0.46	1.132	101.2	188.5	-6.1	0.229
4-7430	4-7600	0.305	296.3	-23.8	-1.40	0.821	107.9	1.160	-0.028	4-7528	241.6	411.9	-0.30	1.119	101.7	194.8	-7.9	0.229
4-7430	4-7610	0.288	299.6	-23.6	-1.35	0.807	106.7	1.146	-0.027	4-7529	236.2	416.5	-0.17	1.106	102.1	201.5	-9.9	0.229
4-7430	4-7620	0.271	303.0	-23.3	-1.35	0.794	105.3	1.130	-0.026	4-7531	230.8	420.9	-0.05	1.094	102.5	208.4	-11.9	0.230
4-7430	4-7630	0.255	306.8	-22.9	-1.38	0.782	103.9	1.114	-0.026	4-7533	225.3	425.2	0.05	1.082	102.8	215.5	-13.9	0.231
4-7440	4-7580	0.394	293.1	-23.5	-1.69	0.879	113.1	1.224	-0.036	4-7533	257.8	401.9	-0.85	1.169	101.6	182.8	-5.2	0.261
4-7440	4-7590	0.371	295.8	-23.4	-1.46	0.859	111.9	1.210	-0.031	4-7534	252.7	406.8	-0.60	1.152	102.2	188.7	-6.6	0.258
4-7440	4-7600	0.350	298.7	-23.2	-1.31	0.839	110.6	1.195	-0.027	4-7535	247.4	411.5	-0.42	1.135	102.7	195.0	-8.4	0.255
4-7440	4-7610	0.329	301.7	-23.0	-1.23	0.822	109.2	1.178	-0.025	4-7537	242.0	416.0	-0.29	1.120	103.1	201.5	-10.4	0.253
4-7440	4-7620	0.309	304.8	-22.7	-1.19	0.806	107.8	1.162	-0.024	4-7538	236.6	420.5	-0.19	1.106	103.4	208.4	-12.5	0.252
4-7440	4-7630	0.290	308.2	-22.2	-1.18	0.791	106.3	1.144	-0.023	4-7540	231.0	424.8	-0.11	1.092	103.7	215.6	-14.6	0.251
4-7450	4-7590	0.426	298.7	-22.9	-1.42	0.886	114.8	1.249	-0.031	4-7541	258.3	406.3	-0.73	1.176	103.5	189.1	-7.0	0.293
4-7450	4-7600	0.400	301.4	-22.6	-1.24	0.862	113.4	1.233	-0.026	4-7542	253.0	410.9	-0.54	1.156	103.9	195.3	-8.8	0.287
4-7450	4-7610	0.375	304.2	-22.3	-1.12	0.841	112.0	1.215	-0.024	4-7544	247.6	415.5	-0.40	1.138	104.3	201.8	-10.8	0.282
4-7450	4-7620	0.352	307.1	-21.9	-1.05	0.822	110.5	1.197	-0.022	4-7545	242.1	419.9	-0.30	1.121	104.6	208.6	-13.0	0.278
4-7450	4-7630	0.330	310.2	-21.5	-1.01	0.804	108.9	1.178	0.020	4-7547	236.6	424.2	-0.23	1.105	104.7	215.7	-15.1	0.275
4-7450	4-7640	0.308	313.4	-20.9	-0.99	0.788	107.3	1.158	-0.020	4-7549	230.9	428.3	-0.18	1.091	104.9	223.1	-17.2	0.272
4-7460	4-7600	0.457	304.4	-21.9	-1.16	0.893	116.4	1.275	-0.026	4-7550	258.4	410.3	-0.64	1.183	105.3	195.8	-9.2	0.326
4-7460	4-7610	0.428	307.1	-21.5	-1.02	0.866	114.9	1.256	-0.022	4-7551	253.0	414.8	-0.49	1.160	105.6	202.2	-11.2	0.317
4-7460	4-7620	0.400	309.8	-21.1	-0.93	0.842	113.4	1.235	-0.020	4-7552	247.5	419.2	-0.40	1.140	105.8	208.9	-13.3	0.310
4-7460	4-7630	0.374	312.6	-20.6	-0.86	0.821	111.8	1.215	-0.018	4-7554	242.0	423.5	-0.33	1.122	106.0	214.0	-15.5	0.303
4-7460	4-7640	0.349	315.6	-20.0	-0.82	0.802	110.1	1.193	-0.017	4-7556	236.3	427.7	-0.30	1.105	106.1	220.3	-17.7	0.298
4-7460	4-7650	0.326	318.7	-19.2	-0.77	0.784	108.3	1.172	-0.015	4-7558	230.6	431.7	-0.29	1.090	106.1	230.9	-19.7	0.294
4-7470	4-7600	0.523	307.5	-21.1	-1.09	0.932	119.6	1.322	-0.025	4-7557	263.5	409.4	-0.73	1.217	106.8	196.5	-9.5	0.373
4-7470	4-7610	0.488	310.1	-20.6	-0.92	0.899	118.1	1.301	-0.021	4-7558	258.1	414.0	-0.57	1.189	107.1	202.8	-11.5	0.359
4-7470	4-7620	0.455	312.7	-20.1	-0.81	0.870	116.5	1.279	-0.018	4-7559	252.7	418.4	-0.48	1.164	107.3	209.4	-13.6	0.348
4-7470	4-7630	0.425	315.4	-19.6	-0.73	0.843	114.8	1.256	-0.016	4-7561	247.2	422.7	-0.42	1.142	107.4	216.4	-15.8	0.338
4-7470	4-7640	0.396	318.1	-19.0	-0.66	0.820	113.0	1.233	-0.014	4-7563	241.6	426.9	-0.39	1.123	107.4	223.6	-18.0	0.329
4-7470	4-7650	0.368	321.0	-18.2	-0.60	0.799	111.2	1.209	-0.012	4-7565	235.9	430.9	-0.39	1.105	107.4	231.2	-20.0	0.322
4-7480	4-7610	0.557	313.3	-19.7	-0.83	0.942	121.4	1.353	-0.019	4-7565	263.1	413.0	-0.64	1.226	108.8	203.6	-11.8	0.410
4-7480	4-7620	0.518	315.8	-19.1	-0.69	0.905	119.7	1.327	-0.016	4-7566	257.6	417.5	-0.54	1.195	108.9	210.1	-13.9	0.393
4-7480	4-7630	0.482	318.3	-18.5	-0.60	0.872	118.0	1.302	-0.013	4-7568	252.1	421.9	-0.48	1.168	108.9	216.9	-16.1	0.379
4-7480	4-7640	0.448	320.9	-17.9	-0.52	0.843	116.2	1.276	-0.011	4-7570	246.6	426.0	-0.46	1.145	108.9	224.1	-18.2	0.366
4-7480	4-7650	0.416	323.5	-17.1	-0.44	0.818	114.3	1.250	-0.009	4-7571	240.9	430.1	-0.47	1.124	108.8	231.6	-20.2	0.355
4-7480	4-7660	0.386	326.3	-16.3	-0.35	0.795	112.4	1.224	-0.007	4-7574	235.2	434.0	-0.52	1.105	108.7	239.4	-22.1	0.346
4-7490	4-7610	0.637	316.5	-18.7	-0.72	0.997	124.7	1.409	-0.018	4-7572	267.7	411.9	-0.69	1.273	110.6	204.6	-12.1	0.471
4-7490	4-7620	0.590	319.0	-18.0	-0.58	0.950	123.1	1.382	-0.014	4-7573	262.4	416.5	-0.59	1.235	110.7	210.9	-14.2	0.448
4-7490	4-7630	0.547	321.4	-17.4	-0.47	0.910	121.4	1.354	-0.011	4-7575	256.9	420.8	-0.53	1.202	110.7	217.6	-16.3	0.428
4-7490	4-7640	0.507	323.9	-16.7	-0.38	0.874	119.5	1.325	-0.009	4-7576	251.4	425.1	-0.52	1.172	110.6	224.7	-18.4	0.410
4-7490	4-7650	0.470	326.4	-15.9	-0.30	0.843	117.6	1.296	-0.007	4-7578	245.8	429.2	-0.53	1.147	110.4	232.1	-20.4	0.395
4-7490	4-7660	0.435	328.9	-15.1	-0.19	0.815	115.6	1.267	-0.004	4-7580	240.1	433.2	-0.58	1.125	110.2	239.9	-22.2	0.382
4-7500	4-7620	0.673	322.2	-16.9	-0.46	1.009	126.5	1.443	-0.012	4-7580	266.9	415.3	-0.61	1.285	112.6	211.9	-14.4	0.513
4-7500	4-7630	0.621	324.6	-16.2	-0.35	0.959	124.8	1.412	-0.009	4-7581	261.5	419.7	-0.57	1.243	112.6	218.4	-16.5	0.485
4-7500	4-7640	0.574	327.0	-15.4	-0.26	0.914	123.0	1.380	-0.006	4-7583	256.0	424.0	-0.56	1.207	112.4	225.4	-18.6	0.462
4-7500	4-7650	0.530	329.3	-14.7	-0.16	0.876	121.0	1.344	-0.004	4-7585	250.5	428.2	-0.58	1.176	112.2	232.7	-20.5	0.441
4-7500	4-7660	0.490	331.7	-13.8	-0.06	0.842	119.0	1.310	-0.001	4-7587	244.8	432.2	-0.63	1.149	111.9	240.4	-22.3	0.423
4-7500	4-7670	0.453	334.3	-12.9	0.08	0.812	116.8	1.284	0.002	4-7589	239.1	436.1	-0.73	1.125	111.6	248.4	-23.8	0.408
4-7510	4-7630	0.707	327.8	-14.9	-0.23	1.021	128.3	1.478	-0.006	4-7588	265.9	418.5	-0.58	1.296	114.6	219.4	-16.7	0.555
4-7510	4-7640	0.651	330.1	-14.1	-0.13	0.966	126.5	1.442	-0.003	4-7590	260.5	422.8	-0.58	1.251	114.5	226.2	-18.7	0.523
4-7510	4-7650	0.599	332.4	-13.3	-0.04	0.918	124.5	1.406	-0.001	4-7592	255.0	427.0	-0.61	1.213	114.2	233.4	-20.6	0.495
4-7510	4-7660	0.552	334.7	-12.5	0.06	0.877	122.5	1.370	0.001	4-7594	249.4	431.1	-0.66	1.180	113.8	241.0	-22.3	0.472
4-7510	4-7670	0.509	337.1	-11.6	0.20	0.840	120.3	1.334	0.004	4-7596	243.7	435.1	-0.76	1.151	113.4	248.9	-23.8	0.451
4-7510	4-7680	0.469	339.5	-10.6	0.38	0.808	118.0	1.300	0.008	4-7599	237.9	438.9	-0.92	1.126	113.0	257.1	-25.1	0.434
4-7520	4-7630	0.808	330.9	-13.7	-0.09	1.100	131.8	1.552	-0.002	4-7595	270.1	417.1	-0.56	1.364	116.8	220.5	-16.9	0.638
4-7520	4-7640	0.739	333.2	-12.8	-0.01	1.031	130.0	1.512	-0.000	4-7596	264.7	421.6	-0.59	1.307	116.6	227.1	-18.8	0.596
4-7520	4-7650	0.678	335.5	-12.0	0.07	0.972	128.1	1.471	0.002	4-7598	259.3	425.8	-0.63	1.259	116.3	234.2	-20.7	0.560
4-7520	4-7660	0.623	337.7	-11.1	0.18	0.921	126.1	1.431	0.004	4-7600	253.7	430.0	-0.69	1.218	115.8	241.7	-22.3	0.529
4-7520	4-7670	0.572	340.0	-10.2	0.31	0.876	123.9	1.391	0.007	4-7603	248.1	434.0	-0.78	1.183	115.3	249.5	-23.8	0.502
4-7520	4-7680	0.526	342.3	-9.3	0.48	0.837	121.6	1.353	0.011	4-7605	242.4	437.9	-0.93	1.153	114.8	257.6	-25.0	0.479
4-7530	4-7640	0.843	336.4	-11.5	0.12	1.114	133.5	1.592	0.003	4-7603	268.8	420.2	-0.57	1.378	118.9	228.3	-19.0	0.684
4-7530	4-7650	0.770	338.6	-10.6	0.19	1.041	131.7	1.546	0.005	4-7605	263.4	424.5	-0.63	1.317	118.6	235.2	-20.8	0.637
4-7530	4-7660	0.704	340.8	-9.7	0.28	0.978	129.7	1.500	0.007	4-7607	258.0	428.5	-0.70	1.266	118.1	242.5	-22.4	0.597
4-7530	4-7670	0.645	343.0	-8.8	0.41	0.923	127.6	1.455	0.010	4-7609	252.4	432.8	-0.80	1.223	117.5	250.2	-23.7	0.562
4-7530	4-7680	0.591	345.2	-7.8	0.57	0.876	125.3	1.412	0.014	4-7612	246.8	436.8	-0.94	1.186	116.8	258.2	-24.9	0.532
4-7540	4-7650	0.877	341.7	-9.2	0.31	1.128	135.2	1.631	0.009	4-7611	267.4	423.2	-0.61	1.391	120.9	236.2	-20.8	0.729
4-7540	4-7660	0.798	343.9	-8.2	0.39	1.050	134.3	1.579	0.011	4-7613	262.0	427.5	-0.70	1.326	120.4	243.4	-22.4	0.677
4-7540	4-7670	0.727	346.0	-7.3	0.50	0.982	131.2	1.528	0.013	4-7615	256.5	431.6	-0.80	1.272	119.8	251.0	-23.7	0.632
4-7540	4-7680	0.664	348.1	-6.4	0.65	0.924	129.0	1.479	0.016	4-7618	250.9	435.6	-0.94	1.227	119.1	258.9	-24.7	0.594
4-7540	4-7690	0.607	350.3	-5.4	0.87	0.874	126.6	1.431	0.021	4-7621	245.3	439.5	-1.13	1.188	118.3	267.1	-25.5	0.561
4-8090	4-8290	0.120	338.4	-6.9	-2.21	0.771	90.5	0.930	-0.035	4-8218	182.5	329.1	-0.95	1.085	85.4	278.7	-32.0	0.118
4-8090	4-8300	0.117	337.3	-8.7	-1.95	0.774	90.7	0.930	-0.031	4-8218	183.6	340.2	-0.70	1.086	87.1	275.9	-31.1	0.098
4-8090	4-8310	0.115	337.2	-10.4	-1.78	0.776	90.8	0.930	-0.028	4-8218	184.2	350.8	-0.47	1.086	88.7	269.9	-29.5	0.084
4-8090	4-8320	0.114	337.9	-11.8	-1.69	0.777	90.8	0.928	-0.027	4-8218	184.0	360.7	-0.25	1.084	90.1	261.7	-26.7	0.077
4-8090	4-8330	0.114	339.4	-12.8	-1.67	0.777	90.6	0.926	-0.027	4-8219	183.3	370.0	-0.04	1.082	91.4	253.5	-23.1	0.076
4-8090	4-8340	0.114	341.6	-13.2	-1.72	0.777	90.4	0.923	-0.027	4-8219	181.9	378.6	0.16	1.079	92.6	247.9	-19.8	0.082
4-8100	4-8300	0.123	333.0	-10.6	-2.03	0.773	91.9	0.945	-0.033	4-8226	189.1	339.5	-0.91	1.087	87.0	277.1	-33.1	0.101
4-8100	4-8310	0.122	332.7	-12.2	-1.79	0.775	92.0	0.944	-0.029	4-8226	189.8	350.1	-0.66	1.087	88.6	271.1	-31.6	0.086
4-8100	4-8320	0.121	333.3	-13.6	-1.64	0.776	91.9	0.943	-0.027	4-8226	189.7	360.1	-0.41	1.085	90.0	262.8	-29.0	0.078
4-8100	4-8330	0.120	334.8	-14.6	-1.57	0.777	91.8	0.941	-0.025	4-8226	189.0	369.3	-0.21	1.083	91.3	254.6	-25.6	0.077
4-8100	4-8340	0.119	336.9	-15.0	-1.56	0.776	91.5	0.937	-0.025	4-8227	187.5	377.9	-0.03	1.080	92.5	248.8	-22.4	0.082

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-8100	4-8350	0.119	339.7	-14.9	-1.62	0.774	91.1	0.933	-0.026	4-8228	185.6	385.8	0.13	1.076	93.7	246.1	-20.0	0.090
4-8110	4-8310	0.133	328.8	-13.8	-1.81	0.775	93.3	0.960	-0.030	4-8233	196.1	350.1	-0.83	1.089	88.5	270.8	-33.6	0.089
4-8110	4-8320	0.131	329.3	-15.1	-1.60	0.776	93.2	0.959	-0.026	4-8234	196.0	360.0	-0.57	1.087	90.0	262.4	-31.0	0.081
4-8110	4-8330	0.130	330.6	-16.0	-1.48	0.776	93.1	0.956	-0.024	4-8234	195.2	369.2	-0.36	1.084	91.3	254.3	-27.6	0.079
4-8110	4-8340	0.129	332.6	-16.4	-1.43	0.775	92.8	0.953	-0.023	4-8235	193.6	377.1	-0.19	1.081	92.6	248.7	-24.4	0.064
4-8110	4-8350	0.128	335.3	-16.4	-1.44	0.774	92.4	0.949	-0.023	4-8235	191.5	385.5	-0.04	1.077	93.7	246.1	-22.1	0.092
4-8110	4-8360	0.126	338.5	-15.9	-1.48	0.772	91.9	0.943	-0.024	4-8236	188.9	392.7	0.08	1.073	94.7	246.4	-20.8	0.102
4-8120	4-8300	0.150	325.8	-13.6	-2.25	0.773	94.8	0.980	-0.038	4-8241	202.2	340.1	-1.37	1.092	86.9	275.8	-37.5	0.107
4-8120	4-8310	0.148	325.4	-15.0	-2.85	0.775	94.8	0.978	-0.031	4-8241	203.0	350.8	-1.01	1.092	88.6	269.1	-35.6	0.092
4-8120	4-8320	0.147	326.2	-16.1	-1.56	0.776	94.7	0.976	-0.027	4-8241	202.8	360.6	-0.73	1.090	90.1	260.5	-32.7	0.084
4-8120	4-8330	0.145	327.5	-16.9	-1.41	0.776	94.5	0.974	-0.024	4-8242	201.8	369.7	-0.50	1.087	91.4	252.7	-29.1	0.082
4-8120	4-8340	0.143	329.3	-17.3	-1.32	0.775	94.2	0.970	-0.022	4-8242	200.2	378.0	-0.32	1.084	92.7	247.5	-25.9	0.087
4-8120	4-8350	0.141	331.7	-17.3	-1.28	0.773	93.8	0.966	-0.021	4-8243	197.9	385.6	-0.19	1.080	93.8	245.5	-23.7	0.095
4-8120	4-8360	0.138	334.7	-16.9	-1.28	0.770	93.2	0.960	-0.021	4-8244	195.1	392.7	-0.08	1.075	94.8	246.0	-22.5	0.105
4-8130	4-8310	0.168	323.6	-15.8	-1.91	0.777	96.5	0.999	-0.033	4-8249	210.4	352.2	-1.21	1.096	88.8	265.6	-37.4	0.095
4-8130	4-8320	0.166	324.2	-16.7	-1.58	0.777	96.4	0.996	-0.027	4-8249	210.1	361.8	-0.88	1.094	90.3	257.1	-34.0	0.088
4-8130	4-8330	0.164	325.4	-17.4	-1.35	0.777	96.1	0.993	-0.023	4-8250	208.9	370.6	-0.63	1.091	91.7	249.9	-30.1	0.087
4-8130	4-8340	0.161	327.1	-17.7	-1.22	0.775	95.8	0.989	-0.021	4-8250	207.1	378.7	-0.44	1.087	92.9	245.5	-26.9	0.092
4-8130	4-8350	0.158	329.3	-17.8	-1.15	0.773	95.3	0.984	-0.019	4-8251	204.6	386.1	-0.31	1.083	94.0	244.1	-24.7	0.100
4-8130	4-8360	0.154	332.1	-17.4	-1.11	0.770	94.8	0.978	-0.019	4-8252	201.7	393.0	-0.21	1.078	95.0	245.1	-23.6	0.110
4-8130	4-8370	0.150	335.3	-16.7	-1.10	0.767	94.1	0.971	-0.018	4-8252	197.3	399.4	-0.15	1.073	96.0	247.9	-23.2	0.121
4-8140	4-8320	0.190	323.2	-17.0	-1.58	0.780	98.3	1.018	-0.028	4-8257	216.8	360.4	-1.03	1.100	90.6	252.4	-34.7	0.094
4-8140	4-8330	0.187	324.4	-17.5	-1.30	0.779	98.0	1.014	-0.023	4-8257	216.4	372.0	-0.75	1.096	92.0	246.1	-30.6	0.094
4-8140	4-8340	0.183	326.0	-17.8	-1.13	0.777	97.3	1.009	-0.020	4-8258	214.2	379.8	-0.55	1.092	93.2	242.8	-27.3	0.099
4-8140	4-8350	0.179	328.1	-17.8	-1.02	0.774	97.0	1.004	-0.018	4-8258	211.5	386.9	-0.41	1.087	94.3	242.2	-25.3	0.107
4-8140	4-8360	0.174	330.6	-17.5	-0.96	0.770	96.4	0.998	-0.017	4-8259	208.3	393.6	-0.32	1.082	95.3	243.8	-24.3	0.117
4-8140	4-8370	0.168	333.4	-16.9	-0.92	0.766	95.8	0.991	-0.016	4-8260	204.8	399.8	-0.27	1.077	96.3	247.1	-24.0	0.127
4-8150	4-8330	0.214	324.3	-17.3	-1.26	0.783	100.0	1.037	-0.023	4-8265	224.0	373.6	-0.87	1.104	92.4	241.8	-30.5	0.103
4-8150	4-8340	0.209	325.9	-17.5	-1.05	0.780	99.5	1.032	-0.019	4-8265	221.6	381.1	-0.65	1.099	93.7	239.7	-27.3	0.109
4-8150	4-8350	0.203	327.8	-17.4	-0.91	0.776	99.0	1.026	-0.016	4-8266	218.6	388.0	-0.51	1.093	94.8	240.1	-25.4	0.117
4-8150	4-8360	0.197	330.1	-17.1	-0.82	0.771	98.3	1.020	-0.014	4-8267	215.2	394.4	-0.41	1.087	95.8	242.4	-24.6	0.126
4-8150	4-8370	0.190	332.7	-16.6	-0.76	0.767	97.6	1.012	-0.013	4-8268	211.4	400.3	-0.36	1.081	96.7	246.1	-24.5	0.136
4-8150	4-8380	0.183	335.6	-15.8	-0.71	0.762	96.7	1.003	-0.012	4-8269	207.2	405.9	-0.35	1.076	97.5	250.9	-24.8	0.147
4-8160	4-8340	0.239	326.5	-17.0	-0.97	0.785	101.8	1.057	-0.018	4-8273	229.0	382.5	-0.75	1.107	94.2	236.6	-26.9	0.121
4-8160	4-8350	0.232	328.3	-16.8	-0.81	0.780	101.1	1.051	-0.015	4-8273	225.3	389.1	-0.59	1.101	95.3	237.9	-25.3	0.129
4-8160	4-8360	0.224	330.4	-16.5	-0.70	0.774	100.4	1.043	-0.013	4-8274	222.0	395.3	-0.49	1.094	96.3	240.8	-24.6	0.138
4-8160	4-8370	0.215	332.8	-16.0	-0.62	0.768	99.6	1.035	-0.011	4-8275	218.0	401.0	-0.43	1.087	97.2	245.0	-24.7	0.148
4-8160	4-8380	0.206	335.5	-15.3	-0.55	0.762	98.7	1.026	-0.010	4-8276	213.7	406.4	-0.42	1.081	98.0	250.2	-25.1	0.157
4-8160	4-8390	0.197	338.5	-14.3	-0.46	0.756	97.7	1.015	-0.008	4-8278	209.1	411.6	-0.46	1.074	98.8	256.1	-25.8	0.167
4-8170	4-8340	0.273	327.7	-16.3	-0.92	0.794	107.2	1.085	-0.017	4-8280	236.3	384.0	-0.83	1.118	94.9	233.7	-26.2	0.137
4-8170	4-8350	0.264	329.5	-16.1	-0.71	0.787	103.5	1.078	-0.013	4-8281	232.7	390.3	-0.66	1.111	96.0	235.8	-24.9	0.145
4-8170	4-8360	0.254	331.4	-15.7	-0.58	0.780	102.7	1.070	-0.011	4-8282	228.8	396.2	-0.55	1.103	97.0	239.3	-24.5	0.153
4-8170	4-8370	0.244	333.6	-15.2	-0.48	0.773	101.8	1.060	-0.009	4-8283	224.6	401.7	-0.49	1.095	97.9	243.9	-24.6	0.162
4-8170	4-8380	0.233	336.1	-14.5	-0.40	0.765	100.8	1.050	-0.007	4-8284	220.1	407.0	-0.48	1.086	98.6	249.4	-25.2	0.171
4-8170	4-8390	0.222	338.8	-13.6	-0.31	0.758	99.8	1.039	-0.005	4-8285	215.4	412.0	-0.52	1.080	99.4	255.5	-25.9	0.180
4-8180	4-8350	0.301	331.1	-15.2	-0.61	0.798	106.1	1.108	-0.012	4-8288	239.6	391.4	-0.72	1.123	96.8	234.0	-24.4	0.165
4-8180	4-8360	0.289	333.0	-14.8	-0.46	0.789	105.2	1.099	-0.009	4-8289	235.4	397.1	-0.60	1.114	97.8	238.0	-24.2	0.172
4-8180	4-8370	0.276	335.0	-14.3	-0.35	0.779	104.2	1.089	-0.007	4-8290	231.0	402.4	-0.54	1.105	98.7	242.9	-24.5	0.180
4-8180	4-8380	0.263	337.3	-13.6	-0.26	0.770	103.2	1.078	-0.005	4-8291	226.4	407.5	-0.53	1.096	99.4	248.6	-25.1	0.188
4-8180	4-8390	0.250	339.8	-12.8	-0.16	0.761	102.1	1.066	-0.003	4-8292	221.5	412.3	-0.56	1.088	100.1	255.0	-25.8	0.195
4-8180	4-8400	0.237	342.5	-11.7	-0.04	0.752	100.9	1.053	-0.001	4-8294	216.5	416.9	-0.65	1.080	100.7	261.8	-26.6	0.203
4-8190	4-8350	0.342	333.0	-14.2	-0.52	0.813	108.9	1.141	-0.010	4-8295	246.2	392.3	-0.77	1.139	97.8	232.6	-23.8	0.189
4-8190	4-8360	0.328	334.9	-13.7	-0.35	0.801	107.9	1.131	-0.007	4-8296	241.9	397.8	-0.65	1.128	98.7	236.9	-23.8	0.195
4-8190	4-8370	0.313	336.9	-13.2	-0.23	0.789	106.9	1.120	-0.004	4-8297	237.3	403.0	-0.58	1.117	99.6	242.1	-24.2	0.201
4-8190	4-8380	0.297	339.0	-12.5	-0.13	0.778	105.7	1.107	-0.002	4-8298	232.5	408.0	-0.56	1.107	100.3	248.0	-24.9	0.208
4-8190	4-8390	0.282	341.3	-11.7	-0.03	0.767	104.6	1.094	-0.001	4-8300	227.5	412.7	-0.59	1.097	100.9	254.5	-25.7	0.214
4-8190	4-8400	0.267	343.7	-10.8	0.09	0.756	103.3	1.080	0.002	4-8301	222.4	417.2	-0.67	1.088	101.5	261.5	-26.4	0.220
4-8200	4-8360	0.371	337.0	-12.6	-0.24	0.819	110.8	1.166	-0.005	4-8303	248.0	398.4	-0.68	1.146	99.8	236.1	-23.3	0.222
4-8200	4-8370	0.353	338.9	-12.0	-0.11	0.804	109.7	1.154	-0.002	4-8304	243.3	403.5	-0.61	1.133	100.6	241.5	-23.9	0.227
4-8200	4-8380	0.335	341.0	-11.3	-0.01	0.790	108.5	1.140	-0.000	4-8305	238.4	408.3	-0.59	1.120	101.3	247.5	-24.6	0.232
4-8200	4-8390	0.317	343.1	-10.5	0.09	0.776	107.2	1.126	0.002	4-8307	233.4	412.9	-0.61	1.109	101.9	254.1	-25.5	0.236
4-8200	4-8400	0.299	345.4	-9.6	0.21	0.763	105.9	1.111	0.004	4-8308	228.2	417.4	-0.68	1.098	102.4	261.2	-26.2	0.241
4-8200	4-8410	0.282	347.9	-8.6	0.37	0.751	104.4	1.095	0.007	4-8310	222.8	421.6	-0.81	1.088	102.9	268.6	-26.9	0.246
4-8210	4-8360	0.421	339.4	-11.4	-0.13	0.843	113.9	1.206	-0.003	4-8310	253.9	398.8	-0.69	1.168	101.0	235.6	-22.9	0.255
4-8210	4-8370	0.399	341.2	-10.8	0.01	0.824	112.7	1.192	0.000	4-8311	249.1	403.8	-0.62	1.152	101.8	241.1	-23.6	0.258
4-8210	4-8380	0.378	343.2	-10.1	0.11	0.806	111.5	1.177	0.002	4-8312	244.1	408.5	-0.60	1.137	102.5	247.2	-24.4	0.260
4-8210	4-8390	0.357	345.2	-9.3	0.21	0.789	110.1	1.161	0.004	4-8314	239.0	413.1	-0.62	1.123	103.0	253.9	-25.2	0.262
4-8210	4-8400	0.336	347.4	-8.4	0.32	0.774	108.7	1.144	0.006	4-8315	233.8	417.5	-0.68	1.110	103.5	261.0	-26.0	0.265
4-8210	4-8410	0.316	349.7	-7.4	0.47	0.759	107.2	1.127	0.009	4-8317	228.4	421.7	-0.80	1.099	103.9	268.5	-26.6	0.268
4-8220	4-8370	0.451	343.7	-9.5	0.13	0.851	115.9	1.234	0.003	4-8318	254.6	403.9	-0.62	1.177	103.1	241.0	-23.2	0.294
4-8220	4-8380	0.425	345.6	-8.8	0.23	0.829	114.6	1.217	0.005	4-8319	249.6	408.6	-0.60	1.158	103.8	247.1	-24.1	0.293
4-8220	4-8390	0.401	347.6	-8.0	0.33	0.808	113.2	1.199	0.007	4-8321	244.4	413.1	-0.62	1.141	104.3	253.7	-25.0	0.293
4-8220	4-8400	0.377	349.6	-7.1	0.43	0.789	111.7	1.181	0.009	4-8322	239.2	417.5	-0.68	1.126	104.7	260.9	-25.7	0.293
4-8220	4-8410	0.353	351.8	-6.2	0.56	0.771	110.1	1.162	0.011	4-8324	233.7	421.6	-0.79	1.112	105.0	268.4	-26.3	0.294
4-8220	4-8420	0.330	354.2	-5.1	0.75	0.754	108.4	1.142	0.015	4-8326	228.2	425.7	-0.95	1.100	105.3	276.2	-26.8	0.295
4-8230	4-8370	0.510	346.2	-8.2	0.26	0.886	119.2	1.280	0.006	4-8325	259.8	403.8	-0.60	1.207	104.6	241.1	-22.9	0.337
4-8230	4-8380	0.479	348.1	-7.4	0.35	0.858	117.8	1.261	0.008	4-8326	254.8	408.5	-0.59	1.184	105.2	247.1	-23.8	0.333
4-8230	4-8390	0.450	350.1	-6.6	0.44	0.832	116.4	1.242	0.009	4-8327	249.6	413.0	-0.61	1.164	105.7	253.8	-24.7	0.329
4-8230	4-8400	0.422	352.1	-5.8	0.53	0.809	114.8	1.221	0.011	4-8329	244.3	417.3	-0.67	1.145	106.1	260.9	-25.4	0.326
4-8230	4-8410	0.395	354.1	-4.8	0.66	0.787	113.1	1.200	0.013	4-8331	238.9	421.5	-0.77	1.129	106.3	268.3	-26.0	0.324

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-8230	4-8420	0.369	358.4	-3.8	0.82	0.767	111.4	1.177	0.011	4-8333	233.3	425.4	-0.52	1.114	106.6	276.1	-26.4	0.323
4-8240	4-8380	0.540	350.7	-6.0	0.47	0.837	121.2	1.314	0.011	4-8333	259.7	408.2	-0.56	1.217	106.8	247.4	-23.6	0.379
4-8240	4-8390	0.506	352.6	-5.2	0.55	0.865	119.7	1.289	0.012	4-8334	254.6	412.7	-0.59	1.192	107.2	254.0	-24.5	0.372
4-8240	4-8400	0.473	354.6	-4.4	0.63	0.835	118.1	1.266	0.014	4-8336	249.3	417.1	-0.65	1.169	107.6	261.0	-25.2	0.365
4-8240	4-8410	0.442	356.6	-3.5	0.74	0.809	116.4	1.243	0.016	4-8337	243.8	421.2	-0.75	1.149	107.8	268.4	-25.7	0.359
4-8240	4-8420	0.411	358.7	-2.5	0.99	0.785	114.6	1.219	0.019	4-8339	238.3	425.3	-0.39	1.131	107.9	276.2	-26.0	0.354
4-8240	4-8430	0.382	1.0	-1.4	1.11	0.763	112.7	1.195	0.022	4-8342	232.6	429.1	-1.09	1.115	108.1	284.1	-26.1	0.351
4-8250	4-8390	0.569	355.3	-3.8	0.66	0.906	123.0	1.342	0.015	4-8341	259.3	412.3	-0.56	1.227	108.9	254.3	-24.2	0.421
4-8250	4-8400	0.530	357.2	-3.0	0.73	0.870	121.4	1.316	0.017	4-8342	254.0	416.7	-0.63	1.199	109.2	261.3	-24.9	0.410
4-8250	4-8410	0.494	359.2	-2.1	0.83	0.838	119.7	1.290	0.018	4-8344	248.6	420.9	-0.72	1.174	109.4	268.6	-25.4	0.400
4-8250	4-8420	0.459	1.2	-1.1	0.96	0.808	117.9	1.264	0.021	4-8346	243.1	424.9	-0.85	1.152	109.5	276.2	-25.7	0.391
4-8250	4-8430	0.426	3.4	-0.1	1.15	0.782	115.9	1.237	0.024	4-8348	237.4	428.8	-1.04	1.133	109.5	284.2	-25.7	0.384
4-8250	4-8440	0.394	5.7	1.1	1.43	0.758	113.9	1.210	0.029	4-8351	231.7	432.6	-1.31	1.116	109.5	292.3	-25.5	0.379
4-8260	4-8390	0.642	357.9	-2.4	0.78	0.958	126.4	1.403	0.019	4-8347	263.8	411.8	-0.91	1.270	110.7	254.9	-24.0	0.480
4-8260	4-8400	0.596	359.9	-1.5	0.83	0.914	124.8	1.372	0.020	4-8349	258.5	416.2	-0.80	1.235	111.0	261.7	-24.7	0.462
4-8260	4-8410	0.553	1.8	-0.6	0.91	0.875	123.1	1.343	0.021	4-8350	252.1	420.4	-0.89	1.205	111.1	268.9	-25.2	0.447
4-8260	4-8420	0.513	3.8	0.3	1.02	0.839	121.3	1.313	0.023	4-8352	247.7	424.5	-0.82	1.178	111.1	276.5	-25.4	0.434
4-8260	4-8430	0.475	5.9	1.3	1.19	0.807	119.3	1.283	0.026	4-8353	242.1	428.4	-0.99	1.159	111.1	284.4	-25.3	0.423
4-8260	4-8440	0.439	8.1	2.4	1.43	0.778	117.2	1.256	0.030	4-8357	236.4	432.2	-1.22	1.134	111.0	292.4	-25.0	0.414
4-8270	4-8400	0.671	2.6	-0.1	0.93	0.970	128.3	1.434	0.023	4-8355	262.8	415.5	-0.55	1.281	112.9	262.3	-24.5	0.525
4-8270	4-8410	0.620	4.5	0.8	0.99	0.921	126.6	1.402	0.024	4-8357	257.5	[illegible]	-0.66	1.243	113.0	269.4	-24.9	0.503
4-8270	4-8420	0.573	6.5	1.7	1.08	0.878	124.7	1.369	0.025	4-8359	252.1	42[illegible]	-0.78	1.210	112.9	276.9	-25.1	0.484
4-8270	4-8430	0.529	8.5	2.7	1.23	0.839	122.7	1.335	0.028	4-8361	246.5	427.9	-0.94	1.182	112.8	284.6	-25.0	0.467
4-8270	4-8440	0.488	10.6	3.7	1.44	0.805	120.6	1.302	0.032	4-8364	240.9	431.8	-1.15	1.157	112.7	292.5	-24.6	0.453
4-8270	4-8450	0.450	12.9	4.8	1.75	0.773	118.4	1.269	0.037	4-8366	235.1	435.5	-1.46	1.136	112.5	300.6	-24.0	0.442
4-8280	4-8400	0.757	5.3	1.3	1.04	1.040	131.6	1.504	0.027	4-8361	267.0	414.8	-0.48	1.338	115.0	263.0	-24.3	0.598
4-8280	4-8410	0.677	7.3	2.2	1.06	0.970	130.0	1.467	0.027	4-8363	261.7	419.1	-0.61	1.291	115.0	270.9	-24.7	0.568
4-8280	4-8420	0.642	9.2	3.1	1.14	0.927	128.2	1.430	0.028	4-8365	256.3	423.3	-0.74	1.250	114.9	277.3	-24.8	0.542
4-8280	4-8430	0.591	11.2	4.0	1.27	0.887	126.2	1.393	0.030	4-8367	250.8	427.3	-0.89	1.215	114.7	284.9	-24.6	0.519
4-8280	4-8440	0.544	13.3	5.0	1.45	0.839	124.1	1.356	0.033	4-8370	245.2	431.2	-1.09	1.185	114.5	292.8	-24.2	0.499
4-8280	4-8450	0.500	15.4	6.0	1.72	0.801	121.9	1.319	0.038	4-8372	239.4	435.0	-1.35	1.159	114.2	300.8	-23.5	0.483
4-8290	4-8410	0.786	10.0	3.6	1.15	1.053	133.3	1.541	0.031	4-8369	265.7	418.3	-0.56	1.351	117.2	270.7	-24.5	0.645
4-8290	4-8420	0.721	12.0	4.5	1.20	0.983	131.6	1.509	0.031	4-8371	260.4	422.5	-0.70	1.300	117.0	277.9	-24.6	0.610
4-8290	4-8430	0.661	14.0	5.4	1.30	0.932	129.7	1.457	0.032	4-8373	254.9	426.6	-0.85	1.256	116.8	285.4	-24.4	0.579
4-8290	4-8440	0.607	16.0	6.4	1.46	0.881	127.7	1.416	0.035	4-8376	249.4	430.6	-1.03	1.219	116.4	293.1	-23.8	0.553
4-8290	4-8450	0.556	18.1	7.3	1.70	0.837	125.4	1.379	0.039	4-8379	243.7	434.4	-1.27	1.188	116.0	301.0	-23.0	0.530
4-8300	4-8420	0.813	14.8	5.9	1.25	1.065	135.0	1.578	0.034	4-8377	264.2	421.7	-0.66	1.362	119.3	278.5	-24.3	0.690
4-8300	4-8430	0.742	16.8	6.9	1.33	0.995	133.2	1.530	0.035	4-8379	258.9	425.8	-0.81	1.308	118.9	285.9	-24.1	0.650
4-8300	4-8440	0.678	18.8	7.7	1.47	0.935	131.2	1.483	0.037	4-8382	253.4	429.9	-0.98	1.262	118.5	293.5	-23.5	0.615
4-8300	4-8450	0.620	20.9	8.6	1.67	0.881	129.0	1.437	0.041	4-8385	247.8	433.8	-1.19	1.223	118.0	301.2	-22.6	0.585
4-8300	4-8460	0.566	23.0	9.6	1.98	0.834	126.7	1.393	0.046	4-8388	242.0	437.6	-1.49	1.189	117.5	309.1	-21.5	0.560
4-8310	4-8430	0.836	19.6	8.1	1.35	1.074	136.5	1.613	0.038	4-8385	262.7	424.9	-0.77	1.371	121.3	286.5	-23.8	0.733
4-8310	4-8440	0.760	21.6	9.0	1.47	1.000	134.6	1.559	0.039	4-8388	257.2	429.0	-0.94	1.314	120.8	293.9	-23.2	0.688
4-8310	4-8450	0.693	23.7	9.9	1.65	0.936	132.5	1.507	0.042	4-8391	251.7	433.0	-1.13	1.266	120.2	301.6	-22.2	0.649
4-8310	4-8460	0.631	25.8	10.8	1.92	0.880	130.2	1.457	0.047	4-8394	246.0	436.9	-1.39	1.225	119.6	309.3	-21.0	0.616
4-8320	4-8440	0.856	24.5	10.3	1.47	1.082	138.0	1.646	0.042	4-8394	261.0	428.1	-0.90	1.377	123.2	294.5	-22.9	0.773
4-8320	4-8450	0.776	26.6	11.2	1.63	1.004	136.0	1.586	0.044	4-8396	255.5	432.2	-1.08	1.319	122.5	302.5	-21.9	0.724
4-8320	4-8460	0.704	28.7	12.0	1.86	0.936	133.8	1.529	0.048	4-8399	249.9	436.1	-1.31	1.269	121.8	309.7	-20.6	0.681
4-8330	4-8450	0.873	29.5	12.4	1.60	1.087	139.3	1.677	0.046	4-8402	259.2	431.3	-1.04	1.386	125.0	302.6	-21.6	0.812
4-8330	4-8460	0.789	31.6	13.2	1.80	1.006	137.3	1.611	0.049	4-8405	253.6	435.3	-1.24	1.324	124.2	310.0	-20.2	0.757
4-8330	4-8470	0.714	33.8	14.1	2.10	0.935	135.0	1.549	0.054	4-8408	248.0	439.2	-1.51	1.271	123.4	317.6	-18.7	0.711
4-8340	4-8460	0.887	34.6	14.4	1.74	1.091	140.6	1.705	0.051	4-8411	257.3	434.4	-1.19	1.391	126.7	310.5	-19.9	0.847
4-8340	4-8470	0.799	36.7	15.2	2.01	1.006	138.5	1.634	0.055	4-8414	251.7	438.4	-1.43	1.326	125.8	318.0	-18.2	0.789
4-8340	4-8480	0.721	39.0	16.0	2.33	0.931	136.1	1.567	0.062	4-8417	246.0	442.2	-1.76	1.272	124.9	325.6	-16.4	0.740
4-8890	4-9090	0.177	357.9	-6.0	-0.28	0.745	96.0	0.972	-0.005	4-9018	204.7	352.9	-0.81	1.096	88.8	319.3	-24.6	0.107
4-8890	4-9100	0.175	358.2	-6.5	-0.10	0.745	95.8	0.970	-0.002	4-9019	204.3	362.3	-0.65	1.094	90.4	311.2	-25.5	0.100
4-8890	4-9110	0.172	359.1	-6.5	0.03	0.745	95.6	0.966	0.000	4-9019	203.2	370.9	-0.57	1.091	91.8	303.8	-26.1	0.101
4-8890	4-9120	0.168	0.3	-6.2	0.13	0.743	95.2	0.962	0.002	4-9020	201.3	378.7	-0.56	1.087	93.1	299.0	-26.5	0.107
4-8890	4-9130	0.163	2.0	-5.5	0.23	0.741	94.7	0.957	0.004	4-9021	198.9	385.9	-0.61	1.084	94.3	297.0	-26.8	0.117
4-8890	4-9140	0.158	4.2	-4.4	0.36	0.737	94.0	0.950	0.006	4-9022	196.0	392.6	-0.72	1.080	95.4	297.7	-27.1	0.130
4-8900	4-9100	0.198	358.2	-5.9	0.03	0.746	97.9	0.992	0.000	4-9026	211.9	364.4	-0.65	1.100	90.8	306.3	-26.2	0.106
4-8900	4-9110	0.194	359.0	-5.9	0.16	0.745	97.6	0.988	0.003	4-9027	210.4	372.7	-0.56	1.096	92.2	299.7	-26.5	0.108
4-8900	4-9120	0.189	0.3	-5.6	0.25	0.742	97.1	0.984	0.004	4-9027	208.3	380.2	-0.55	1.092	93.5	295.8	-26.6	0.115
4-8900	4-9130	0.183	1.9	-4.9	0.35	0.739	96.6	0.978	0.006	4-9028	205.6	387.2	-0.59	1.088	94.7	294.8	-26.7	0.125
4-8900	4-9140	0.177	3.8	-3.9	0.47	0.735	95.9	0.971	0.008	4-9029	202.4	393.6	-0.69	1.084	95.8	296.1	-26.8	0.137
4-8900	4-9150	0.169	6.3	-2.6	0.65	0.731	95.1	0.963	0.011	4-9030	198.9	399.6	-0.87	1.080	96.8	299.3	-27.0	0.151
4-8910	4-9100	0.224	358.6	-5.2	0.15	0.749	100.2	1.017	0.003	4-9033	219.6	366.8	-0.64	1.107	91.3	300.9	-26.8	0.113
4-8910	4-9110	0.219	359.6	-5.1	0.28	0.747	99.8	1.013	0.005	4-9034	217.8	374.7	-0.55	1.103	92.7	295.3	-26.7	0.117
4-8910	4-9120	0.213	0.8	-4.7	0.38	0.744	99.3	1.007	0.006	4-9035	215.4	381.9	-0.53	1.099	96.0	292.5	-26.6	0.125
4-8910	4-9130	0.206	2.3	-4.0	0.46	0.739	98.7	1.001	0.008	4-9036	212.4	388.6	-0.57	1.094	95.2	292.4	-26.5	0.135
4-8910	4-9140	0.198	4.2	-3.1	0.57	0.735	97.9	0.993	0.010	4-9037	208.9	394.7	-0.66	1.089	96.3	294.4	-26.5	0.147
4-8910	4-9150	0.189	6.4	-2.0	0.73	0.730	97.1	0.985	0.012	4-9038	205.1	400.5	-0.82	1.085	97.3	298.1	-26.5	0.160
4-8920	4-9110	0.247	0.5	-4.1	0.41	0.752	102.2	1.039	0.007	4-9041	225.1	376.7	-0.53	1.112	93.3	290.8	-26.7	0.129
4-8920	4-9120	0.239	1.8	-3.7	0.50	0.747	101.6	1.033	0.009	4-9042	222.4	383.7	-0.51	1.106	94.7	289.2	-26.5	0.137
4-8920	4-9130	0.231	3.3	-3.0	0.58	0.742	100.9	1.026	0.010	4-9043	219.1	390.0	-0.55	1.101	95.8	290.0	-26.3	0.148
4-8920	4-9140	0.222	5.0	-2.2	0.68	0.736	100.1	1.017	0.012	4-9044	215.4	395.9	-0.63	1.095	96.9	292.7	-26.2	0.159
4-8920	4-9150	0.212	7.1	-1.1	0.81	0.730	99.2	1.006	0.014	4-9045	211.4	401.5	-0.77	1.090	97.8	296.8	-26.1	0.172
4-8920	4-9160	0.201	9.5	0.2	1.01	0.724	98.2	0.998	0.017	4-9046	207.1	406.7	-0.97	1.085	98.7	301.9	-26.0	0.184
4-8930	4-9110	0.278	1.9	-3.0	0.54	0.761	104.9	1.068	0.010	4-9048	232.3	378.8	-0.50	1.122	94.1	286.5	-26.5	0.144
4-8930	4-9120	0.269	3.1	-2.6	0.62	0.754	104.2	1.061	0.011	4-9049	229.2	385.4	-0.49	1.116	95.4	286.0	-26.2	0.152

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-8930	4-9130	0.259	4.6	-1.3	0.69	0.747	103.4	1.053	0.013	4-9050	225.7	391.5	-0.52	1.110	96.5	287.7	-26.0	0.163
4-8930	4-9140	0.248	6.3	-1.1	0.78	0.740	102.5	1.044	0.014	4-9051	221.8	397.1	-0.59	1.103	97.6	291.0	-25.8	0.174
4-8930	4-9150	0.237	8.2	-0.1	0.89	0.732	101.9	1.034	0.016	4-9052	217.6	402.5	-0.72	1.097	98.5	295.5	-25.6	0.186
4-8930	4-9160	0.224	10.5	1.1	1.06	0.725	100.4	1.023	0.018	4-9054	213.1	407.5	-0.90	1.091	99.3	300.9	-25.4	0.197
4-8940	4-9120	0.302	4.8	-1.4	0.75	0.765	106.9	1.092	0.014	4-9056	236.0	387.0	-0.45	1.128	96.2	283.2	-25.8	0.171
4-8940	4-9130	0.290	6.2	-0.7	0.81	0.756	106.0	1.083	0.015	4-9057	232.2	392.8	-0.48	1.120	97.3	285.6	-25.6	0.181
4-8940	4-9140	0.278	7.9	0.0	0.88	0.747	105.0	1.073	0.016	4-9058	228.0	398.3	-0.55	1.113	98.4	289.4	-25.5	0.192
4-8940	4-9150	0.264	9.7	1.0	0.97	0.738	104.0	1.061	0.018	4-9059	223.6	403.4	-0.66	1.105	99.3	294.3	-25.2	0.202
4-8940	4-9160	0.250	11.8	2.1	1.12	0.728	102.8	1.049	0.020	4-9061	219.0	408.3	-0.83	1.098	100.1	299.9	-24.9	0.213
4-8940	4-9170	0.236	14.2	3.4	1.34	0.719	101.6	1.036	0.024	4-9062	214.1	413.0	-1.07	1.092	100.8	306.2	-24.6	0.224
4-8950	4-9120	0.340	6.6	-0.1	0.88	0.781	109.7	1.125	0.017	4-9063	242.4	388.4	-0.40	1.143	97.1	280.8	-25.4	0.194
4-8950	4-9130	0.325	8.1	0.5	0.92	0.769	108.8	1.115	0.018	4-9064	239.4	394.0	-0.44	1.134	98.3	283.6	-25.3	0.203
4-8950	4-9140	0.310	9.7	1.3	0.98	0.757	107.8	1.104	0.018	4-9065	234.1	399.3	-0.51	1.124	99.3	288.0	-25.1	0.212
4-8950	4-9150	0.294	11.5	2.2	1.06	0.746	106.6	1.092	0.020	4-9066	229.5	404.3	-0.61	1.115	100.1	293.2	-24.8	0.221
4-8950	4-9160	0.278	13.5	3.2	1.18	0.735	105.4	1.079	0.022	4-9067	224.7	409.1	-0.76	1.107	100.9	297.0	-24.4	0.231
4-8950	4-9170	0.262	15.7	4.4	1.36	0.723	104.1	1.064	0.025	4-9069	219.7	413.6	-0.97	1.099	101.6	305.5	-23.9	0.240
4-8960	4-9130	0.364	10.1	1.8	1.04	0.787	111.7	1.150	0.021	4-9070	244.4	395.1	-0.38	1.150	99.3	282.2	-24.9	0.229
4-8960	4-9140	0.346	11.7	2.5	1.08	0.777	110.6	1.138	0.021	4-9071	239.9	400.2	-0.46	1.139	100.3	286.6	-24.7	0.236
4-8960	4-9150	0.328	13.5	3.4	1.14	0.768	109.4	1.125	0.022	4-9073	235.2	405.1	-0.56	1.129	101.1	292.2	-24.5	0.244
4-8960	4-9160	0.310	15.4	4.4	1.24	0.744	108.1	1.110	0.023	4-9074	230.3	409.7	-0.70	1.118	101.9	298.3	-24.0	0.252
4-8960	4-9170	0.291	17.5	5.5	1.39	0.731	106.3	1.095	0.026	4-9076	225.2	414.2	-0.89	1.109	102.5	304.8	-23.4	0.259
4-8960	4-9180	0.272	20.0	6.7	1.63	0.718	105.2	1.078	0.030	4-9078	220.0	418.4	-1.15	1.100	103.1	311.7	-22.7	0.268
4-8970	4-9130	0.408	12.3	3.1	1.16	0.810	114.8	1.159	0.024	4-9077	250.1	396.0	-0.31	1.170	100.5	281.0	-24.4	0.259
4-8970	4-9140	0.387	13.9	3.8	1.18	0.792	113.6	1.175	0.024	4-9078	245.6	401.0	-0.40	1.156	101.4	285.8	-24.4	0.265
4-8970	4-9150	0.366	15.6	4.7	1.22	0.775	112.4	1.160	0.024	4-9079	240.7	405.7	-0.51	1.143	102.2	291.4	-24.1	0.271
4-8970	4-9160	0.345	17.5	5.6	1.30	0.758	111.0	1.145	0.025	4-9081	235.8	410.3	-0.64	1.131	102.9	297.6	-23.8	0.276
4-8970	4-9170	0.323	19.6	6.6	1.42	0.742	109.5	1.128	0.027	4-9083	230.6	414.7	-0.81	1.120	103.5	304.2	-22.9	0.282
4-8970	4-9180	0.302	21.8	7.7	1.62	0.727	108.0	1.110	0.030	4-9085	225.2	418.9	-1.04	1.110	104.1	311.1	-22.1	0.288
4-8980	4-9140	0.432	16.2	5.1	1.28	0.818	116.7	1.216	0.027	4-9085	250.9	401.6	-0.33	1.178	102.7	285.1	-24.0	0.298
4-8980	4-9150	0.408	17.9	5.9	1.30	0.797	115.4	1.200	0.027	4-9086	246.0	406.2	-0.44	1.162	103.4	290.8	-23.7	0.301
4-8980	4-9160	0.383	19.8	6.8	1.36	0.776	114.0	1.182	0.027	4-9087	241.0	410.7	-0.58	1.147	104.1	297.1	-23.3	0.304
4-8980	4-9170	0.359	21.8	7.8	1.46	0.757	112.5	1.164	0.029	4-9089	235.7	415.0	-0.74	1.134	104.6	303.7	-22.5	0.308
4-8980	4-9180	0.335	24.0	8.8	1.62	0.739	110.8	1.144	0.031	4-9091	230.4	419.2	-0.94	1.122	105.1	310.7	-21.6	0.312
4-8980	4-9190	0.312	26.4	10.0	1.88	0.722	109.1	1.124	0.036	4-9093	224.8	423.2	-1.23	1.111	105.6	317.9	-20.6	0.316
4-8990	4-9140	0.484	18.6	6.4	1.39	0.851	119.9	1.261	0.030	4-9091	256.0	401.9	-0.25	1.205	104.0	284.7	-23.6	0.337
4-8990	4-9150	0.455	20.3	7.2	1.38	0.825	118.5	1.243	0.030	4-9092	251.1	406.6	-0.38	1.185	104.8	290.4	-23.4	0.337
4-8990	4-9160	0.426	22.2	8.1	1.42	0.800	117.1	1.223	0.030	4-9094	246.0	411.0	-0.51	1.167	105.4	296.7	-22.9	0.337
4-8990	4-9170	0.399	24.1	9.0	1.49	0.777	115.5	1.203	0.031	4-9096	240.7	415.3	-0.66	1.151	105.9	303.4	-22.1	0.338
4-8990	4-9180	0.372	26.2	10.0	1.63	0.755	113.8	1.182	0.033	4-9098	234.3	419.4	-0.86	1.136	106.3	310.3	-21.1	0.339
4-8990	4-9190	0.345	28.6	11.1	1.84	0.735	112.0	1.160	0.036	4-9100	228.8	423.4	-1.11	1.124	106.7	317.5	-20.0	0.341
4-9000	4-9150	0.508	22.8	8.4	1.47	0.861	121.7	1.290	0.033	4-9099	256.0	406.8	-0.30	1.213	106.3	290.2	-23.1	0.379
4-9000	4-9160	0.475	24.7	9.3	1.47	0.830	120.2	1.268	0.032	4-9100	250.8	411.2	-0.44	1.191	106.8	296.5	-22.6	0.375
4-9000	4-9170	0.443	26.6	10.2	1.53	0.802	118.6	1.246	0.033	4-9102	245.6	415.4	-0.60	1.172	107.3	303.1	-21.8	0.372
4-9000	4-9180	0.412	28.7	11.1	1.64	0.776	116.9	1.223	0.034	4-9104	240.1	419.5	-0.77	1.154	107.6	310.1	-20.7	0.370
4-9000	4-9190	0.382	30.9	12.1	1.82	0.752	115.1	1.199	0.037	4-9106	234.6	423.5	-1.00	1.138	107.9	317.2	-19.5	0.369
4-9000	4-9200	0.353	33.4	13.2	2.10	0.730	113.1	1.174	0.041	4-9108	228.9	427.4	-1.30	1.125	108.2	324.6	-18.1	0.369
4-9010	4-9150	0.568	25.3	9.7	1.56	0.905	124.9	1.342	0.036	4-9105	260.6	406.8	-0.21	1.248	107.8	290.2	-22.7	0.428
4-9010	4-9160	0.529	27.2	10.5	1.54	0.869	123.4	1.318	0.035	4-9106	255.5	411.2	-0.37	1.221	108.4	296.4	-22.3	0.419
4-9010	4-9170	0.492	29.2	11.4	1.56	0.835	121.8	1.293	0.035	4-9108	250.2	415.5	-0.53	1.197	108.8	303.0	-21.5	0.412
4-9010	4-9180	0.457	31.2	12.2	1.65	0.804	120.1	1.267	0.036	4-9110	244.8	419.6	-0.70	1.175	109.1	309.9	-20.4	0.406
4-9010	4-9190	0.423	33.4	13.2	1.79	0.775	118.2	1.241	0.038	4-9112	239.2	423.6	-0.90	1.157	109.3	317.0	-19.0	0.402
4-9010	4-9200	0.391	35.8	14.2	2.03	0.749	116.2	1.214	0.041	4-9115	233.5	427.4	-1.17	1.140	109.5	324.3	-17.5	0.390
4-9020	4-9160	0.592	29.8	11.7	1.60	0.916	126.6	1.373	0.038	4-9113	259.9	411.1	-0.29	1.258	110.1	296.5	-21.9	0.471
4-9020	4-9170	0.549	31.8	12.5	1.60	0.875	125.0	1.345	0.037	4-9114	254.6	415.3	-0.46	1.228	110.4	303.1	-21.1	0.459
4-9020	4-9180	0.508	33.8	13.4	1.66	0.838	123.3	1.317	0.037	4-9116	249.2	419.6	-0.62	1.201	110.6	309.9	-20.0	0.448
4-9020	4-9190	0.469	36.0	14.3	1.78	0.804	121.4	1.288	0.039	4-9118	243.7	423.5	-0.81	1.179	110.8	316.9	-18.6	0.439
4-9020	4-9200	0.433	38.3	15.2	1.97	0.773	119.4	1.258	0.042	4-9121	238.0	427.4	-1.05	1.158	110.9	324.1	-17.0	0.432
4-9020	4-9210	0.397	40.9	16.2	2.27	0.744	117.3	1.229	0.047	4-9123	232.2	431.2	-1.37	1.141	111.0	331.5	-15.3	0.426
4-9030	4-9160	0.663	32.5	12.9	1.67	0.974	129.7	1.433	0.042	4-9119	264.1	410.8	-0.20	1.303	111.8	296.8	-21.6	0.531
4-9030	4-9170	0.612	34.5	13.7	1.64	0.925	128.2	1.403	0.040	4-9120	258.9	415.1	-0.39	1.266	112.2	303.3	-20.8	0.513
4-9030	4-9180	0.565	36.6	14.5	1.67	0.880	126.5	1.371	0.039	4-9122	253.5	419.3	-0.55	1.233	112.3	310.0	-19.7	0.496
4-9030	4-9190	0.521	38.7	15.3	1.76	0.839	124.6	1.339	0.040	4-9125	248.0	423.3	-0.73	1.205	112.4	317.0	-18.3	0.482
4-9030	4-9200	0.479	41.0	16.2	1.92	0.803	122.6	1.306	0.042	4-9127	242.4	427.2	-0.94	1.181	112.4	324.1	-16.6	0.470
4-9030	4-9210	0.440	43.4	17.1	2.17	0.769	120.5	1.274	0.046	4-9130	236.6	431.0	-1.22	1.160	112.4	331.3	-14.8	0.460
4-9040	4-9160	0.746	35.2	14.0	1.76	1.046	132.8	1.501	0.046	4-9125	268.2	410.3	-0.08	1.359	113.7	297.3	-21.3	0.602
4-9040	4-9170	0.686	37.3	14.8	1.67	0.986	131.3	1.467	0.043	4-9126	263.0	414.7	-0.31	1.313	114.0	303.6	-20.5	0.576
4-9040	4-9180	0.631	39.3	15.5	1.68	0.932	129.7	1.432	0.041	4-9128	257.7	418.9	-0.48	1.273	114.2	310.2	-19.4	0.552
4-9040	4-9190	0.580	41.5	16.3	1.74	0.883	127.9	1.396	0.042	4-9130	252.2	423.0	-0.66	1.238	114.2	317.1	-17.9	0.532
4-9040	4-9200	0.532	43.7	17.1	1.87	0.840	125.9	1.360	0.043	4-9133	246.6	426.9	-0.85	1.208	114.1	324.1	-16.2	0.514
4-9040	4-9210	0.487	46.1	18.0	2.08	0.800	123.8	1.324	0.046	4-9136	240.9	430.8	-1.09	1.183	114.0	331.3	-14.3	0.500
4-9050	4-9170	0.771	40.0	15.8	1.72	1.060	134.3	1.538	0.046	4-9132	266.9	414.2	-0.22	1.371	116.0	304.1	-20.2	0.650
4-9050	4-9180	0.706	42.2	16.6	1.68	0.995	132.8	1.492	0.044	4-9134	261.7	418.5	-0.42	1.321	116.1	310.6	-19.1	0.618
4-9050	4-9190	0.646	44.4	17.3	1.72	0.937	131.0	1.459	0.043	4-9136	256.3	422.6	-0.59	1.278	116.1	317.3	-17.6	0.590
4-9050	4-9200	0.591	46.6	18.1	1.83	0.885	129.1	1.418	0.044	4-9139	250.7	426.6	-0.77	1.242	115.9	324.2	-15.8	0.566
4-9050	4-9210	0.540	48.9	18.8	2.00	0.839	127.0	1.378	0.046	4-9141	245.0	430.5	-0.98	1.210	115.7	331.3	-13.9	0.545
4-9050	4-9220	0.493	51.5	19.6	2.26	0.797	124.8	1.339	0.051	4-9144	239.2	434.3	-1.26	1.183	115.5	338.5	-11.8	0.527
4-9060	4-9180	0.793	45.0	17.6	1.69	1.072	135.8	1.574	0.046	4-9140	265.5	417.9	-0.35	1.382	118.2	311.0	-18.8	0.695
4-9060	4-9190	0.723	47.3	18.3	1.70	1.002	134.2	1.529	0.045	4-9142	260.2	422.1	-0.53	1.328	118.1	317.6	-17.3	0.658
4-9060	4-9200	0.659	49.5	19.0	1.78	0.940	132.3	1.484	0.045	4-9145	254.7	426.1	-0.69	1.283	117.9	324.4	-15.5	0.625
4-9060	4-9210	0.601	51.9	19.7	1.92	0.885	130.3	1.439	0.047	4-9147	249.0	430.1	-0.88	1.245	117.6	331.4	-13.5	0.597

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-9060	4-9120	0.547	54.3	20.4	2.14	0.836	128.1	1.396	0.050	4-9150	243.3	433.9	-1.13	1.212	117.2	338.5	-11.3	0.573
4-9070	4-9130	0.813	50.2	19.2	1.68	1.082	137.2	1.608	0.047	4-9148	263.9	421.4	-0.47	1.390	120.3	318.1	-17.0	0.738
4-9070	4-9200	0.738	52.5	19.8	1.73	1.007	135.5	1.558	0.046	4-9150	258.5	425.6	-0.63	1.334	120.0	324.8	-15.2	0.695
4-9070	4-9210	0.670	54.9	20.4	1.85	0.942	133.5	1.507	0.047	4-9153	252.9	429.6	-0.80	1.286	119.6	331.6	-13.1	0.658
4-9070	4-9220	0.608	57.3	21.1	2.03	0.884	131.4	1.458	0.050	4-9156	247.2	433.5	-1.01	1.246	119.1	338.6	-10.9	0.627
4-9070	4-9230	0.551	59.9	21.8	2.32	0.837	129.0	1.411	0.054	4-9159	241.4	437.3	-1.29	1.212	118.7	345.8	-8.6	0.600
4-9080	4-9200	0.829	55.6	20.6	1.68	1.086	138.5	1.641	0.048	4-9156	262.2	424.9	-0.58	1.397	122.2	325.2	-14.8	0.777
4-9080	4-9210	0.749	57.9	21.2	1.78	1.010	136.6	1.584	0.048	4-9158	256.7	429.0	-0.73	1.338	121.7	331.9	-12.8	0.729
4-9080	4-9220	0.678	60.3	21.8	1.93	0.941	134.6	1.528	0.050	4-9161	251.1	432.9	-0.91	1.288	121.2	338.8	-10.5	0.689
4-9080	4-9230	0.613	62.9	22.3	2.17	0.880	132.3	1.475	0.053	4-9165	245.3	436.8	-1.15	1.246	120.6	345.9	-8.1	0.654
4-9090	4-9200	0.842	61.0	21.9	1.70	1.093	139.7	1.670	0.049	4-9164	260.4	428.3	-0.68	1.402	124.0	332.3	-12.4	0.813
4-9090	4-9220	0.758	63.5	22.4	1.83	1.011	137.7	1.608	0.050	4-9167	254.8	432.3	-0.83	1.340	123.4	339.1	-10.1	0.761
4-9090	4-9230	0.683	66.0	22.9	2.03	0.939	135.6	1.547	0.053	4-9170	249.1	436.2	-1.03	1.289	122.7	346.1	-7.7	0.717
4-9090	4-9240	0.615	68.7	23.4	2.32	0.876	133.2	1.490	0.057	4-9173	243.3	440.1	-1.31	1.245	122.0	353.2	-5.2	0.679
4-9640	4-9850	0.159	27.6	5.6	0.86	0.712	95.4	0.948	0.014	4-9778	199.3	343.3	-0.49	1.099	86.9	356.6	-6.0	0.130
4-9640	4-9860	0.157	27.2	5.2	0.96	0.714	95.4	0.946	0.016	4-9778	199.5	353.2	-0.42	1.098	88.8	350.5	-8.4	0.116
4-9640	4-9870	0.155	27.5	5.3	1.03	0.714	95.2	0.943	0.017	4-9779	199.0	362.2	-0.42	1.097	90.4	343.8	-11.4	0.111
4-9640	4-9880	0.152	28.3	5.8	1.09	0.713	94.8	0.940	0.017	4-9780	197.7	370.5	-0.49	1.095	91.9	338.2	-14.2	0.114
4-9640	4-9890	0.147	29.7	6.8	1.18	0.711	94.4	0.935	0.019	4-9780	195.8	378.2	-0.62	1.093	93.3	334.8	-16.4	0.123
4-9640	4-9900	0.142	31.7	8.1	1.33	0.709	93.8	0.929	0.021	4-9781	193.4	385.3	-0.81	1.091	94.5	333.9	-17.8	0.136
4-9650	4-9860	0.177	27.2	5.8	1.10	0.715	97.5	0.968	0.018	4-9785	206.5	355.2	-0.33	1.103	89.1	346.8	-9.0	0.119
4-9650	4-9870	0.174	27.6	6.0	1.15	0.715	97.2	0.965	0.019	4-9786	205.7	364.0	-0.34	1.102	90.8	340.3	-11.8	0.116
4-9650	4-9880	0.169	28.4	6.5	1.19	0.713	96.8	0.961	0.020	4-9787	204.2	372.1	-0.41	1.099	92.3	335.2	-14.4	0.120
4-9650	4-9890	0.164	29.8	7.4	1.25	0.710	96.3	0.956	0.020	4-9788	202.0	379.5	-0.53	1.097	93.6	332.4	-16.2	0.129
4-9650	4-9900	0.158	31.6	8.6	1.37	0.707	95.7	0.950	0.022	4-9789	199.4	386.3	-0.71	1.094	94.9	332.1	-17.3	0.142
4-9650	4-9910	0.151	34.1	10.0	1.56	0.703	94.9	0.942	0.025	4-9790	196.3	392.8	-0.95	1.092	96.1	333.8	-17.9	0.157
4-9660	4-9860	0.198	27.6	6.6	1.25	0.718	99.7	0.993	0.021	4-9792	213.6	357.5	-0.23	1.110	89.5	342.5	-9.7	0.124
4-9660	4-9870	0.194	28.1	6.8	1.27	0.717	99.4	0.988	0.021	4-9793	212.5	366.0	-0.25	1.107	91.2	336.3	-12.4	0.122
4-9660	4-9880	0.189	29.0	7.3	1.29	0.715	98.9	0.984	0.022	4-9794	210.8	373.8	-0.33	1.105	92.7	331.9	-14.6	0.127
4-9660	4-9890	0.183	30.3	8.2	1.33	0.711	98.4	0.978	0.022	4-9795	208.3	381.0	-0.48	1.102	94.1	329.9	-16.1	0.137
4-9660	4-9900	0.176	32.1	9.2	1.42	0.707	97.7	0.971	0.023	4-9796	205.4	387.6	-0.61	1.099	95.3	330.2	-16.9	0.150
4-9660	4-9910	0.168	34.4	10.6	1.57	0.702	96.8	0.963	0.026	4-9797	202.1	393.8	-0.83	1.096	96.5	332.4	-17.3	0.164
4-9670	4-9870	0.218	29.0	7.7	1.40	0.722	101.7	1.014	0.024	4-9800	219.4	368.2	-0.16	1.115	91.7	332.1	-12.9	0.130
4-9670	4-9880	0.212	29.9	8.3	1.40	0.719	101.2	1.008	0.024	4-9801	217.4	375.7	-0.25	1.111	93.2	328.6	-14.9	0.137
4-9670	4-9890	0.204	31.3	9.0	1.41	0.714	100.6	1.002	0.024	4-9802	214.7	382.5	-0.37	1.108	94.6	327.4	-16.1	0.147
4-9670	4-9900	0.196	33.0	10.0	1.47	0.709	99.8	0.994	0.025	4-9803	211.5	388.9	-0.52	1.104	95.8	328.3	-16.7	0.160
4-9670	4-9910	0.186	35.1	11.3	1.59	0.703	98.9	0.986	0.027	4-9804	207.9	394.8	-0.72	1.100	96.9	330.9	-16.7	0.174
4-9670	4-9920	0.176	37.8	12.7	1.79	0.697	97.9	0.976	0.030	4-9805	204.0	400.5	-0.98	1.097	98.0	334.8	-16.5	0.189
4-9680	4-9870	0.244	30.3	8.7	1.54	0.730	104.2	1.041	0.027	4-9807	226.3	370.4	-0.06	1.123	92.3	327.9	-13.5	0.141
4-9680	4-9880	0.236	31.2	9.3	1.51	0.725	103.6	1.035	0.027	4-9807	223.9	377.5	-0.16	1.119	93.8	325.3	-15.1	0.148
4-9680	4-9890	0.227	32.6	10.0	1.50	0.720	103.9	1.027	0.026	4-9808	221.0	384.1	-0.28	1.115	95.2	324.9	-16.1	0.159
4-9680	4-9900	0.218	34.2	10.9	1.53	0.713	102.1	1.019	0.027	4-9809	217.6	390.2	-0.43	1.110	96.4	326.4	-16.4	0.171
4-9680	4-9910	0.207	36.2	12.0	1.61	0.706	101.1	1.010	0.028	4-9811	213.8	395.9	-0.62	1.106	97.5	329.5	-16.3	0.185
4-9680	4-9920	0.196	38.7	13.3	1.77	0.699	100.1	1.000	0.030	4-9812	209.7	401.4	-0.85	1.102	98.5	333.6	-15.9	0.199
4-9690	4-9880	0.264	32.8	10.3	1.62	0.735	106.1	1.063	0.030	4-9814	230.5	379.4	-0.06	1.129	94.5	322.1	-15.4	0.163
4-9690	4-9890	0.253	34.1	11.0	1.59	0.728	105.4	1.055	0.029	4-9815	227.2	385.7	-0.20	1.123	95.8	322.5	-16.1	0.173
4-9690	4-9900	0.242	35.8	11.9	1.59	0.720	104.5	1.046	0.028	4-9816	223.6	391.6	-0.35	1.118	97.0	324.6	-16.3	0.185
4-9690	4-9910	0.230	37.7	12.9	1.65	0.712	103.5	1.036	0.029	4-9817	219.5	397.1	-0.52	1.112	98.1	328.1	-16.0	0.198
4-9690	4-9920	0.217	40.1	14.1	1.77	0.703	102.4	1.025	0.031	4-9819	215.3	402.3	-0.73	1.107	99.1	332.5	-15.4	0.211
4-9690	4-9930	0.203	42.9	15.4	1.98	0.694	101.1	1.013	0.034	4-9820	210.7	407.3	-1.01	1.103	100.1	337.7	-14.6	0.225
4-9700	4-9880	0.294	34.6	11.3	1.75	0.749	108.8	1.094	0.033	4-9820	236.9	381.2	0.04	1.141	95.2	319.2	-15.5	0.180
4-9700	4-9890	0.282	35.9	12.0	1.68	0.740	108.0	1.085	0.031	4-9821	233.4	387.2	-0.10	1.134	96.6	320.3	-16.1	0.191
4-9700	4-9900	0.269	37.6	12.8	1.65	0.730	107.0	1.075	0.030	4-9823	229.5	392.9	-0.26	1.127	97.8	323.0	-16.1	0.202
4-9700	4-9910	0.255	39.5	13.8	1.68	0.720	106.0	1.064	0.030	4-9824	225.3	398.2	-0.43	1.121	98.8	326.8	-15.7	0.214
4-9700	4-9920	0.240	41.7	14.9	1.77	0.710	104.8	1.052	0.032	4-9825	220.8	403.2	-0.62	1.115	99.8	331.5	-14.9	0.226
4-9700	4-9930	0.225	44.3	16.1	1.93	0.699	103.5	1.039	0.034	4-9827	216.1	408.1	-0.87	1.109	100.7	336.8	-13.9	0.238
4-9710	4-9890	0.314	37.9	13.1	1.77	0.756	110.7	1.117	0.034	4-9828	239.3	388.6	-0.00	1.147	97.4	318.3	-16.1	0.211
4-9710	4-9900	0.299	39.6	13.8	1.72	0.743	109.6	1.106	0.033	4-9829	235.2	394.1	-0.17	1.139	98.6	321.5	-16.0	0.221
4-9710	4-9910	0.283	41.4	14.7	1.72	0.731	108.5	1.094	0.032	4-9830	230.9	399.2	-0.35	1.131	99.6	325.6	-15.5	0.232
4-9710	4-9920	0.266	43.6	15.7	1.77	0.719	107.3	1.081	0.033	4-9832	226.2	404.1	-0.52	1.123	100.6	330.5	-14.6	0.243
4-9710	4-9930	0.249	46.1	16.8	1.90	0.707	106.0	1.067	0.034	4-9834	221.4	408.8	-0.74	1.116	101.4	336.0	-13.4	0.254
4-9710	4-9940	0.232	49.1	18.0	2.12	0.695	104.5	1.052	0.038	4-9836	216.3	413.4	-1.02	1.110	102.3	342.0	-12.2	0.265
4-9720	4-9890	0.350	40.1	14.1	1.88	0.776	113.4	1.152	0.037	4-9834	245.1	389.9	0.11	1.163	98.4	316.6	-16.0	0.235
4-9720	4-9900	0.332	41.7	14.8	1.79	0.761	112.4	1.140	0.035	4-9835	240.9	395.2	-0.07	1.153	99.6	320.1	-15.9	0.244
4-9720	4-9910	0.314	43.6	15.6	1.76	0.746	111.2	1.127	0.034	4-9837	236.3	400.2	-0.24	1.143	100.6	324.5	-15.2	0.253
4-9720	4-9920	0.295	45.7	16.5	1.79	0.732	109.9	1.113	0.034	4-9838	231.6	405.0	-0.42	1.134	101.4	329.6	-14.3	0.262
4-9720	4-9930	0.276	48.1	17.5	1.88	0.717	108.5	1.097	0.035	4-9840	226.6	409.6	-0.62	1.125	102.3	335.3	-13.0	0.272
4-9720	4-9940	0.257	50.9	18.6	2.05	0.703	107.0	1.081	0.037	4-9842	221.4	414.0	-0.87	1.118	103.0	341.3	-11.6	0.281
4-9730	4-9890	0.390	42.3	15.1	1.99	0.802	116.3	1.190	0.041	4-9841	250.7	391.0	0.27	1.183	99.4	315.2	-15.9	0.264
4-9730	4-9900	0.367	44.0	15.8	1.86	0.784	115.2	1.176	0.038	4-9842	246.3	396.2	0	1.170	100.6	319.0	-15.7	0.271
4-9730	4-9910	0.348	45.9	16.6	1.80	0.766	114.0	1.162	0.036	4-9843	241.6	401.0	-0.15	1.158	101.6	323.6	-15.1	0.278
4-9730	4-9920	0.327	48.0	17.4	1.80	0.748	112.6	1.146	0.035	4-9845	236.8	405.7	-0.32	1.146	102.4	328.9	-14.0	0.285
4-9730	4-9930	0.305	50.3	18.3	1.86	0.731	111.2	1.130	0.036	4-9846	231.7	410.2	-0.52	1.136	103.2	334.6	-12.6	0.292
4-9730	4-9940	0.284	53.0	19.3	1.99	0.715	109.6	1.112	0.037	4-9848	226.5	414.5	-0.74	1.127	103.9	340.7	-11.1	0.300
4-9740	4-9900	0.411	46.4	16.8	1.95	0.812	118.0	1.216	0.041	4-9848	251.5	397.0	0.15	1.190	101.7	318.1	-15.6	0.302
4-9740	4-9910	0.386	48.3	17.5	1.85	0.790	116.8	1.200	0.038	4-9849	246.8	401.7	-0.05	1.175	102.7	322.9	-14.9	0.307
4-9740	4-9920	0.362	50.4	18.3	1.82	0.769	115.4	1.183	0.037	4-9851	241.8	406.3	-0.23	1.162	103.5	328.3	-13.7	0.311
4-9740	4-9930	0.338	52.7	19.1	1.84	0.749	113.9	1.165	0.037	4-9853	236.7	410.7	-0.41	1.149	104.2	334.1	-12.3	0.316
4-9740	4-9940	0.314	55.2	20.0	1.94	0.730	112.4	1.146	0.038	4-9854	231.4	415.0	-0.62	1.138	104.8	340.2	-10.6	0.321
4-9740	4-9950	0.290	58.2	20.9	2.12	0.711	110.6	1.126	0.040	4-9857	225.9	419.1	-0.87	1.128	105.4	346.6	-8.9	0.327

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
4-9750	4-9900	0.458	48.9	17.7	2.94	0.847	120.9	1.259	0.044	4-9854	252.6	397.6	0.28	1.216	103.0	317.4	-15.3	0.338
4-9750	4-9910	0.429	50.9	18.4	1.90	0.820	119.6	1.241	0.041	4-9855	241.8	402.3	0.05	1.197	103.9	322.3	-14.6	0.340
4-9750	4-9920	0.401	52.9	19.1	1.83	0.795	118.3	1.223	0.038	4-9857	240.8	406.8	-0.14	1.180	104.7	327.8	-13.5	0.342
4-9750	4-9930	0.374	55.2	19.8	1.83	0.771	116.8	1.203	0.038	4-9859	241.5	411.2	-0.32	1.165	105.3	333.6	-12.0	0.344
4-9750	4-9940	0.347	57.7	20.6	1.90	0.748	115.1	1.182	0.038	4-9861	236.2	415.4	-0.51	1.152	105.9	339.8	-10.3	0.346
4-9750	4-9950	0.320	60.5	21.5	2.03	0.727	113.4	1.161	0.040	4-9863	230.7	419.5	-0.73	1.140	106.4	346.2	-8.4	0.349
4-9760	4-9910	0.478	53.5	19.2	1.96	0.857	122.5	1.286	0.044	4-9862	256.6	402.7	0.16	1.224	105.2	322.0	-14.4	0.379
4-9760	4-9920	0.446	55.6	19.9	1.86	0.827	121.1	1.266	0.040	4-9863	251.5	407.2	-0.04	1.203	105.9	327.4	-13.3	0.377
4-9760	4-9930	0.414	57.9	20.5	1.83	0.798	119.6	1.244	0.039	4-9865	246.3	411.5	-0.23	1.185	106.5	333.3	-11.8	0.376
4-9760	4-9940	0.384	60.3	21.3	1.86	0.772	118.0	1.222	0.039	4-9867	240.9	415.7	-0.41	1.168	107.0	339.5	-10.0	0.375
4-9760	4-9950	0.354	63.0	22.0	1.96	0.747	116.2	1.198	0.040	4-9869	235.3	419.7	-0.61	1.153	107.5	345.9	-8.0	0.375
4-9760	4-9960	0.325	66.1	22.8	2.14	0.724	114.3	1.174	0.042	4-9871	229.7	423.7	-0.86	1.140	107.9	352.6	-5.9	0.376
4-9770	4-9910	0.534	56.2	20.0	2.02	0.902	125.4	1.335	0.047	4-9868	261.2	402.9	0.29	1.257	106.7	321.8	-14.1	0.424
4-9770	4-9920	0.496	58.3	20.6	1.88	0.866	124.0	1.313	0.043	4-9869	256.1	407.4	0.05	1.231	107.3	327.3	-13.0	0.418
4-9770	4-9930	0.460	60.6	21.2	1.82	0.832	122.5	1.289	0.040	4-9871	250.9	411.7	-0.14	1.208	107.9	333.1	-11.5	0.413
4-9770	4-9940	0.425	63.0	21.9	1.83	0.800	120.8	1.265	0.039	4-9873	245.4	415.9	-0.31	1.188	108.3	339.2	-9.7	0.408
4-9770	4-9950	0.392	65.7	22.5	1.89	0.771	119.1	1.239	0.040	4-9875	239.9	419.9	-0.50	1.170	108.7	345.6	-7.6	0.405
4-9770	4-9960	0.360	68.6	23.2	2.03	0.744	117.1	1.213	0.041	4-9877	234.2	423.9	-0.71	1.154	109.0	352.3	-5.4	0.402
4-9780	4-9920	0.554	61.2	21.3	1.91	0.913	126.9	1.365	0.045	4-9875	269.5	407.5	0.16	1.265	108.9	327.2	-12.8	0.465
4-9780	4-9930	0.512	63.5	21.9	1.82	0.872	125.4	1.339	0.042	4-9877	255.3	411.8	-0.05	1.237	109.4	333.0	-11.2	0.455
4-9780	4-9940	0.472	65.9	22.4	1.79	0.835	123.7	1.311	0.040	4-9879	249.9	415.9	-0.22	1.212	109.7	339.1	-9.4	0.446
4-9780	4-9950	0.434	68.5	23.0	1.83	0.801	122.0	1.284	0.040	4-9881	244.3	420.0	-0.39	1.190	110.0	345.5	-7.3	0.439
4-9780	4-9960	0.398	71.3	23.6	1.93	0.770	120.0	1.255	0.041	4-9883	238.7	424.0	-0.58	1.171	110.2	352.1	-5.0	0.433
4-9780	4-9970	0.363	74.4	24.2	2.11	0.741	118.0	1.226	0.043	4-9886	232.9	427.8	-0.82	1.155	110.4	358.9	-2.7	0.428
4-9790	4-9920	0.629	64.0	22.0	1.95	0.971	129.7	1.421	0.048	4-9881	264.8	407.4	0.27	1.308	110.5	327.4	-12.5	0.521
4-9790	4-9930	0.571	66.4	22.5	1.81	0.922	128.2	1.393	0.044	4-9883	259.6	411.7	0.04	1.272	111.0	333.1	-11.0	0.505
4-9790	4-9940	0.525	68.8	23.0	1.76	0.878	126.6	1.363	0.041	4-9884	254.2	415.9	-0.14	1.242	111.3	339.2	-9.1	0.491
4-9790	4-9950	0.481	71.4	23.5	1.77	0.837	124.9	1.332	0.040	4-9887	248.7	420.0	-0.30	1.215	111.5	345.5	-7.0	0.478
4-9790	4-9960	0.441	74.1	24.0	1.84	0.801	123.0	1.301	0.041	4-9889	243.0	423.9	-0.47	1.192	111.6	352.0	-4.7	0.468
4-9790	4-9970	0.402	77.1	24.5	1.98	0.767	120.9	1.270	0.042	4-9891	237.2	427.8	-0.67	1.172	111.7	358.8	-2.3	0.459
4-9800	4-9930	0.639	69.3	23.0	1.81	0.981	131.0	1.452	0.046	4-9888	263.7	411.5	0.14	1.316	112.7	333.3	-10.7	0.563
4-9800	4-9940	0.585	71.8	23.5	1.73	0.928	129.5	1.419	0.042	4-9890	258.4	415.7	-0.05	1.278	112.9	339.3	-8.8	0.542
4-9800	4-9950	0.535	74.4	23.9	1.72	0.881	127.8	1.386	0.041	4-9892	252.9	419.8	-0.21	1.245	113.1	345.5	-6.7	0.524
4-9800	4-9960	0.489	77.1	24.3	1.76	0.838	125.9	1.351	0.040	4-9895	247.3	423.8	-0.37	1.217	113.1	352.0	-4.3	0.508
4-9800	4-9970	0.445	80.0	24.7	1.86	0.799	123.8	1.317	0.041	4-9897	241.5	427.7	-0.54	1.193	113.1	358.7	-1.9	0.494
4-9800	4-9980	0.404	83.2	25.1	2.04	0.763	121.6	1.282	0.044	4-9900	235.6	431.6	-0.76	1.171	113.1	5.6	0.6	0.483
4-9810	4-9930	0.718	72.3	23.5	1.82	1.054	133.8	1.518	0.048	4-9894	267.7	411.1	0.23	1.370	114.5	333.7	-10.4	0.632
4-9810	4-9940	0.655	74.9	23.9	1.70	0.990	132.3	1.482	0.044	4-9896	262.5	415.4	0.02	1.323	114.7	339.6	-8.6	0.602
4-9810	4-9950	0.597	77.4	24.2	1.66	0.933	130.6	1.444	0.041	4-9898	257.0	419.6	-0.13	1.282	114.8	345.7	-6.4	0.577
4-9810	4-9960	0.544	80.1	24.5	1.68	0.882	128.8	1.407	0.040	4-9900	251.4	423.6	-0.28	1.248	114.7	352.1	-4.0	0.554
4-9810	4-9970	0.494	82.9	24.9	1.75	0.837	126.8	1.369	0.040	4-9903	245.6	427.5	-0.43	1.218	114.6	358.7	-1.5	0.535
4-9810	4-9980	0.448	86.0	25.2	1.88	0.795	124.6	1.331	0.042	4-9906	239.8	431.4	-0.61	1.192	114.5	5.6	1.0	0.519
4-9820	4-9940	0.736	78.0	24.2	1.67	1.064	135.0	1.551	0.045	4-9902	266.4	415.0	0.10	1.379	116.6	340.0	-8.2	0.673
4-9820	4-9950	0.668	80.6	24.5	1.61	0.996	133.4	1.510	0.042	4-9904	261.0	419.2	-0.06	1.328	116.6	346.0	-6.1	0.639
4-9820	4-9960	0.607	83.2	24.8	1.60	0.936	131.7	1.468	0.040	4-9906	255.4	423.3	-0.20	1.285	116.5	352.3	-3.7	0.609
4-9820	4-9970	0.550	86.0	25.0	1.65	0.882	129.7	1.426	0.040	4-9909	249.7	427.2	-0.33	1.249	116.3	358.8	-1.2	0.583
4-9820	4-9980	0.498	89.0	25.2	1.74	0.834	127.6	1.384	0.041	4-9911	243.9	431.1	-0.48	1.218	116.1	5.6	1.4	0.560
4-9820	4-9990	0.449	92.3	25.3	1.91	0.791	125.2	1.343	0.043	4-9914	238.0	435.0	-0.67	1.191	115.9	12.6	4.0	0.542
4-9830	4-9950	0.751	83.7	24.7	1.55	1.072	136.2	1.583	0.043	4-9909	264.8	418.6	0.00	1.385	118.6	346.4	-5.8	0.712
4-9830	4-9960	0.679	86.4	24.9	1.53	1.000	134.5	1.536	0.040	4-9912	259.3	422.8	-0.13	1.332	118.4	352.6	-3.4	0.672
4-9830	4-9970	0.614	89.2	25.0	1.55	0.937	132.6	1.489	0.039	4-9914	253.7	426.8	-0.24	1.287	118.1	359.0	-0.9	0.638
4-9830	4-9980	0.554	92.1	25.1	1.62	0.880	130.5	1.443	0.039	4-9917	247.9	430.8	-0.37	1.249	117.8	5.7	1.8	0.609
4-9830	4-9990	0.499	95.2	25.2	1.73	0.830	128.2	1.398	0.040	4-9920	242.0	434.7	-0.52	1.216	117.5	12.7	4.4	0.583
4-9840	4-9960	0.763	89.7	25.0	1.45	1.078	137.2	1.612	0.040	4-9917	263.2	422.2	-0.07	1.390	120.5	353.0	-3.1	0.747
4-9840	4-9970	0.687	92.4	25.0	1.45	1.002	135.4	1.560	0.039	4-9920	257.6	426.3	-0.17	1.334	120.1	359.3	-0.6	0.703
4-9840	4-9980	0.619	95.2	25.1	1.50	0.936	133.4	1.508	0.038	4-9922	251.9	430.3	-0.27	1.287	119.7	5.9	2.1	0.665
4-9840	4-9990	0.556	98.3	25.0	1.58	0.877	131.2	1.458	0.039	4-9925	246.0	434.2	-0.39	1.247	119.2	12.8	4.8	0.632
4-9840	5- 0	0.499	101.5	25.0	1.72	0.825	128.8	1.409	0.040	4-9929	240.0	438.1	-0.54	1.214	118.8	20.0	7.4	0.604
4-9850	4-9970	0.773	95.7	25.0	1.35	1.081	138.2	1.639	0.038	4-9925	261.4	425.7	-0.11	1.393	122.2	359.8	-0.3	0.780
4-9850	4-9980	0.693	98.5	24.9	1.38	1.002	136.3	1.581	0.037	4-9928	255.7	429.7	-0.19	1.335	121.7	6.3	2.4	0.731
4-9850	4-9990	0.621	101.4	24.8	1.44	0.933	134.2	1.525	0.037	4-9931	249.9	433.7	-0.28	1.286	121.1	13.1	5.1	0.688
4-9850	5- 0	0.557	104.5	24.7	1.53	0.872	131.8	1.471	0.037	4-9934	244.0	437.6	-0.39	1.245	120.5	20.1	7.8	0.653
4-9860	4-9980	0.780	101.8	24.7	1.26	1.082	139.1	1.664	0.036	4-9933	259.5	429.0	-0.12	1.394	123.8	6.7	2.7	0.809
4-9860	4-9990	0.697	104.6	24.5	1.30	1.000	137.1	1.601	0.035	4-9936	253.8	433.1	-0.19	1.333	123.2	13.4	5.4	0.755
4-9860	5- 0	0.622	107.6	24.3	1.37	0.929	134.8	1.540	0.035	4-9939	247.9	437.1	-0.27	1.283	122.4	20.4	8.2	0.710
4-9870	4-9990	0.785	107.9	24.1	1.17	1.080	139.9	1.686	0.034	4-9942	257.5	432.3	-0.11	1.393	125.4	13.8	5.7	0.834
4-9870	5- 0	0.698	110.8	23.8	1.21	0.996	137.8	1.617	0.033	4-9945	251.7	436.4	-0.16	1.331	124.5	20.7	8.5	0.777
4-9880	5- 0	0.787	114.1	23.3	1.07	1.077	140.6	1.705	0.031	4-9950	255.5	435.6	-0.07	1.390	126.8	21.1	8.8	0.857
4-9880	5- 10	0.698	117.1	22.9	1.10	0.991	138.3	1.632	0.030	4-9953	249.6	439.6	-0.10	1.326	125.8	28.3	11.5	0.796
4-9890	5- 10	0.788	120.3	22.2	0.95	1.072	141.2	1.722	0.027	4-9959	253.4	438.8	0.00	1.386	128.1	28.7	11.8	0.876
4-9890	5- 20	0.696	123.3	21.6	0.96	0.983	138.8	1.644	0.026	4-9962	247.5	442.8	0.00	1.321	127.0	36.1	14.3	0.812
5- 390	5- 610	0.128	60.4	15.0	1.76	0.688	95.0	0.930	0.028	5- 536	195.7	338.3	0.00	1.102	85.8	24.7	10.3	0.144
5- 390	5- 620	0.127	59.5	15.0	1.74	0.690	94.9	0.928	0.027	5- 537	196.1	348.2	-0.04	1.103	87.7	19.3	7.8	0.128
5- 390	5- 630	0.125	59.5	15.4	1.71	0.691	94.8	0.926	0.027	5- 537	195.8	357.3	-0.13	1.103	89.5	12.9	4.2	0.120
5- 390	5- 640	0.121	60.4	16.3	1.71	0.690	94.5	0.922	0.027	5- 538	194.7	365.8	-0.27	1.103	91.1	7.3	0.5	0.121
5- 390	5- 650	0.117	62.3	17.5	1.76	0.688	94.0	0.918	0.027	5- 539	193.1	373.7	-0.45	1.102	92.6	3.6	-2.6	0.129
5- 390	5- 660	0.113	65.3	19.0	1.88	0.686	93.4	0.912	0.029	5- 540	190.9	381.1	-0.67	1.101	94.0	2.2	-4.7	0.142
5- 400	5- 620	0.141	59.0	15.5	1.86	0.691	96.8	0.949	0.030	5- 543	202.1	349.6	0.10	1.107	87.9	16.6	8.0	0.130
5- 400	5- 630	0.139	59.2	16.0	1.80	0.692	96.6	0.946	0.029	5- 544	201.6	358.6	-0.01	1.106	89.7	10.4	4.4	0.123
5- 400	5- 640	0.135	60.1	16.8	1.77	0.691	96.3	0.942	0.028	5- 545	200.4	366.9	0.15	1.106	91.4	5.1	0.7	0.125

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
5- 400	5- 650	0.130	61.9	17.9	1.79	0.688	95.8	0.937	0.028	5- 545	198.6	374.6	-0.33	1.105	92.9	1.8	-2.1	0.133
5- 400	5- 660	0.125	64.6	19.2	1.87	0.685	95.2	0.931	0.029	5- 546	196.2	381.8	-0.54	1.104	94.3	0.9	-4.0	0.146
5- 400	5- 670	0.119	68.3	20.7	2.03	0.682	94.4	0.924	0.032	5- 548	193.4	388.6	-0.79	1.102	95.6	2.0	-5.0	0.162
5- 410	5- 620	0.158	59.1	16.2	2.00	0.695	98.9	0.971	0.033	5- 550	208.3	351.3	0.25	1.111	88.2	13.5	8.1	0.132
5- 410	5- 630	0.154	59.4	16.5	1.90	0.695	98.6	0.967	0.031	5- 551	207.6	360.1	0.12	1.111	90.0	7.4	4.4	0.127
5- 410	5- 640	0.150	60.4	17.3	1.84	0.693	98.2	0.963	0.030	5- 551	206.2	368.2	-0.03	1.109	91.7	2.6	0.8	0.130
5- 410	5- 650	0.145	62.1	18.3	1.82	0.690	97.7	0.958	0.030	5- 552	204.2	375.7	-0.21	1.108	93.2	359.9	-1.8	0.139
5- 410	5- 660	0.138	64.5	19.6	1.86	0.686	97.0	0.951	0.030	5- 553	201.6	382.7	-0.41	1.107	94.6	359.5	-3.5	0.152
5- 410	5- 670	0.131	67.9	20.9	1.98	0.682	96.2	0.944	0.032	5- 554	198.6	389.2	-0.64	1.105	95.9	0.9	-4.2	0.167
5- 420	5- 630	0.172	60.0	17.2	2.01	0.700	100.7	0.990	0.034	5- 557	213.8	361.8	0.26	1.116	90.4	4.2	4.2	0.132
5- 420	5- 640	0.167	61.0	17.9	1.91	0.697	100.2	0.985	0.032	5- 558	212.1	369.7	0.09	1.114	92.0	360.0	0.8	0.136
5- 420	5- 650	0.161	62.7	18.9	1.86	0.694	99.7	0.979	0.031	5- 559	209.9	377.0	-0.09	1.112	93.5	357.9	-1.7	0.146
5- 420	5- 660	0.154	65.0	20.0	1.86	0.689	98.9	0.972	0.031	5- 560	207.1	383.7	-0.29	1.110	94.9	358.0	-3.1	0.158
5- 420	5- 670	0.145	68.1	21.2	1.94	0.684	98.1	0.965	0.032	5- 561	203.8	390.0	-0.50	1.108	96.2	359.7	-3.6	0.173
5- 420	5- 680	0.137	72.2	22.5	2.10	0.678	97.1	0.955	0.034	5- 563	200.2	396.1	-0.76	1.106	97.4	2.9	-3.5	0.189
5- 430	5- 630	0.192	61.0	17.9	2.13	0.707	102.9	1.014	0.037	5- 564	220.0	363.7	0.40	1.122	90.8	0.8	3.9	0.139
5- 430	5- 640	0.186	62.1	18.6	1.99	0.704	102.4	1.009	0.034	5- 564	218.1	371.3	0.21	1.120	92.4	357.3	0.6	0.144
5- 430	5- 650	0.179	63.7	19.4	1.90	0.699	101.7	1.002	0.032	5- 565	215.6	378.3	0.02	1.117	93.9	355.9	-1.6	0.154
5- 430	5- 660	0.170	65.9	20.4	1.87	0.694	101.0	0.995	0.032	5- 566	212.6	384.8	-0.17	1.115	95.3	356.4	-2.8	0.167
5- 430	5- 670	0.161	68.8	21.5	1.91	0.688	100.1	0.987	0.032	5- 568	209.2	390.9	-0.37	1.112	96.6	358.6	-3.1	0.181
5- 430	5- 680	0.151	72.5	22.7	2.03	0.681	99.1	0.977	0.033	5- 569	205.4	396.7	-0.60	1.110	97.8	2.0	-2.8	0.196
5- 440	5- 640	0.207	63.5	19.2	2.07	0.713	104.6	1.034	0.037	5- 571	224.2	373.0	0.34	1.127	92.9	354.5	0.3	0.154
5- 440	5- 650	0.199	65.1	20.0	1.95	0.707	103.9	1.027	0.034	5- 572	221.4	379.7	0.14	1.124	94.4	353.8	-1.7	0.164
5- 440	5- 660	0.189	67.2	20.9	1.89	0.700	103.1	1.019	0.033	5- 573	218.2	386.0	-0.05	1.120	95.8	354.8	-2.6	0.176
5- 440	5- 670	0.179	69.9	21.9	1.89	0.693	102.2	1.010	0.032	5- 574	214.5	391.9	-0.25	1.117	97.0	357.4	-2.7	0.190
5- 440	5- 680	0.168	73.4	22.9	1.97	0.685	101.1	1.000	0.033	5- 576	210.5	397.5	-0.46	1.114	98.2	1.0	-2.3	0.205
5- 440	5- 690	0.156	77.7	24.0	2.13	0.677	99.9	0.988	0.035	5- 577	206.3	402.9	-0.71	1.111	99.3	5.6	-1.5	0.220
5- 470	5- 650	0.274	70.7	21.7	2.14	0.748	110.9	1.111	0.041	5- 591	238.8	384.0	0.52	1.152	96.3	348.0	-2.1	0.208
5- 470	5- 660	0.259	72.8	22.4	1.97	0.736	109.9	1.101	0.037	5- 592	234.9	389.6	0.29	1.145	97.6	350.5	-2.5	0.218
5- 470	5- 670	0.244	75.2	23.0	1.87	0.724	108.9	1.090	0.035	5- 593	230.7	394.9	0.09	1.138	98.7	354.0	-2.1	0.229
5- 470	5- 680	0.228	78.0	23.8	1.84	0.712	107.7	1.077	0.034	5- 594	226.1	400.0	-0.10	1.132	99.8	358.4	-1.2	0.241
5- 470	5- 690	0.212	81.5	24.5	1.88	0.699	106.4	1.064	0.034	5- 596	221.4	404.9	-0.29	1.126	100.8	3.4	0.1	0.252
5- 470	5- 700	0.196	85.6	25.2	1.99	0.687	105.0	1.049	0.035	5- 598	216.4	409.6	-0.50	1.121	101.7	8.9	1.6	0.264
5- 480	5- 660	0.288	75.0	22.8	2.00	0.754	112.4	1.132	0.039	5- 598	240.4	390.7	0.41	1.157	98.4	349.3	-2.5	0.237
5- 480	5- 670	0.271	77.4	23.4	1.88	0.740	111.3	1.120	0.036	5- 599	236.0	395.8	0.20	1.149	99.5	353.1	-2.0	0.247
5- 480	5- 680	0.253	80.2	24.0	1.82	0.726	110.0	1.106	0.034	5- 601	231.3	400.8	0.01	1.141	100.5	357.6	-1.0	0.257
5- 480	5- 690	0.235	83.4	24.6	1.82	0.711	108.7	1.092	0.034	5- 602	226.4	405.5	-0.17	1.134	101.4	2.8	0.4	0.267
5- 480	5- 700	0.217	87.2	25.2	1.89	0.697	107.2	1.076	0.034	5- 604	221.3	410.1	-0.35	1.127	102.3	8.4	2.1	0.277
5- 480	5- 710	0.199	91.8	25.7	2.03	0.684	105.6	1.060	0.036	5- 606	216.1	414.7	-0.57	1.122	103.1	14.5	3.8	0.288
5- 490	5- 660	0.321	77.5	23.2	2.05	0.777	114.8	1.165	0.041	5- 604	245.8	391.7	0.53	1.172	99.2	348.2	-2.5	0.260
5- 490	5- 670	0.301	79.8	23.7	1.88	0.760	113.7	1.152	0.037	5- 605	241.2	396.7	0.31	1.161	100.3	352.2	-1.9	0.268
5- 490	5- 680	0.281	82.5	24.2	1.79	0.743	112.4	1.138	0.035	5- 607	236.4	401.5	0.12	1.152	101.3	357.0	-0.8	0.276
5- 490	5- 690	0.261	85.5	24.8	1.76	0.726	111.1	1.122	0.034	5- 608	231.4	406.2	-0.05	1.143	102.2	2.2	0.7	0.284
5- 490	5- 700	0.241	89.1	25.2	1.80	0.710	109.6	1.106	0.034	5- 610	226.2	410.7	-0.23	1.135	103.0	7.9	2.5	0.293
5- 490	5- 710	0.221	93.3	25.7	1.89	0.695	107.5	1.088	0.035	5- 612	220.9	415.1	-0.42	1.128	103.7	14.0	4.4	0.301
5- 500	5- 660	0.357	80.0	23.6	2.10	0.804	117.3	1.201	0.044	5- 610	251.0	392.6	0.67	1.190	100.2	347.3	-2.5	0.286
5- 500	5- 670	0.334	82.4	24.0	1.89	0.784	116.2	1.187	0.039	5- 611	246.4	397.5	0.42	1.177	101.3	351.5	-1.8	0.292
5- 500	5- 680	0.312	85.0	24.4	1.77	0.764	114.9	1.171	0.035	5- 613	241.5	402.2	0.22	1.165	102.2	356.4	-0.6	0.298
5- 500	5- 690	0.289	87.9	24.9	1.71	0.745	113.5	1.155	0.034	5- 614	236.3	406.7	0.05	1.154	103.0	1.7	1.0	0.304
5- 500	5- 700	0.267	91.3	25.3	1.72	0.726	112.0	1.137	0.033	5- 616	231.1	411.1	-0.11	1.145	103.7	7.5	2.8	0.310
5- 500	5- 710	0.244	95.2	25.6	1.77	0.708	110.3	1.118	0.033	5- 618	225.6	415.4	-0.28	1.136	104.4	13.6	4.8	0.317
5- 510	5- 670	0.372	85.0	24.3	1.91	0.813	118.7	1.224	0.040	5- 617	251.4	398.2	0.54	1.196	102.3	351.0	-1.8	0.321
5- 510	5- 680	0.346	87.6	24.6	1.76	0.789	117.4	1.207	0.036	5- 619	246.4	402.8	0.32	1.181	103.2	355.9	-0.5	0.324
5- 510	5- 690	0.321	90.5	24.9	1.67	0.767	115.9	1.189	0.034	5- 620	241.2	407.2	0.15	1.168	103.9	1.3	1.1	0.327
5- 510	5- 700	0.296	93.7	25.2	1.64	0.745	114.4	1.170	0.033	5- 622	235.9	411.6	-0.00	1.156	104.6	7.1	3.1	0.331
5- 510	5- 710	0.271	97.3	25.4	1.67	0.729	112.7	1.150	0.032	5- 624	230.4	415.8	-0.15	1.145	105.2	13.3	5.2	0.335
5- 510	5- 720	0.247	101.6	25.6	1.75	0.706	110.9	1.129	0.033	5- 626	224.8	420.0	-0.32	1.136	105.8	19.9	7.3	0.340
5- 520	5- 670	0.415	87.8	24.5	1.94	0.848	121.2	1.265	0.042	5- 623	256.3	398.7	0.66	1.219	103.4	350.6	-1.6	0.354
5- 520	5- 680	0.385	90.4	24.7	1.74	0.820	119.9	1.246	0.037	5- 625	251.3	403.2	0.43	1.201	104.2	355.6	-0.4	0.354
5- 520	5- 690	0.356	93.2	24.9	1.63	0.793	118.5	1.227	0.034	5- 626	246.0	407.6	0.25	1.184	104.9	1.0	1.3	0.354
5- 520	5- 700	0.328	96.3	25.1	1.57	0.768	116.9	1.206	0.032	5- 628	240.6	411.9	0.10	1.170	105.6	6.9	3.3	0.355
5- 520	5- 710	0.301	99.7	25.3	1.57	0.745	115.2	1.185	0.031	5- 630	235.1	416.1	-0.04	1.157	106.1	13.1	5.5	0.356
5- 520	5- 720	0.274	103.7	25.3	1.61	0.723	113.4	1.162	0.031	5- 632	229.4	420.2	-0.18	1.145	106.6	19.6	7.7	0.358
5- 530	5- 680	0.430	93.3	24.8	1.74	0.856	122.4	1.289	0.039	5- 631	256.0	403.5	0.53	1.224	105.4	355.4	-0.2	0.388
5- 530	5- 690	0.397	96.0	24.9	1.59	0.825	121.0	1.267	0.035	5- 632	250.7	407.9	0.34	1.204	106.1	0.9	1.5	0.385
5- 530	5- 700	0.365	99.0	25.0	1.51	0.796	119.4	1.245	0.032	5- 634	245.3	412.2	0.19	1.187	106.6	6.7	3.5	0.383
5- 530	5- 710	0.334	102.3	25.1	1.48	0.769	117.7	1.222	0.031	5- 636	239.7	416.3	0.06	1.171	107.1	12.9	5.7	0.381
5- 530	5- 720	0.304	106.0	25.0	1.49	0.743	115.9	1.198	0.030	5- 638	234.0	420.4	-0.06	1.157	107.5	19.4	8.0	0.380
5- 530	5- 730	0.276	110.2	24.9	1.55	0.720	113.9	1.173	0.030	5- 641	228.2	424.4	-0.19	1.144	108.0	26.3	10.3	0.380
5- 540	5- 680	0.481	96.2	24.8	1.73	0.900	124.9	1.334	0.040	5- 637	260.6	403.7	0.65	1.254	106.7	355.4	-0.0	0.429
5- 540	5- 690	0.442	98.9	24.8	1.55	0.863	123.5	1.311	0.035	5- 638	255.4	408.1	0.43	1.229	107.3	0.8	1.7	0.422
5- 540	5- 700	0.406	101.8	24.8	1.45	0.829	122.0	1.287	0.034	5- 640	249.9	412.3	0.28	1.207	107.8	6.6	3.7	0.415
5- 540	5- 710	0.371	105.0	24.8	1.39	0.797	120.3	1.262	0.033	5- 642	244.3	416.4	0.16	1.188	108.2	12.8	6.0	0.410
5- 540	5- 720	0.338	108.5	24.7	1.38	0.768	118.4	1.236	0.029	5- 644	238.6	420.5	0.05	1.171	108.6	19.3	8.3	0.405
5- 540	5- 730	0.306	112.4	24.4	1.40	0.741	116.4	1.210	0.028	5- 646	232.7	424.5	-0.06	1.156	108.9	26.2	10.7	0.402
5- 550	5- 690	0.494	101.9	24.7	1.52	0.908	126.0	1.359	0.036	5- 644	259.9	408.1	0.53	1.259	108.7	0.9	1.9	0.464
5- 550	5- 700	0.453	104.8	24.6	1.39	0.868	124.5	1.333	0.032	5- 646	254.4	412.3	0.36	1.232	109.1	6.7	3.9	0.453
5- 550	5- 710	0.413	107.8	24.5	1.31	0.831	122.8	1.306	0.029	5- 648	248.0	416.5	0.24	1.209	109.4	12.8	6.2	0.443
5- 550	5- 720	0.376	111.1	24.3	1.28	0.797	121.0	1.278	0.028	5- 650	243.1	420.5	0.14	1.188	109.7	19.3	8.6	0.434
5- 550	5- 730	0.341	114.8	24.0	1.27	0.766	119.0	1.249	0.027	5- 652	237.2	424.5	0.05	1.170	109.9	26.2	11.0	0.427

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
5- 550	5- 740	0.307	119.0	23.5	1.30	0.738	116.9	1.220	0.026	5- 655	231.2	428.4	-0.03	1.154	110.2	33.3	13.3	0.422
5- 560	5- 690	0.555	105.0	24.4	1.49	0.963	128.5	1.411	0.037	5- 650	264.2	408.0	0.62	1.297	110.2	1.2	2.1	0.514
5- 560	5- 700	0.506	107.8	24.3	1.33	0.915	127.0	1.383	0.032	5- 652	258.8	412.2	0.44	1.264	110.6	6.9	4.1	0.497
5- 560	5- 710	0.461	110.3	24.1	1.23	0.871	125.4	1.353	0.029	5- 653	253.2	416.4	0.32	1.235	110.8	13.0	6.4	0.481
5- 560	5- 720	0.419	114.0	23.8	1.18	0.832	123.6	1.323	0.027	5- 656	247.5	420.4	0.23	1.209	111.0	19.4	8.8	0.468
5- 560	5- 730	0.379	117.4	23.4	1.15	0.796	121.6	1.292	0.025	5- 658	241.6	424.4	0.15	1.188	111.1	26.2	11.2	0.457
5- 560	5- 740	0.342	121.2	23.0	1.15	0.764	119.5	1.260	0.024	5- 660	235.7	428.3	0.09	1.167	111.2	33.3	13.6	0.447
5- 570	5- 700	0.568	110.9	23.9	1.27	0.970	129.6	1.437	0.032	5- 658	263.1	412.0	0.51	1.302	112.1	7.2	4.3	0.548
5- 570	5- 710	0.516	113.8	23.6	1.16	0.919	127.9	1.405	0.028	5- 659	257.6	416.1	0.39	1.266	112.3	13.2	6.6	0.527
5- 570	5- 720	0.468	116.9	23.3	1.08	0.873	126.1	1.372	0.025	5- 661	251.9	420.2	0.30	1.236	112.4	19.6	9.0	0.508
5- 570	5- 730	0.423	120.2	22.8	1.04	0.831	124.2	1.338	0.024	5- 664	246.0	424.2	0.24	1.209	112.4	26.3	11.5	0.491
5- 570	5- 740	0.381	123.7	22.3	1.01	0.794	122.1	1.304	0.022	5- 666	240.1	428.2	0.19	1.186	112.4	33.4	13.9	0.477
5- 570	5- 750	0.342	127.8	21.6	1.00	0.760	119.8	1.271	0.021	5- 669	234.0	432.1	0.15	1.166	112.4	40.9	16.2	0.465
5- 580	5- 700	0.640	114.0	23.5	1.21	1.037	132.0	1.497	0.032	5- 663	267.3	411.5	0.58	1.350	113.8	7.7	4.6	0.610
5- 580	5- 710	0.579	116.9	23.1	1.08	0.976	130.5	1.462	0.027	5- 665	261.8	415.8	0.45	1.306	113.9	13.6	6.8	0.580
5- 580	5- 720	0.524	119.9	22.7	0.99	0.923	128.7	1.426	0.024	5- 667	256.1	419.9	0.37	1.268	113.9	19.9	9.2	0.554
5- 580	5- 730	0.473	123.0	22.2	0.93	0.873	126.8	1.389	0.022	5- 669	250.3	423.9	0.31	1.235	113.8	26.5	11.7	0.531
5- 580	5- 740	0.426	126.4	21.6	0.88	0.829	124.7	1.352	0.020	5- 672	244.4	427.9	0.28	1.207	113.7	33.6	14.1	0.512
5- 580	5- 750	0.382	130.1	20.9	0.85	0.791	122.5	1.315	0.019	5- 674	238.4	431.8	0.26	1.183	113.6	41.0	16.5	0.495
5- 590	5- 710	0.653	120.1	22.5	1.00	1.044	133.0	1.525	0.026	5- 671	265.9	415.2	0.50	1.355	115.6	14.1	7.1	0.643
5- 590	5- 720	0.589	123.0	22.0	0.90	0.980	131.3	1.485	0.023	5- 673	260.3	419.4	0.43	1.308	115.6	20.3	9.4	0.609
5- 590	5- 730	0.530	126.0	21.4	0.82	0.922	129.4	1.445	0.020	5- 675	254.6	423.5	0.38	1.268	115.4	26.9	11.9	0.579
5- 590	5- 740	0.477	129.2	20.8	0.76	0.872	127.4	1.404	0.018	5- 677	248.7	427.5	0.35	1.234	115.2	33.9	14.5	0.553
5- 590	5- 750	0.427	132.7	20.0	0.71	0.827	125.2	1.364	0.016	5- 680	242.7	431.5	0.35	1.204	114.9	41.2	16.7	0.530
5- 590	5- 760	0.382	136.5	19.1	0.65	0.786	122.8	1.325	0.014	5- 683	236.6	435.4	0.37	1.179	114.7	49.0	18.9	0.512
5- 600	5- 720	0.664	126.3	21.2	0.80	1.049	133.8	1.551	0.022	5- 679	264.5	418.8	0.47	1.358	117.4	20.8	9.7	0.674
5- 600	5- 730	0.596	129.1	20.6	0.72	0.981	132.0	1.507	0.019	5- 681	258.8	423.0	0.43	1.308	117.1	27.3	12.1	0.635
5- 600	5- 740	0.535	132.2	19.9	0.65	0.922	130.0	1.462	0.016	5- 683	252.9	427.0	0.42	1.266	116.8	34.2	14.5	0.601
5- 600	5- 750	0.479	135.4	19.1	0.58	0.869	127.9	1.418	0.014	5- 686	246.9	431.0	0.42	1.231	116.4	41.5	16.9	0.572
5- 600	5- 760	0.428	139.0	18.2	0.50	0.823	125.5	1.375	0.012	5- 689	240.9	435.0	0.46	1.201	116.1	49.2	19.1	0.547
5- 610	5- 730	0.674	132.2	19.7	0.62	1.052	134.6	1.576	0.017	5- 686	262.9	422.3	0.47	1.359	119.0	27.9	12.3	0.701
5- 610	5- 740	0.602	135.2	19.0	0.54	0.982	132.7	1.526	0.014	5- 689	257.1	426.4	0.47	1.307	118.6	34.7	14.7	0.658
5- 610	5- 750	0.538	138.3	18.1	0.46	0.920	130.6	1.478	0.012	5- 691	251.2	430.4	0.48	1.264	118.1	41.9	17.1	0.620
5- 610	5- 760	0.480	141.6	17.2	0.37	0.866	128.2	1.430	0.009	5- 694	245.1	434.4	0.53	1.227	117.6	49.6	19.3	0.588
5- 610	5- 770	0.427	145.3	16.1	0.25	0.818	125.8	1.385	0.006	5- 697	239.0	438.4	0.62	1.196	117.2	57.6	21.3	0.561
5- 620	5- 740	0.681	138.3	18.0	0.43	1.053	135.3	1.598	0.012	5- 694	261.2	425.6	0.51	1.358	120.5	35.3	14.9	0.725
5- 620	5- 750	0.607	141.3	17.1	0.35	0.980	133.2	1.544	0.009	5- 697	255.3	429.7	0.94	1.305	119.9	42.4	17.2	0.678
5- 620	5- 760	0.540	144.4	16.1	0.25	0.917	131.0	1.491	0.006	5- 700	249.3	433.8	0.59	1.260	119.3	50.0	19.4	0.637
5- 620	5- 770	0.480	147.8	15.0	0.13	0.861	128.5	1.441	0.003	5- 703	243.3	437.8	0.68	1.222	118.7	58.0	21.4	0.603
5- 630	5- 750	0.687	144.3	16.0	0.24	1.053	135.9	1.618	0.007	5- 703	259.4	428.9	0.57	1.356	121.9	43.1	17.4	0.747
5- 630	5- 760	0.610	147.3	15.0	0.14	0.978	133.7	1.560	0.004	5- 705	253.5	433.0	0.63	1.301	121.2	50.5	19.6	0.695
5- 630	5- 770	0.541	150.5	13.9	0.01	0.912	131.3	1.504	0.000	5- 708	247.5	437.0	0.73	1.255	120.4	58.5	21.5	0.652
5- 640	5- 760	0.691	150.3	13.7	0.04	1.050	136.4	1.637	0.001	5- 711	257.6	432.1	0.67	1.353	123.2	51.2	19.7	0.765
5- 640	5- 770	0.612	153.3	12.6	-0.09	0.974	134.1	1.574	-0.002	5- 714	251.6	436.2	0.77	1.296	122.3	59.0	21.6	0.711
5- 640	5- 780	0.542	156.6	11.4	-0.27	0.907	131.6	1.514	-0.007	5- 717	245.6	440.2	0.92	1.248	121.5	67.3	23.3	0.664
5-1190	5-1400	0.137	103.3	22.4	2.05	0.698	101.6	0.998	0.035	5-1327	215.5	364.8	0.70	1.121	91.0	29.3	18.0	0.138
5-1190	5-1410	0.131	105.8	23.1	1.86	0.694	101.0	0.992	0.031	5-1328	213.3	372.3	0.48	1.120	92.6	26.6	14.9	0.146
5-1190	5-1420	0.125	109.2	23.6	1.75	0.689	100.3	0.986	0.029	5-1329	210.6	379.2	0.29	1.119	94.1	26.0	13.0	0.157
5-1190	5-1430	0.118	113.8	23.9	1.70	0.684	99.5	0.978	0.028	5-1330	207.5	385.7	0.13	1.118	95.5	27.3	12.2	0.171
5-1190	5-1440	0.111	119.7	23.8	1.70	0.678	98.6	0.969	0.028	5-1331	204.0	391.9	-0.02	1.117	96.8	30.1	12.2	0.186
5-1190	5-1450	0.104	127.1	23.2	1.76	0.671	97.5	0.959	0.028	5-1333	200.1	397.9	-0.17	1.115	98.0	35.0	12.7	0.203
5-1210	5-1410	0.164	107.3	23.2	1.90	0.713	104.7	1.037	0.034	5-1340	224.2	374.3	0.73	1.130	93.3	23.2	15.2	0.160
5-1210	5-1420	0.155	110.3	23.6	1.72	0.706	104.0	1.030	0.030	5-1341	221.1	380.8	0.52	1.128	94.7	23.7	13.5	0.171
5-1210	5-1430	0.146	114.1	23.9	1.60	0.699	103.1	1.021	0.028	5-1342	217.9	387.0	0.35	1.125	96.0	25.7	12.9	0.183
5-1210	5-1440	0.136	118.9	23.8	1.54	0.691	102.1	1.012	0.026	5-1343	213.7	392.8	0.21	1.123	97.3	29.0	13.1	0.197
5-1210	5-1450	0.127	124.8	23.4	1.53	0.683	101.0	1.001	0.026	5-1345	209.5	398.4	0.09	1.120	98.4	33.3	13.9	0.212
5-1210	5-1460	0.117	132.1	22.4	1.56	0.675	99.7	0.989	0.026	5-1347	205.1	403.9	-0.03	1.117	99.6	38.4	14.9	0.227
5-1220	5-1410	0.183	108.6	23.2	1.93	0.726	106.7	1.061	0.035	5-1346	229.8	375.5	0.86	1.136	93.7	21.5	15.2	0.170
5-1220	5-1420	0.173	111.5	23.6	1.71	0.718	105.9	1.053	0.031	5-1347	226.5	381.8	0.63	1.133	95.1	22.4	13.7	0.180
5-1220	5-1430	0.163	115.0	23.7	1.56	0.710	105.0	1.044	0.028	5-1348	222.7	387.7	0.45	1.130	96.4	24.8	13.2	0.192
5-1220	5-1440	0.152	119.4	23.7	1.48	0.701	103.9	1.034	0.026	5-1350	218.6	393.4	0.31	1.127	97.6	28.4	13.4	0.205
5-1220	5-1450	0.141	124.7	23.3	1.44	0.691	102.8	1.023	0.025	5-1351	214.3	398.8	0.19	1.123	98.7	32.8	14.3	0.218
5-1220	5-1460	0.130	131.2	22.4	1.43	0.682	101.5	1.011	0.024	5-1353	209.7	404.1	0.10	1.120	99.8	38.1	15.5	0.232
5-1230	5-1420	0.194	113.0	23.4	1.70	0.732	107.8	1.079	0.031	5-1353	231.9	382.8	0.75	1.140	95.6	21.2	13.7	0.191
5-1230	5-1430	0.182	116.3	23.5	1.53	0.722	106.9	1.069	0.028	5-1355	228.0	388.5	0.55	1.136	96.8	23.9	13.3	0.202
5-1230	5-1440	0.169	120.3	23.4	1.41	0.712	105.8	1.058	0.025	5-1356	223.7	394.0	0.41	1.132	98.0	27.7	13.7	0.214
5-1230	5-1450	0.157	125.1	23.1	1.35	0.701	104.7	1.047	0.024	5-1357	219.2	399.3	0.29	1.128	99.1	32.4	14.6	0.226
5-1230	5-1460	0.144	130.9	22.3	1.32	0.691	103.4	1.034	0.023	5-1359	214.5	404.4	0.20	1.124	100.1	37.8	15.8	0.239
5-1230	5-1470	0.132	138.0	20.9	1.31	0.680	101.9	1.020	0.022	5-1361	209.6	409.6	0.13	1.120	101.1	43.8	17.3	0.251
5-1240	5-1420	0.217	114.8	23.2	1.71	0.749	109.8	1.105	0.032	5-1360	237.4	383.8	0.86	1.149	96.1	20.0	13.7	0.204
5-1240	5-1430	0.203	117.9	23.2	1.50	0.737	108.9	1.095	0.028	5-1361	233.3	389.4	0.65	1.144	97.3	23.1	13.4	0.215
5-1240	5-1440	0.189	121.6	23.1	1.36	0.725	107.8	1.084	0.025	5-1362	228.9	394.7	0.50	1.138	98.4	27.1	13.9	0.225
5-1240	5-1450	0.175	126.0	22.7	1.27	0.713	106.6	1.072	0.023	5-1363	224.2	399.8	0.38	1.133	99.5	32.0	14.9	0.236
5-1240	5-1460	0.161	131.3	22.0	1.21	0.701	105.3	1.058	0.022	5-1365	219.3	404.7	0.30	1.128	100.5	37.5	16.2	0.247
5-1240	5-1470	0.147	137.5	20.8	1.18	0.690	103.8	1.044	0.021	5-1367	214.3	409.6	0.24	1.123	101.4	43.6	17.7	0.258
5-1250	5-1430	0.220	119.8	22.9	1.47	0.755	110.9	1.123	0.028	5-1367	238.7	390.2	0.75	1.159	97.9	22.3	13.4	0.229
5-1250	5-1440	0.212	123.2	22.7	1.30	0.741	109.8	1.111	0.025	5-1368	234.1	395.3	0.59	1.146	99.0	26.6	14.0	0.238
5-1250	5-1450	0.196	127.3	22.3	1.19	0.728	108.5	1.098	0.022	5-1369	229.2	400.3	0.47	1.139	100.0	31.6	15.1	0.248
5-1250	5-1460	0.180	132.0	21.6	1.11	0.714	107.2	1.084	0.020	5-1371	224.2	405.1	0.38	1.133	100.9	37.2	16.4	0.257
5-1250	5-1470	0.164	137.7	20.6	1.06	0.701	105.7	1.068	0.019	5-1373	219.0	409.8	0.33	1.128	101.8	43.4	18.0	0.267

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED

MIDCOURSE PLANE CHANGE

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPARTURE PLANET= MARS
ARRIVAL PLANET= EARTH

DEPART	ARRIVE	SPEED	R A	DECL	I 1	V 1	PSI 1	MIDV	KICKV	DATE	THET1	THET2	I 2	V 2	PSI 2	R A	DECL	SPEED
5-1250	5-1480	0.150	144.4	18.9	1.01	0.688	104.1	1.052	0.018	5-1375	213.8	414.5	0.31	1.122	102.7	50.1	19.7	0.277
5-1260	5-1430	0.255	121.9	22.5	1.45	0.776	112.9	1.152	0.029	5-1373	244.0	391.0	0.86	1.104	98.6	21.6	13.4	0.247
5-1260	5-1440	0.237	125.2	22.2	1.25	0.760	111.8	1.139	0.024	5-1374	239.3	396.0	0.67	1.155	99.6	26.1	14.0	0.254
5-1260	5-1450	0.219	128.9	21.8	1.12	0.744	110.5	1.126	0.021	5-1376	234.3	400.8	0.55	1.148	100.5	31.2	15.2	0.262
5-1260	5-1460	0.201	133.2	21.1	1.02	0.729	109.2	1.111	0.019	5-1377	229.2	405.5	0.46	1.140	101.4	36.9	16.6	0.269
5-1260	5-1470	0.183	138.3	20.1	0.95	0.714	107.7	1.095	0.018	5-1379	223.9	410.1	0.41	1.133	102.2	43.2	18.3	0.277
5-1260	5-1480	0.167	144.3	18.7	0.88	0.700	106.1	1.078	0.016	5-1381	218.5	414.6	0.40	1.127	103.1	50.0	19.9	0.285
5-1270	5-1440	0.265	127.3	21.6	1.21	0.783	113.9	1.170	0.024	5-1380	244.5	396.6	0.76	1.167	100.3	25.7	14.1	0.273
5-1270	5-1450	0.245	130.8	21.2	1.05	0.764	112.6	1.155	0.021	5-1382	239.4	401.3	0.62	1.157	101.2	30.9	15.3	0.278
5-1270	5-1460	0.225	134.8	20.5	0.93	0.747	111.2	1.140	0.018	5-1383	234.2	405.8	0.53	1.148	102.0	36.7	16.8	0.284
5-1270	5-1470	0.205	139.4	19.6	0.84	0.730	109.7	1.123	0.016	5-1385	228.8	410.3	0.48	1.140	102.8	43.1	18.4	0.290
5-1270	5-1480	0.186	144.8	18.2	0.76	0.714	108.1	1.105	0.014	5-1387	223.2	414.8	0.47	1.132	103.5	49.9	20.2	0.296
5-1270	5-1490	0.169	151.1	16.4	0.67	0.698	106.4	1.086	0.012	5-1389	217.7	419.2	0.50	1.125	104.2	57.2	21.9	0.302
5-1280	5-1440	0.298	129.6	21.0	1.16	0.809	116.0	1.202	0.024	5-1386	249.7	397.1	0.84	1.182	101.1	25.4	14.1	0.295
5-1280	5-1450	0.274	133.0	20.5	0.98	0.787	114.7	1.187	0.020	5-1388	244.5	401.7	0.69	1.170	102.0	30.7	15.3	0.298
5-1280	5-1460	0.252	136.7	19.8	0.85	0.767	113.3	1.170	0.017	5-1389	239.2	406.2	0.60	1.158	102.7	36.6	16.9	0.301
5-1280	5-1470	0.230	140.8	18.9	0.74	0.748	111.8	1.152	0.015	5-1391	233.7	410.6	0.55	1.148	103.4	43.0	18.6	0.304
5-1280	5-1480	0.209	145.7	17.7	0.65	0.730	110.1	1.134	0.012	5-1393	228.1	414.9	0.53	1.139	104.0	49.9	20.3	0.308
5-1280	5-1490	0.189	151.3	16.0	0.55	0.713	108.4	1.114	0.010	5-1395	222.4	419.2	0.56	1.131	104.7	57.2	22.0	0.313
5-1290	5-1450	0.308	135.3	19.7	0.91	0.815	116.8	1.221	0.019	5-1394	249.6	402.0	0.76	1.185	102.8	30.6	15.4	0.321
5-1290	5-1460	0.282	138.8	19.0	0.76	0.791	115.4	1.203	0.016	5-1395	244.2	406.4	0.66	1.171	103.5	36.5	16.9	0.321
5-1290	5-1470	0.257	142.6	18.1	0.65	0.769	113.9	1.184	0.013	5-1397	238.6	410.8	0.60	1.159	104.1	43.0	18.7	0.322
5-1290	5-1480	0.234	147.0	16.9	0.54	0.748	112.2	1.164	0.011	5-1399	232.9	415.0	0.59	1.147	104.7	49.9	20.4	0.324
5-1290	5-1490	0.212	152.1	15.4	0.43	0.729	110.5	1.144	0.008	5-1401	227.2	419.3	0.62	1.137	105.2	57.2	22.2	0.326
5-1290	5-1500	0.191	158.0	13.4	0.30	0.711	108.6	1.122	0.006	5-1403	221.3	423.5	0.70	1.128	105.8	65.0	23.8	0.328
5-1300	5-1450	0.346	137.8	18.9	0.85	0.847	119.0	1.257	0.018	5-1400	254.6	402.2	0.82	1.203	103.8	30.6	15.4	0.348
5-1300	5-1460	0.317	141.1	18.1	0.68	0.819	117.6	1.238	0.015	5-1401	249.2	406.6	0.71	1.187	104.4	36.6	17.0	0.345
5-1300	5-1470	0.289	144.7	17.2	0.55	0.794	116.0	1.218	0.012	5-1403	243.6	410.9	0.65	1.172	104.9	43.0	18.7	0.343
5-1300	5-1480	0.262	148.7	16.1	0.44	0.770	114.4	1.197	0.009	5-1405	237.8	415.1	0.63	1.158	105.4	49.9	20.5	0.342
5-1300	5-1490	0.237	153.2	14.7	0.33	0.748	112.6	1.175	0.006	5-1407	232.0	419.3	0.66	1.146	105.9	57.3	22.2	0.341
5-1300	5-1500	0.214	158.5	12.9	0.19	0.728	110.7	1.152	0.004	5-1409	226.1	423.4	0.74	1.135	106.4	65.1	23.9	0.341
5-1310	5-1460	0.357	143.5	17.2	0.60	0.853	119.8	1.276	0.013	5-1407	254.1	406.7	0.75	1.206	105.4	36.7	17.0	0.374
5-1310	5-1470	0.325	146.9	16.3	0.46	0.823	118.2	1.254	0.010	5-1409	248.5	410.9	0.69	1.187	105.9	43.2	18.8	0.368
5-1310	5-1480	0.295	150.6	15.1	0.34	0.796	116.5	1.232	0.007	5-1411	242.7	415.1	0.67	1.171	106.3	50.1	20.5	0.363
5-1310	5-1490	0.267	154.8	13.8	0.22	0.771	114.8	1.209	0.005	5-1413	236.8	419.2	0.69	1.156	106.6	57.4	22.3	0.360
5-1310	5-1500	0.240	159.5	12.2	0.08	0.748	112.9	1.185	0.002	5-1415	230.9	423.3	0.76	1.143	107.0	65.2	23.9	0.357
5-1310	5-1510	0.216	165.0	10.1	-0.11	0.726	110.8	1.160	-0.002	5-1417	224.8	427.4	0.91	1.131	107.4	73.4	25.4	0.355
5-1320	5-1460	0.402	146.1	16.2	0.51	0.892	122.0	1.316	0.012	5-1413	259.0	406.6	0.79	1.230	106.5	37.1	17.1	0.408
5-1320	5-1470	0.366	149.4	15.2	0.36	0.857	120.4	1.293	0.008	5-1415	253.3	410.9	0.72	1.207	106.9	43.4	18.8	0.398
5-1320	5-1480	0.332	152.8	14.1	0.24	0.825	118.8	1.269	0.005	5-1417	247.6	415.0	0.70	1.197	107.2	50.3	20.6	0.389
5-1320	5-1490	0.300	156.7	12.8	0.12	0.796	117.0	1.245	0.003	5-1419	241.7	419.1	0.72	1.170	107.5	57.7	22.3	0.382
5-1320	5-1500	0.271	160.9	11.3	-0.02	0.770	115.1	1.219	-0.000	5-1421	235.7	423.2	0.78	1.154	107.8	65.4	23.8	0.376
5-1320	5-1510	0.243	165.8	9.4	-0.20	0.746	113.0	1.194	-0.004	5-1423	229.6	427.2	0.91	1.140	108.1	73.6	25.3	0.371
5-1330	5-1470	0.413	152.0	14.1	0.27	0.898	122.7	1.336	0.006	5-1421	258.2	410.6	0.74	1.232	108.1	43.8	18.8	0.433
5-1330	5-1480	0.374	155.2	13.0	0.14	0.860	121.0	1.310	0.003	5-1423	252.4	414.8	0.72	1.207	108.3	50.7	20.6	0.420
5-1330	5-1490	0.338	158.8	11.7	0.02	0.827	119.2	1.283	0.000	5-1424	246.5	418.9	0.73	1.186	108.5	58.0	22.3	0.408
5-1330	5-1500	0.305	162.7	10.3	-0.12	0.797	117.3	1.256	-0.002	5-1427	240.5	423.0	0.79	1.167	108.7	65.7	23.8	0.398
5-1330	5-1510	0.274	167.1	8.5	-0.29	0.769	115.3	1.229	-0.006	5-1429	234.4	427.0	0.91	1.151	108.9	73.9	25.2	0.390
5-1330	5-1520	0.246	172.2	6.4	-0.53	0.745	113.1	1.201	-0.011	5-1431	228.3	431.0	1.11	1.136	109.0	82.4	26.4	0.383
5-1340	5-1470	0.468	154.7	12.9	0.16	0.945	124.9	1.381	0.004	5-1427	262.9	410.2	0.75	1.263	109.4	44.4	18.8	0.475
5-1340	5-1480	0.423	157.8	11.8	0.04	0.902	123.3	1.354	0.001	5-1429	257.2	414.5	0.73	1.233	109.6	51.1	20.6	0.456
5-1340	5-1490	0.382	161.1	10.5	-0.08	0.862	121.5	1.326	-0.002	5-1430	251.3	418.6	0.74	1.207	109.7	58.4	22.2	0.439
5-1340	5-1500	0.344	164.8	9.1	-0.21	0.827	119.6	1.297	-0.005	5-1432	245.3	422.7	0.80	1.184	109.7	66.1	23.7	0.425
5-1340	5-1510	0.309	168.8	7.5	-0.37	0.796	117.6	1.267	-0.008	5-1435	239.2	426.7	0.90	1.164	109.8	74.2	25.1	0.413
5-1340	5-1520	0.277	173.3	5.6	-0.59	0.768	115.4	1.238	-0.012	5-1437	233.1	430.7	1.08	1.146	109.9	82.7	26.2	0.403
5-1350	5-1480	0.479	160.5	10.5	-0.07	0.951	125.6	1.402	-0.002	5-1435	261.9	413.9	0.72	1.265	110.9	51.8	20.6	0.500
5-1350	5-1490	0.432	163.7	9.3	-0.18	0.904	123.9	1.371	-0.004	5-1436	256.0	418.1	0.74	1.233	111.0	58.9	22.2	0.477
5-1350	5-1500	0.389	167.1	7.9	-0.31	0.864	122.0	1.340	-0.007	5-1438	250.1	422.2	0.79	1.205	110.9	66.6	23.7	0.457
5-1350	5-1510	0.349	170.8	6.4	-0.45	0.827	119.9	1.309	-0.010	5-1441	244.0	426.3	0.89	1.181	110.8	74.6	24.9	0.440
5-1350	5-1520	0.313	174.9	4.6	-0.65	0.795	117.8	1.277	-0.014	5-1443	237.8	430.3	1.04	1.160	110.8	83.1	26.0	0.426
5-1350	5-1530	0.280	179.5	2.5	-0.94	0.766	115.5	1.246	-0.020	5-1445	231.7	434.2	1.30	1.141	110.8	91.8	26.8	0.414
5-1360	5-1480	0.545	163.3	9.2	-0.19	1.009	127.9	1.454	-0.005	5-1441	266.5	413.3	0.69	1.305	112.4	52.6	20.6	0.552
5-1360	5-1490	0.490	166.4	7.9	-0.29	0.954	126.2	1.421	-0.007	5-1443	260.7	417.5	0.72	1.265	112.4	59.6	22.2	0.522
5-1360	5-1500	0.441	169.6	6.6	-0.40	0.906	124.3	1.388	-0.010	5-1444	254.8	421.6	0.78	1.231	112.3	67.2	23.6	0.496
5-1360	5-1510	0.396	173.0	5.1	-0.54	0.864	122.3	1.354	-0.012	5-1447	248.7	425.7	0.87	1.202	112.1	75.2	24.8	0.473
5-1360	5-1520	0.355	176.8	3.5	-0.72	0.826	120.2	1.320	-0.016	5-1449	242.6	429.7	1.01	1.177	111.9	83.5	25.7	0.453
5-1360	5-1530	0.317	181.0	1.6	-0.97	0.793	117.9	1.286	-0.021	5-1451	236.4	433.7	1.23	1.155	111.7	92.2	26.4	0.437
5-1370	5-1490	0.559	169.2	6.5	-0.41	1.014	128.6	1.476	-0.010	5-1449	265.3	416.7	0.69	1.307	114.0	60.5	22.1	0.576
5-1370	5-1500	0.501	172.3	5.2	-0.50	0.957	126.8	1.440	-0.012	5-1451	259.4	420.9	0.75	1.264	113.7	67.9	23.5	0.542
5-1370	5-1510	0.449	175.5	3.8	-0.62	0.907	124.8	1.403	-0.015	5-1453	253.4	425.0	0.84	1.229	113.5	75.8	24.7	0.512
5-1370	5-1520	0.402	179.0	2.2	-0.78	0.863	122.6	1.366	-0.018	5-1455	247.4	429.1	0.97	1.198	113.2	84.1	25.5	0.487
5-1370	5-1530	0.360	182.9	0.5	-1.00	0.825	120.4	1.330	-0.023	5-1457	241.2	433.1	1.16	1.172	112.9	92.7	26.1	0.465
5-1370	5-1540	0.321	187.2	-1.5	-1.33	0.791	118.0	1.294	-0.029	5-1460	235.0	437.1	1.45	1.149	112.6	101.6	26.5	0.447
5-1380	5-1490	0.639	172.1	5.1	-0.55	1.087	131.0	1.536	-0.015	5-1455	269.8	415.7	0.62	1.359	115.7	61.6	22.1	0.641
5-1380	5-1500	0.571	175.1	3.7	-0.61	1.018	129.2	1.498	-0.015	5-1457	264.0	420.0	0.71	1.307	115.4	68.8	23.4	0.597
5-1380	5-1510	0.511	178.2	2.3	-0.71	0.959	127.3	1.457	-0.018	5-1459	258.1	424.2	0.80	1.263	115.0	76.6	24.5	0.560
5-1380	5-1520	0.457	181.5	0.9	-0.85	0.907	125.1	1.417	-0.021	5-1461	252.1	428.3	0.92	1.225	114.6	84.8	25.3	0.527
5-1380	5-1530	0.409	185.1	-0.8	-1.04	0.862	122.9	1.378	-0.024	5-1463	246.0	432.3	1.09	1.193	114.2	93.3	25.8	0.499
5-1380	5-1540	0.365	189.0	-2.6	-1.32	0.823	120.5	1.339	-0.030	5-1466	239.8	436.4	1.34	1.166	113.8	102.0	26.0	0.476
5-1390	5-1500	0.654	178.1	2.2	-0.73	1.092	131.7	1.561	-0.020	5-1463	268.5	418.9	0.64	1.361	117.2	69.9	23.3	0.665

DEPART ARRIVE SPEED R A DECL I 1 V 1 PSI 1 MIDV KICKV DATE THET1 THET2 I 2 V 2 PSI 2 R A DECL SPEED